



SEP 0 9 2010

Mr. Martin Lundy Chevron U.S.A., Inc. P.O. Box 1392 Bakersfield, CA 93302

Final - Authority to Construct / COC (Significant Mod)

District Facility # S-1128 **Project # S-1101888** 

Dear Mr. Lundy:

The Air Pollution Control Officer has issued an Authority to Construct (S-1128-36-27) with a Certificate of Conformity to Chevron U.S.A., Inc. Midway Sunset Oilfield within Chevron's Heavy Oil Western Stationary Source. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320

Enclosed is the Authority to Construct. The application and proposal were sent to US EPA Region IX on August 2, 2010. No comments were received following the District's preliminary decision on this project.

The notice of final decision for this project will be published approximately three days from the date of this letter.

Prior to operating with 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.

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,

David Warner

**Director of Permit Services** 

DW: KTR/cm

**Enclosures** 

Seved Sadredin

Executive Director/Air Pollution Control Officer

Northern Region 4800 Enterprise Way Modesta, 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





SEP 0 9 2010

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

Final - Authority to Construct / COC (Significant Mod)

**District Facility # S-1128 Project # S-1101888** 

Dear Mr. Rios:

The Air Pollution Control Officer has issued an Authority to Construct (S-1128-36-27) with a Certificate of Conformity to Chevron U.S.A., Inc. Midway Sunset Oilfield within Chevron's Heavy Oil Western Stationary Source. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320

Enclosed is a copy of the Authority to Construct. The application and proposal were sent to US EPA Region IX on August 2, 2010. No comments were received following the District's preliminary decision on this project.

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Sincerely,

David Warner

**Director of Permit Services** 

DW: KTR/cm

**Enclosures** 

Seved Sadredin

Executive Director/Air Pollution Control Officer





SEP 0 9 2010

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

Final - Authority to Construct / COC (Significant Mod)

District Facility # S-1128 **Project # S-1101888** 

Dear Mr. Tollstrup:

The Air Pollution Control Officer has issued an Authority to Construct (S-1128-36-27) with a Certificate of Conformity to Chevron U.S.A., Inc. Midway Sunset Oilfield within Chevron's Heavy Oil Western Stationary Source. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320

Enclosed is a copy of the Authority to Construct. The application and proposal were sent to US EPA Region IX on August 2, 2010. No comments were received following the District's preliminary decision on this project.

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Sincerely,

David Warner

**Director of Permit Services** 

DW: KTR/cm

Enclosures

Seyed Sadredin

Executive Director/Air Pollution Control Officer

# NOTICE OF FINAL DECISION FOR THE ISSUANCE OF AUTHORITY TO CONSTRUCT

NOTICE IS HEREBY GIVEN that the San Joaquin Valley Air Pollution Control District has made its final decision to issue an Authority to Construct to Chevron U.S.A., Inc. for heavy oil production operations at the located Midway Sunset Oilfield within Chevron's Heavy Oil Western Stationary Source, California. Chevron proposes to install and operate a sulfur scrubber to comply with Rule 4320

The District's analysis of the legal and factual basis for this proposed action, project #S-1101888, is available for public inspection at the District office at the address below. For additional information regarding this matter, please contact Mr. Leonard Scandura, Permit Services Manager, at (661) 392-5500, or contact David Warner, Director of Permit Services, in writing at SAN JOAQUIN VALLEY AIR POLLUTION CONTROL DISTRICT, 34946 FLYOVER COURT, BAKERSFIELD, CA 93308.





**ISSUANCE DATE: 09/02/2010** 

## **AUTHORITY TO CONSTRUCT**

**PERMIT NO:** S-1128-36-27

**LEGAL OWNER OR OPERATOR:** CHEVRON USA INC **MAILING ADDRESS:** P O BOX 1392

BAKERSFIELD, CA 93302

LOCATION: HEAVY OIL WESTERN STATIONARY SOURCE

KERN COUNTY

SECTION: 26 TOWNSHIP: 32S RANGE: 23E

#### **EQUIPMENT DESCRIPTION:**

MODIFICATION OF 62.5 MMBTU/HR NATURAL GAS/VAPOR RECOVERY GAS-FIRED STEAM GENERATOR WITH A NORTH AMERICAN MODEL MAGNA-FLAME GLE ULTRA-LOW NOX BURNER AND WITH SO2 SCRUBBER AND FLUE GAS RECIRCULATION (CUSA ID #50-3-26C):INSTALL DEDICATED SOX SCRUBBER FOR RULE 4320 COMPLIANCE, LOWER SOX EMISSIONS FACTOR FROM 0.324 LB/MMBTU TO 0.13 LB/MMBTU

### CONDITIONS

- 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 NSR Rule] 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. SOx emissions shall be reduced by 95% or to 9 ppmvd SOx @ 3% O2. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
- 4. Steam generator firebox convection section, scrubber bypass valve, and all flue gas ductwork shall be maintained with no detectable leaks. [District Rule 2201] Federally Enforceable Through Title V Permit
- 5. Scrubber recirculation liquid pH shall be maintained only by the addition of caustic unless prior approval for an alternative pH maintenance method is received from the District. [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

DAVID WARNER, Director of Permit Services \$128-38-27: Sep 2 2010 11:58AM - RICKAROK: Jeint Inspection NOT Required

- 6. Scrubber liquor pH shall be maintained between 6 and 8 and shall be continuously monitored and recorded during operation of this unit. [District Rules 2201 and 2520, 9.4.1] Federally Enforceable Through Title V Permit
- 7. Scrubber mist eliminator shall be properly cleaned and maintained per the recommendations of the manufacturer. Each occurrence of the cleaning and maintenance shall be recorded. [District Rules 2201 and 2520, 9.4.1] Federally Enforceable Through Title V Permit
- 8. Scrubber recirculation liquor liquid to gas ratio shall be maintained at no less than 8.0 gpm/1000 acfm. The scrubber recirculation liquor liquid to gas ratio shall be recorded on a weekly basis. [District Rules 2201 and 2520, 9.4.1] Federally Enforceable Through Title V Permit
- 9. Emissions from the steam generator shall not exceed any of the following limits: 0.13 lb-SOx/MMBtu, 0.037 lb-PM10/MMBtu, or 0.003 lb-VOC/MMBtu. [District Rules 2201, 4201, 4320, 4406, and 4801] Federally Enforceable Through Title V Permit
- 10. Except during start-up and shutdown periods emissions from the steam generator shall not exceed any of the following limits: 15 ppmvd NOx @ 3% O2 or 0.0182 lb-NOx/MMBtu or 51 ppmvd CO @ 3% O2 or 0.0375 lb-CO/MMBtu. [District Rules 2201, 4301, 5.2, 4305, 5.1, 4306, 5.1, 4320, and 4405] Federally Enforceable Through Title V Permit
- 11. During start-up and shutdown periods emissions from the steam generator shall not exceed either of the following limits: 0.1 lb-NOx/MMBtu or 0.084 lb-CO/MMBtu. [District Rule 2201] Federally Enforceable Through Title V Permit
- 12. Duration of start-up or shutdown shall not exceed two hours each per occurrence. During start-up or shutdown, the emissions control system shall be in operation, and emissions shall be minimized insofar as technologically possible. Permittee shall maintain records of duration of each start-up and shutdown. [District Rules 4305, 5.5.6, 4306, 5.3, and 4320] Federally Enforceable Through Title V Permit
- 13. Start-up is defined as the period of time during which a unit is brought from a shutdown status to its operating temperature and pressure, including the time required by the unit's emission control system to reach full operation. Shutdown is defined as the period of time during which a unit is taken from an operational to a non-operational status by allowing it to cool down from its operating temperature to ambient temperature as the fuel supply to the unit is completely turned off. [District Rules 4306, 3.25, 3.22, and 4320] Federally Enforceable Through Title V Permit
- 14. Maximum emissions from the steam generator, including start-up and shutdown, shall not exceed any of the following limits: 54.0 lb-NOx/day, 9,965 lb-NOx/yr, 56.3 lb-CO/day, and 20,531 lb-CO/yr. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
- 15. Whenever the unit is switched to scrubbed operation, compliance source testing for SOx shall be conducted within 60 days of initial scrubbing date unless source testing has occurred within the previous 12 months. [District Rules 2201 and 4320] Federally Enforceable Through Title V Permit
- 16. A source test to demonstrate compliance with SOx emission limits shall be performed within 60 days of startup of this unit. An analysis of the fuel sulfur content shall be submitted for compliance with the SOx requirement in lieu of the source test for SOx. [District Rules 2201, 4305, 4306, and 4320] Federally Enforceable Through Title V Permit
- 17. Permittee shall retain on site an analysis showing the fuel's sulfur content or conduct a source test for SOx at least once every 12 months. [District Rule 4320, 5.7.6]
- 18. Source testing to measure natural gas-combustion NOx 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 4305, 6.3.1, 4306, 6.3.1, and 4320] Federally Enforceable Through Title V Permit
- 19. 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
- 20. If the steam generator is fired on PUC-regulated natural gas, then the permittee shall maintain on file copies of all natural gas bills or fuel throughput records for a period of five years. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit

- 21. If the steam generator is not fired on PUC-regulated natural gas, then the sulfur content of the fuel gas being fired in the steam generator shall be determined using ASTM D 1072, D 3031, D 4084, D 3246, double GC for H2S and mercaptans, or grab sample analysis by GC-FPD/TCD performed in the laboratory. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 22. If the steam generator is not fired on PUC-regulated natural gas, the sulfur content of each fuel source shall be tested quarterly for sulfur content and higher heating value. If a fuel content test fails to show compliance, weekly testing is required until compliance is demonstrated for 8 consecutive weeks, after which quarterly testing may resume. [District Rules 2201 and 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 23. 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. 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, 5.4, 4306, 5.4, and 4320] Federally Enforceable Through Title V Permit
- 24. If either the NOx or CO concentrations corrected to 3% O2, 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 the performing the notification and testing required by this condition. [District Rules 4305, 5.4, 4306, 5.4, and 4320] Federally Enforceable Through Title V Permit
- 25. 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, 5.4, 4306, 5.4, and 4320] Federally Enforceable Through Title V Permit
- 26. The source test plan shall identify which basis (ppmv or lb/MMBtu) will be used to demonstrate compliance. [District Rules 4305, 5.5.1, 4306, 5.5.1, and 4320] Federally Enforceable Through Title V Permit
- 27. 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 4320. [District Rules 4305, 5.5.2, 4306, 5.5.2, and 4320] Federally Enforceable Through Title V Permit
- 28. 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 4305, 5.5.5 and 4306, 5.5.5 and 4320] Federally Enforceable Through Title V Permit
- 29. 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
- 30. The following test methods shall be used: NOx (ppmv) EPA Method 7E or ARB Method 100, NOx (lb/MMBtu) EPA Method 19, CO (ppmv) EPA Method 10 or 10B or ARB Method 100, stack gas oxygen EPA Method 3 or 3A or ARB Method 100, SOx (lb/MMBtu) ARB Method 100 or EPA Method 6, 6C or fuel gas sulfur content analysis and EPA Method 19, fuel gas sulfur content EPA Method 11 or 15, ASTM D3246 or double GC for H2S and mercaptans performed in a laboratory, fuel gas hhv ASTM D1826 or D1945 in conjunction with ASTM D3588. [District Rules 4305, 4306, and 4320] Federally Enforceable Through Title V Permit

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- 31. The permittee shall maintain records of: (1) the date and time of NOx, CO, and O2 measurements, (2) the O2 concentration in percent and the measured NOx and CO concentrations corrected to 3% O2, (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, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit
- 32. Permittee shall maintain daily records of volume of natural gas burned and vapor recovery system gas incinerated. [District Rule 2201] Federally Enforceable Through Title V Permit
- 33. Copies of all gas purchase contracts, supplier certifications, and test results to determine compliance with the conditions of this permit shall be maintained. The operator shall record daily amount and type(s) of fuel(s) combusted and all dates on which unit is fired on any non-certified fuel. [District Rule 2520, 9.3.2] Federally Enforceable Through Title V Permit
- 34. Records of the scrubber liquor pH, occurrences of the cleaning and maintenance of the scrubber mist eliminator, and the scrubber liquid-to-gas ratio shall be maintained. The records shall include identification of the equipment, date of inspection, corrective action taken, and identification of the individual performing the inspection. [District Rule 2520, 9.4.2] Federally Enforceable Through Title V Permit
- 35. 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, 4305, 6.1, 4306, 6.1, and 4320] Federally Enforceable Through Title V Permit
- 36. This Authority to Construct shall be implemented according to the date proposed in the District Approved Rule 4320 Emission Control Plan. [District Rule 4320] Federally Enforceable Through Title V Permit
- 37. Compliance with permit conditions in the Title V permit shall be deemed compliance with the following requirements of SJVUAPCD Rules 4201 (Amended December 17, 1992), and 4301 (Amended December 17, 1992). A permit shield is granted from these requirements. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 38. The requirements of 40 CFR 72.6(b) and 40 CFR 60.40c do not apply to this source. A permit shield is granted from this requirement. [District Rule 2520, 13.2] Federally Enforceable Through Title V Permit
- 39. All equipment, facilities, and systems installed or used to achieve compliance with the terms and conditions of this permit shall at all times be maintained in good working order and be operated as efficiently as possible so as to minimize air pollutant emissions. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 40. The Regional Administrator shall be notified by telephone within 48 hours following any failure of air pollution control equipment, process equipment, or of a process to operate in a normal manner which results in an increase in emissions above any allowable emissions limit stated in the conditions below. In addition, the Regional Administrator shall be notified in writing within 15 days of any such failure. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 41. This notification shall include a description of the malfunctioning equipment or abnormal operation, the date of initial failure, the period of time over which emissions were increased due to the failure, the cause of the failure, the estimated resultant emissions in excess of those allowed under the conditions below, and the methods utilized to restore normal operations. Compliance with this malfunction notification provision shall not excuse or otherwise constitute a defense to any violations of this permit or of any law or regulations which such malfunction may cause. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 42. The owner and operator of the proposed project shall construct and operate the proposed stationary source in compliance with all other applicable provisions of 40 CFR 52, 60 and 61 and all other applicable Federal, State and local regulations. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 43. Annual source testing shall be performed on one vapor recovery system consisting of 32 wells and on a second vapor recovery system on 3 wells to establish the efficiency of the vapor recovery system. The efficiency the 3-well system. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 44. Permittee shall operate and maintain operable scrubbers on the equipment designated below: (2) 50 MMBtu/hr steam generators and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. (One of the 50 MMBtu/hr units is to be scrubbed for offset purposes.) Exhaust gases from the above units shall be ducted through operating scrubbers. [PSD SJ 77-29] Federally Enforceable Through Title V Permit

- 45. Permittee shall not discharge into the atmosphere SO2 in excess of 0.13 lb/MMBtu (maximum 2-hour average) for the steam generators designated in the condition above. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 46. Permittee shall operate, and maintain operable excess oxygen control equipment on the units designated below: (1) 50 MMBtu/hr steam generator and (2) 22 MMBtu/hr steam generators to be located in Section 26, T32S, R23E, M.D.B. & M., Kern County, CA. The concentration of excess oxygen in the exhaust gases shall not exceed 3% for the above units on a 24-hour average basis. The excess oxygen level shall be recorded continuously in a permanent record and shall be available for periodic inspection by USEPA. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 47. Permittee shall not discharge into the atmosphere NOx in excess of 0.50 lb/MMBtu (maximum 2-hour average) for the 50 MMBtu/hr steam generator and 0.57 lb/MMBtu (m. ximum 2-hour average) for the 22 MMBtu/hr steam generators designated in condition 40. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 48. At such times as specified by the USEPA, permittee shall conduct performance tests for SO2 and NOx, and furnish the District and the USEPA a written report of the results of such tests. The tests for SO2 and NOx shall be conducted on an annual basis and at the maximum operating capacity of the facilities being tested. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 49. The performance tests shall be conduct for the equipment designated below: for SO2 the units designated in condition 38; for NOx the units designated in condition 40. Performance tests for the emissions of SO2 and NOx shall be conducted and results reported in accordance with the methods set forth in Parts 60.8 and 60.46 of the Standards of Performance for New Sources on the equipment named above. The USEPA shall be notified in writing at least 30 days in advance of such test to allow time for an observer to be present and to allow time for development of an approvable performance test plan. Such prior approval will minimize the possibility of USEPA rejection of test results for procedural deficiencies. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 50. All correspondence as required by this permit shall be forwarded to: a) Director, Enforcement Div (Attn: E-5), EPA Region IX, 75 Hawthorne Street, San Francisco, CA, 94105; b) Chief, Stationary Source Control Division, California Air Resource Board, P.O. Box 2815, Sacramento, CA, 95814; and c) Director, SJVUAPCD, 1990 East Gettysburg, Fresno, CA, 93726. [PSD SJ 77-29] Federally Enforceable Through Title V Permit
- 51. Pursuant to Rule 4320, beginning in 2010 the operator shall pay an annual emission fee to the District for NOx emissions from this unit for the previous calendar year. Payments are due by July 1 of each year. Payments shall continue annually until either the unit is permanently removed from service in the District or the operator demonstrates compliance with the applicable NOx emission limit listed in Rule 4320. [District Rule 4320]
- 52. Permittee shall maintain records of annual heat input (MMBtu) for this unit on a calendar year basis. Such 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 Rule 4320]