



**AUG 21 2012**

Brad Califf  
Longbow, LLC  
1701 Westwind Drive, Suite 126  
Bakersfield, CA 93301

**RE: Notice of Final Action - Authority to Construct  
Project Number: S-1121574**

Dear Mr. Califf:

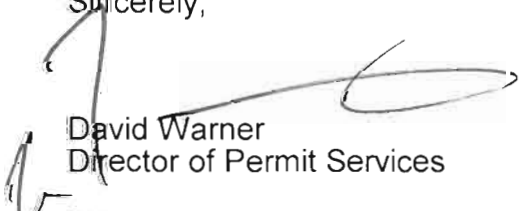
The Air Pollution Control Officer has issued Authority to Construct permits to Longbow, LLC for an increase in CO emissions limit for steam generator S-4080-27, at Sections 28 and 32, T12N, R18W in Longbow's heavy oil production stationary source in the central Kern County fields.

Enclosed are copies of the Authority to Construct permits 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 this Authority to Construct was published on July 11, 2012. The District's analysis of the proposal was also sent to CARB on July 5, 2012. No comments were received following the District's preliminary decision on this project.

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

Sincerely,



David Warner  
Director of Permit Services

DW: RUE/cm

Enclosures

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

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**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



**AUG 21 2012**

Mike Tollstrup, Chief  
Project Assessment Branch  
Stationary Source Division  
California Air Resources Board  
PO Box 2815  
Sacramento, CA 95812-2815

**RE: Notice of Final Action - Authority to Construct**  
**Project Number: S-1121574**

Dear Mr. Tollstrup:

The Air Pollution Control Officer has issued Authority to Construct permits to Longbow, LLC for an increase in CO emissions limit for steam generator S-4080-27, at Sections 28 and 32, T12N, R18W in Longbow's heavy oil production stationary source in the central Kern County fields.

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Bakersfield Californian

**NOTICE OF FINAL ACTION  
FOR THE ISSUANCE OF AUTHORITY  
TO CONSTRUCT PERMITS**

NOTICE IS HEREBY GIVEN that the Air Pollution Control Officer has issued Authority to Construct permits to Longbow, LLC for an increase in CO emissions limit for steam generator S-4080-27, at Sections 28 and 32, T12N, R18W in Longbow's heavy oil production stationary source in the central Kern County fields.

No comments were received following the District's preliminary decision on this project.

The application review for Project #S-1121574 is available for public inspection at [http://www.valleyair.org/notices/public\\_notices\\_idx.htm](http://www.valleyair.org/notices/public_notices_idx.htm) and the **SAN JOAQUIN VALLEY UNIFIED AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.**



## AUTHORITY TO CONSTRUCT

PERMIT NO: S-4080-27-1

ISSUANCE DATE: 08/17/2012

**LEGAL OWNER OR OPERATOR:** LONGBOW, LLC.  
**MAILING ADDRESS:** 1701 WESTWIND DRIVE, SUITE 126  
BAKERSFIELD, CA 93301

**LOCATION:** HEAVY OIL CENTRAL  
SE S 35, T27S, R27E

**EQUIPMENT DESCRIPTION:**  
MODIFICATION OF 27.5 MMBTU/HR NATURAL GAS-FIRED STEAM GENERATOR WITH GIDEON ULTRA LOW NOX BURNER MODEL MGW-25R1 AND FGR: INCREASE CO LIMIT FROM 100 PPMV @ 3% O<sub>2</sub> TO 200 PPMV @ 3% O<sub>2</sub>

### CONDITIONS

1. After the initial source test for Rule 4320, the permittee shall notify the District at least seven calendar days prior to the designation of this permit unit as a dormant emissions unit or an active emissions unit. [District Rule 1070]
2. After the initial source test for Rule 4320, when designated as a dormant emissions unit the fuel supply line shall be physically disconnected from the emissions unit. [District Rule 2080]
3. After the initial source test for Rule 4320, when designated as a dormant emissions unit, the permittee shall not be required to perform source testing, fuel sulfur content certification, and monitoring requirements. [District Rules 2201 and 4320]
4. Source testing to measure NOx and CO emissions from this unit while fired on natural gas shall be conducted within 60 days of initial start-up. [District Rules 2201, 4305, 4306 and 4320]
5. Permittee's crude oil production shall average less than 6,000 bbl/day from all operations within Kern County and permittee shall not engage in refining, transporting, or marketing of refined petroleum products. [District Rule 4623]
6. The permittee shall not emit more than 12.5 tons of VOC facility wide based on a 12-month summary of actual emissions. [District Rule 2530, 6.1]
7. Steam generator shall operate only in Sections 28 and 32, T12N, R18W. [District Rule 4102]
8. All equipment shall be maintained in good operating condition and shall be operated in a manner to minimize emissions of air contaminants into the atmosphere. [District Rule 2201]

CONDITIONS CONTINUE ON NEXT PAGE

**YOU MUST NOTIFY THE DISTRICT COMPLIANCE DIVISION AT (661) 392-5500 WHEN CONSTRUCTION IS COMPLETED AND PRIOR TO OPERATING THE EQUIPMENT OR MODIFICATIONS AUTHORIZED BY THIS AUTHORITY TO CONSTRUCT.** This is NOT a PERMIT TO OPERATE. Approval or denial of a PERMIT TO OPERATE will be made after an inspection to verify that the equipment has been constructed in accordance with the approved plans, specifications and conditions of this Authority to Construct, and to determine if the equipment can be operated in compliance with all Rules and Regulations of the San Joaquin Valley Unified Air Pollution Control District. Unless construction has commenced pursuant to Rule 2050, this Authority to Construct shall expire and application shall be cancelled two years from the date of issuance. The applicant is responsible for complying with all laws, ordinances and regulations of all other governmental agencies which may pertain to the above equipment.

Seyed Sadredin, Executive Director / APCO

DAVID WARNER, Director of Permit Services

S-4080-27-1: Aug 17 2012 11:27AM - EDGHEHLR : Joint Inspection NOT Required

9. No air contaminant shall be released into the atmosphere that causes a public nuisance. [District Rule 4102]
10. No air contaminant shall be discharged into the atmosphere for a period or periods aggregating more than three minutes in any one hour which is as dark as, or darker than, Ringelmann 1 or 20% opacity. [District Rule 4101]
11. Particulate matter emissions shall not exceed 0.1 grains/dscf in concentration. [District Rule 4201]
12. The unit shall only be fired on PUC-quality natural gas with a sulfur content not exceeding 1.0 gr S/100 scf, [District Rules 2201 and 4320]
13. This steam generator is not authorized to incinerate casing gas. [District Rules 2201 and 4320]
14. Permittee shall submit an analysis showing the fuel's sulfur content at least once every year. Valid purchase contracts, supplier certifications, tariff sheets, or transportation contracts may be used to satisfy this requirement, provided they establish the fuel parameters mentioned above. [District Rule 4320]
15. If fuel analysis is used to demonstrate compliance with the conditions of this permit, the fuel higher heating value for each fuel shall be certified by third party fuel supplier or determined by ASTM D 1826 or D 1945 in conjunction with ASTM D 3588 for gaseous fuels. [District Rule 4320]
16. Duration of startup shall not exceed two hours each per occurrence. [District Rules 2201 and 4320]
17. Permittee shall maintain records of duration of each start-up and shutdown that exceeds two hours for a period of five years and make such records readily available for District inspection upon request. [District Rules 2201 and 4320]
18. Emissions shall not exceed any of the following limits: 7 ppmvd NO<sub>x</sub> @ 3% O<sub>2</sub>, 0.0076 lb-PM<sub>10</sub>/MMBtu, 200 ppmvd CO @ 3% O<sub>2</sub> or 0.148 lb-CO/MMBtu, or 0.0055 lb-VOC/MMBtu. [District Rules 2201 and 4320]
19. The permittee shall monitor and record the stack concentration of NO<sub>x</sub>, CO, and O<sub>2</sub> at least once every month (in which a source test is not performed) using a portable analyzer that meets District specifications. Monitoring shall not be required if the unit is not in operation, i.e. the unit need not be started solely to perform monitoring. Monitoring shall be performed within 5 days of restarting the unit unless monitoring has been performed within the last month. [District Rules 4305, 4306, and 4320]
20. If either the NO<sub>x</sub> or CO concentrations corrected to 3% O<sub>2</sub>, as measured by the portable analyzer, exceed the allowable emissions concentration, the permittee shall return the emissions to within the acceptable range as soon as possible, but no longer than 1 hour of operation after detection. If the portable analyzer readings continue to exceed the allowable emissions concentration after 1 hour of operation after detection, 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 performing the notification and testing required by this condition. [District Rules 4305, 4306, and 4320]
21. All alternate monitoring parameter 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 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 4305, 4306, and 4320]
22. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent by volume and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 4305, 4306, and 4320]
23. All emissions measurements shall be made with the unit operating either at conditions representative of normal operations or conditions specified in the Permit to Operate. No determination of compliance shall be established within two hours after a continuous period in which fuel flow to the unit is shut off for 30 minutes or longer, or within 30 minutes after a re-ignition as defined in Section 3.0 of District Rule 4306. [District Rules 2201, 4305, 4306, and 4320]

CONDITIONS CONTINUE ON NEXT PAGE

24. Source testing to measure NO<sub>x</sub> and CO emissions from this unit shall be conducted at least once every twelve (12) months. After demonstrating compliance on two (2) consecutive annual source tests, the unit shall be tested not less than once every thirty-six (36) months. If the result of the 36-month source test demonstrates that the unit does not meet the applicable emission limits, the source testing frequency shall revert to at least once every twelve (12) months. [District Rules 2201 and 4320]
25. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rule 4320]
26. 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]
27. The following test methods shall be used: NO<sub>x</sub> (ppmv) - EPA Method 7E or ARB Method 100, NO<sub>x</sub> (lb/MMBtu) - EPA Method 19, CO (ppmv) - EPA Method 10 or ARB Method 100, stack gas oxygen - EPA Method 3 or 3A or ARB Method 100, stack gas velocities - EPA Method 2, stack gas moisture - EPA Method 4, SO<sub>x</sub> (lb/MMBtu) - EPA Method 6, 6B or 8 or ARB Method 100, or fuel gas sulfur content analysis (as H<sub>2</sub>S) - EPA Method 11 or 15, fuel h<sub>h</sub>v (MMBtu) - ASTM D 1826 or D 1945 in conjunction with ASTM D 3588. [District Rules 1081, 2201 and 4320]
28. The results of each source test shall be submitted to the District within 60 days thereafter. [District Rule 1081]
29. For emissions source testing, the arithmetic average of three 30-consecutive-minute test runs shall apply. If two of three runs are above an applicable limit the test cannot be used to demonstrate compliance with an applicable limit. [District Rules 1081, 2201 and 4320]
30. The permittee shall maintain records of: (1) the date and time of NO<sub>x</sub>, CO, and O<sub>2</sub> measurements, (2) the O<sub>2</sub> concentration in percent and the measured NO<sub>x</sub> and CO concentrations corrected to 3% O<sub>2</sub>, (3) make and model of exhaust gas analyzer, (4) exhaust gas analyzer calibration records, and (5) a description of any corrective action taken to maintain the emissions within the acceptable range. [District Rules 2201 and 4320]
31. The permittee shall maintain a record of the 12-month summary of actual emissions from permitted operations. This record shall be kept on site and made available to the District upon request. [District Rule 2530, 6.1]
32. Records of the equipment make, model, maximum design process rate and/or capacity, manufacturer's guaranteed emission rates, equipment drawing(s), and operational characteristics/parameters shall be maintained onsite for a period of five years. [District Rule 2530, 6.1]
33. All records shall be maintained and retained on-site for a minimum of five (5) years, and shall be made available for District inspection upon request. [District Rules 1070 and 4320]
34. Authority to Construct S-4080-27-0 shall be implemented concurrently with this ATC. [District Rule 2201]