Department of Environmental Quality

To protect, conserve and enhance the quality of Wyoming's environment for the benefit of current and future generations.

Matthew H. Mead, Governor **John Corra, Director**

July 24, 2012

Mr. Michael Shaffron
NRBU EHS Lead - Permitting & Compliance
EnCana Oil & Gas (USA) Inc.
370 17th Street, Suite 1700
Denver, CO 80202

Permit No. **MD-13400**

Dear Mr. Shaffron:

The Division of Air Quality of the Wyoming Department of Environmental Quality has completed final review of EnCana Oil & Gas (USA) Incorporated's application to modify the Cabrito 2-31 Central Facility, with the addition of production and equipment associated with one new well, the Cabrito 18-31, with one reboiler overheads condenser and one common smokeless combustion device to control volatile organic compound and hazardous air pollutant emissions associated with the dehydration unit, condensate tanks, active produced water tanks and pneumatic pumps, located in the NE1/4NE1/4 of Section 31, T29N, R107W, approximately sixteen (16) miles south-southwest of Big Sandy, in Sublette County, Wyoming. The Cabrito 1-31, 2-31, 19-31, 29-31 and 18-31 well sites produce to this central facility.

Following this agency's proposed approval of the request as published June 22, 2012, and in accordance with Chapter 6, Section 2(m) of the Wyoming Air Quality Standards and Regulations, the public was afforded a thirty (30) day period in which to submit comments concerning the proposed modification, and an opportunity for a public hearing. No comments were received during the public comment period. Therefore, on the basis of the information provided to us, approval to modify the Cabrito 2-31 Central Facility as described in the application is hereby granted pursuant to Chapter 6, Section 2 of the regulations with the following conditions:

1. Authorized representatives of the Division of Air Quality be given permission to enter and inspect any property, premise or place on or at which an air pollution source is located or is being constructed or installed for the purpose of investigating actual or potential sources of air pollution and for determining compliance or non-compliance with any rules, standards, permits or orders.

2. All substantive commitments and descriptions set forth in the application for this permit, unless superseded by a specific condition of this permit, are incorporated herein by this reference and are enforceable as conditions of this permit.

3. A permit to operate, in accordance with Chapter 6, Section 2(a)(iii) of the WAQSR, is required after a 120 day start-up period in order to operate this facility.

4. All notifications, reports and correspondences associated with this permit shall be submitted to the Stationary Source Compliance Program Manager, Air Quality Division, 122 West 25th Street, Cheyenne, WY 82002 and a copy shall be submitted to the District Engineer, Air Quality Division, 510 Meadowview Drive, Lander, WY 82520.

5. All records required under this permit shall be kept for a period of at least five (5) years and shall be made available to the Division upon request.

6. Effective upon permit issuance, this permit shall supersede Air Quality Permit MD-9282 for the Cabrito 2-31 Central Facility.

7. Periodic training on the proper operation of equipment, systems and devices used to contain, control, eliminate or reduce pollution shall be provided to company personnel whose primary job is to regularly ensure that facility production equipment is functional. The training shall provide these personnel with the ability to recognize, correct and report all instances of malfunctioning equipment, systems and devices associated with air pollution control. These equipment, systems and devices include, but are not limited to combustion units, reboiler overheads condensers, hydrocarbons liquids storage tanks, drip tanks, vent lines, connectors, fittings, valves, relief valves, hatches and any other appurtenance employed to, or involved with, eliminating, reducing, containing or collecting vapors and transporting them to a pollution control system or device.

8. Trained personnel shall perform, at a minimum, a quarterly site evaluation of the operation of the air pollution control equipment, systems and devices under Condition 7. The first quarterly site evaluation shall be conducted within the second quarter after issuance of this permit.

9. At least one of the quarterly evaluations per calendar year under Condition 8 shall include an evaluation of the facility for leaks from the equipment, systems and devices under Condition 7 using a FLIR camera.

10. Notification shall be provided to the Division at least fifteen (15) days prior to each quarterly evaluation under Condition 8.

11. An annual preventative maintenance program shall be instituted to inspect and replace equipment, systems and devices under Condition 7 as necessary to ensure their proper operation.

12. Results of all inspections, evaluations and periodic monitoring shall be documented and maintained for review by the Division upon request. Digital files of any FLIR camera evaluations need not be maintained.

13. Vapors from all condensate tanks and all active produced water tanks, including flashing and S/W/B losses, shall be routed to the common combustion device to reduce the mass content of total HAP and VOC emissions in the tank vapors by at least ninety-eight percent (98%) by weight.

14. For the TEG dehydration unit with condenser, reboiler still vent vapors shall be routed to the condenser. Condensed reboiler still vent liquids shall be collected and routed to a liquids storage tank. The non-condensable reboiler still vent vapors and glycol flash separator vapors shall be routed to the common combustion device. The condenser and common combustion device shall reduce the mass content of total HAP and VOC emissions in the reboiler still vent and glycol flash separator vapors by at least ninety-eight percent (98%) by weight.

15. The motive gas discharge line on each pneumatic pump shall be routed into a fuel gas supply line or any gas or liquid collection line which is ultimately routed into a closed system or emission control system or each pump shall be replaced with an electric, solar or air-operated pump or other device in order to reduce VOC emissions associated with the pump discharge gas stream by at least ninety-eight percent (98%) by weight.

16. All natural gas-operated pneumatic process controllers (temperature control, pressure control, level control, flow control, etc.) shall be low or no-bleed controllers, with low bleed defined as less than six (6) cubic feet per hour vent or bleed rate, or the controller discharge streams shall be routed into a closed loop system so there are no volatile organic compound or hazardous air pollutants emitted to the atmosphere.

17. The presence of the combustion device pilot flame shall be monitored using a thermocouple and continuous recording device or any other equivalent device to detect and record the presence of the flame. Records shall be maintained noting periods during active well site operation when the pilot flame is not present. The records shall contain a description of the reason(s) for absence of the pilot flame and steps taken to return the pilot flame to proper operation.

18. Emission control equipment, including the VOC and HAP emission control systems or devices, reboiler overheads condensers and all vent lines, connections, fittings, valves, relief valves, hatches or any other appurtenance employed to contain and collect vapors and transport them to the emission control system or device, shall be maintained and operated during any time the wells are producing such that the emissions are controlled at all times. Records shall be maintained noting dates and durations of times during such operation when any VOC or HAP emissions control system or device or the associated containment and collection equipment is not functioning to control emissions as required by this permit.

19. All combustion devices shall be designed, constructed, operated and maintained to be smokeless, per Chapter 3, Section 6(b)(i) of the WAQSR, with no visible emissions except for periods not to exceed a total of five (5) minutes during any two (2) consecutive hours as determined by 40 CFR part 60, appendix A, Method 22.

20. EnCana Oil & Gas (USA) Inc. shall provide notification to the Division of additional equipment or emissions and provide certification of control and monitoring installation dates, on the appropriate form provided by the Division. (Form AQD-Pinedale 1, currently available on the DEQ website). When modifying this facility, EnCana shall follow the emission control, reporting and monitoring requirements under the active guidance at the time of modification.

21. Emissions from this facility shall not exceed 100 TPY or more of any regulated air pollutant, 10 TPY or more of any individual Hazardous Air Pollutant or 25 TPY or more of any combination of Hazardous Air Pollutants.

22. EnCana Oil & Gas (USA) Inc. shall comply with all applicable requirements of 40 CFR part 63, subpart HH.

It must be noted that this approval does not relieve you of your obligation to comply with all applicable county, state, and federal standards, regulations or ordinances. Special attention must be given to Chapter 6, Section 2 of the Wyoming Air Quality Standards and Regulations, which details the requirements for compliance with Condition 3. Any appeal of this permit as a final action of the Department must be made to the Environmental Quality Council within sixty (60) days of permit issuance per Section 16, Chapter I, General Rules of Practice and Procedure, Department of Environmental Quality.

If we may be of further assistance to you, please feel free to contact this office.

Sincerely,

Steven A. Dietrich

Steven A. Dietrich
Administrator
Air Quality Division

John V. Corra
Director
Dept. of Environmental Quality

cc: Tony Hoyt

SD/hb

EQUIPMENT LIST

- one (1) three-phase HP separator
- one (1) three-phase LP separator
- one (1) 17.0 MMCFD TEG dehydration unit w/ (2) Kimray Model 10015SC glycol pumps, 0.25 MMBtu/hr reboiler heater, TEG flash tank separator w/ 0.085 MMBtu/hr heater and reboiler overheads condenser
- one (1) 1.0 MMBtu/hr indirect heater
- one (1) 0.5 MMBtu/hr indirect heater
- four (4) 400-bbl condensate tanks
- two (2) 400-bbl produced water tanks
- two (2) pneumatic heat trace circulation pumps
- one (1) pneumatic methanol injection pump
- seven (7) Wellmark 6900 low-bleed pneumatic liquid level controllers
- one (1) 42-inch x 30-foot combination smokeless combustion device w/ continuous pilot monitoring (controls tank emissions, TEG flash tank emissions, non-condensable reboiler and pneumatic pump emissions)