



JUN 30 2010

Mr. William Fall  
Chevron USA  
PO Box 1392  
Bakersfield, CA 93302

**Re: Notice of Preliminary Decision - ATC / Certificate of Conformity  
Facility # S-1128  
Project # 1102302**

Dear Mr. Fall:

Enclosed for your review and comment is the District's analysis of an application for Authorities to Construct for Chevron USA located in Chevron's Cymric Oilfield in their Heavy Oil Western Stationary Source, near McKittrick, CA. Chevron proposes to install three diesel-fired emergency IC engines to power their equipment in the event of grid power failure.

After addressing all comments made during the 30-day public notice and the 45-day EPA comment periods, the Authorities to Construct will be issued to the facility with Certificates of Conformity. Prior to operating with modifications authorized by the Authorities 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.

The public notice will be published approximately three days from the date of this letter. Please submit your written comments within the 30-day public comment period which begins on the date of publication of the public notice.

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,

David Warner  
Director of Permit Services

DW: SR/cm

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

**Northern Region**  
4800 Enterprise Way  
Modesto, CA 95356-8718  
Tel: (209) 557-6400 FAX: (209) 557-6475

**Central Region (Main Office)**  
1990 E. Gettysburg Avenue  
Fresno, CA 93726-0244  
Tel: (559) 230-6000 FAX: (559) 230-6061

**Southern Region**  
34946 Flyover Court  
Bakersfield, CA 93308-9725  
Tel: 661-392-5500 FAX: 661-392-5585



JUN 30 2010

Gerardo C. Rios, Chief  
Permits Office  
Air Division  
U.S. EPA - Region IX  
75 Hawthorne St.  
San Francisco, CA 94105

**Re: Notice of Preliminary Decision - ATC / Certificate of Conformity  
Facility # S-1128  
Project # 1102302**

Dear Mr. Rios:

Enclosed for your review is the District's engineering evaluation of an application for Authorities to Construct for Chevron USA located in Chevron's Cymric Oilfield in their Heavy Oil Western Stationary Source, near McKittrick, CA, which has been issued a Title V permit. Chevron USA is requesting that Certificates of Conformity, with the procedural requirements of 40 CFR Part 70, be issued with this project. Chevron proposes to install three diesel-fired emergency IC engines to power their equipment in the event of grid power failure.

Enclosed is the engineering evaluation of this application and proposed Authorities to Construct # S-1128-978-0, 979-0 and 980-0 with Certificates of Conformity. After demonstrating compliance with the Authority to Construct, the conditions will be incorporated into the facility's Title V permit through an administrative amendment.

Please submit your written comments on this project within the 45-day comment period that begins on the date you receive this letter. 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,



David Warner  
Director of Permit Services

DW: SR/cm

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JUN 30 2010

Mike Tollstrup, Chief  
Project Assessment Branch  
Air Resources Board  
P O Box 2815  
Sacramento, CA 95812-2815

Re: **Notice of Preliminary Decision - ATC / Certificate of Conformity**  
**Facility # S-1128**  
**Project # 1102302**

Dear Mr. Tollstrup:

Enclosed for your review and comment is the District's analysis of an application for Authorities to Construct for Chevron USA located in Chevron's Cymric Oilfield in their Heavy Oil Western Stationary Source, near McKittrick, CA. Chevron proposes to install three diesel-fired emergency IC engines to power their equipment in the event of grid power failure.

The public notice will be published approximately three days from the date of this letter. Please submit your written comments within the 30-day public comment period which begins on the date of publication of the public notice.

Thank you for your cooperation in this matter. 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,

David Warner  
Director of Permit Services

DW: SR/cm

Enclosures

**Seyed Sadredin**  
Executive Director/Air Pollution Control Officer

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Bakersfield Californian

**NOTICE OF PRELIMINARY DECISION  
FOR THE PROPOSED ISSUANCE OF  
AUTHORITY TO CONSTRUCT**

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District solicits public comment on the proposed issuance of Authority To Construct to Chevron USA for its Heavy Oil Production located in Chevron's Cymric Oilfield in their Heavy Oil Western Stationary Source, near McKittrick, California. Chevron proposes to install three diesel-fired emergency IC engines to power their equipment in the event of grid power failure.

The analysis of the regulatory basis for these proposed actions, Project #1102302, is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the District office at the address below. Written comments on the proposed initial permit must be submitted within 30 days of the publication date of this notice to **DAVID WARNER, DIRECTOR OF PERMIT SERVICES, SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 Flyover Court, Bakersfield, CA 93308-9725.**

**San Joaquin Valley Air Pollution Control District  
Authority to Construct Application Review  
Diesel-Fired Emergency Standby IC Engines**

Facility Name:	Chevron USA Inc.	Date:	6/14/10
Mailing Address:	PO Box 1392 Bakersfield, CA 93302	Engineer:	Steve Roeder
Contact Person:	William Fall	Lead Engineer:	Dan Klevann
Telephone:	(661) 654-7038		
Application #:	S-1128-978-0, 979-0 and 980-0		
Project #:	1102302		
Complete:	5/13/10		

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## **I. Proposal**

Chevron USA Inc. (Chevron) is proposing to install three emergency diesel-fired internal combustion (IC) engines: One 250 bhp Cummins model QSB7-G3 to power the 31X control room, one 400 bhp Cummins model QSL9-G3 to power cooling station #4, and one 755 bhp Cummins model QSL15-G9 to power cooling station #5 in their Cymric Oilfield.

All three emergency IC engines are properly TIER-certified. Since these three new units are emergency equipment, the project is exempt from emissions offsetting. Since the project's engineering evaluation is based on the *Guideline for Expedited Application Review* (GEAR) policy, and requires only ministerial approval, the project is exempt from the requirements of CEQA. Since NO<sub>x</sub> emissions from the 755 bhp unit are greater than 100 lb/day, New Source Review (NSR) public noticing is required for this project.

Chevron is a Major Source and received their Title V Permit on April 25, 2001. This modification can be classified as a Title V minor 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 this manner, the 45-day EPA comment period will be satisfied prior to the issuance of the Authority to Construct, and will run concurrently with the aforementioned NSR Public Notice period. Chevron must therefore apply to administratively amend their Title V Operating Permit to include these permits prior to operating the equipment.

## **II. Applicable Rules**

Rule 2201 New and Modified Stationary Source Review Rule (9/21/06)  
Rule 2520 Federally Mandated Operating Permits (6/21/01)  
Rule 4001 New Source Performance Standards (4/14/99)

Rule 4002 National Emission 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 (1/18/07)  
Rule 4801 Sulfur Compounds (12/17/92)  
CH&SC 41700 Health Risk Assessment  
CH&SC 42301.6 School Notice  
Title 13 California Code of Regulations (CCR), Section 2423 – Exhaust Emission Standards and Test Procedures, Off-Road Compression-Ignition Engines and Equipment  
Title 17 CCR, Section 93115 - Airborne Toxic Control Measure (ATCM) for Stationary Compression-Ignition (CI) Engines  
California Environmental Quality Act (CEQA)  
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 project is located in various sections of Chevron's Cymric Oilfield Heavy Oil Western Stationary Source, Northwest of McKittrick, CA. 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.

### **IV. Process Description**

The emergency standby engines each power an electrical generator. Other than emergency standby operation, the engines may be operated up to 50 hours per year each for maintenance and testing purposes.

### **V. Equipment Listing**

S-1128-978-0: 250 HORSEPOWER CUMMINS MODEL QSB7-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (31X CONTROL ROOM, CYMRIC OILFIELD)

S-1128-979-0: 400 HP CUMMINS MODEL QSL9-G3-NR3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (COOLING STATION #4, CYMRIC OILFIELD)

S-1128-980-0: 755 HP CUMMINS MODEL QSX15-G9-NR2 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (COOLING STATION #5, CYMRIC OILFIELD)

## VI. Emission Control Technology Evaluation

The engines are equipped with:

- Turbocharger
- Intercooler/aftercooler
- Injection timing retard (or equivalent per District Policy SSP-1805, dated 8/14/1996)
- Positive Crankcase Ventilation (PCV)
- This engine is required to be, and is UL certified
- Catalytic particulate filter
- Very Low (0.0015%) sulfur diesel

The applicant has proposed to install two TIER-3 and one TIER-2 certified diesel-fired IC engines that are fired on very low-sulfur diesel fuel (0.0015% by weight sulfur maximum).

The proposed engines meet the latest Tier Certification requirements for new engines of their respective horsepower ratings. Therefore they meet the latest ARB/EPA emissions standards for diesel particulate matter, hydrocarbons, nitrogen oxides, and carbon monoxide.

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 intercooler/aftercooler functions in conjunction with the turbocharger to reduce the inlet air temperature. By reducing the inlet air temperature, the peak combustion temperature is lowered, which reduces the formation of thermal NO<sub>x</sub>. NO<sub>x</sub> emissions are reduced by approximately 15% with this control technology.

The PCV system reduces crankcase VOC and PM<sub>10</sub> emissions by at least 90% over an uncontrolled crankcase vent.

The use of very low-sulfur diesel fuel (0.0015% by weight sulfur maximum) reduces SO<sub>x</sub> 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 $\approx$ 35%
Kw to horsepower conversion:	0.7457 kw/hp
PM <sub>10</sub> fraction of diesel exhaust:	0.96 (CARB, 1988)

## B. Emission Factors

The emission factors have all been taken from the CARB certifications from these engines (see Appendix A) except for the emission factor SO<sub>x</sub> which is calculated below.

The applicant has only supplied an emissions factor for "NO<sub>x</sub> and VOC" emissions combined and the emission factor is given in g/kw-hr. Therefore 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 figures).

1. The combined emission factors for each of the three engines is split into emission factors for NO<sub>x</sub> and VOC and converted into g/hp-hr in the following table.

S-1128-978-0						
4.0	g·(NO <sub>x</sub> + VOC)/kw·hr x	0.95	x	0.7457	kw/hp =	2.834 g·NO <sub>x</sub> /hp·hr
4.0	g·(NO <sub>x</sub> + VOC)/kw·hr x	0.05	x	0.7457	kw/hp =	0.149 g·VOC/hp·hr
S-1128-979-0						
3.4	g·(NO <sub>x</sub> + VOC)/kw·hr x	0.95	x	0.7457	kw/hp =	2.409 g·NO <sub>x</sub> /hp·hr
3.4	g·(NO <sub>x</sub> + VOC)/kw·hr x	0.05	x	0.7457	kw/hp =	0.127 g·VOC/hp·hr
S-1128-980-0						
5.7	g·(NO <sub>x</sub> + VOC)/kw·hr x	0.95	x	0.7457	kw/hp =	4.038 g·NO <sub>x</sub> /hp·hr
5.7	g·(NO <sub>x</sub> + VOC)/kw·hr x	0.05	x	0.7457	kw/hp =	0.213 g·VOC/hp·hr

2. The PM<sub>10</sub> and CO emission factors for each of the three engines is converted from g/kw-hr into g/hp-hr in the following table.

S-1128-978-0					
0.11	g·PM <sub>10</sub> /kw·hr x	0.7457	kw/hp =	0.082	g·PM <sub>10</sub> /hp·hr
1.0	g·CO/kw·hr x	0.7457	kw/hp =	0.746	g·CO/hp·hr
S-1128-979-0					
0.18	g·PM <sub>10</sub> /kw·hr x	0.7457	kw/hp =	0.134	g·PM <sub>10</sub> /hp·hr
1.9	g·CO/kw·hr x	0.7457	kw/hp =	1.417	g·CO/hp·hr
S-1128-980-0					
0.13	g·PM <sub>10</sub> /kw·hr x	0.7457	kw/hp =	0.097	g·PM <sub>10</sub> /hp·hr
0.7	g·CO/kw·hr x	0.7457	kw/hp =	0.522	g·CO/hp·hr

3. The emission factor for SO<sub>x</sub> for all three engines is calculated in the following mass balance equation.



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

4. All of the emission factors are posted in g/hp·hr in the following table.

Emission Factors (g/hp·hr)					
S-1128-978-0		S-1128-979-0		S-1128-980-0	
NO <sub>x</sub>	2.834	NO <sub>x</sub>	2.409	NO <sub>x</sub>	4.038
SO <sub>x</sub>	0.0051	SO <sub>x</sub>	0.0051	SO <sub>x</sub>	0.0051
PM <sub>10</sub>	0.082	PM <sub>10</sub>	0.134	PM <sub>10</sub>	0.097
CO	0.746	CO	1.417	CO	0.522
VOC	0.149	VOC	0.127	VOC	0.213

### C. Calculations

#### 1. Pre-Project Emissions (PE1)

Since these are new emissions units, the PE for all pollutants is zero. PE1 = 0.

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

The daily and annual PE2 for each engine are calculated as follows.

Daily PE2 S-1128-978-0										
NO <sub>x</sub>	2.834	g/hp·hr x	250	hp x	24	hr/day ÷	454	g/lb=	37.5	lb/day
SO <sub>x</sub>	0.0051	g/hp·hr x	250	hp x	24	hr/day ÷	454	g/lb=	0.1	lb/day
PM <sub>10</sub>	0.082	g/hp·hr x	250	hp x	24	hr/day ÷	454	g/lb=	1.1	lb/day
CO	0.476	g/hp·hr x	250	hp x	24	hr/day ÷	454	g/lb=	6.3	lb/day
VOC	0.149	g/hp·hr x	250	hp x	24	hr/day ÷	454	g/lb=	2.0	lb/day

Annual PE2 S-1128-978-0										
NO <sub>x</sub>	2.834	g/hp·hr x	250	hp x	50	hr/yr ÷	454	g/lb=	78	lb/yr
SO <sub>x</sub>	0.0051	g/hp·hr x	250	hp x	50	hr/yr ÷	454	g/lb=	0	lb/yr
PM <sub>10</sub>	0.082	g/hp·hr x	250	hp x	50	hr/yr ÷	454	g/lb=	2	lb/yr
CO	0.476	g/hp·hr x	250	hp x	50	hr/yr ÷	454	g/lb=	13	lb/yr
VOC	0.149	g/hp·hr x	250	hp x	50	hr/yr ÷	454	g/lb=	4	lb/yr

Daily PE2 S-1128-979-0										
NO <sub>x</sub>	2.409	g/hp·hr x	400	hp x	24	hr/day ÷	454	g/lb=	50.9	lb/day
SO <sub>x</sub>	0.0051	g/hp·hr x	400	hp x	24	hr/day ÷	454	g/lb=	0.1	lb/day
PM <sub>10</sub>	0.134	g/hp·hr x	400	hp x	24	hr/day ÷	454	g/lb=	2.8	lb/day
CO	1.417	g/hp·hr x	400	hp x	24	hr/day ÷	454	g/lb=	30.0	lb/day
VOC	0.127	g/hp·hr x	400	hp x	24	hr/day ÷	454	g/lb=	2.7	lb/day

Annual PE2 S-1128-979-0										
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NO <sub>x</sub>	2.409	g/hp·hr x	400	hp x	50	hr/yr ÷	454	g/lb=	106	lb/yr
SO <sub>x</sub>	0.0051	g/hp·hr x	400	hp x	50	hr/yr ÷	454	g/lb=	0	lb/yr
PM <sub>10</sub>	0.134	g/hp·hr x	400	hp x	50	hr/yr ÷	454	g/lb=	6	lb/yr
CO	1.417	g/hp·hr x	400	hp x	50	hr/yr ÷	454	g/lb=	62	lb/yr
VOC	0.127	g/hp·hr x	400	hp x	50	hr/yr ÷	454	g/lb=	6	lb/yr

Daily PE2 S-1128-980-0										
NO <sub>x</sub>	4.038	g/hp·hr x	755	hp x	24	hr/day ÷	454	g/lb=	161.2	lb/day
SO <sub>x</sub>	0.0051	g/hp·hr x	755	hp x	24	hr/day ÷	454	g/lb=	0.2	lb/day
PM <sub>10</sub>	0.097	g/hp·hr x	755	hp x	24	hr/day ÷	454	g/lb=	3.9	lb/day
CO	0.522	g/hp·hr x	755	hp x	24	hr/day ÷	454	g/lb=	20.8	lb/day
VOC	0.213	g/hp·hr x	755	hp x	24	hr/day ÷	454	g/lb=	8.5	lb/day

Annual PE2 S-1128-980-0										
NO <sub>x</sub>	4.038	g/hp·hr x	755	hp x	50	hr/yr ÷	454	g/lb=	336	lb/yr
SO <sub>x</sub>	0.0051	g/hp·hr x	755	hp x	50	hr/yr ÷	454	g/lb=	0	lb/yr
PM <sub>10</sub>	0.097	g/hp·hr x	755	hp x	50	hr/yr ÷	454	g/lb=	8	lb/yr
CO	0.522	g/hp·hr x	755	hp x	50	hr/yr ÷	454	g/lb=	43	lb/yr
VOC	0.213	g/hp·hr x	755	hp x	50	hr/yr ÷	454	g/lb=	18	lb/yr

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

Pursuant to Section 4.9 of District Rule 2201, the SSPE1 is the Potential to Emit (PE) from all units with valid ATCs or PTOs at the Stationary Source and the quantity of Emission Reduction Credits (ERCs) 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.

SSPE2 calculations are necessary to determine:

- If the facility is becoming a new Major Source,
- if any offset thresholds will be surpassed, or
- if an SSIPE public notice is triggered.

According to Project S1095193, this facility is already a major source and above all of the offset thresholds for all pollutants. Since the SSIPE will be the sum of the PE2s for all three engines for this project and will be determined below, the SSPE1 calculation is not necessary for this project.

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

Pursuant to Section 4.10 of District Rule 2201, the SSPE2 is the PE from all units with valid ATCs or PTOs 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.

The SSPE2 is used to determine if:

- If the facility is becoming a new Major Source,
- if any offset thresholds will be surpassed, or
- if an SSIPE public notice is triggered.

According to Project S1095193, this facility is already a major source and above all of the offset thresholds for all pollutants. Since the SSIPE will be the sum of the PE2s for all three engines for this project and will be determined below, the SSPE1 calculation is not necessary for this project.

## **5. Major Source Determination**

Pursuant to Section 3.24 of District Rule 2201, a major source is a stationary source with post-project emissions or a SSPE2, equal to or exceeding one or more of the major source threshold values.

According to Project 1095193, this facility is already a major source for all pollutants, and a major source determination is not necessary.

## **6. Baseline Emissions (BE)**

BE = Pre-project Potential to Emit 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 Section 3.22

Since these three engines are new emissions units at this major source, BE = PE1 = 0 for all criteria pollutants for each engine.

## **7. Major Modification**

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.*"

Pursuant to Rule 2201, a major modification is any project with an increase of emissions of 50,000 lb/year of any criteria pollutant.

The total annual project emissions increases are calculated and compared to the major modification thresholds in the following table.

SSIFE Major Modification Thresholds (lb/year)						
Pollutant	S-1128-978-0	S-1128-979-0	S-1128-980-0	Total Increase	Major Mod Threshold	Major Mod?
NO <sub>x</sub>	78	106	336	520	50,000	No
SO <sub>x</sub>	0	0	0	0	50,000	No
PM <sub>10</sub>	2	6	8	16	50,000	No
CO	13	62	43	118	50,000	No
VOC	4	6	18	28	50,000	No

Based on the results indicated above, this project does not constitute a major modification for any pollutants.

### 8. Federal Major Modification

As shown in the previous section, this project does not constitute a major modification. Therefore, in accordance with District Rule 2201, Section 3.17, this project does not constitute a federal major modification.

### 9. 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 D.

## VIII. Compliance

### 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 for the following\*:

- 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 a Major Modification.

\*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

Since these three engines are new emissions units, the daily emissions are compared to the BACT thresholds in the following tables:

BACT Applicability S-1128-978-0				
Pollutant	Daily Emissions	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
NO <sub>x</sub>	37.5	> 2.0	n/a	Yes
SO <sub>x</sub>	0.1	> 2.0	n/a	No
PM <sub>10</sub>	1.1	> 2.0	n/a	No
CO	6.3	> 2.0 and SSPE2 ≥ 200,000 lb/yr	≥ 200,000	Yes
VOC	2.0	> 2.0	n/a	No

BACT for engine S-1128-978-0 is triggered for NO<sub>x</sub> emissions.

BACT Applicability S-1128-979-0				
Pollutant	Daily Emissions	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
NO <sub>x</sub>	50.9	> 2.0	n/a	Yes
SO <sub>x</sub>	0.1	> 2.0	n/a	No
PM <sub>10</sub>	2.8	> 2.0	n/a	Yes
CO	30.0	> 2.0 and SSPE2 ≥ 200,000 lb/yr	≥ 200,000	Yes
VOC	2.7	> 2.0	n/a	Yes

BACT for engine S-1128-979-0 is triggered for NO<sub>x</sub>, PM<sub>10</sub>, CO and VOC emissions.

BACT Applicability S-1128-980-0				
Pollutant	Daily Emissions	BACT Threshold (lb/day)	SSPE2 (lb/yr)	BACT Triggered?
NO <sub>x</sub>	161.2	> 2.0	n/a	Yes
SO <sub>x</sub>	0.2	> 2.0	n/a	No
PM <sub>10</sub>	3.9	> 2.0	n/a	Yes
CO	20.8	> 2.0 and SSPE2 ≥ 200,000 lb/yr	≥ 200,000	Yes
VOC	8.5	> 2.0	n/a	Yes

BACT for engine S-1128-980-0 is triggered for NO<sub>x</sub>, PM<sub>10</sub>, CO and VOC emissions.

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

Since no engines are being relocated from one stationary source to another as a result of this project, BACT is not triggered for relocation purposes.

**c. Modification of emissions units – Adjusted Increase in Permitted Emissions (AIPE) > 2 lb/day**

Since no engines are being modified, BACT is not triggered for the modification of emissions units with an AIPE > 2 lb/day.

**d. Major Modification**

Since this project does not constitute a major modification, BACT is not triggered for a major modification purposes.

**2. BACT Guideline**

BACT Guideline 3.1.1, 3<sup>rd</sup> Quarter 2009, which appears in Appendix B of this report, covers emergency diesel IC engines.

**3. Top Down BACT Analysis**

Per District Policy APR 1305, Section IX, "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 for source categories or classes covered in the BACT Clearinghouse, relevant information under each of the following steps may be simply cited from the Clearinghouse without further analysis."

Pursuant to the attached Top-Down BACT Analysis, which appears in Appendix B of this report, BACT is satisfied with the following:

Engine S-1128-778-0: EPA TIER-3 Certification  
Engine S-1128-779-0: EPA TIER-3 Certification  
Engine S-1128-780-0: EPA TIER-2 Certification

Therefore, the following conditions will be listed on the Permits to ensure compliance.

S-1128-978-0:

- This engine shall be EPA/CARB TIER-3 certified. [District Rule 2201]
- This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201]

S-1128-979-0:

- This engine shall be EPA/CARB TIER-3 certified. [District Rule 2201]
- This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201]

S-1128-980-0:

- This engine shall be EPA/CARB TIER-2 certified. [District Rule 2201]
- This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201]

## **B. Offsets**

Since emergency IC engines are exempt from the offset requirements of Rule 2201, per Section 4.6.2, offsets are not required for either of these engines and no offset calculations are required.

## **C. Public Notification**

### **1. Applicability**

Public noticing is required for:

- a. New Major Sources, which is a new facility that is also a Major Source,
- b. Major Modifications,
- c. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
- d. Any project which results in the offset thresholds being surpassed, and/or
- e. Any project with an SSPE of greater than 20,000 lb/year for any pollutant.

#### **a. New Major Source**

New Major Sources are new facilities, which are also major sources. Since this facility is not a new source, it is not a new major source and public noticing is not required for this project for new major source purposes.

#### **b. Major Modification**

As demonstrated in Section VII.C.7, this project does not constitute a major modification. Therefore, public noticing is not required for major modification purposes.

#### **c. PE > 100 lb/day**

According to the calculations posted in Section VII.C.2 above, only daily emissions of NO<sub>x</sub> from engine S-1128-780-0 exceed the 100 lb/day public notice threshold level. Therefore this project is subject to public noticing for PE > 100 lb/day.

#### **d. Offset Threshold**

Since the facility SSPE1 and SSPE2 are both above the offset thresholds, none of the offset thresholds are being surpassed with this project.

Therefore, public noticing is not required for this project for surpassing the offset thresholds.

**e. SSIPE > 20,000 lb/year**

Public notification is required for any permitting action that results in a Stationary Source Increase in Permitted Emissions (SSIPE) of more than 20,000 lb/year of any affected pollutant. In this case, the SSIPE will be the sum of the annual emissions increases from each of these three engines (calculated in Section VII.C.7 above). The SSIPE is compared to the SSIPE thresholds in the following table.

SSIPE Thresholds			
Pollutant	SSIPE (lb/year)	SSIPE Thresholds (lb/year)	Public Notice Required?
NO <sub>x</sub>	520	20,000	No
SO <sub>x</sub>	0	54,750	No
PM <sub>10</sub>	16	29,200	No
CO	118	200,000	No
VOC	28	20,000	No

As detailed, there are no SSIPE thresholds surpassed with this project. Therefore, public noticing is not required for exceeding the SSIPE thresholds.

**2. Public Notice Action**

As discussed above, public noticing is required for this project for NO<sub>x</sub> 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 published in a local newspaper of general circulation prior to the issuance of the ATC for this equipment.

**D. Daily Emissions Limits**

Daily Emissions Limitations (DELs) and other enforceable conditions are required by Section 3.15 to restrict a unit's maximum daily emissions, to a level at or below the emissions associated with the maximum design capacity. Per Sections 3.15.1 and 3.15.2, 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 these emergency standby IC engines, the DELs are stated in the form of emission factors, the maximum engine horsepower ratings, and the maximum operational time of 24 hours per day.



The following conditions will be listed on the Permits to ensure compliance.

**S-1128-978-0**

- Emissions from this IC engine shall not exceed any of the following limits: 2.83 g-NOx/bhp-hr, 0.746 g-CO/bhp-hr, or 0.149 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115]
- Emissions from this IC engine shall not exceed 0.082 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
- 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]

**S-1128-979-0**

- Emissions from this IC engine shall not exceed any of the following limits: 2.41 g-NOx/bhp-hr, 1.42 g-CO/bhp-hr, or 0.127 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115]
- Emissions from this IC engine shall not exceed 0.134 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
- 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]

**S-1128-980-0**

- Emissions from this IC engine shall not exceed any of the following limits: 4.04 g-NOx/bhp-hr, 0.522 g-CO/bhp-hr, or 0.213 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115]
- Emissions from this IC engine shall not exceed 0.097 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115]
- 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 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. As required by District Rule 4702, *Stationary Internal Combustion Engines - Phase 2*, this IC engine is subject to recordkeeping requirements. Recordkeeping requirements, in accordance with District Rule 4702, will be discussed below in Section VIII, *District Rule 4702*, of this evaluation.

### **4. Reporting**

No reporting is required to ensure compliance with Rule 2201.

## **F. Ambient Air Quality Analysis (AAQA)**

Section 4.14.1 of this Rule requires that an ambient air quality analysis (AAQA) be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The Technical Services Division of the SJVAPCD conducted the required analysis.

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 in Appendix D, 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 PM<sub>10</sub>. As shown in the AAQA summary sheet in Appendix E, the calculated contribution of PM<sub>10</sub> from the proposed equipment will not exceed EPA significance levels.

Therefore, this project is not expected to cause or make worse a violation of an air quality standard.

## **Rule 2520 Federally Mandated Operating Permits**

Chevron is a Major Source and received their Title V Permit on April 25, 2001. The proposed modifications are minor modifications to the Title V Permit pursuant to Section 3.20.

In accordance with Rule 2520, 3.20, these modifications:

1. Do not violate requirements of any applicable federally enforceable local or federal requirement;
2. Do not relax monitoring, reporting, or recordkeeping requirements in the permit and are not significant changes in existing monitoring permit terms or conditions;
3. Do not require or change a case-by-case determination of an emission limitation or other standard, or a source-specific determination for temporary sources of ambient impacts, or a visibility or increment analysis;

4. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include:
  - a. A federally enforceable emission cap assumed to avoid classification as a modification under any provisions of Title I of the Federal Clean Air Act; and
  - b. An alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Federal Clean Air Act; and
5. Are not Title I modifications as defined in District Rule 2520 or modifications as defined in section 111 or 112 of the Federal Clean Air Act; and
6. Do not seek to consolidate overlapping applicable requirements.

As discussed above, the facility has applied for a COC, therefore the facility must apply to modify their Title V permit with an administrative amendment prior to operating with the proposed modifications. The facility may construct/operate under the ATCs upon submittal of the Title V administrative amendment application, and the following conditions will be added to the permits to ensure compliance.

- 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]
- {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]

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

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

The following table demonstrates how the proposed engines will comply with the requirements of 40 CFR Part 60 Subpart IIII.

<b>40 CFR 60 Subpart IIII Requirements for New Emergency IC Engines Powering Generators (2007 and Later Model Year)</b>	<b>Proposed Method of Compliance with 40 CFR 60 Subpart IIII Requirements</b>
Engines must meet the appropriate Subpart IIII emission standards for new engines, based on the model year, size, and number of liters per cylinder.	The applicant has proposed the use of engines that are certified to the latest EPA Tier Certification level for the applicable horsepower range, guaranteeing compliance with the emission standards of Subpart IIII.
Engine(s) must be fired on 500 ppm sulfur content fuel or less, and fuel with a minimum centane index of 40 or a maximum aromatic content of 35 percent by volume. Starting in October 1, 2010, the maximum allowable sulfur fuel content will be lowered to 15 ppm.	The applicant has proposed the use of CARB certified diesel fuel, which meets all of the fuel requirements listed in Subpart IIII. A permit condition enforcing this requirement was included earlier in this evaluation.

<p>The operator/owner must install a non-resettable hour meter prior to startup of the engines.</p>	<p>The applicant has proposed to install a non-resettable hour meter. The following condition will be included on the permit:</p> <ul style="list-style-type: none"> <li>• This engine shall be equipped with an operational non-resettable elapsed time meter or other APCO approved alternative. [District Rule 4702, 17 CCR 93115, and 40 CFR 60 Subpart IIII]</li> </ul>
<p>Emergency engines may be operated for the purpose of maintenance and testing up to 100 hours per year. There is no limit on emergency use.</p>	<p>The Air Toxic Control Measure for Stationary Compression Ignition Engines (Stationary ATCM) limits this engine maintenance and testing to 50 hours/year. Thus, compliance is expected.</p>
<p>The owner/operator must operate and maintain the engines and any installed control devices according to the manufacturers written instructions.</p>	<p>The following condition will be included on the permit:</p> <ul style="list-style-type: none"> <li>• 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 and 40 CFR 60 Subpart IIII]</li> </ul>

## 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)

Emergency engines are subject to this subpart if they are operated at a major or area source of Hazardous Air Pollutant (HAP) emissions. A major source of HAP emissions is a facility that has the potential to emit any single HAP at a rate of 10 tons/year or greater or any combinations of HAPs at a rate of 25 tons/year or greater. An area source of HAPs is a facility that is not a major source of HAPs. The proposed engines are new stationary reciprocating IC engines located at an area source of HAP emissions; therefore, these engines are subject to this Subpart.

40 CFR 63 Subpart ZZZZ requires the following engines to comply with 40 CFR 60 Subpart IIII:

1. New emergency engines located at area sources of HAPs
2. Emergency engines rated less than or equal to 500 bhp and located at major sources of HAPs

The proposed engines will be in compliance with 40 CFR 60 Subpart IIII.

Additionally, 40 CFR 63 Subpart ZZZZ requires engines rated greater 500 bhp and located at major sources of HAPs to meet the notification requirements of

§63.6645(h); however, that section only applies if an initial performance test is required. Since an initial performance test is not required for emergency engines, the notification requirement is not applicable.

The proposed engines are expected to be in compliance with 40 CFR 63 Subpart ZZZZ.

### **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 Permits to ensure compliance.

- 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 permits 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 (dated 3/2/01) 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.

Therefore pursuant to the policy, a Risk Management Review (RMR) has been performed for this project to analyze the impact of toxic emissions. For projects where the increase in cancer risk is greater than one per million, Toxic Best Available Control Technology (T-BACT) is required.

The RMR results for this project are shown below (see the RMR Summary in Appendix C):

RMR Summary						
Categories	DICE (978-0)	DICE (979-0)	DICE (980-0)	Project Totals	Facility Totals	Stationary Source Total*
Prioritization Score	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	>1.0	>1.0
Acute Hazard Index	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	0.43	0.76
Chronic Hazard Index	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	0.019	0.11
Maximum Individual Cancer Risk (10 <sup>-6</sup> )	0.04	0.07	0.05	0.16	3.62	7.58
T-BACT Required?	No					
Special Permit Conditions?	Yes					

As indicated above, T-BACT is not required for this project because the HRA indicates that the risk is not above the District's thresholds for triggering T-BACT requirements.

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 10 in a million). As indicated above, the emissions increases for this project was determined to be less than significant.

The RMR does indicate that special conditions will be required to minimize health risk from the installation and operation of these engines. Therefore the following conditions will be listed on the Permits to ensure compliance.

- {1898} 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. [District Rule 4102]
- 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 Rule 4702, 17 CCR 93115, and CH&SC 41701.6]

**S-1128-978-0**

- Emissions from this IC engine shall not exceed 0.082 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 13 CCR 2423 and 17 CCR 93115]

**S-1128-979-0**

- Emissions from this IC engine shall not exceed 0.082 g-PM10/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 13 CCR 2423 and 17 CCR 93115]

**S-1128-980-0**

- Emissions from this IC engine shall not exceed 0.082 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102, 13 CCR 2423 and 17 CCR 93115]

**Rule 4201 Particulate Matter Concentration**

Particulate matter emissions from the engine will be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions as shown by the following. Engine with the highest PM<sub>10</sub> emissions limit (S-1128-979-0) will be used as the most conservative case.

$$\frac{0.134 \text{ g} \cdot \text{PM}_{10}}{\text{bhp} \cdot \text{hr}} \times \frac{1 \text{ g} \cdot \text{PM}}{0.96 \text{ g} \cdot \text{PM}_{10}} \times \frac{1 \text{ bhp} \cdot \text{hr}}{2,542.5 \text{ Btu}} \times \frac{10^6 \text{ Btu}}{9,051 \text{ dscf}} \times \frac{0.35 \text{ Btu}_{out}}{1 \text{ Btu}_{in}} \times \frac{15.43 \text{ grain}}{\text{g}} = 0.033 \frac{\text{grain} \cdot \text{PM}_{10}}{\text{dscf}}$$

Since 0.033 grain-PM/dscf is ≤ to 0.1 grain per dscf, compliance with Rule 4201 is expected for all engines.

Therefore, the following condition will be listed on the Permits 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**

Pursuant to Section 7.5.2.3 of District Rule 4702, as of June 1, 2006 District Rule 4701 is no longer applicable to diesel-fired emergency standby or emergency IC engines. Therefore, this diesel-fired emergency IC engine will comply with the requirements of District Rule 4702 instead.

**Rule 4702 Internal Combustion Engines – Phase 2**

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.

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

Pursuant to Section 4.2, except for the requirements of Sections 5.7 and 6.2.3, the requirements of this rule shall not apply to an internal combustion engine that meets the following condition:

*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...*

Section 3.15 defines an "Emergency Standby Engine" as 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.

Therefore, the emergency standby IC engines involved with this project will only have to meet the requirements of Sections 5.7 and 6.2.3 of this Rule.

Section 5.7 of this Rule requires that the owner of an emergency standby engine 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.

The applicant has proposed that each engine be equipped with a non-resettable elapsed operating time meter. Therefore, the following conditions will be listed on the Permits to ensure compliance.

- {3405} 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]
- {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]

- This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702]
- {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]
- {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]
- 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 Rule 4702, 17 CCR 93115, and CH&SC 41701.6]

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. Therefore, the following conditions will be listed on the Permits to ensure compliance.

- {3479} The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115]
- {3476} 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rule 4702 and 17 CCR 93115]

#### **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 for all of the engines 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

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

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

Since 1.0 ppmv is  $\leq$  2,000 ppmv, this engine is expected to comply with Rule 4801, and the following condition (previously proposed) will be listed on the ATC to ensure compliance.

- {3395} 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 table demonstrates how the proposed engines will comply with the requirements of Title 17 CCR Section 93115.

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 engines 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, was included earlier in this evaluation.
The engines must emit diesel PM at a rate less than or equal to 0.15 g/bhp-hr or must meet the diesel PM standard, as specified in the Off-road compression ignition standards for off-road engines with the same maximum rated power (Title 13 CCR, Section 2423).	The applicant has proposed the use of engines that are certified to the latest EPA Tier Certification level for the applicable horsepower range, guaranteeing compliance with the emission standards of Subpart IIII. 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.	The following condition will be included on the permit: <ul style="list-style-type: none"> <li>• 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 Rule 4702, 17 CCR 93115 and 40 CFR Part 60 Subpart IIII]</li> </ul>
New stationary emergency standby diesel-	The applicant has proposed the use of engines that are

<p>fueled CI engines (&gt; 50 bhp) must meet the standards for off-road engines of the same model year and maximum rated power as specified in the Off-Road Compression Ignition Engine Standards (title 13, CCR, section 2423).</p>	<p>certified to the latest EPA Tier Certification level for the applicable horsepower range.</p>
<p>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.</p>	<p>Permit conditions enforcing these requirements were shown earlier in the evaluation.</p>

### 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.

Consistent with California Environmental Quality Act (CEQA) and CEQA Guidelines requirements, the San Joaquin Valley Air Pollution Control District (District) has adopted procedures and guidelines for implementing CEQA. The District's Environmental Review Guidelines (ERG) establishes procedures for avoiding unnecessary delay during the District's permitting process while ensuring that significant environmental impacts are thoroughly and consistently addressed. The ERG includes policies and procedures to be followed when processing permits for projects that are exempt under CEQA.

The State Legislature granted a number of exemptions from CEQA, including projects that require only ministerial approval. Based upon analysis of its own laws and consideration of CEQA provisions, the District has identified a limited number of District permitting activities considered to be ministerial approvals. As set forth in §4.2.1 of the ERG, projects permitted consistent with the District's *Guidelines for Expedited Application Review* (GEAR) are standard application reviews in which little or no discretion is used in issuing Authority to Construct (ATC) documents.

For the proposed project, the District performed an Engineering Evaluation (this document) and determined that the project qualifies for processing under the procedures set forth in the District's Permit Services Procedures Manual in the *Guidelines for Expedited Application Review* (GEAR). Thus, as discussed above, this issuance of such ATC(s) is a ministerial approval for the District and is not subject to CEQA provisions.

On December 17, 2009, the District's Governing Board adopted the first comprehensive regional policy and guidance on addressing and mitigating GHG emission impacts caused by industrial, commercial, and residential development in the San Joaquin Valley. The adopted District policy – *Addressing GHG Emission Impacts for Stationary Source Projects Under CEQA When Serving as the Lead Agency* applies to projects for which the District has discretionary approval authority over the project and serves as the lead agency for CEQA purposes. The policy relies on the use of performance based standards, otherwise known as Best Performance Standards (BPS) to assess significance of project specific greenhouse gas emissions on global climate change during the environmental review process, as required by CEQA.

Use of BPS is a method of streamlining the CEQA process of determining significance and is not a required emission reduction measure. However, consistent with the District's objective to achieve the GHG emission reduction targets established pursuant to AB 32, BPS will be incorporated into the District's GEAR application review process. In the interim, projects meeting the existing GEAR requirements will continue to be processed as ministerial approvals.

## **IX. Recommendation**

Compliance with all applicable rules and regulations is expected. After a successful Public Notice and COC Notice period, issue ATCs S-1128-978-0, 979-0 and 980-0 subject to the conditions listed on the attached draft ATCs in Appendix F.


**X. Billing Information**

Billing Schedule			
Permit Number	Fee Schedule	Fee Description	Fee Amount
S-1128-978-0	3020-10-C	250 bhp IC engine	\$240.00
S-1128-979-0	3020-10-C	400 bhp IC engine	\$240.00
S-1128-980-0	3020-10-D	755 bhp IC engine	\$479.00

**Appendixes**

- A. CARB Engine Certifications
- B. BACT Guideline and BACT Analysis
- C. HRA Summary
- D. QNEC Calculations
- E. AAQA Sheet
- F. Emissions Profiles
- G. Draft ATC

## Appendix A CARB Certifications

 <b>AIR RESOURCES BOARD</b>	<b>CUMMINS INC.</b>	<b>EXECUTIVE ORDER U-R-002-0533</b> New Off-Road Compression-Ignition Engines
--	---------------------	---

Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below 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	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACEXL015.AAJ	15.0	Diesel	8000
<b>SPECIAL FEATURES &amp; EMISSION CONTROL SYSTEMS</b>			<b>TYPICAL EQUIPMENT APPLICATION</b>	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD), or family emission limit(s) (FEL) as applicable, and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NO<sub>x</sub>), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NO<sub>x</sub>), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

RATED POWER CLASS	EMISSION STANDARD CATEGORY	STD	EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NO <sub>x</sub>	NMHC+NO <sub>x</sub>	CO	PM	ACCEL	LUG	PEAK
kW > 560	Tier 2	STD	N/A	N/A	6.4	3.5	0.20	N/A	N/A	N/A
		FEL	N/A	N/A	5.8	N/A	0.16	N/A	N/A	N/A
		CERT	-	-	5.7	0.7	0.13	-	-	-


**BE IT FURTHER RESOLVED:** That the family emission limit(s) (FEL) is an emission level declared by the manufacturer for use in any averaging, banking and trading program and in lieu of an emission standard for certification. It serves as the applicable emission standard for determining compliance of any engine within this engine family under 13 CCR Sections 2423 and 2427.


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

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

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 13<sup>th</sup> day of August 2009.

  
 Annette Hebert, Chief  
 Mobile Source Operations Division

	<p>CUMMINS INC.</p>	<p>EXECUTIVE ORDER U-R-002-0521 New Off-Road Compression-Ignition Engines</p>
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below 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	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACEXL0540AAB	8.8	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Crane, Loader, Tractor, Dozer, Pump and Compressor	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

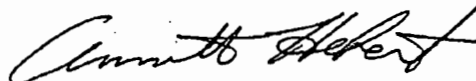
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
225 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	20	15	50
		CERT	-	-	3.4	1.9	0.18	5	2	13

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

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

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 30 day of July 2009.



Annette Hebert, Chief  
Mobile Source Operations Division

	CUMMINS INC.	EXECUTIVE ORDER U-R-002-0519 New Off-Road Compression-Ignition Engines
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Pursuant to the authority vested in the Air Resources Board by Sections 43013, 43018, 43101, 43102, 43104 and 43105 of the Health and Safety Code; and

Pursuant to the authority vested in the undersigned by Sections 39515 and 39516 of the Health and Safety Code and Executive Order G-02-003;

**IT IS ORDERED AND RESOLVED:** That the following compression-ignition engines and emission control systems produced by the manufacturer are certified as described below 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	DISPLACEMENT (liters)	FUEL TYPE	USEFUL LIFE (hours)
2010	ACEXL0409AAD	6.7	Diesel	8000
SPECIAL FEATURES & EMISSION CONTROL SYSTEMS			TYPICAL EQUIPMENT APPLICATION	
Direct Diesel Injection, Turbocharger, Charge Air Cooler, Engine Control Module			Generator Set	

The engine models and codes are attached.

The following are the exhaust certification standards (STD) and certification levels (CERT) for hydrocarbon (HC), oxides of nitrogen (NOx), or non-methane hydrocarbon plus oxides of nitrogen (NMHC+NOx), carbon monoxide (CO), and particulate matter (PM) in grams per kilowatt-hour (g/kw-hr), and the opacity-of-smoke certification standards and certification levels in percent (%) during acceleration (Accel), lugging (Lug), and the peak value from either mode (Peak) for this engine family (Title 13, California Code of Regulations, (13 CCR) Section 2423):

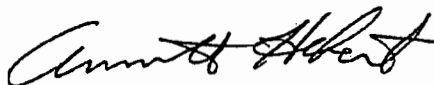
RATED POWER CLASS	EMISSION STANDARD CATEGORY		EXHAUST (g/kw-hr)					OPACITY (%)		
			HC	NOx	NMHC+NOx	CO	PM	ACCEL	LUG	PEAK
130 ≤ kW < 450	Tier 3	STD	N/A	N/A	4.0	3.5	0.20	N/A	N/A	N/A
		CERT	-	-	4.0	1.0	0.11	-	-	-

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

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

**This Executive Order is only granted to the engine family and model-year listed above. Engines in this family that are produced for any other model-year are not covered by this Executive Order.**

Executed at El Monte, California on this 23 day of July 2009.



Annette Hebert, Chief  
Mobile Source Operations Division



## Appendix B BACT Guideline and BACT Analysis

### Best Available Control Technology (BACT ) Guideline 3.1.1 Last Update: 7/10/2009

#### Emergency Diesel IC engine

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

## Top Down BACT Analysis for the Emergency IC Engine(s)

### 1. BACT Analysis for NO<sub>x</sub> Emissions:

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

The SJVUAPCD BACT Clearinghouse Guideline 3.1.1, 3<sup>rd</sup> quarter 2009, identifies achieved in practice BACT for NO<sub>x</sub> emissions from emergency diesel IC engines as follows:

1. Latest EPA Tier Certification level for applicable horsepower range.

No technologically feasible alternatives or control alternatives identified as alternate basic equipment for this class and category of source are listed.

#### b. Step 2 - Eliminate technologically infeasible options

There are no technologically infeasible options to eliminate from step 1.

#### c. Step 3 - Rank remaining options by control effectiveness

No ranking needs to be done because the applicant has proposed the achieved in practice option.

#### d. Step 4 - Cost Effectiveness Analysis

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

#### e. Step 5 - Select BACT

BACT for NO<sub>x</sub> emissions from these emergency standby diesel IC engines is satisfied with the Latest EPA Tier Certification level for applicable horsepower range.

## **2. BACT Analysis for PM<sub>10</sub> Emissions:**

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

The SJVUAPCD BACT Clearinghouse Guideline 3.1.1, 3<sup>rd</sup> quarter 2009, identifies achieved in practice BACT for PM<sub>10</sub> emissions from emergency diesel IC engines as follows:

1. Latest EPA Tier Certification level for applicable horsepower range or PM<sub>10</sub> emissions of less than 0.15 g/hp·hr, whichever is lower. In the case of all three engines, they are all certified at 0.15 g/hp·hr.

No technologically feasible alternatives or control alternatives identified as alternate basic equipment for this class and category of source are listed.

### **b. Step 2 - Eliminate technologically infeasible options**

There are no technologically infeasible options to eliminate from step 1.

### **c. Step 3 - Rank remaining options by control effectiveness**

No ranking needs to be done because the applicant has proposed the achieved in practice option.

### **d. Step 4 - Cost Effectiveness Analysis**

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

### **e. Step 5 - Select BACT**

BACT for PM<sub>10</sub> emissions for these emergency standby diesel IC engines is satisfied with the Latest EPA Tier Certification level for applicable horsepower range.

### **3. BACT Analysis for CO Emissions:**

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

The SJVUAPCD BACT Clearinghouse Guideline 3.1.1, 3<sup>rd</sup> quarter 2009, identifies achieved in practice BACT for CO emissions from emergency diesel IC engines as follows:

1. Latest EPA Tier Certification level for applicable horsepower range.

No technologically feasible alternatives or control alternatives identified as alternate basic equipment for this class and category of source are listed.

#### **b. Step 2 - Eliminate technologically infeasible options**

There are no technologically infeasible options to eliminate from step 1.

#### **c. Step 3 - Rank remaining options by control effectiveness**

No ranking needs to be done because the applicant has proposed the achieved in practice option.

#### **d. Step 4 - Cost Effectiveness Analysis**

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

#### **e. Step 5 - Select BACT**

BACT for CO emissions from these emergency standby diesel IC engines is satisfied with the Latest EPA Tier Certification level for applicable horsepower range.

#### **4. BACT Analysis for VOC Emissions:**

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

The SJVUAPCD BACT Clearinghouse Guideline 3.1.1, 3<sup>rd</sup> quarter 2009, identifies achieved in practice BACT for VOC emissions from emergency diesel IC engines as follows:

1. Latest EPA Tier Certification level for applicable horsepower range.

No technologically feasible alternatives or control alternatives identified as alternate basic equipment for this class and category of source are listed.

##### **b. Step 2 - Eliminate technologically infeasible options**

There are no technologically infeasible options to eliminate from step 1.

##### **c. Step 3 - Rank remaining options by control effectiveness**

No ranking needs to be done because the applicant has proposed the achieved in practice option.

##### **d. Step 4 - Cost Effectiveness Analysis**

The applicant has proposed the only control achieved in practice in the ranking list from Step 3. Therefore, per SJVUAPCD BACT policy, the cost effectiveness analysis is not required.

##### **e. Step 5 - Select BACT**

BACT for VOC emissions from these emergency standby diesel IC engines is satisfied with Latest EPA Tier Certification level for applicable horsepower range.

## Appendix C

# San Joaquin Valley Air Pollution Control District

## Risk Management Review

To: Steve Roeder, AQE – Permit Services  
 From: Ester Davila, SAQS – Technical Services  
 Date: May 28, 2010  
 Facility Name: Chevron USA  
 Location: Cymric Oilfield - HOW  
 Application #(s): S-1128-978-0, -979-0 & 980-0  
 Project #: S-1102302

### A. RMR SUMMARY

RMR Summary						
Categories	DICE (978-0)	DICE (979-0)	DICE (980-0)	Project Totals	Facility Totals	Stationary Source Total*
<b>Prioritization Score</b>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	N/A <sup>1</sup>	>1.0	>1.0
<b>Acute Hazard Index</b>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	0.43	0.76
<b>Chronic Hazard Index</b>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	N/A <sup>2</sup>	0.019	0.11
<b>Maximum Individual Cancer Risk (10<sup>-6</sup>)</b>	0.04	0.07	0.05	0.16	3.62	7.58
<b>T-BACT Required?</b>	No					
<b>Special Permit Conditions?</b>	Yes					

\*Facilities S-1128, S-1129, S-1141 and S-2592 (And deleted facility S-1549 are all the same facility, and therefore their risk scores will be combined.

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

## Proposed Permit Conditions

To ensure that human health risks will not exceed District allowable levels; the following permit conditions must be included for:

### Unit # 978-0

1. Modified {1901} The PM10 emissions rate shall not exceed **0.082** g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201]
2. {1898} 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. [District Rule 4102] N

3. Modified {1344} The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed **50** hours per year. [District NSR Rule and District Rule 4701] N

Unit # 979-0

1. Modified {1901} The PM10 emissions rate shall not exceed **0.13** g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201]
2. {1898} 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. [District Rule 4102] N
3. Modified {1344} The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed **50** hours per year. [District NSR Rule and District Rule 4701] N

Unit # 980-0

1. Modified {1901} The PM10 emissions rate shall not exceed **0.097** g/hp-hr based on US EPA certification using ISO 8178 test procedure. [District Rule 2201]
2. {1898} 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. [District Rule 4102] N
3. Modified {1344} The engine shall be operated only for maintenance, testing, and required regulatory purposes, and during emergency situations. Operation of the engine for maintenance, testing, and required regulatory purposes shall not exceed **50** hours per year. [District NSR Rule and District Rule 4701] N

**B. RMR REPORT**

**I. Project Description**

Technical Services received a request on May 6, 2010, to perform a Risk Management Review for three (3) diesel-fired emergency standby IC engines powering electrical generators.

**II. Analysis**

Technical Services performed a screening level health risk assessment using the District's Diesel Exhaust Risk Screening spreadsheet.

The following parameters were used for the review:

Analysis Parameters						
Unit #	Hp-hr	PM <sub>10</sub> g/hp-hr	Receptor (m)	Quad	Hours/Year	Load%
978-0	250	0.082	914	2	50	100
979-0	400	0.13	914	2	50	100
980-0	755	0.097	914	2	50	100
<b>Location Type</b>			Rural	<b>Receptor Type</b>		Residential

### III. Conclusion

The individual cancer risks associated with the operation of each of the proposed diesel IC engines were less than the 1 in a million threshold. In accordance with the District's Risk Management Policy, the project (engines) is approved as proposed **without Toxic Best Available Control Technology (T-BACT)**.

To ensure that human health risks will not exceed District allowable levels; the permit conditions 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.

Attachments:

1. RMR Request
2. Screening Risk Tool Results
3. Facility Summary



## Appendix D QNEC Calculations

### Quarterly Net Emissions Change (QNEC)

The QNEC is used to complete the emission profile screen for the District's PAS database. The QNEC is calculated as follows:

QNEC = (PE2 - PE1) ÷ 4 qtr/yr, where:

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

QNEC S-1128-978-0			
Pollutant	PE1 (lb/yr)	PE2 (lb/yr)	QNEC (lb/qtr)
NO <sub>x</sub>	0	78	19.5
SO <sub>x</sub>	0	0	0.0
PM <sub>10</sub>	0	2	0.5
CO	0	13	3.25
VOC	0	4	1

QNEC S-1128-979-0			
Pollutant	PE1 (lb/yr)	PE2 (lb/yr)	QNEC (lb/qtr)
NO <sub>x</sub>	0	106	26.5
SO <sub>x</sub>	0	0	0.0
PM <sub>10</sub>	0	6	1.5
CO	0	62	15.5
VOC	0	6	1.5

QNEC S-1128-980-0			
Pollutant	PE1 (lb/yr)	PE2 (lb/yr)	QNEC (lb/qtr)
NO <sub>x</sub>	0	336	84
SO <sub>x</sub>	0	0	0.0
PM <sub>10</sub>	0	8	2
CO	0	43	10.75
VOC	0	18	4.5

## Appendix E Ambient Air Quality Analysis

### I. Project Description

Technical Services received a request on June 8, 2010, to perform an **Ambient Air Quality Analysis** for a 250 bhp, a 400 bhp and a 755 bhp diesel-fired IC engine.

### II. Analysis

Technical Services performed modeling for criteria pollutants CO, NO<sub>x</sub>, SO<sub>x</sub> and PM<sub>10</sub>. The emission rates used for criteria pollutant modeling are below:

	Unit 978	Unit 979	Unit 980
NO <sub>x</sub>	1.56 lb/hr	2.12 lb/hr	6.71 lb/hr
SO <sub>x</sub>	0.004 lb/hr	0.004 lb/hr	0.008 lb/hr
PM <sub>10</sub>	0.046 lb/hr	0.117 lb/hr	0.163 lb/hr
CO	0.263 lb/hr	1.25 lb/hr	0.867 lb/hr
VOC	0.083 lb/hr	0.112 lb/hr	0.354 lb/hr

The results from the Criteria Pollutant Modeling are as follows:

#### Criteria Pollutant Modeling Results\*

Diesel ICE	1 Hour	3 Hours	8 Hours.	24 Hours	Annual
CO	Pass	X	Pass	X	X
NO <sub>x</sub>	Pass**	X	X	X	Pass
SO <sub>x</sub>	Pass	Pass	X	Pass	Pass
PM <sub>10</sub>	X	X	X	Pass <sup>1</sup>	Pass <sup>1</sup>

\*Results were taken from the attached PSD spreadsheet.

\*\*The NO<sub>x</sub> 1-hour modeling was conducted using the EPA-developed Tier 2 modeling procedure, and the Plume Volume Molar Ratio Method.

<sup>1</sup>The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

### III. Conclusion

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

#### Attachments:

- A. AAQA request from the project engineer
- B. AAQA Summary
- NO<sub>2</sub> NAAQS summary

## Appendix F Emissions Profiles

SJVUAPCD  
SOUTHERN

### Application Emissions

6/8/10  
4:08 pm

Permit #: S-1128-978-0      Last Updated  
Facility: CHEVRON USA INC    06/08/2010    ROEDERS

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	78.0	0.0	2.0	13.0	4.0
Daily Emis. Limit (lb/Day)	38.5	0.1	1.1	6.3	2.0
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	20.0	0.0	1.0	3.0	1.0
Q2:	20.0	0.0	1.0	3.0	1.0
Q3:	20.0	0.0	1.0	3.0	1.0
Q4:	20.0	0.0	1.0	3.0	1.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

SJVUAPCD  
SOUTHERN

**Application Emissions**

6/8/10  
4:09 pm

Permit #: S-1128-979-0      Last Updated  
Facility: CHEVRON USA INC    06/08/2010    ROEDERS

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	106.0	0.0	6.0	62.0	6.0
Daily Emis. Limit (lb/Day)	50.9	0.1	2.8	30.0	2.7
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	27.0	0.0	2.0	16.0	2.0
Q2:	27.0	0.0	2.0	16.0	2.0
Q3:	27.0	0.0	2.0	16.0	2.0
Q4:	27.0	0.0	2.0	16.0	2.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

SJVUAPCD  
SOUTHERN

**Application Emissions**

6/8/10  
4:09 pm

Permit #: S-1128-980-0	Last Updated
Facility: CHEVRON USA INC	06/08/2010 ROEDERS

Equipment Pre-Baselined: NO

	<u>NOX</u>	<u>SOX</u>	<u>PM10</u>	<u>CO</u>	<u>VOC</u>
Potential to Emit (lb/Yr):	336.0	0.0	8.0	43.0	18.0
Daily Emis. Limit (lb/Day)	161.2	0.2	3.9	20.8	8.5
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	84.0	0.0	2.0	11.0	5.0
Q2:	84.0	0.0	2.0	11.0	5.0
Q3:	84.0	0.0	2.0	11.0	5.0
Q4:	84.0	0.0	2.0	11.0	5.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio					
Quarterly Offset Amounts (lb/Qtr)					
Q1:					
Q2:					
Q3:					
Q4:					

Appendix G  
Draft ATCs

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-1128-978-0

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
KERN COUNTY

SECTION: SW 31 TOWNSHIP: 29S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

250 HORSEPOWER CUMMINS MODEL QSB7-G3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE  
POWERING AN ELECTRICAL GENERATOR (31X CONTROL ROOM, CYMRIC OILFIELD)

**CONDITIONS**

1. 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. This engine shall be EPA/CARB TIER-3 certified. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit

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

**DAVID WARNER**, Director of Permit Services

S-1128-978-0; Jun 8 2010 4:10PM - ROEDERS : Joint Inspection NOT Required

8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. 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] Federally Enforceable Through Title V Permit
10. 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 Rule 4702, 17 CCR 93115, and CH&SC 41701.6] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. 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
15. Emissions from this IC engine shall not exceed any of the following limits: 2.83 g-NO<sub>x</sub>/bhp-hr, 0.746 g-CO/bhp-hr, or 0.149 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed 0.082 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
19. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

**DRAFT**



San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-1128-979-0

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
KERN COUNTY

SECTION: SW31 TOWNSHIP: 29S RANGE: 22E

**EQUIPMENT DESCRIPTION:**

400 HP CUMMINS MODEL QSL9-G3-NR3 TIER 3 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (COOLING STATION #4, CYMRIC OILFIELD)

**CONDITIONS**

1. 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. This engine shall be EPA/CARB TIER-3 certified. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit

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

**DAVID WARNER**, Director of Permit Services

S-1128-979-0: Jun 8 2010 4:16PM - ROEDERS : Joint Inspection NOT Required

8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. 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] Federally Enforceable Through Title V Permit
10. 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 Rule 4702, 17 CCR 93115, and CH&SC 41701.6] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. 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
15. Emissions from this IC engine shall not exceed any of the following limits: 2.41 g-NO<sub>x</sub>/bhp-hr, 1.42 g-CO/bhp-hr, or 0.127 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed 0.134 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
19. 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. For units at unstaffed sites or operated remotely, records may be maintained and retained at a District-approved off-site location. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit

DRAFT

San Joaquin Valley  
Air Pollution Control District

**AUTHORITY TO CONSTRUCT**

ISSUANCE DATE: DRAFT  
**DRAFT**

PERMIT NO: S-1128-980-0

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

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE  
KERN COUNTY

SECTION: NE36 TOWNSHIP: 29S RANGE: 21E

**EQUIPMENT DESCRIPTION:**

755 HP CUMMINS MODEL QSX15-G9-NR2 TIER 2 CERTIFIED DIESEL-FIRED EMERGENCY IC ENGINE POWERING AN ELECTRICAL GENERATOR (COOLING STATION #5, CYMRIC OILFIELD)

**CONDITIONS**

1. 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. This engine shall be EPA/CARB TIER-2 certified. [District Rule 2201] Federally Enforceable Through Title V Permit
4. This engine shall be equipped with a positive crankcase ventilation (PCV) system. [District Rule 2201] Federally Enforceable Through Title V Permit
5. 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] Federally Enforceable Through Title V Permit
6. This engine shall be equipped with an operational non-resettable elapsed time meter. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
7. 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] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

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Sayed Sadredin, Executive Director, APCO

**DAVID WARNER**, Director of Permit Services  
S-1128-980-0: Jun 9 2010 4:18PM - ROEDERS : Joint Inspection NOT Required

8. No air contaminant shall be released into the atmosphere which causes a public nuisance. [District Rule 4102]
9. 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] Federally Enforceable Through Title V Permit
10. 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 Rule 4702, 17 CCR 93115, and CH&SC 41701.6] Federally Enforceable Through Title V Permit
11. 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] Federally Enforceable Through Title V Permit
12. 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] Federally Enforceable Through Title V Permit
13. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201] Federally Enforceable Through Title V Permit
14. 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
15. Emissions from this IC engine shall not exceed any of the following limits: 4.04 g-NO<sub>x</sub>/bhp-hr, 0.522 g-CO/bhp-hr, or 0.213 g-VOC/bhp-hr. [District Rule 2201, 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
16. Emissions from this IC engine shall not exceed 0.097 g-PM<sub>10</sub>/bhp-hr based on USEPA certification using ISO 8178 test procedure. [District Rules 2201 and 4102 and 13 CCR 2423 and 17 CCR 93115] Federally Enforceable Through Title V Permit
17. 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] Federally Enforceable Through Title V Permit
18. The permittee shall maintain monthly records of emergency and non-emergency operation. Records shall include the number of hours of emergency operation, the date and number of hours of all testing and maintenance operations, the purpose of the operation (for example: load testing, weekly testing, rolling blackout, general area power outage, etc.) and records of operational characteristics monitoring. For units with automated testing systems, the operator may, as an alternative to keeping records of actual operation for testing purposes, maintain a readily accessible written record of the automated testing schedule. [District Rule 4702 and 17 CCR 93115] Federally Enforceable Through Title V Permit
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