



MAY 04 2016

Mr. Juan Campos
California Resources Elk Hills, LLC
PO Box 1001
Tupman, CA 93276

**Re: Final - Authority to Construct / Certificate of Conformity (Significant Mod)
District Facility # S-382
Project # 1150872**

Dear Mr. Campos:

The Air Pollution Control Officer has issued an Authority to Construct (S-382-74-4) with a Certificate of Conformity to California Resources Elk Hills, LLC in western Kern County. The application is for a flare modification. Enclosed are the Authority to Construct and a copy of the notice of final action to be published approximately three days from the date of this letter.

Notice of the District's preliminary decision to issue the Authority to Construct permit was published on 2/4/16. The District's analysis of the proposal was also sent to CARB and US EPA Region IX on 2/1/16. No comments were received following the District's preliminary decision on this project.

Prior to operating with the modifications authorized by the Authority to Construct, you must submit an application to modify the Title V permit as an administrative amendment in accordance with District Rule 2520, Section 11.5. Application forms have been enclosed for your use. These forms may also be found on the District's website at www.valleyair.org.

Seyed Sadredin
Executive Director/Air Pollution Control Officer

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

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

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

Mr. Campos
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Thank you for your cooperation in this matter. If you have any questions, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500.

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



AUTHORITY TO CONSTRUCT

PERMIT NO: S-382-74-4

ISSUANCE DATE: 04/11/2016

LEGAL OWNER OR OPERATOR: CALIFORNIA RESOURCES ELK HILLS, LLC
MAILING ADDRESS: 11109 RIVER RUN BLVD
BAKESFIELD, CA 93311

LOCATION: LIGHT OIL WESTERN STATIONARY SOURCE
KERN COUNTY, CA

SECTION: 35 **TOWNSHIP:** 30S **RANGE:** 23E

EQUIPMENT DESCRIPTION:

MODIFICATION OF 535.5 MMBTU/HR EMERGENCY FLARE INCLUDING KNOCKOUT DRUM CAPABLE OF RECEIVING VENT GAS FROM HPI AND 35R GAS PLANT, SARASOTA AUTOMATION MODEL FM771 CONTINUOUS RECORDING FLOWMETER, INLET GAS NOZZLE, FLARE STACK RISER, AND FLARE TIP: AUTHORIZE FLARE FOR NON-EMERGENCY SERVICE

CONDITIONS

1. This Authority to Construct serves as a written certificate of conformity with the procedural requirements of 40 CFR 70.7 and 70.8 and with the compliance requirements of 40 CFR 70.6(c). [District Rule 2201] Federally Enforceable Through Title V Permit
2. 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 - 5362 lb, 2nd quarter - 5362 lb, 3rd quarter - 5362 lb, and fourth quarter - 5363 lb. These amounts include the applicable offset ratio specified in Rule 2201 Section 4.8 (as amended 4/21/11) for the ERC specified below. [District Rule 2201] Federally Enforceable Through Title V Permit
4. ERC Certificate Numbers S-4211-2, S-4390-2 and S-4468-2 (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



Arnaud Marjollet, Director of Permit Services

S-382-74-4 : Apr 11 2016 12:52PM - TORID : Joint Inspection NOT Required

5. Prior to operating equipment under this Authority to Construct, permittee shall surrender SOX emission reduction credits for the following quantity of PM10 emissions: 1st quarter - 607 lb, 2nd quarter - 607 lb, 3rd quarter - 608 lb, and fourth quarter - 608 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 Numbers N-1280-5 and S-3823-5 (or a certificate split from this certificate) shall be used to supply the required PM10 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] 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 - 4417 lb, 2nd quarter - 4417 lb, 3rd quarter - 4417 lb, and fourth quarter - 4418 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-4211-1 (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. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of vent gas combusted in the flare shall be installed, utilized and maintained [District Rules 2201 and 4311] Federally Enforceable Through Title V Permit
10. A non-resettable, totalizing mass or volumetric fuel flow meter to measure the amount of pilot gas combusted shall be installed, utilized and maintained [District Rule 2201] Federally Enforceable Through Title V Permit
11. Operation shall include gas riser, flare pilot, 20 hp (minimum) primary combustion air blower, 112 hp (minimum) secondary combustion air blower, and main air inlet nozzle and air duct. [District Rule 2201] Federally Enforceable Through Title V Permit
12. Primary combustion air fan shall be capable of delivering at least 20,000 cfm @ 5 inches static pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
13. Secondary combustion air fan shall be capable of delivering at least 100,000 cfm @ 4.5 inches static pressure. [District Rule 2201] Federally Enforceable Through Title V Permit
14. Flare shall incinerate gases from HPI and 35R gas plant facility only. [District Rule 2201] Federally Enforceable Through Title V Permit
15. Vent gas heat input shall not exceed 10,300 MMBtu/day nor 185,400 MMBtu/year. [District Rule 2201] Federally Enforceable Through Title V Permit
16. Pilot gas heat input shall not exceed 50 MMBtu/day or 18,000 MMBtu/year. [District Rule 2201] Federally Enforceable Through Title V Permit
17. Vent gas emission rates from this unit shall not exceed any of the following limits: NO_x - 0.068 lb/MMBtu; VOC - 0.063 lb/MMBtu; CO - 0.37 lb/MMBtu; PM10 - 0.008 lb/MMBtu; or SO_x - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
18. Pilot emission rates from this unit shall not exceed any of the following limits: NO_x - 0.0094 lb/MMBtu; VOC - 0.0055 lb/MMBtu; CO - 0.04 lb/MMBtu; PM10 - 0.076 lb/MMBtu; or SO_x - 0.00285 lb/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
19. This flare shall be inspected every two weeks while in operation for visible emissions. If visible emissions are observed, corrective action shall be taken. If visible emissions continue, an EPA Method 9 test shall be conducted within 72 hours. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
20. The flame shall be present at all times when combustible gases are vented through the flare. [District Rule 4311, 5.2] Federally Enforceable Through Title V Permit

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21. The outlet shall be equipped with an automatic ignition system, or, shall operate with a pilot flame present at all times when combustible gases are vented through the flare, except during purge periods for automatic-ignition equipped flares. [District Rule 4311, 5.3] Federally Enforceable Through Title V Permit
22. Except for flares equipped with a flow-sensing ignition system, a heat sensing device such as a thermocouple, ultraviolet beam sensor, infrared sensor, or an equivalent device, capable of continuously detecting at least one pilot flame or the flare flame is present shall be installed and operated. [District Rule 4311, 5.4] Federally Enforceable Through Title V Permit
23. Flares that use flow-sensing automatic ignition systems and which do not use a continuous flame pilot shall use purge gas for purging. [District Rule 4311, 5.5] Federally Enforceable Through Title V Permit
24. Open flares in which the flare gas pressure is less than 5 psig shall be operated in such a manner that meets the provisions of 40 CFR 60.18. [District Rule 4311]
25. Flaring is prohibited unless it is consistent with an approved flare minimization plan (FMP), and all commitments listed in that plan have been met. This standard shall not apply if the APCO determines that the flaring is caused by an emergency and is necessary to prevent an accident, hazard or release of vent gas directly to the atmosphere. [District Rule 4311, 5.8] Federally Enforceable Through Title V Permit
26. Operators subject to vent gas composition monitoring requirements shall use the following test methods as appropriate, or by an alternative method approved by the APCO, ARB and EPA: Total hydrocarbon content and methane content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, EPA Method 18, or EPA Method 25A or 25B. Hydrogen sulfide content of vent gas shall be determined using ASTM Method D 1945-96, ASTM Method UOP 539-97, ASTM Method D 4084-94, or ASTM Method D 4810-88. [District Rule 4311] Federally Enforceable Through Title V Permit
27. If vent gas composition is monitored with a continuous analyzer employing gas chromatography the minimum sampling frequency shall be one sample every 30 minutes. If vent gas composition is monitored using continuous analyzers not employing gas chromatography, the total reduced sulfur content of vent gas shall be determined by using EPA Method D4468-85. [District Rule]
28. Vent gas flow shall be determined using one or more of the following methods, or by any alternative method approved by the APCO, ARB, and EPA: 1) EPA Methods 1 and 2; 2) A verification method recommended by the manufacturer of the flow monitoring equipment installed; 3) Tracer gas dilution or velocity; or 4) Other flow monitors or process monitors that can provide comparison data on a vent stream that is being directed past the ultrasonic flow meter. [District Rule]

CONDITIONS CONTINUE ON NEXT PAGE

29. The operator shall monitor vent gas composition using one of the following five methods as appropriate. If flares share a common header, a sample from the header will be deemed representative of vent gas composition for all flares served by the header. The operator shall provide the APCO with access to the monitoring system to collect vent gas samples to verify the analysis. 1) Sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15-minute period continuously exceeds 330 standard cubic feet per minute (SCFM), a sample shall be taken within 15 minutes. The sampling frequency thereafter shall be one sample every three hours and shall continue until the flow rate of vent gas flared in any consecutive 15-minute period is continuously 330 SCFM or less. In no case shall a sample be required more frequently than once every 3 hours. (b) Samples shall be analyzed using approved test methods; or 2) Integrated sampling that meets the following requirements: (a) If the flow rate of vent gas flared in any consecutive 15 minute period continuously exceeds 330 SCFM, integrated sampling shall begin within 15 minutes and shall continue until the flow rate of vent gas flared in any consecutive 15 minute period is continuously 330 SCFM or less. (b) Integrated sampling shall consist of a minimum of one aliquot for each 15-minute period until the sample container is full. If sampling is still required pursuant to part (a), a new sample container shall be placed in service within one hour after the previous sample was filled. A sample container shall not be used for a sampling period that exceeds 24 hours. (c) Samples shall be analyzed using approved test methods; or 3) Continuous analyzers that meet the following requirements: (a) The analyzers shall continuously monitor for total hydrocarbon methane, and depending upon the analytical method used pursuant to Section 6.3.4, hydrogen sulfide or total reduced sulfur. (b) The hydrocarbon analyzer shall have a full-scale range of 100% total hydrocarbon. (c) Each analyzer shall be maintained to be accurate to within 20% when compared to any field accuracy tests or to within 5% of full scale; or 4) Continuous analyzers employing gas chromatography that meet the following requirements: (a) The gas chromatography system shall monitor for total hydrocarbon, methane, and hydrogen sulfide. (b) The gas chromatography system shall be maintained to be accurate within 5% of full scale; or 5) Monitor sulfur content using a colorimetric tube system on a daily basis, and monitor vent gas hydrocarbon on a weekly basis by collecting samples and having them tested using approved test methods. [District Rule 4311]
30. Permittee shall monitor the volumetric flows of purge and pilot gases with flow measuring devices or other parameters as specified on the Permit to Operate so that volumetric flows of pilot and purge gas may be calculated based on pilot design and the parameters monitored. [District Rule 4311]
31. The operator of a flare with a water seal shall monitor and record the water level and pressure of the water seal daily or as specified on the Permit to Operate. [District Rule 4311]
32. To show compliance with sulfur emission limits, the gas being flared shall be tested weekly for sulfur content and higher heating value. If compliance with the fuel sulfur content limit and sulfur emission limits has been demonstrated for 8 consecutive weeks for the flared gas, then the compliance testing frequency shall be semi-annually. If a semi-annual sulfur content test fails to show compliance, weekly testing shall resume. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
33. The sulfur content of the gas being flared shall be determined using ASTM D 1072-80, D 3031-81, D 4084-82, D 3246-81 or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
34. The fuel higher heating value for the gases being flared shall be certified by third party fuel supplier or determined by ASTM D 1826-88 or D 1945-81 in conjunction with ASTM D 3588-89. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
35. Permittee shall keep accurate daily records of flare vent gas and pilot gas volumes and sulfur content of flared gas and such records shall be retained for a period of 5 years and be made readily available for District inspection upon request. [District Rule 2201]
36. This flare shall not be used as a leak control device as described in Rule 4409, 5.3.5 (adopted April 20, 2005), nor as a control device for any permit unit subject to NSPS, without modification of permit requirements to address 40 CFR 60.18. [District Rule 2520, 9.4.3] Federally Enforceable Through Title V Permit
37. The permittee shall maintain records of the duration of flare operation, amount of gas flared, the nature of the emergency situation and any corrective action take to rectify the process upset or breakdown that necessitated the use of the flare. [District Rules 2520, 9.3.2 and 4311, 6.1] Federally Enforceable Through Title V Permit

CONDITIONS CONTINUE ON NEXT PAGE

38. The permittee shall maintain, and make available for District inspection, all records of required monitoring data and support information for the flare for inspection at any time for a period of five years. [District Rule 2520, 9.4.2 and District Rule 4311, 6.1] Federally Enforceable Through Title V Permit
39. All records shall be maintained and retained on-site for a period of at least 5 years and shall be made available for District inspection upon request. [District Rule 1070]