San Joaquin Valley
AIR POLLUTION CONTROL DISTRICT

HEALTHY AIR LIVING™

FEB 2 8 2017

Mr. Juan Campos
California Resources Production Corp
11109 River Run Blvd
Bakersfield, CA 93309

Re: Proposed ATC / Certificate of Conformity (Significant Mod)
District Facility # S-8282
Project # 1163552

Dear Mr. Campos:

Enclosed for your review is the District's analysis of an application for Authority to Construct for the facility identified above. You requested that a Certificate of Conformity with the procedural requirements of 40 CFR Part 70 be issued with this project. The project authorizes installation of 2 IC engine/generators.

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

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

Thank you for your cooperation in this matter.

Sincerely,

Arnaud Marjollet
Director of Permit Services

Enclosures

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

Seyed Sadredin
Executive Director/Air Pollution Control Officer

Northern Region
4800 Enterprise Way
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Southern Region
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www.valleyair.org www.healthyairliving.com

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-8282-191-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: CALIFORNIA RESOURCES PRODUCTION CORP.
MAILING ADDRESS: 11109 RIVER RUN BLVD
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: NW 10 **TOWNSHIP:** 32S **RANGE:** 25E

EQUIPMENT DESCRIPTION:
1380 HP FIELD GAS-FIRED WAUKESHA MODEL L5794GSI (OR EQ) WITH A THREE-WAY CATALYST POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 600 lb, 2nd quarter - 600 lb, 3rd quarter - 600 lb, and fourth quarter - 600 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4704-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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

DRAFT

Arnaud Marjollet, Director of Permit Services
S-8282-191-0 : Feb 13 2017 7:57AM -- EDGEHILR : Joint Inspection Required with EDGEHILR

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 512 lb, 2nd quarter - 512 lb, 3rd quarter - 512 lb, and fourth quarter - 512 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

6. ERC Certificate Number S-4196-4 and S-4211-4 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 1040 lb, 2nd quarter - 1040 lb, 3rd quarter - 1040 lb, and fourth quarter - 1040 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

8. ERC Certificate Number S-4724-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

10. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

11. California Resources Production Company shall operate and maintain the air fuel ratio (AFR) controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [NSPS Subpart JJJJ and District Rule 2201] Federally Enforceable Through Title V Permit

12. NOx emission concentrations shall not exceed 5 ppm by volume at 15% O2. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

13. VOC emissions concentrations shall not exceed 25 ppmv at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

14. CO emission concentrations shall not exceed 56 ppm by volume at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

15. Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801] Federally Enforceable Through Title V Permit

16. Emissions from the engine shall neither exceed SOx (as SO2) - 0.00285 lb/1,000 scf of fuel burned, nor PM10 - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2520, 9.3.2 & 9.4.2; 4701, 5.4; and 4702, 5.6 and 6.5] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2; 4701, 5.4; and 4702, 5.6 and 6.5] Federally Enforceable Through Title V Permit

19. All emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken by the portable analyzer shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4 and 4702, 5.6] Federally Enforceable Through Title V Permit

20. NOx, CO, and VOC emissions shall be measured (source tested) within 60 days of startup and not less than once every 24 months thereafter. [District Rules 4701, 6.3.1 and 4702, 6.3.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 1081; 4701, 6.4; and 4702, 6.4] Federally Enforceable Through Title V Permit

22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. If the engine is fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills and supplier certifications for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain accurate records of fuel gas BTU content, and daily records of volume and sulfur content of gas burned. [District Rule 1070] Federally Enforceable Through Title V Permit

28. The portable analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. [District Rule 2520, 9.3.2 and 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) total hours of operation; (2) type and quantity of fuel used; (3) maintenance or modifications performed; (4) the date and time of NOx, CO, and O2 measurements; (5) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2; (6) make and model of exhaust gas analyzer; (7) exhaust gas analyzer calibration records; and (8) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. The owner or operator shall maintain the required meters in proper operating condition. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit

31. The Permittee shall begin the daily recording of the inlet temperature to the catalyst bed by June 26, 2012 in order to ensure compliance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM). [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit

San Joaquin Valley Air Pollution Control District

Authority to Construct Application Review

Two New Gas Fired IC Engines

Facility Name:	California Resources Production Corp.	Date:	2/14/17
Mailing Address:	PO Box 1001 Tupman, CA 93276	Engineer:	Richard Edgehill
		Lead Engineer:	Steve Davidson
Contact Person:	Juan Campos		
Telephone:	661-763-6354		
Application #(s):	S-8282-190-0 and '-191-0		
Project #:	1163552		
Deemed Complete:	11/15/16		

I. Proposal

California Resources Production Corp (CRPC) has requested Authorities to Construct (ATCs) permit for two 1380 hp gas-fired IC engines (ATCs S-8282-190-0 and '-191-0) to be used for electrical generation.

Installation of the IC engines triggers BACT, offsets, and public notice.

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

II. Applicable Rules

Rule 2201	New and Modified Stationary Source Review Rule (2/18/16)
Rule 2410	Prevention of Significant Deterioration (6/16/11)
Rule 2520	Federally Mandated Operating Permits (6/21/01)
Rule 4001	New Source Performance Standards (4/14/99) – 40 CFR 60 Subparts JJJJ
Rule 4002	National Emissions Standards for Hazardous Air Pollutants (5/20/04)
Rule 4101	Visible Emissions (2/17/05)
Rule 4102	Nuisance (12/17/92)
Rule 4201	Particulate Matter Concentration (12/17/92)
Rule 4701	Stationary Internal Combustion Engines – Phase 1 (8/21/03)
Rule 4702	Stationary Internal Combustion Engines – Phase 2 (11/4/13)
Rule 4801	Sulfur Compounds (12/17/92)

CH&SC 41700 Health Risk Assessment
CH&SC 42301.6 School Notice
Public Resources Code 21000-21177: California Environmental Quality Act (CEQA)
California Code of Regulations, Title 14, Division 6, Chapter 3, Sections 15000-15387: CEQA Guidelines

III. Project Location

The project is located at CRPC's BV Nose facility at the 10 H well pad in Section 10H, Township 31S, Range 25E in CRPC's LOWSS. The project is not located within 1,000 feet of a school. Therefore, the public notification requirement of California Health and Safety Code 42301.6 is not applicable to this project.

A location map is located in **Attachment I**.

IV. Process Description

CRC is proposing to install a centralized jet pump system at 10H well pad. The two Waukesha engines, 1380 BHP each, will burn field gas and generate electricity with a VFD to power 3 surface pumping systems. These pumps will then supply the artificial lift method for new wells to be drilled. All work and equipment will be confined to the 10H pad.

V. Equipment Listing

Post Project Equipment Description:

S-8282-190-0 and '-191-0: 1380 HP FIELD GAS-FIRED WAUKESHA MODEL L5794GSI (OR EQ) WITH A THREE-WAY CATALYST POWERING AN ELECTRICAL GENERATOR

VI. Emission Control Technology Evaluation

The IC engines are equipped with by three-way catalyst converters and air fuel ratio controllers for control of NOx, CO, and VOCs.

Non-Selective Catalytic Reduction (NSCR) decreases NO_X, CO and VOC emissions by using a catalyst to promote the chemical reduction of NO_X into N_2 and O_2, and the chemical oxidation of VOC and CO into H_2O and CO_2.

The fuel/air ratio controller, (oxygen controller) is used in conjunction with the NSCR to maintain the amount of oxygen in the exhaust stream to optimize catalyst function.

VII. General Calculations

A. Assumptions

Operation: 24 hr/day; 365 day/year
EPA F-factor (adjusted to 60°F): 8,578 dscf/MMBtu (40 CFR 60 Appendix B)

Fuel heating value: 1,000 Btu/scf (District Policy APR 1720)
Conversion Btu to bhp-hr: 2,542.5 Btu/bhp-hr (AP 42 Appendix A-14)
Thermal efficiency of engine: commonly ≈ 35%
Molar Volume: 379.5 dscf/lb-mol

B. Emission Factors

Post-Project Emission Factors			
Pollutant	ppmv (@ 15% O_2)	g/hp-hr*	Source
NO_X	5	0.06	BACT, proposed
SOx		0.0093	Calculation**
PM10		0.064	Calculation***
CO	56	0.408	BACT, proposed
VOC	25	0.104	"

*District calculator

** $\frac{0.00285 \text{ lb}}{\text{MMBtu}} \times \frac{0.002542 \text{ MMBtu}}{\text{hp-hr}_{in}} \times \frac{1 \text{ hp}_{in}}{0.35 \text{ hp}_{out}} \times \frac{453.6 \text{ g}}{1 \text{ lb}} = 0.0093 \text{ g/hp-hr}$

***PM_{10} value includes both filterable (9.50×10^{-3} lb/MMBtu) and condensable (9.91×10^{-3} lb/MMBtu) emissions.

$\frac{0.01941 \text{ lb}}{\text{MMBtu}} \times \frac{0.0025425 \text{ MMBtu}}{\text{hp-hr}_{in}} \times \frac{1 \text{ hp}_{in}}{0.35 \text{ hp}_{out}} \times \frac{453.6 \text{ g}}{1 \text{ lb}} = 0.064 \text{ g/hp-hr}$

C. Calculations

1. Pre-Project Potential to Emit (PE1)

The project is new, therefore PE1 is zero for all pollutants.

2. Post Project Potential to Emit (PE2)

S-8282-190 and'-191 (each)

Daily Pre-Project Emissions					
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Daily Hours of Operation (hrs/day)	Conversion (g/lb)	PE1 Total (lb/day)
NO_X	0.06	1380	24	453.6	4.4
SO_X	0.0093	1380	24	453.6	0.7
PM_{10}	0.064	1380	24	453.6	4.7
CO	0.408	1380	24	453.6	29.8
VOC	0.104	1380	24	453.6	7.6

Annual Pre-Project Emissions					
Pollutant	Emissions Factor (g/bhp-hr)	Rating (bhp)	Annual Hours of Operation (hrs/yr)	Conversion (g/lb)	PE1 Total (lb/yr)
NO_X	0.06	1380	8760	453.6	1,599
SO_X	0.0093	1380	8760	453.6	248
PM_{10}	0.064	1380	8760	453.6	1,706
CO	0.408	1380	8760	453.6	10,874
VOC	0.104	1380	8760	453.6	2,772

Emissions Profiles are included as **Attachment II.**

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

Pursuant to Section 4.9 of District Rule 2201, the pre-project stationary source Potential to Emit (SSPE1) is the Potential to Emit (PE) from all units with valid Authorities to Construct (ATC) or Permits to Operate (PTO) at the stationary source and the quantity of emission reduction credits (ERC) which have been banked since September 19, 1991 for Actual Emissions Reductions that have occurred at the source, and which have not been used on-site. The facility has no ERCs for onsite reductions.

SSPE1* (lb/year)					
Permit Unit	**NO_X**	**SO_X**	**PM_{10}**	**CO**	**VOC**
SSPE Calculator (2/9/17) PTOs only	519,613	24,142	61,853	5,369,047	1,095,709
SSPE1	519,613	24,142	61,853	5,369,047	1,095,709

*Facilities S-382, S-1216, S-1738, and S-8282 constitute the same light oil western stationary source

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

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

SSPE2 (lb/year)					
Permit Unit	NO_X	SO_X	PM_{10}	CO	VOC
SSPE1	519,613	24,142	61,853	5,369,047	1,095,709
S-8282-190	1,599	248	1,706	10,874	2,772
S-8282-191	1,599	248	1,706	10,874	2,772
SSPE2	522,811	24,638	65,265	5,390,795	1,101,253

5. Major Source Determination

Rule 2201 Major Source Determination:

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

- any ERCs associated with the stationary source
- Emissions from non-road IC engines (i.e. IC engines at a particular site at the facility for less than 12 months)
- Fugitive emissions, except for the specific source categories specified in 40 CFR 51.165

Rule 2201 Major Source Determination (lb/year)						
	NO_X	SO_X	PM_{10}	$PM_{2.5}$	CO	VOC
SSPE1*	519,613	24,142	61,853	61,853	5,369,047	1,095,709
SSPE2	522,811	24,638	65,265	65,265	5,390,795	1,101,253
Major Source Threshold	20,000	140,000	140,000	140,000	200,000	20,000
Major Source?	Yes	No	No	No	Yes	Yes

Note: PM2.5 assumed to be equal to PM10

This source is an existing Major Source for NOx, CO, and VOC and will remain a Major Source for these pollutants. The source is not becoming a new major source for any pollutants.

Rule 2410 Major Source Determination:

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

PSD Major Source Determination (tons/year)						
	NO_2	VOC	SO_2	CO	PM	PM_{10}
Estimated Facility PE before Project Increase	260	548	12	2685	31	31
PSD Major Source Thresholds	250	250	250	250	250	250
PSD Major Source ? (Y/N)	Y	Y	N	Y	N	N

As shown above, the facility is not an existing PSD major source for at least one pollutant.

6. Baseline Emissions (BE)

a. Annual BE

The annual BE is performed pollutant by pollutant for each unit within the project to determine the amount of offsets required, where necessary, when the SSPE1 is greater than the offset threshold. For this project the annual BE will be performed to calculate quarterly Baseline Emissions (QBE)

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 3.8 of District Rule 2201.

The IC engines are new and therefore BE = 0.

7. SB 288 Major Modification

SB 288 Major Modification is defined in 40 CFR Part 51.165 as "any physical change in or change in the method of operation of a major stationary source that would result in a significant net emissions increase of any pollutant subject to regulation under the Act."

Since this facility is a major source for CO, NOx and VOC pollutants, the project's PE2 is compared to the SB 288 Major Modification Thresholds in the following table in order to determine if the SB 288 Major Modification calculation is required.

SB 288 Major Modification Thresholds			
Pollutant	Project PE2 (lb/year)	Threshold (lb/year)	SB 288 Major Modification Calculation Required?
NO_x	3,198	50,000	No
SO_x	496	80,000	No
PM_{10}	3,412	30,000	No
VOC	5,544	50,000	No

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

8. Federal Major Modification Determination

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

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

Since this facility is not a Major Source for SOx and PM10, this project does not constitute a Federal Major Modification for these air contaminants.

The project's combined total emission increases are compared to the Federal Major Modification Thresholds in the following table.

Federal Major Modification Thresholds for Emission Increases			
Pollutant	**Total Emissions Increases (lb/yr)**	**Thresholds (lb/yr)**	**Federal Major Modification?**
NO_x*	3,198	0	Yes
VOC*	5,544	0	Yes

*If there is any emission increases in NO_x or VOC, this project is a Federal Major Modification and no further analysis is required.

As demonstrated in the preceding table, this project does constitute a Federal Major Modification.

Federal Offset Quantities:

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

NOx **Federal Offset Ratio** **1.5**

Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
S-8282-190	0	1599	1,599
S-8282-191	0	1599	1,599
		Net Emission Change (lb/year):	3,198
		Federal Offset Quantity: (NEC * 1.5)	4,797

VOC

Federal Offset Ratio **1.5**

Permit No.	Actual Emissions (lb/year)	Potential Emissions (lb/year)	Emissions Change (lb/yr)
S-8282-190	0	2772	2,772
S-8282-191	0	2772	2,772
		Net Emission Change (lb/year):	5,544
		Federal Offset Quantity: (NEC * 1.5)	8,316

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

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

- NO2 (as a primary pollutant)
- SO2 (as a primary pollutant)
- CO
- PM
- PM10
- Sulfuric acid mist
- Hydrogen sulfide (H2S)
- Total reduced sulfur (inlcuding H2S)
- Reduced sulfur compounds

I. Project Location Relative to Class 1 Area

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

II. Project Emission Increase – Significance Determination

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

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

PSD Significant Emission Increase Determination: Potential to Emit (tons/year)					
	NO_2	SO_2	CO	PM	PM_{10}
Total PE from New and Modified Units	1.6	0.25	10.9	1.7	1.7
PSD Significant Emission Increase Thresholds	40	40	100	25	15
PSD Significant Emission Increase?	N	N	N	N	N

As demonstrated above, because the post-project total potentials to emit from all new and modified emission units are below the PSD significant emission increase thresholds, this project is not subject to the requirements of Rule 2410 and no further discussion is required.

10. Quarterly Net Emissions Change (QNEC)

The Quarterly Net Emissions Change is used to complete the emission profile screen for the District's PAS database. The permit units are new and therefore the QNEC = PE2/4.

VIII. Compliance Determination

Rule 2201 New and Modified Stationary Source Review Rule

A. Best Available Control Technology (BACT)

1. BACT Applicability

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

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

*Except for CO emissions from a new or modified emissions unit at a Stationary Source with an SSPE2 of less than 200,000 pounds per year of CO.

a. New emissions units – PE > 2 lb/day

As seen in Section VII.C.2 above, the applicant is proposing to install new IC engines each with a PE greater than 2 lb/day for NO_X, PM_{10}, CO, and VOC. Therefore, BACT is triggered for NO_X, PM_{10}, CO, and VOC.

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

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

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

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

d. SB 288/Federal Major Modification

As discussed in Sections VII.C.7 and VII.C.8 above, this project constitutes a Federal Major Modification for NO_X and VOC emissions. Therefore, BACT is not triggered for all pollutants with an emissions increase (NOx, SOx, PM10, CO, and VOCs).

2. BACT Guideline

BACT Guideline 3.3.12, applies to the natural-fired IC engine. [Fossil Fuel Fired IC Engine >50 hp power an electric generator]. (See **Attachment III**)

3. Top-Down BACT Analysis

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

Pursuant to the attached Top-Down BACT Analysis (see **Attachment IV**), BACT has been satisfied with the following:

NOx: 5 ppmv @ 15% O2-Achieved-in-Practice
SOx: Compliance with Rule 4702
PM10: 0.06 g/hp-hr
CO: 56 ppmv @ 15% O2-Achieved-in-Practice
VOC: 25 ppmv @ 15% O2-Achieved-in-Practice

12 ppmv VOC @ 15% O2 (Technologically Feasible) was not cost effective

B. Offsets

1. Offset Applicability

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

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

Offset Determination (lb/year)					
	NO_X	SO_X	PM_{10}	CO	VOC
SSPE2	522,811	24,638	65,265	5,390,795	1,101,253
Offset Thresholds	20,000	54,750	29,200	200,000	20,000
Offsets triggered?	Yes	No	Yes	Yes	Yes

2. Quantity of Offsets Required

As seen above, the SSPE2 is greater than the offset thresholds for NOx, PM10, CO, and VOC; therefore offset calculations will not be required for this project.

The quantity of offsets in pounds per year for NO_X is calculated as follows for sources with an SSPE1 greater than the offset threshold levels before implementing the project being evaluated.

Offsets Required (lb/year) = (Σ[PE2 – BE] + ICCE) x DOR, for all new or modified emissions units in the project,

Where,
PE2 = Post Project Potential to Emit, (lb/year)
BE = Baseline Emissions, (lb/year)
ICCE = Increase in Cargo Carrier Emissions, (lb/year)
DOR = Distance Offset Ratio, determined pursuant to Section 4.8

BE = PE1 for:

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

otherwise,

BE = HAE

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

NOx

Applicant has proposed use on an ERC (S-4704-2) with an offset ratio of 1.5:1 (Federal Major Modification).
Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (NOx) = 3,198 lb/year
BE (NOx) = 0 lb/year
ICCE = 0 lb/year

Assuming an offset ratio of 1.5:1, the amount of NOx ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 3,198 x 1.5
= 4,797 lb NO_X/year (1199.25 lb/qtr)

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

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

Redistribution of Required Quarterly Offsets (where X is the annual amount of offsets, and X ÷ 4 = Y.z)				
Value of z	**Quarter 1**	**Quarter 2**	**Quarter 3**	**Quarter 4**
.0	Y	Y	Y	Y
.25	Y	Y	Y	Y+1
.5	Y	Y	Y+1	Y+1
.75	Y	Y+1	Y+1	Y+1

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
1,199	1,199	1,199	1,200	4,797

The applicant has stated that the facility plans to use ERC certificate S-4704-2 to offset the increases in NO_X emissions associated with this project. The above certificate has available quarterly NO_X credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-4704-2	11,827	11,827	11,827	11,827

As seen above, the facility has sufficient credits to fully offset the quarterly NO_X emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions*:

- *{GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter – (599/600) lb, 2nd quarter – (599/600 lb, 3rd quarter – (599/600) lb, and fourth quarter – (600,600) lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]*

  *quantities in parentheses are for each unit

- *ERC Certificate Number S-4704-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]*

PM10

Applicant has proposed use of ERCs S-4196-4 and S-4211-4 with reductions occurring at another stationary source within 15 miles of S-8282. As CRPC's LOWSS is non-major for PM10, the offset ratio is 1.2:1.

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (PM10) = 3,412 lb/year
BE (PM10) = 0 lb/year
ICCE = 0 lb/year

Assuming an offset ratio of 1.2:1, the amount of PM10 ERCs that need to be withdrawn is:

Offsets Required (lb/year) = 3,412 x 1.2
= 4,094 lb PM10/year (1,023.5 lb/qtr)

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
1,023	1,023	1,024	1,024	4,094

The applicant has stated that the facility plans to use ERC certificate S-4196-4 and S-4211-4 to offset the increases in PM10 emissions associated with this project. The above certificate has available quarterly SO_X credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-4196-4	428	318	748	875

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-4211-4	895	877	1,115	1,107

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
Total	1,323	1,195	1,863	1,982

As seen above, the facility has sufficient credits to fully offset the quarterly PM10 emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions*:

- *{GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter – (511/512) lb, 2nd quarter – (511/512) lb, 3rd quarter – (512/512) lb, and fourth quarter – (512/512) lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]*

  *quantities in parentheses are for each unit

- *ERC Certificate Number S-4196-4 and S-4211-4 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]*

CO

CO: 21,748 lb/yr

Notwithstanding the above, Section 4.6.1 of Rule 2201 states that emissions offsets are not required for increases in carbon monoxide in attainment areas provided the applicant demonstrates to the satisfaction of the APCO that the Ambient Air Quality Standards are not violated in the areas to be affected, and such emissions will be consistent with

Reasonable Further Progress, and will not cause or contribute to a violation of Ambient Air Quality Standards. The District performed an Ambient Air Quality Analysis and determined that this project will not result in or contribute to a violation of an Ambient Air Quality Standard for CO (see **Attachment V**). Therefore, CO offsets are not required for this project.

VOC

Applicant has proposed use on an ERC (S-1593-1) with an offset ratio of 1.5:1 (Federal Major Modification).

Offsets Required (lb/year) = ([PE2 – BE] + ICCE) x DOR

PE2 (VOC) = 5,544 lb/year
BE (VOC) = 0 lb/year
ICCE = 0 lb/year

Assuming an offset ratio of 1.5:1, the amount of VOC ERCs that need to be withdrawn is:

Offsets Required (lb/year) = ([5,544] + 0) x 1.5
= 8,316 lb VOC/year (2,079 lb/qtr)

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

1st Quarter	2nd Quarter	3rd Quarter	4th Quarter	Total Annual
2,079	2,079	2,079	2,079	8,316

The applicant has stated that the facility plans to use ERC certificate S-4724-1 to offset the increases in NO_X emissions associated with this project. The above certificate has available quarterly NO_X credits as follows:

	1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
ERC #S-1593-1	3,128	3,163	3,197	3,197

As seen above, the facility has sufficient credits to fully offset the quarterly VOC emissions increases associated with this project.

Proposed Rule 2201 (offset) Conditions*:

- *{GC# 4447 - edited} Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter – (1,039/1,040) lb, 2nd quarter – (1,039/1,040) lb, 3rd quarter – (1,039/1,040) lb, and fourth quarter – (1,039/1,040) lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201]*

  *quantities in parentheses are for each unit

- *ERC Certificate Number S-4724-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201]*

C. Public Notification

1. Applicability

Public noticing is required for:
a. New Major Sources, Federal Major Modifications, and SB 288 Major Modifications,
b. Any new emissions unit with a Potential to Emit greater than 100 pounds during any one day for any one pollutant,
c. Any project which results in the offset thresholds being surpassed,
d. Any project with an SSIPE of greater than 20,000 lb/year for any pollutant, and/or
e. Any project which results in a Title V significant permit modification

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

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

As demonstrated in Sections VII.C.7 and VII.C.8, this project does not constitute an SB 288 or Federal Major Modification; therefore, public noticing for SB 288 or Federal Major Modification purposes is not required.

b. PE > 100 lb/day

Applications which include a new emissions unit with a PE greater than 100 pounds during any one day for any pollutant will trigger public noticing requirements. As seen in Section VII.C.2 above, this project does not include a new emissions unit which has daily emissions greater than 100 lb/day for any pollutant, therefore public noticing for PE > 100 lb/day purposes is not required.

c. Offset Threshold

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

Offset Thresholds				
Pollutant	**SSPE1 (lb/year)**	**SSPE2 (lb/year)**	**Offset Threshold**	**Public Notice Required?**
NO_X	519,613	522,811	20,000 lb/year	No
SO_X	24,142	24,638	54,750 lb/year	No
PM_{10}	61,853	65,265	29,200 lb/year	No
CO	5,369,047	5,390,795	200,000 lb/year	No
VOC	1,095,709	1,101,253	20,000 lb/year	No

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

d. SSIPE > 20,000 lb/year

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

SSIPE Public Notice Thresholds					
Pollutant	**SSPE2 (lb/year)**	**SSPE1 (lb/year)**	**SSIPE (lb/year)**	**SSIPE Public Notice Threshold**	**Public Notice Required?**
NO_x	522,811	519,613	3,198	20,000 lb/year	No
SO_x	24,638	24,142	496	20,000 lb/year	No
PM_{10}	65,265	61,853	3,412	20,000 lb/year	No
CO	5,390,795	5,369,047	21,748	20,000 lb/year	No
VOC	1,101,253	1,095,709	5,544	20,000 lb/year	No

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

e. Title V Significant Permit Modification

As shown in the Discussion of Rule 2520 below, this project does not constitute a Title V significant modification. Therefore, public noticing for Title V significant modifications is not required for this project.

2. Public Notice Action

As discussed above, this project will not result in emissions, for any pollutant, which would subject the project to any of the noticing requirements listed above. Therefore, public notice will not be required for this project.

D. Daily Emission Limits (DELs)

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

Proposed Rule 2201 (DEL) Conditions:

8. *NOx emission concentrations shall not exceed 5 ppm by volume at 15% O2. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1] Y*

9. *VOC emissions concentrations shall not exceed 25 ppmv at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] Y*

10. *CO emission concentrations shall not exceed 56 ppm by volume at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] Y*

11. *Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801] Y*

12. *Emissions from the engine shall neither exceed SOx (as SO2) - 0.00285 lb/1,000 scf of fuel burned, nor PM10 - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201] Y*

E. Compliance Assurance

1. Source Testing

Startup source testing of NOx, CO, and VOC will be required.

District Rule 4701 requires NO_X and CO emission testing not less than once every 24 months.

2. Monitoring

No monitoring is required to demonstrate compliance with Rule 2201.

District Rule 4702 requires periodic monitoring of NOx and CO and the current PTO S-37-101 and proposed ATC include a requirement for monthly monitoring.

14. *The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring.*

Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2520, 9.3.2 & 9.4.2; 4701, 5.4; and 4702, 5.6 and 6.5] Y

15. *If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2; 4701, 5.4; and 4702, 5.6 and 6.5] Y*

16. *All emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken by the portable analyzer shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4 and 4702, 5.6] Y*

3. Recordkeeping

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

22. *The permittee shall maintain records of: (1) total hours of operation; (2) type and quantity of fuel used; (3) maintenance or modifications performed; (4) the date and time of NOx, CO, and O2 measurements; (5) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2; (6) make and model of exhaust gas analyzer; (7) exhaust gas analyzer calibration records; and (8) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.2] Y*

4. Reporting

No reporting is required to demonstrate compliance with Rule 2201.

F. Ambient Air Quality Analysis (AAQA)

An AAQA shall be conducted for the purpose of determining whether a new or modified Stationary Source will cause or make worse a violation of an air quality standard. The AAQA analysis is included in **Attachment V.**

G. Compliance Certification

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

H. Alternate Siting Analysis

The current project occurs at an existing facility. The applicant proposes to authorize an organic liquid transfer operation.

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

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

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

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

Rule 4001 New Source Performance Standards (NSPS)

40 CFR 60 Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines

Spark ignited (SI) engines that are modified or reconstructed after June 12, 2006 are subject to the requirements of the subpart. As stated above, the proposed engines were reconstructed after June 12, 2006. Therefore, the Subpart is applicable.

40 CFR 60.4233(e) requires owners and operators of stationary SI ICE with a maximum engine power greater than or equal to 75 KW (100 HP) (except gasoline and rich burn engines that use LPG) to comply with the emission standards in Table 1 to this subpart for their stationary SI ICE.

CRPC proposes the installation of non-certified SI ICEs equipped with NSCR for compliance with BACT standards, the emission limits in Table 1 of this subpart and with 40 CFR 60.4243(g), including periodic NOx and CO emission monitoring (monthly portable analyzer monitoring) and biennial compliance demonstrations (source testing).

Compliance with the subpart is expected

Rule 2410 Prevention of Significant Deterioration

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

Rule 2520 Federally Mandated Operating Permits

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

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

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

This rule incorporates NESHAPs from Part 61, Chapter I, Subchapter C, Title 40, CFR and the NESHAPs from Part 63, Chapter I, Subchapter C, Title 40, CFR; and applies to all sources of hazardous air pollution listed in 40 CFR Part 61 or 40 CFR Part 63. However, no subparts of 40 CFR Part 61 or 40 CFR Part 63 apply to IC engines.

Rule 4101 Visible Emissions

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

Rule 4102 Nuisance

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

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

California Health & Safety Code 41700 (Health Risk Assessment)

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

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

The cancer risk for this project is shown below:

HRA Summary		
Unit	Cancer Risk	T-BACT Required
S-8282-190 and '-191	0.492 per million	No

Discussion of T-BACT

BACT for toxic emission control (T-BACT) is required if the cancer risk exceeds one in one million. As demonstrated 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; therefore, compliance with the District's Risk Management Policy is expected.

The following special condition is required:

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]

Rule 4201 Particulate Matter Concentration

Particulate matter emissions from the IC engines are required to be less than or equal to the rule limit of 0.1 grain per cubic foot of gas at dry standard conditions. Based on compliance status of IC engine '-101 and no change in emissions factor or fuel, continued compliance is expected.

Rule 4701 Internal Combustion Engines

The purpose of this rule is to limit the emissions of nitrogen oxides (NOx), carbon monoxide (CO), and volatile organic compounds (VOC) from internal combustion engines. Except as provided in Section 4.0, the provisions of this rule apply to any internal combustion engine, rated greater than 25 bhp, which requires a PTO.

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

Rule 4702 Stationary Internal Combustion Engines – Phase 2

The purpose of this Rule is to limit NO_x, CO, and VOC emissions from internal combustion engines rates 25 bhp or greater.

The spark-ignited internal combustion engine is rich-burn and greater than 25 bhp. Therefore, the engine is subject to the requirements of this rule.

Section 5.1 applies to non-agricultural engines rated between 25 and 50 bhp. The engines are rated greater than 50 bhp. Therefore, this section does not apply.

Section 5.2.1 states the operator of a spark-ignited IC engine rated greater than 50 bhp that is used exclusively in non-agricultural operations (AO) shall not operate it in such a manner that results in emissions exceeding the limits in Table 1 for the appropriate engine type until such time that the engine has demonstrated compliance with Table 2 emission limits pursuant to the compliance deadlines in Section 7.5. In lieu of complying with Table 1 emission limits, the operator of a spark-ignited engine shall comply with the applicable emissions limits pursuant to Section 8.0.

The engine will comply with the emission limits specified in Table 2 (discussed below). Since the emissions limits in Table 2 are equal to or more stringent than the emission limits specified in Table 1, compliance with Table 2 emission limits will show compliance with Table 1 emission limits.

Section 5.2.2 states on and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine > 50 bhp that is used in non-AO shall comply with all of the applicable requirements of the rule and one of the following, on an engine-by-engine basis:

5.2.2.1 On and after the compliance schedule specified in Section 7.5, the operator of a spark-ignited engine that is used exclusively in non-AO shall comply with the following requirements on an engine-by-engine basis:

5.2.2.1.1 NOx, CO, and VOC emission limits pursuant to Table 2;
5.2.2.1.2 SOx control requirements of Section 5.7, pursuant to the deadlines specified in Section 7.5; and
5.2.2.1.3 Monitoring requirements of Section 5.10, pursuant to the deadlines specified in Section 7.5.

5.2.2.2, 5.2.2.3 Emissions fee and alternative emission control plan requirements pursuant to Section 8.0 – not applicable.

Per the compliance schedules in Section 7.5, the earliest compliance date for an engine subject to Table 2 emission limits is January 1, 2014. However, the engines already meet the requirements listed in Section 5.2.2.1. Therefore, compliance with Section 5.2.2 and Table 2 emission limits will be shown.

Table 2: Rule 4702 Emission Limits			
Engine Type	NO_x Emission Limit (ppmv @ 15% O_2, dry)	CO Emission Limit (ppmv @ 15% O_2, dry)	VOC Emission Limit (ppmv @ 15% O_2, dry)
Rich-Burn Engine, not listed above	11	2000	250

The proposed emissions are 5 ppmv @3% NOx, 56 ppmv @ 3% CO, and 25 ppmv @ 3% VOCs. Therefore compliance with Table 2 is expected.

Sections 5.2.3, 5.2.4, 5.2.5, and 5.3 apply to spark-ignited AO and CI engines and engines equipped with CEMs. Therefore these sections do not apply.

Sections 5.4 and 5.5 pertain to engines using a percent emission reduction to comply with the NOx emission limits specified in Section 5.2. The ATCs include emissions limits in lb/hr and ppmv @ 15% O_2 and therefore percent emission reduction is not being used. These sections of the rule are not applicable.

Section 5.6 applies to operators who elect to pay an annual fee in lieu of complying with the NOx emission limit requirements of Section 5.2.2.1.1. The engine will comply with the NOx emission limit requirement of Section 5.2.2.1.1. Therefore, this section does not apply.

Section 5.7 states that on and after the compliance schedule specified in Section 7.5, operators of non-AO spark-ignited engines and non-AO compression-ignited engines shall comply with one of the following requirements:

5.7.1 Operate the engine exclusively on PUC-quality natural gas, commercial propane, butane, or liquefied petroleum gas, or a combination of such gases; or
5.7.2 Limit gaseous fuel sulfur content to no more than five (5) grains of total sulfur per one hundred (100) standard cubic feet; or
5.7.3 Use California Reformulated Gasoline for all gasoline-fired spark-ignited engines; or
5.7.4 Use California Reformulated Diesel for all compression-ignited engines; or
5.7.5 Operate the engine on liquid fuel that contains no more than 15 ppm sulfur, as determined by the test method specified in Section 6.4.6; or
5.7.6 Install and properly operate an emission control system that reduces SO2 emissions by at least 95% by weight as determined by the test method specified in Section 6.4.6.

The IC engine will combust gas containing no more than 1 gr S/100scf and therefore meets the requirement of Section 5.7.2, 5 gr S/100 scf.

Alternate for NOx and CO monitoring will be revised from quarterly to monthly to satisfy both the Section 5.8.7 (I&M Program) and Section 5.8.9 (quarterly NOx alternate monitoring) requirements of Rule 4702. The deleted and new condition are as follows:

Permittee shall monitor and record the stack concentration of NOx (as NO2), CO, and O2 at least once every calendar month (in which a source test is not performed) using a portable emission monitor that meets District specifications. Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 4701 and 4702] N

Current PTO conditions meet the compliance demonstration, testing and recordkeeping requirements of the rule.

Continued compliance is expected.

Rule 4801 - Sulfur Compounds

The IC engine will be authorized to combust gas containing no more than 1.0 gr S/100scf. Compliance is expected.

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.

California Environmental Quality Act (CEQA)

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

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

Greenhouse Gas (GHG) Significance Determination

District is a Responsible Agency

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

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

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

District CEQA Findings

The proposed project is located in Kern County and is thus subject to the *Kern County Zoning Ordinance – 2015 (C) Focused on Oil and Gas Local Permitting.* The *Kern County Zoning Ordinance* was developed by the Kern County Planning Agency as a

comprehensive set of goals, objectives, policies, and standards to guide development, expansion, and operation of oil and gas exploration within Kern County.

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

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

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

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

Indemnification Agreement/Letter of Credit Determination

According to District Policy APR 2010 (CEQA Implementation Policy), when the District is the Lead or Responsible Agency for CEQA purposes, an indemnification agreement and/or a letter of credit may be required. The decision to require an indemnity agreement and/or a letter of credit is based on a case-by-case analysis of a particular

project's potential for litigation risk, which in turn may be based on a project's potential to generate public concern, its potential for significant impacts, and the project proponent's ability to pay for the costs of litigation without a letter of credit, among other factors.

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

IX. Recommendation

Compliance with all applicable rules and regulations is expected. Pending a successful NSR Public Noticing period, issue ATC S-8282-190-0 and '-191-0 subject to the permit conditions on the attached draft ATC in **Attachment VIII**.

X. Billing Information

Annual Permit Fees			
Permit Number	Fee Schedule	Fee Description	Annual Fee
S-8282-190 and '-191	3020-10-F	1380 hp	$820.00

Attachments

I: Location Map
II: Emissions Profiles
III: BACT Guideline
IV:BACT Analysis
V: Statewide Compliance Statement and Title V Compliance Certification Form
VI: HRA
VII: Draft ATC

ATTACHMENT I
Location Map

BV NOSE – GATHERING SYSTEM

ATTACHMENT II
Emissions Profiles

Permit #: S-8282-190-0	**Last Updated**
Facility: CALIFORNIA RESOURCES PRODUCTION	02/13/2017 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	1599.0	248.0	1706.0	10874.0	2772.0
Daily Emis. Limit (lb/Day)	4.4	0.7	4.7	29.8	7.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	399.0	62.0	426.0	2718.0	693.0
Q2:	400.0	62.0	426.0	2718.0	693.0
Q3:	400.0	62.0	427.0	2719.0	693.0
Q4:	400.0	62.0	427.0	2719.0	693.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio	1.5		1.2		1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:	599.0		511.0		1039.0
Q2:	599.0		511.0		1039.0
Q3:	600.0		512.0		1039.0
Q4:	600.0		512.0		1039.0

Application Emissions

Permit #: S-8282-191-0	**Last Updated**
Facility: CALIFORNIA RESOURCES PRODUCTION	02/13/2017 EDGEHILR

Equipment Pre-Baselined: NO

	NOX	SOX	PM10	CO	VOC
Potential to Emit (lb/Yr):	1599.0	248.0	1706.0	10874.0	2772.0
Daily Emis. Limit (lb/Day)	4.4	0.7	4.7	29.8	7.6
Quarterly Net Emissions Change (lb/Qtr)					
Q1:	399.0	62.0	426.0	2718.0	693.0
Q2:	400.0	62.0	426.0	2718.0	693.0
Q3:	400.0	62.0	427.0	2719.0	693.0
Q4:	400.0	62.0	427.0	2719.0	693.0
Check if offsets are triggered but exemption applies	N	N	N	N	N
Offset Ratio	1.5		1.2		1.5
Quarterly Offset Amounts (lb/Qtr)					
Q1:	600.0		512.0		1040.0
Q2:	600.0		512.0		1040.0
Q3:	600.0		512.0		1040.0
Q4:	600.0		512.0		1040.0

ATTACHMENT III
BACT Guideline

San Joaquin Valley
Unified Air Pollution Control District

Best Available Control Technology (BACT) Guideline 3.3.12*

Last Update: 3/19/2015

Non-Agricultural Fossil** Fuel-Fired IC Engines > 50 bhp

Pollutant	Achieved in Practice or contained in the SIP	Technologically Feasible	Alternate Basic Equipment
VOC	1. For all compression-ignited engines: Use of an engine meeting the latest Tier standard 2. For all spark-ignited engines: 25 ppmvd @ 15% O2 or 0.15 g/bhp-hr	1. For all compression-ignited engines: 50 percent reduction of latest Tier standard for VOC emissions using a catalytic oxidation system. 2. For rich-burn spark-ignited engines: 12 ppmvd @ 15% O2 or 0.069 g/bhp-hr	Electric Motor (except for engines that will be used to generate electricity)
SOx	Compliance with District Rule 4702 SOx Emission Control Requirements		Electric Motor (except for engines that will be used to generate electricity)
PM10	0.06 g/bhp-hr (Total PM)***		Electric Motor (except for engines that will be used to generate electricity)
NOx	0.07 g/bhp-hr or 5 ppmvd @ 15% O2		1. 2 ppmvd @ 15% O2 Natural Gas-Fired Turbine 2. Electric Motor (except for engines that will be used to generate electricity)
CO	1. For compression-ignited engines > 300 bhp and < or = 500 bhp: 49 ppmvd @ 15% O2 2. For compression-ignited engines > 500 bhp: 23 ppmvd @ 15% O2 3. For four stroke lean burn spark-ignited engines > 500 bhp: 47 ppmvd @ 15% O2 4. For all engines rated > or = 2,064 bhp: 33 pmvd @ 15% O2 5. For all other engines (not included in categroies 1 through 4 above): 56 ppmvd @ 15% O2 or 0.6 g/bhp-hr	For all compression-ignited engines: 12 ppmvd @ 15% O2 using an oxidation catalyst	Electric Motor (except for engines that will be used to generate electricity)

** For the purposes of this determination, fossil fuels includes diesel, gasoline, natural gas, propane, kerosene, and similar hydrocarbon compounds derived from petroleum oil or natural gas. Fossil fuels also include similar synthetic fuels such as biodiesel and/or any fuel containing one or more fossil fuels.

***This total PM10 emission limit is based on EPA Method 5 (front hald and back half) testing, which typically yields results as much as four times higher than when using the ISO 8178 Test Method. The ISO 8178 Test Method only reports filterable (i.e. front half) emissions.

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

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

ATTACHMENT IV
BACT Analysis

BACT Guideline 3.3.12, applies to the Nonagricultural Fossil Fuel Fired IC Engines > 50 hp

NOx Emissions

Step 1 – Identify All Control Technologies

BACT Guideline 3.3.12 lists an emissions limit of 5 ppmv NOx @ 15% O_2 as Achieved-in-Practice BACT. Alternate Basic Equipment is the use of a natural gas-fired turbine with a NOx emission rate of 2 ppmv.

Step 2 – Eliminate Technologically Infeasible Options

The alternate basic equipment option, the use of gas turbines meeting 2 ppmv NOx, was intended for projects with 3 MW of electrical output, or greater. Turbines smaller than 3 MW are typically not capable of meeting a 2 ppmv NOx emission limit. Rather, units smaller than 3 MW typically achieve emission limits that are equivalent to the achieved in practice option of 0.15 g/bhp-hr. Therefore, no NOx emission reductions are expected if the electrical output from the unit is less than 3 MW. The proposed engines will have an electrical output of approximately 1 MW each. Therefore, the gas turbine option is not expected to result in lower emissions and will be eliminated from consideration for this project.

The remaining control technologies from Step 1 are technologically feasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

5 ppmv NOx @ 15% O_2

Step 4 – Cost Effectiveness Analysis

The applicant is proposing the most stringent control technology from Step 3, above. Therefore no cost-effectiveness analysis is required.

Step 5 – Select BACT

BACT for the engines is an emission limit of 5 ppmv NOx @ 15% O_2

PM10 Emissions

Step 1 – Identify All Control Technologies

BACT Guideline 3.3.12 lists an emissions limit of 0.06 g/bhp-hr as Achieved-in-Practice BACT. No other options are listed as Technologically Feasible or Alternate Basic Equipment.

Step 2 – Eliminate Technologically Infeasible Options

All options are technologically feasible and none will be eliminated.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

a) 0.06 g/bhp-hr

Step 4 – Cost Effectiveness Analysis

The applicant is proposing the most stringent control technology from Step 3, above. Therefore no cost-effectiveness analysis is required.

Step 5 – Select BACT

BACT for the engines is an emission limit of 0.06 g/bhp-hr.

CO Emissions

Step 1 – Identify All Control Technologies

BACT Guideline 3.3.12 lists an emissions limit of 56 ppmv @ 15% O2 or 0.6 g/bhp-hr. No other options are listed as Technologically Feasible or Alternate Basic Equipment.

Step 2 – Eliminate Technologically Infeasible Options

All options are technologically feasible and none will be eliminated.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

56 ppmv @ 15% O2 or 0.6 g/bhp-hr

Step 4 – Cost Effectiveness Analysis

The applicant is proposing the most stringent control technology from Step 3, above. Therefore no cost-effectiveness analysis is required.

Step 5 – Select BACT

BACT for the engines is an emission limit of 56 ppmv @ 15% O2 or 0.6 g/bhp-hr

VOC Emissions

Step 1 – Identify All Control Technologies

BACT Guideline 3.3.12 lists an emissions limit of 25 ppmv VOC @ 15% O_2 as Achieved-in-Practice BACT and 12 ppmv @ 15% O2 or 0.069 g/bhp-hr as Technologically Feasible BACT

Step 2 – Eliminate Technologically Infeasible Options

None of the above technologies is technologically infeasible.

Step 3 – Rank Remaining Control Technologies by Control Effectiveness

a) 12 ppmv VOC @ 15% O_2
b) 25 ppmv VOC @ 15% O_2

Step 4 – Cost Effectiveness Analysis

The IC engine manufacturer has stated that, to achieve 100% compliance, N-pentane and N-butane would need to be removed from the fuel gas. To accomplish this an additional gas compressor, a refrigeration skid, instrumentation, PLCs, piping, and mechanical construction would be required. However, to meet the Technologically Feasible BACT, CRC would need to spend approximately $1.3 million on the refrigeration skid and supporting equipment, and an additional $25,000 per year on operational and maintenance costs. Detailed costs are included in the table below.

The annual amount of CO reduced is calculated below.

[(0.106 – 0.069) g/hp/hr x 2 x 1,380 hp x 8760 hr/yr]/(453.6 g/lb x 2000 lb/ton) = 1.0 ton/yr

Based on the capital and operational costs and a reduction of 1 ton/yr, as calculated above, the cost effectiveness of the Technologically Feasible BACT is $ 239,131 per ton which exceeds the District's threshold of $17,500 per ton.

BACT Cost Effectiveness Worksheet

Capital Costs (P) to be financed (supplied by applicar	$1,315,744.06	(1)	Estimated
Interest rate for financing (assume 10%)	0.10	(I)	
time period of financing (assume 10 years)	10	(n)	
annualization factor = $i(1+i)^n$	0.16	(2)	
annualized capital costs [Calculated as (1) X (2)]	$214,131.29	(3)	
annual cost of operation and maintenance	$25,000.00	(4)	
total cost of control technology [(3) + (4)]	$239,131.29	(5)	
tons/year reduced by control technology being analy	1.00	(6)	Difference in VOC from 25 to 12 ppm
cost effectiveness ($/ton) [(5) / (6)]	$239,131.29	(7)	

Pollutant	Cost Effectiveness Threshold
VOC	$ 17,500.00

California Resources Corporation
BV Nose Field Development
10H Gas Dehydration Skid Installation
Class 4 - Cost Estimate

6 Feb 17 — Rev A

	Description	Qty	Unit	Equip /Mat [US$]	Labor [US$]	Total [US$]
1	***ENGINEERING***					$ 91,416.46
	Mechanical & Civil Engineering	1	Lot	$ -	$ 55,094.74	$ 55,094.74
	Electrical & Automation Engineering	1	Lot	$ -	$ 36,321.72	$ 36,321.72
2	***HES & PERMITS***					$ -
	Air Permit	1	EA		$ -	$ -
	GHG & ERCs	1	Lot			$ -
	County Permits	2	EA		$ -	$ -
3	***PROCUREMENT***					$ 602,003.00
	Gas Compressor	2	EA	$ 240,000.00		$ 240,000.00
	Refrigeration Skid	1	EA	$ 250,000.00	$ -	$ 250,000.00
	Instruments	1	Lot	$ 42,000.00	$ -	$ 42,000.00
	PLC	1	EA	$ 30,000.00	$ -	$ 30,000.00
	Bulk Materials - Mechanical	1	Lot	$ 25,000.00	$ 1.00	$ 25,001.00
	Bulk Materials - Electrical	1	Lot	$ 15,000.00	$ 2.00	$ 15,002.00
4	***CONSTRUCTION***					$ 393,270.00
	Set Equipment, Structural & Civil	1	Lot	$ -	$ 60,270.00	$ 60,270.00
	Piping & Mechanical Contruction	1	Lot	$ -	$ 200,900.00	$ 200,900.00
	Electrical Construction	1	Lot	$ -	$ 102,900.00	$ 102,900.00
	Automation & Programming	1	Lot	$ -	$ 29,200.00	$ 29,200.00
5	***COMMISSIONING & START-UP***					$ 25,000.00
	Commissioning & Start-up	1	Lot	$ -	$ 15,000.00	$ 15,000.00
	Vendor Support	1	Lot	$ -	$ 10,000.00	$ 10,000.00
6	***CONTINGENCY (20%)***	1	Lot	$ 120,400.00	$ 83,654.60	$ 204,054.60
	CLASS 4 - TOTAL INSTALLED COST			$ 722,400.00	$ 593,344.06	$ 1,315,744.06
	INSTALL ONLY WITHOUT EQUIPMENT COSTS					$ 713,741.06

Step 5 – Select BACT

BACT for the engines is an emission limit of 25 ppmv VOC @ 15% O_2.

ATTACHMENT V
Statewide Compliance Statement and Title V Compliance Certification

CALIFORNIA
RESOURCES CORPORATION

January 24, 2017

San Joaquin Valley Air Pollution Control District
Attn: Leonard Scandura
Permit Services Manager
34969 Flyover Ct
Bakersfield, CA 93308

Subject: California Resources Production Corporation - Certification of Compliance

Dear Mr. Scandura:

Rule 2201 section 4.15.2 requires that an owner or operator proposing a federal major modification certify that all major stationary sources owned or operated by such person (or by any entity controlling, controlled by, or under common control with such person) in California are either in compliance or an a schedule for compliance with all applicable emission limitations and standards. This letter certifies compliance for California Resources Production Corporation (CRPC) and its affiliates.

CRPC has Notices of Violation outstanding issued by your office. However, all issues associated with the Notices of Violation have been addressed. Affiliated companies of CRPC own interests in or own and/or operate other major stationary sources in California. These major stationary sources are currently in compliance with applicable compliance schedules (if any) and substantially comply with all applicable laws and regulations.

This certification is made on information and belief and is based upon a review of CRPC and affiliated company major stationary sources in the State of California by employees of CRPC and its affiliates who have responsibility for compliance with environmental requirements.

This certification is as of the date of its execution.

Sincerely,

Jim Robinson
VP, HSE

cc: Raymond Rodriguez, Environmental Manager-North CRC

San Joaquin Valley
Unified Air Pollution Control District

TITLE V MODIFICATION - COMPLIANCE CERTIFICATION FORM

I. TYPE OF PERMIT ACTION (Check appropriate box)

[X] SIGNIFICANT PERMIT MODIFICATION
[ ] MINOR PERMIT MODIFICATION
[ ] ADMINISTRATIVE AMENDMENT

COMPANY NAME: California Resources Corporation	FACILITY ID: S- 8282
1. Type of Organization:[X] Corporation [ ] Sole Ownership [ ] Government [ ] Partnership [ ] Utility	
2. Owner's Name:	
3. Agent to the Owner:	

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

(N) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will continue to comply with the applicable federal requirement(s).

(N) Based on information and belief formed after reasonable inquiry, the equipment identified in this application will comply with applicable federal requirement(s) that will become effective during the permit term, on a timely basis.

(N) Corrected information will be provided to the District when I become aware that incorrect or incomplete information has been submitted.

(N) Based on information and belief formed after reasonable inquiry, information and statements in the submitted application package, including all accompanying reports, and required certifications are true, accurate, and complete.

( ) For minor modifications, this application meets the criteria for use of minor permit modification procedures pursuant to District Rule 2520.

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

Signature of Responsible Official

11/14/16
Date

Jim Robinson
Name of Responsible Official (please print)

VP, HSE
Title of Responsible Official (please print)

ATTACHMENT VI
HRA AND AAQA

San Joaquin Valley Air Pollution Control District
Risk Management Review

To:	Steve Roeder, AQE – Permit Services
From:	Stephanie Pellegrini, AQS – Technical Services
Date:	November 18, 2016
Facility Name:	CRPC – Elk Hills
Location:	10H Well Pad – Section 10, T32S, R25E
Application #(s):	S-8282-190-0 & 191-0
Project #:	S-1163552

A. RMR SUMMARY

RMR Summary				
Categories	**Field Gas ICE (Unit 190-0)**	**Field Gas ICE (Unit 191-0)**	**Project Totals**	**Facility Totals[1]**
Prioritization Score	0.17	0.17	0.34	>1.0
Acute Hazard Index	0.00	0.00	0.01	0.87
Chronic Hazard Index	0.00	0.00	0.00	0.04
Maximum Individual Cancer Risk	2.45E-07	2.46E-07	4.92E-07	1.99E-05
T-BACT Required?	**No**	**No**		
Special Permit Requirements?	**Yes**	**Yes**		

[1]Facility Totals represent the total maximum risk scores for all California Resources stationary sources (containing S-382, S-1216, S-1738, S-8454, and S-8282).

Proposed Permit Requirements

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

Unit # 190-0 & 191-0

1. 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.

B. RMR REPORT

I. Project Description

Technical Services received a request on November 10, 2016, to perform an Ambient Air Quality Analysis and a Risk Management Review for the proposed installation of two 1,380 bhp field-gas fired IC engines.

II. Analysis

Toxic emissions for the Field Gas-Fired Internal Combustion 4-Stroke Rich Burn Engines were calculated using emission factors based on source tests conducted in 1998 by the American Petroleum Institute and Western States Petroleum Association, and input into the San Joaquin Valley APCD's Hazard Assessment and Reporting Program (SHARP). In accordance with the District's Risk Management Policy for Permitting New and Modified Sources (APR 1905, May 28, 2015), risks from the proposed unit's toxic emissions were prioritized using the procedure in the 1990 CAPCOA Facility Prioritization Guidelines. The prioritization score for this proposed facility was greater than 1.0 (see RMR Summary Table). Therefore, a refined health risk assessment was required. The AERMOD model was used, with the parameters outlined below and meteorological data for 2004-2008 from Missouri Triangle to determine the dispersion factors (i.e., the predicted concentration or X divided by the normalized source strength or Q) for a receptor grid. These dispersion factors were input into the SHARP Program, which then used the Air Dispersion Modeling and Risk Tool (ADMRT) of the Hot Spots Analysis and Reporting Program Version 2 (HARP 2) to calculate the chronic and acute hazard indices and the carcinogenic risk for the project.

The following parameters were used for the review:

Analysis Parameters Units 190-0 & 191-0[1]			
Source Type	Point	**Location Type**	Rural
Stack Height (m)	3.66	**Closest Receptor (m)**	4,400
Stack Diameter (m)	0.35	**Type of Receptor**	Business
Stack Exit Velocity (m/s)	21.5	**Max Hours per Year**	8,760
Stack Exit Temp. (°K)	910	**Fuel Type**	Field Gas
Fuel Usage (mmscf/hr)	0.0072	**Fuel Usage (mmscf/yr)**	63.07

[1] Parameters listed are for each engine.

Technical Services performed modeling for criteria pollutants CO, NO_x, SO_x, and PM10 with the emission rates below:

Unit #	**NO_x (Lbs.)**		**SO_x (Lbs.)**		**CO (Lbs.)**		**PM_{10} (Lbs.)**	
	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.	Hr.	Yr.
190-0	0.2	1,864	0.02	146	1.8	15,976	0.2	1,598
191-0	0.2	1,864	0.02	146	1.8	15,976	0.2	1,598

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_x	Pass[1]	X	X	X	Pass
SO_x	Pass	Pass	X	Pass	Pass
PM_{10}	X	X	X	Pass[2]	Pass[2]
$PM_{2.5}$	X	X	X	Pass[2]	Pass[2]

*Results were taken from the attached PSD spreadsheet.
[1]The project was compared to the 1-hour NO2 National Ambient Air Quality Standard that became effective on April 12, 2010 using the District's approved procedures.
[2]The criteria pollutants are below EPA's level of significance as found in 40 CFR Part 51.165 (b)(2).

III. Conclusion

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

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

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

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

IV. Attachments

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

ATTACHMENT VII
Draft ATC

San Joaquin Valley
Air Pollution Control District

AUTHORITY TO CONSTRUCT

DRAFT

PERMIT NO: S-8282-190-0 **ISSUANCE DATE:** DRAFT

LEGAL OWNER OR OPERATOR: CALIFORNIA RESOURCES PRODUCTION CORP.
MAILING ADDRESS: 11109 RIVER RUN BLVD
BAKERSFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: NW 10 **TOWNSHIP:** 32S **RANGE:** R25E

EQUIPMENT DESCRIPTION:
1380 HP FIELD GAS-FIRED WAUKESHA MODEL L5794GSI (OR EQ) WITH A THREE-WAY CATALYST POWERING AN ELECTRICAL GENERATOR

CONDITIONS

1. {1830} This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. {1831} Prior to operating with modifications authorized by this Authority to Construct, the facility shall submit an application to modify the Title V permit with an administrative amendment in accordance with District Rule 2520 Section 5.3.4. [District Rule 2520, 5.3.4] Federally Enforceable Through Title V Permit
3. Prior to operating equipment under this Authority to Construct, permittee shall surrender NOx emission reduction credits for the following quantity of emissions: 1st quarter - 599 lb, 2nd quarter - 599 lb, 3rd quarter - 599 lb, and fourth quarter - 600 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Number S-4704-2 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

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

DRAFT

Arnaud Marjollet, Director of Permit Services
S-8282-190-0 : Feb 14 2017 11:32AM – EDGEHILR : Joint Inspection Required with EDGEHILR

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender PM10 emission reduction credits for the following quantity of emissions: 1st quarter - 511 lb, 2nd quarter - 511 lb, 3rd quarter - 512 lb, and fourth quarter - 512 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

6. ERC Certificate Number S-4196-4 and S-4211-4 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

7. Prior to operating equipment under this Authority to Construct, permittee shall surrender VOC emission reduction credits for the following quantity of emissions: 1st quarter - 1039 lb, 2nd quarter - 1039 lb, 3rd quarter - 1039 lb, and fourth quarter - 1039 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit

8. ERC Certificate Number S-4724-1 (or a certificate split from this certificate) shall be used to supply the required offsets, unless a revised offsetting proposal is received and approved by the District, upon which this Authority to Construct shall be reissued, administratively specifying the new offsetting proposal. Original public noticing requirements, if any, shall be duplicated prior to reissuance of this Authority to Construct. [District Rule 2201] Federally Enforceable Through Title V Permit

9. The exhaust stack shall vent vertically upward. The vertical exhaust flow shall not be impeded by a rain cap (flapper ok), roof overhang, or any other obstruction. [District Rule 4102]

10. {2414} Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201, 3.1] Federally Enforceable Through Title V Permit

11. California Resources Production Company shall operate and maintain the air fuel ratio (AFR) controller appropriately in order to ensure proper operation of the engine and control device to minimize emissions at all times. [NSPS Subpart JJJJ and District Rule 2201] Federally Enforceable Through Title V Permit

12. NOx emission concentrations shall not exceed 5 ppm by volume at 15% O2. [District Rule 2201, District Rule 4701, 5.1; and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

13. VOC emissions concentrations shall not exceed 25 ppmv at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

14. CO emission concentrations shall not exceed 56 ppm by volume at 15% O2. [District Rule 2201; District Rule 4701, 5.1; and District Rule 4702, 5.1] Federally Enforceable Through Title V Permit

15. Unit shall be fired only on natural gas with a sulfur content of less than or equal to 1.0 grains per 100 dry standard cubic feet of fuel gas. [District Rule 2201 and District Rule 4801] Federally Enforceable Through Title V Permit

16. Emissions from the engine shall neither exceed SOx (as SO2) - 0.00285 lb/1,000 scf of fuel burned, nor PM10 - 0.019 lb/1,000 scf of fuel burned. [District Rule 2201] Federally Enforceable Through Title V Permit

17. The permittee shall monitor and record the stack concentration of NOx, CO, and O2 at least once every month (in which a source test is not performed) using a portable emission monitor that meets District specifications. [In-stack O2 monitors may be allowed if approved by the APCO.] Monitoring shall not be required if the engine is not in operation, i.e. the engine need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the engine unless monitoring has been performed within the last month. Records must be maintained of the dates of non-operation to validate extended monitoring frequencies. [District Rules 2520, 9.3.2 & 9.4.2; 4701, 5.4; and 4702, 5.6 and 6.5] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

18. If either the NOx or CO concentrations corrected to 15% O2, as measured by the portable analyzer, exceed the allowable emission concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 8 hours after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 8 hours, the permittee shall notify the District within the following 1 hour, and conduct a certified source test within 60 days of the first exceedance. In lieu of conducting a source test, the permittee may stipulate a violation has occurred, subject to enforcement action. The permittee must then correct the violation, show compliance has been re-established, and resume monitoring procedures. If the deviations are the result of a qualifying breakdown condition pursuant to Rule 1100, the permittee may fully comply with Rule 1100 in lieu of the performing the notification and testing required by this condition. [District Rules 2520, 9.3.2; 4701, 5.4; and 4702, 5.6 and 6.5] Federally Enforceable Through Title V Permit

19. All emission readings shall be taken with the unit operating either at conditions representative of normal operations or conditions specified in the permit-to-operate. The analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. Emission readings taken by the portable analyzer shall be averaged over a 15 consecutive-minute period by either taking a cumulative 15 consecutive-minute sample reading or by taking at least five (5) readings, evenly spaced out over the 15 consecutive-minute period. [District Rules 4701, 5.4 and 4702, 5.6] Federally Enforceable Through Title V Permit

20. NOx, CO, and VOC emissions shall be measured (source tested) within 60 days of startup and not less than once every 24 months thereafter. [District Rules 4701, 6.3.1 and 4702, 6.3.1] Federally Enforceable Through Title V Permit

21. The following test methods shall be used: NOx (ppmv) - EPA Method 7E or ARB Method 100, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, and VOC (ppmv) - EPA Method 25 or EPA Method 18 referenced as methane. [District Rules 1081; 4701, 6.4; and 4702, 6.4] Federally Enforceable Through Title V Permit

22. Source testing shall be conducted using the methods and procedures approved by the District. The District must be notified at least 30 days prior to any compliance source test, and a source test plan must be submitted for approval at least 15 days prior to testing. [District Rule 1081] Federally Enforceable Through Title V Permit

23. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081] Federally Enforceable Through Title V Permit

24. If the engine is fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the permittee shall maintain on file copies of all natural gas bills and supplier certifications for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

25. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, then the sulfur content of the natural gas being fired in the engine shall be determined using ASTM method D 1072, D 3031, D 4084 or D 3246. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

26. If the engine is not fired on natural gas certified by the supplier to have a sulfur content of 1.0 grains per 100 dscf or less, the sulfur content of each fuel source shall be tested weekly except that if compliance with the fuel sulfur content limit has been demonstrated for 8 consecutive weeks for a fuel source, then the testing frequency shall be quarterly. If a test shows noncompliance with the sulfur content requirement, the source must return to weekly testing until eight consecutive weeks show compliance. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

27. Permittee shall maintain accurate records of fuel gas BTU content, and daily records of volume and sulfur content of gas burned. [District Rule 1070] Federally Enforceable Through Title V Permit

28. The portable analyzer shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and recommendations or a protocol approved by the APCO. [District Rule 2520, 9.3.2 and 4702] Federally Enforceable Through Title V Permit

29. The permittee shall maintain records of: (1) total hours of operation; (2) type and quantity of fuel used; (3) maintenance or modifications performed; (4) the date and time of NOx, CO, and O2 measurements; (5) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 15% O2; (6) make and model of exhaust gas analyzer; (7) exhaust gas analyzer calibration records; and (8) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4701, 6.2 and 4702, 6.2] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

30. The permittee shall install and operate a nonresettable fuel meter and a nonresettable elapsed operating time meter. In lieu of installing a nonresettable fuel meter, the owner or operator may use a non-resettable elapsed operating time meter in conjunction with the engine manufacturer's maximum rated fuel consumption to determine annual fuel usage. The owner or operator shall maintain the required meters in proper operating condition. [District Rule 4702, 5.6.6] Federally Enforceable Through Title V Permit

31. The Permittee shall begin the daily recording of the inlet temperature to the catalyst bed by June 26, 2012 in order to ensure compliance with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM). [District Rule 2520, 9.4.2 and 40 CFR 64] Federally Enforceable Through Title V Permit