Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

February 9, 2009

Bart Brinkerhoff
Encore Energy Partners Operating, LLC
PO Box 569
Powell, WY 82435

Dear Mr. Brinkerhoff:

Air Quality Permit #3300-03 is deemed final as of February 7, 2009, by the Department of Environmental Quality (Department). This permit is for Elk Basin Battery No. 9. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Vickie Walsh

Moriah Peck

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Moriah Peck
Environmental Engineer
Air Resources Management Bureau
(406) 444-4267

VW:MAP
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Air Quality Permit #3300-03

Encore Energy Partners Operating, LLC
Elk Basin Battery No. 9
777 Main Street, Suite 1400
Fort Worth, TX 76102

February 7, 2009

AIR QUALITY PERMIT

Issued To:	Encore Energy Partners Operating, LLC Elk Basin Battery No. 9 777 Main Street, Suite 1400 Fort Worth, TX 76102	Permit: #3300-03 Application Complete: 11/10/08 Preliminary Determination Issued: 12/17/08 Department's Decision Issued: 1/22/09 Permit Final: 2/7/09 AFS #: 009-0006

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Encore Energy Partners Operating, LLC (Encore), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

SECTION I: Permitted Facilities

A. Plant Location

The Elk Basin Battery No. 9 facility is located approximately 3.5 miles Northwest of Elk Basin, Wyoming, in Section 35, Township 9 South, Range 23 East, in Carbon County, Montana.

B. Current Permit Action

On November 10, 2008, the Department of Environmental Quality (Department) received a complete permit application from Encore to modify MAQP #3300-02. Encore proposed to combine its Elk Basin Tensleep Battery No. 2 and Madison Battery No. 9 into a single facility called Elk Basin Battery No. 9. Presently, the two batteries are located adjacent to one another. Combining the two facilities will render some equipment obsolete and require the installation of additional equipment. Two oil storage tanks (1-OT and 2-BT) and two heater treaters (3-HT and 4-HT) will be removed from service and one oil storage tank (6-OT) will change service from a working oil tank to an emergency oil tank. Two new storage tanks (EBM-9-3 and EBM-9-4) will be commissioned and an out-of-service heater treater that has been on-site since the site was originally commissioned (Heater Treater 3) will be returned to service. The two new tanks will be connected to the existing vapor recovery unit to minimize emissions.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Encore shall limit the volume of gas routed to the emergency flare pit (5-EF) to 4.42 million standard cubic feet (MMScf) of gas flaring during any rolling 12-month time period (ARM 17.8.749).

2. Encore shall limit the volume of gas exiting the 300 barrel (bbl) emergency pop tank (11-PT) to 2.28 MMScf during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

3. Gas venting through the 300 bbl emergency pop tank (11-PT), and flaring of gas through the emergency flare pit (5-EF) shall only occur during emergency/non-routine operations (ARM 17.8.752).

4. Encore shall limit the production through the 1,000 bbl emergency oil tank (6-OT) to 164,250 bbls during any rolling 12-month time period (ARM 17.8.749).

5. Rejected oil may be directed to the 1,000 bbl emergency oil tank (6-OT) or the 1,000 bbl bad oil tank (7-BT) only during emergency/non-routine operations (ARM 17.8.749).

6. Encore shall limit the combined production through the 500 bbl working tank (EBM-9-3) and 400 bbl working tank (EBM-9-4) to 456,250 bbls during any rolling 12-month time period (ARM 17.8.749).

7. Emissions from the 500 bbl working tank (EBM-9-3) and the 400 bbl working tank (EBM-9-4) shall be controlled by a vapor recovery unit with a control efficiency of 98% (ARM 17.8.752).

8. Encore shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

9. Encore shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

10. Encore shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

11. Encore shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.11 (ARM 17.8.749).

B. Inspection and Repair Requirements

1. Each calendar month, all fugitive piping components (valves, flanges, pump seals, open-ended lines) shall be inspected for leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.752).

2. Encore shall (ARM 17.8.105 and ARM 17.8.752):

   a. Make a first attempt at repair for any leak not later than 5 calendar days after the leak is detected; and

   b. Repair any leak as soon as practicable, but no later than 15 calendar days after it is detected, except as provided in Section II.B.3.

3. Delay of repair of equipment for which a leak has been detected will be allowed if repair is technically infeasible without a source shutdown. Such equipment shall be repaired before the end of the first source shutdown after detection of the leak (ARM 17.8.752).

C. Recordkeeping Requirements

1. A record of each monthly leak inspection required by Section II.B.1 of this MAQP shall be kept on file with Encore. Inspection records shall include, at a minimum, the following information (ARM 17.8.749):

   a. Date of inspection;

   b. Findings (may indicate no leaks discovered or location, nature, and severity of each leak);

   c. Leak determination method;

   d. Corrective action (date each leak repaired and reasons for any repair interval in excess of 15 calendar days); and

   e. Inspector's name and signature.

2. Encore shall maintain a record of the date and the reason that gas was either vented through the emergency 300 bbl pop tank (11-PT), or flared through the emergency flare to demonstrate compliance with Section II.A.3 (ARM 17.8.749).

3. Encore shall maintain a record of the date and the reason that rejected oil was directed to the 1,000 bbl emergency oil tank (6-OT) and the 1,000 bbl bad oil tank (7-BT) to demonstrate compliance with Section II.A.5 (ARM 17.8.749).

4. All records compiled in accordance with this permit must be maintained by Encore as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

2. The Department may require further testing (ARM 17.8.105).

E. Operational Reporting Requirements

1. Encore shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with MAQP limitations (ARM 17.8.505).

2. Encore shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow,

stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

3. Encore shall document, by month, the volume of gas routed to the emergency flare pit (5-EF). By the 25th day of each month, Encore shall total the volume of gas routed to the emergency flare pit (5-EF) for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.1. The information for each of the previous 12 months shall be submitted along with the annual emission inventory (ARM 17.8.749).

4. Encore shall document, by month, the volume of gas routed to the 300 bbl emergency pop tank (11-PT). By the 25th day of each month, Encore shall total the volume of gas routed to the emergency pop tank (11-PT) for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. The information for each of the previous 12 months shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. Encore shall document, by month, the production of the 1,000 bbl emergency oil tank (6-OT). By the 25th day of each month, Encore shall total the production of the 1,000 bbl emergency oil tank (6-OT) for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.4. The information for each of the previous 12 months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. Encore shall document, by month, the production of the 500 bbl working tank (EBM-9-3). By the 25th day of each month, Encore shall total the production of the 500 bbl working tank (EBM-9-3) for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.6. The information for each of the previous 12 months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. Encore shall document, by month, the production of the 400 bbl working tank (EBM-9-4). By the 25th day of each month, Encore shall total the production of the 400 bbl working tank (EBM-9-4) for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous 12 months shall be submitted along with the annual emission inventory (ARM 17.8.749).

8. Encore shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information (ARM 17.8.749 and ARM 17.8.1204).

SECTION III: General Conditions

A. Inspection – Encore shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this MAQP.

B. Waiver – The MAQP and the terms, conditions, and matters stated herein shall be deemed accepted if Encore fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Encore of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for MAQP revocation, penalties, or other enforcement action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on an MAQP by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the MAQP shall be made available for inspection by the Department at the location of the source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Encore may be grounds for revocation of this MAQP, as required by that section and rules adopted thereunder by the Board.

H. Construction Commencement – Construction must begin within 3 years of MAQP issuance and proceed with due diligence until the project is complete or the MAQP shall be revoked (ARM 17.8.762).

Permit Analysis
Encore Energy Partners Operating, LLC
Elk Basin Battery No. 9
Permit #3300-03

I. Introduction/Process Description

Encore Energy Partners Operating, LLC (Encore) owns and operates an oil and gas production battery located approximately 3.5 miles Northwest of Elk Basin, Wyoming, in Section 35, Township 9 South, Range 23 East, in Carbon County, Montana. The battery is known as Elk Basin Battery No. 9.

A. Permitted Equipment

The facility consists of the following equipment:

Source ID	Facility ID	Source/Equipment	Control	Year Constructed
6-OT	EBM-9-1	1,000 bbl* Emergency Oil Tank		Before 11/23/68
7-BT	EBM-9-2	1,000 bbl Bad Oil Tank		Before 11/23/68
	EBM-9-3	500 bbl Working Tank	VRU	2008
	EBM-9-4	400 bbl Working Tank	VRU	2008
8-HT	Heater Treater 1	1.35 MMBtu/hr** Heater Treater		Before 11/23/68
9-HT	Heater Treater 2	1.35 MMBtu/hr Heater Treater		Before 11/23/68
	Heater Treater 3	1.35 MMBtu/hr Heater Treater		Before 11/23/68
11-PT	EBM-9-5	300-bbl Pop Tank		Before 11/23/68
12-FE		Fugitive Emissions		N/A
13-PD		Pneumatic Devices		N/A
5-EF		Emergency Flare Pit		Before 11/23/68

*barrels (bbl)
** Million British thermal units per hour (MMBtu/hr)

B. Source Description

Mixed streams of crude oil, natural gas, and produced water from nearby wells flow through a header at the facility inlet and into a 1,000-barrel free-water knockout vessel for produced water recovery. The crude oil and natural gas streams are then routed through a heater treater (three-phase separators Heater Treater 1, Heater Treater 2, and Heater Treater 3) for further separation. Separated crude oil is piped to one of two working tanks (500-barrel EBM-9-3 or 400-barrel EBM-9-4) then through a lease automated custody transfer (LACT) unit for transport offsite via pipeline. Crude oil rejected by the LACT unit is directed to a 1,000-barrel bad oil tank (EBM-9-9) for storage. During emergency or upset situations, the rejected oil may also be directed to the 1,000-barrel EBM-9-1 emergency oil tank (formerly working tank 6-OT).

Produced water from the free-water knockout vessel and heater treaters is routed to the area water injection system. Natural gas exiting the heater treaters is directed to a 200-barrel gas separator and then to the Elk Basin Gas Plant via pipeline. Liquids recovered in the gas separator are routed to the bad oil tank. Natural gas generated in the two working tanks is captured by an electronically-powered vapor recovery unit (VRU) and sent to the gas separator. Should the heater treaters or free-water knockout vessel over pressurize, they will relieve to the 300-barrel pop tank. Similarly, if the gas separator over pressurizes, it will relieve to the emergency flare pit.

C. Permit History

On March 4, 2004, the Montana Department of Environmental Quality (Department) received a complete Montana Air Quality Permit (MAQP) application from Howell Petroleum Corporation (Howell). The application was for the operation of the Elk Basin Tensleep Battery No. 2 and Madison Battery No. 9 facility. Both batteries were constructed prior to November 23, 1968; however, since 1968, new wells were drilled by both previous and current operators, which may have increased the facility's Potential to Emit (PTE) regulated air pollutants by more than 25 tons per year. Howell stated in MAQP Application #3300-00 that an accurate assessment of the actual increases caused by the post 1968 facility modifications (drilling of new wells) is difficult to determine due to the number of new wells drilled and the various operators during this time period. Therefore, Howell submitted a MAQP application to ensure compliance with the Administrative Rules of Montana (ARM) 17.8.743(1)(d). On June 2, 2004, **MAQP #3300-00** became final and effective.

On September 24, 2004, the Department received a complete MAQP application from Howell for the modification of MAQP #3300-00 to correct errors that were incorporated into MAQP #3300-00. Specifically, Howell requested that the Department:

- Correct the limit for gas exiting the 1,000 bbl bad oil tank (2-BT) to include the oil production flash gas stream;
- Use the specific gravity of the gas stream rather than the ideal gas factor to calculate Volatile Organic Compounds (VOC) emissions from the emergency flare pit (5-EF);
- Correct the limit for the gas exiting the 300 bbl emergency pop tank (11-PT) to include the oil production flash gas stream and remove the working and standing losses associated with the 300 bbl emergency pop tank because it does not store oil or condensate;
- Correct the VOC emissions from fugitive emission from piping (12-FE) to only include VOC emissions rather than total hydrocarbons; and
- Use the specific gravity of the fuel gas rather than the ideal gas factor to calculate fugitive emissions from pneumatic devices (13-PD).

This MAQP action incorporated Howell's requests into the MAQP. On November 19, 2004, **MAQP #3300-01** replaced MAQP #3300-00.

On April 16, 2007, and April 19, 2007, the Department received written notification from Encore and Howell, respectively, informing the Department of Howell's intent to transfer MAQP #3300-01 from Howell to Encore. This permit action transferred the MAQP from Howell to Encore. **MAQP #3300-02** replaced MAQP #3300-01.

D. Current Permit Action

On November 10, 2008, the Department received a complete permit application from Encore to modify MAQP #3300-02. Encore proposed to combine its Elk Basin Tensleep Battery No. 2 and Madison Battery No. 9 into a single facility called Elk Basin Battery No. 9. Presently, the two batteries are located adjacent to one another. Combining the two facilities will render some equipment obsolete and require the installation of additional equipment. Two oil storage tanks (1-OT and 2-BT) and two heater treaters (3-HT and 4-HT) will be removed from service and one oil storage tank (6-OT) will change service from a working oil tank to an emergency oil tank. Two new storage tanks (EBM-9-3 and EBM-9-4) will be commissioned and an out-of-service heater treater that has been on-site since the site was originally commissioned (Heater Treater 3) will be returned to service. The two new tanks will be connected to the existing vapor recovery unit to minimize emissions. **MAQP #3300-03** replaces MAQP #3300-02.

E. Response to Public Comments

Person/Group Commenting	Permit Reference	Comment	Department Response
Encore	Section II. A. 1 and 2	The flare pit and the pop tank are only used during emergency/upset events (per Section II. A.3.). Encore has provided emission estimates based on anticipated emergency/upset events. It is our opinion; emergency/upset events are exempt from regulatory emission restrictions. Encore respectfully requests these limitations be removed and let limitation A. 3 address emergency use.	The emergency flare pit (5-EF) and the emergency pop tank (11-PT) do not qualify for any of the general exclusions from MAQP regulations listed in ARM 17.8.744. Therefore, permit limitations are applicable to these sources. The Department has reviewed the basis for these limitations and is unable to make any changes at this time. The production limit on the emergency flare pit was developed in order to keep Encore below the modeling thresholds for SO_2. Without submittal of a modeling demonstration showing compliance with the applicable SO_2 NAAQS, the Department cannot increase the permit limitation for this source. In regards to the 300-bbl emergency pop tank (11-PT), the production limit is necessary for Encore to stay below the Title V permitting threshold of 100 tpy for VOCs. Encore requested this synthetic minor permit limitation in order to avoid Title V permitting requirements.
Encore	Section II A. 4	Based on the rational stated above, Encore requests this limitation be removed	The 1,000 bbl emergency oil tank (6-OT) does not qualify for any of the general exclusions from MAQP regulations listed in ARM 17.8.744. Therefore, a permit limitation is applicable to this source.
Encore	Section II A. 5	Encore requests this limitation be increased to add the Bad Oil Tank (7BT). For maximum flexibility both tanks should be available for use in an emergency situation	The Department has made the requested change.
Encore	Section II A. 6 and A. 7	Encore requests limitations 6 and 7 merged into a single requirement that restricts combined production to the two tanks. By placing production limitations on the individual tanks, Encore will not have the operational flexibility necessary to efficiently operate the facility.	The Department has made the requested change.

Encore	Section II A. 8	The 500 barrel tank (EBM-9-3) and the 400 barrel tank (EBM 9-4) are connected to the Vapor Recovery Unit. The two 1,000 barrel tanks (6-OT and 7-BT) are used for emergency/upset conditions are not connected to the Vapor Recovery Unit.	The Department has removed the requirement to control emissions from the 1,000 bbl emergency oil tank (6-OT) with a vapor recovery unit. The BACT analysis shows that the vapor recovery unit is required for the 500 bbl working tank (EBM-9-3) and the 400 bbl working tank (EBM-9-4), but not the 1,000 bbl emergency oil tank (6-OT). Therefore, based on the ARM reference, this limitation appears to be in error. The production limits already in place for the 1,000 bbl emergency oil tank (6-OT) appear sufficient to limit emissions.
Encore	Section II C. 3	Encore requests this limitation be amended to include the Bad Oil Tank (7-BT) as suggested above in comments to Section II A. 5.	The Department has made the requested change.

F. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the MAQP.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARM and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 – General Provisions, including but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

Encore shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 – Ambient Air Quality, including, but not limited to the following:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

Encore must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 – Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Encore shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.

   40 CFR 60, Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, does not apply because none of the heater treaters have a maximum design heat input capacity which exceeds the 10 mmBtu/hr applicability threshold.

   40 CFR 60, Subpart K – Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstructions, or Modification Commenced After June 11, 1973, and Prior to May 19, 1978, does not apply because oil is stored at this facility prior to custody transfer.

   40 CFR 60 Subpart Ka – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after May 18, 1978, and prior to July 23, 1984, does not apply because each petroleum liquid storage vessel has a capacity of less than 10,000 barrels.

   40 CFR 60, Subpart Kb – Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984, is not applicable to any of the tanks at the facility because the tanks were either constructed prior to July 23, 1984 or have a design capacity less than or equal to 1,589,874 cubic meters (m^3) used for petroleum or condensate stored, processed, or treated prior to custody transfer.

   40 CFR 60, Subpart KKK – Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants, is not applicable to this facility because it does not meet the definition of a gas processing plant.

   40 CFR 60, Subpart LLL – Standards of Performance for Onshore Natural Gas Processing: SO2 Emissions, is not applicable to this facility because it does not meet the definition of a gas processing plant.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR 63, National Emission Standards for Hazardous Air Pollutants (NESHAP).

   40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR Part 63, Subpart HH. For area sources, the affected source includes each glycol dehydration unit. If the glycol dehydration unit emits less than 1 ton per year (TPY) of benzene, however, it is exempt from the control requirements listed in 40 CFR 63, Subpart HH. Records of the determinations applicable to this exemption must be maintained as required in 40 CFR 63.774(d)(1).

D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an MAQP application fee concurrent with the submittal of an MAQP application. An MAQP application is incomplete until the proper application fee is paid to the Department. Encore submitted the appropriate MAQP application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an MAQP (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an MAQP application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final MAQP issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an MAQP or MAQP modification to construct, modify or use any air contaminant sources that have the PTE greater than 25 tons per year of any pollutant. Encore has a PTE greater than 25 tons per year of particulate matter (PM)/particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}), sulfur dioxide (SO_2), and VOC; therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the MAQP program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require an MAQP under the MAQP Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that an MAQP application be submitted prior to installation, alteration, or use of a source. Encore submitted the required MAQP application for the current MAQP action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for an MAQP. Encore submitted an affidavit of publication of public notice for the September 25, 2008, issue of the *Carbon County News*, a newspaper of general circulation in the Town of Red Lodge in Carbon County, Montana and the September 22, 2008, issue of *The Cody Enterprise*, a newspaper of general circulation in the Town of Cody, in Park County, Wyoming, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the MAQP's issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the MAQP and the requirements of this subchapter. This rule also requires that the MAQP must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that MAQP's shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the MAQP shall be construed as relieving Encore of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing MAQP applications and making MAQP decisions on those MAQP applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An MAQP shall be valid until revoked or modified, as provided in this subchapter, except that an MAQP issued prior to construction of a new or altered source may contain a condition providing that the MAQP will expire unless construction is commenced within the time specified in the MAQP, which in no event may be less than 1 year after the MAQP is issued.

12. ARM 17.8.763 Revocation of Permit. An MAQP may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An MAQP may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond MAQP limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring an MAQP, or unless the owner or operator applies for and receives another MAQP in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an MAQP may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:

   a. PTE greater than (>) 100 tons per year of any pollutant;

   b. PTE > 10 tons per year of any one hazardous air pollutant (HAP), PTE > 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons per year of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3300-03 for Encore, the following conclusions were made:

   a. The facility's PTE is less than (<) 100 tons per year for any pollutant;

   b. The facility's PTE is < 10 tons per year for any one HAP and < 25 tons per year for all HAPs;

   c. This source is not located in a serious PM_{10} nonattainment area;

   d. This facility is not subject to any current NSPS;

   e. This facility is subject to current area source NESHAP standards (40 CFR 63, Subpart HH);

   f. This source is neither a Title IV affected source, nor a solid waste combustion unit; and

   g. This source is not an EPA designated Title V source.

   h. As allowed by ARM 17.8.1204(3), the Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

      i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's PTE, does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

Encore has taken federally enforceable MAQP limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and a Title V operating permit is not required.

The Department determined that the annual reporting requirements contained in the MAQP are sufficient to satisfy this requirement.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness.

Encore shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information.

III. BACT Determination

A BACT determination is required for each new or altered source. Encore shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by Encore in MAQP application #3300-03, addressing some available methods of controlling emissions from the two new working tanks (EBM-9-3 and EBM-9-4) and the re-activated Heater Treater No. 3. The emergency oil tank (EBM-9-1), pop tank (EBM-9-5), and emergency flare pit were not included in this analysis because of their 'emergency use' status. These sources are only utilized during facility upsets and not during normal operations. The Department reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determination.

Working Tanks EBM-9-3 and EBM-9-4

Crude oil storage tanks emit VOC vapors from flashing, working, standing, and breathing activities. The following technologies were considered and are ranked by effectiveness:

- Vapor recovery,
- Process flare, and
- No control.

The control cost summary is presented in Table 1 below. The three technologies were first evaluated based on control efficiencies. The VRU is rated for 99+% control, with a conservative value of 98+% utilized in this analysis. A typical process flare will achieve a control efficiency of approximately 89%. Based on control efficiencies, the technologies were ranked from best to least effective control as VRU, process flare, and no control.

Table 1: Working Tank Control Cost Summary

Source	Control Option	Total Annual Cost ($)	Cost to Control ($/ton)
EBM-9-3	VRU	$2,500	$3
EBM-9-3	Flare	$4,778	$5
EBM-9-3	None	$0	$0

Next, the evaluation addressed technical feasibility. Each of the three options is technically feasible. A review of the cost effectiveness determined application of no controls, allowing the tanks to vent to atmosphere, provided the greatest economic benefit, while the VRU came in second and the flare last. Finally, environmental impacts were considered. The no control option would result in the greatest impact based on emissions released to the atmosphere. Both the VRU and flare option, based on similar control efficiencies, would release approximately the same amount of VOCs. However, employing a flare would generate additional combustion emissions that the other two technologies would not. Therefore, it was determined that use of the existing VRU would constitute BACT for the two working tanks (EBM-9-3 and EBM-9-4).

Heater Treater 3

Heater Treaters emit oxides of nitrogen (NO_x), carbon monoxide (CO), and VOC from the combustion of natural gas. The following technologies were considered and are ranked by effectiveness:

- Vapor Recovery,
- Low-NOx burners, and
- No Control.

The control cost summary is presented in Table 2 below. The three technologies were first evaluated based on control efficiencies. The VRU is rated for 99+% control of VOCs, with a conservative value of 98+% utilized in this analysis. A low-NO_x burner will reduce NO_x emissions from the heater treater by at least 50%. Low-NO_x technology will minimally impact CO and VOC emissions. Based on control efficiencies, the technologies were ranked from best to least effective control as VRU, low-NO_x burners, and no control.

Table 2: Heater Treater Control Cost Summary

Source	Control Option	Total Annual Cost ($)	Cost to Control ($/ton)
Heater Treater 3	VRU	$1,814	$30,846
Heater Treater 3	Low-NO_x Burner	--	--
Heater Treater 3	None	$0	$0

Next, the evaluation addressed technical feasibility. Although technically feasible, connecting Heater Treater 3 to the VRU would only reduce the VOC emission from 0.06 to 0.0012 TPY, while introducing NO_x and CO contaminants into the inlet VOC stream to the gas plant. In theory, the low-NO_x burner would reduce NO_x emissions from Heater Treater 3. However, due to the age of this unit (manufactured in November 1948), a low-NO_x technology retrofit is not available.

A review of cost effectiveness determined application of no controls, allowing the combustion emissions to be released to the atmosphere, provide the least economic impact, while the VRU produced the greatest per ton controlled economic benefit. Finally, environmental impacts were considered. The no control option would result in the greatest impact based on emissions released to the atmosphere. Both the VRU and low-NO_x options, based on greater control efficiencies, would release lesser amounts of air contaminants.

Connecting the heater treater emission to the existing VRU proved cost prohibitive and could impact the quality of the gas processing plant's inlet stream. The low-NO_x burner technology was determined to be technically infeasible because of the lack of replacement technology. Therefore, it was determined that the no control option would constitute BACT for Heater Treater 3.

The control options selected have control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

Tons/year									
Source ID	**Facility ID**	**Source/Equipment**	**PM/ PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_x**	**HAPs**	**H_2S**
6-OT	EBM-9-1	1,000 bbl Emergency Oil Tank				12.33		0.01	
7-BT	EBM-9-2	1,000 bbl Bad Oil Tank				0.50		0.00	
	EBM-9-3	500 bbl Working Tank				10.57		0.01	0.61
	EBM-9-4	400 bbl Working Tank				8.46		0.01	0.49
8-HT	Heater Treater 1	1.35 MMBtu/hr Heater Treater	0.09	1.14	0.96	0.06	0.01	0.02	
9-HT	Heater Treater 2	1.35 MMBtu/hr Heater Treater	0.09	1.14	0.96	0.06	0.01	0.02	
	Heater Treater 3	1.35 MMBtu/hr Heater Treater	0.09	1.14	0.96	0.06	0.01	0.02	
11-PT	EBM-9-5	300 bbl Pop Tank				51.01		0.03	2.88
12-FE		Fugitive Emissions				4.22		0.45	0.57
13-PD		Pneumatic Devices				0.49			
5-EF		Emergency Flare Pit	27.14	0.17	0.91	0.88	48.73		0.53
Totals			27.41	3.58	3.78	88.64	48.75	0.57	5.08

1,000-bbl Emergency Oil Tank (6-OT)

Permit Limitation – 450 bbl/day (Requested by Company)

VOC Emissions:

Standing and working losses
VOC Emission Rate: 5,313.28 lb/yr (EPA Tanks Emission Estimation Program v. 4.0)
5,313.28 lb/yr * 0.0005 ton/lb * (1.0-0.98) = 0.05 ton/yr

Flashing losses
VOC Emission Rate: 140.20 lb/hr (HYSIS Flash Emission Estimation Program v.3.1)
140.20 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 12.28 ton/yr

Total losses = 0.05 ton/yr + 12.28 ton/yr = 12.33 ton/yr

HAP Emissions:

Standing and working losses
HAP Emission Rate: 0.001 lb/hr(HYSIS Flash Emission Estimation Program v.3.1)
0.001 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 0.0001 ton/yr

Flashing losses
HAP Emission Rate: 0.14 lb/hr (HYSIS Flash Emission Estimation Program v.3.1)
0.14 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 0.0123 ton/yr

Total losses = 0.0001 + 0.0123 = 0.0124 ton/yr

H_2S Emissions

H_2S Emission Rate: 2.18 lb/hr (HYSIS Flash Emission Estimation Program V.3.1)
2.18 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 - -.98) = 0.19 ton/yr

1,000-bbl Bad Oil Tank (7-BT)

VOC Emissions:
Standing and working losses

VOC Emission Rate: 1,005.23 lb/yr (EPA Tanks Emission Estimation Program v. 4.0)
1,005.23 lb/yr * 0.0005 ton/lb = 0.50 ton/yr

Flashing losses: No flash emissions result from this tank

Total losses = 0.50 ton/yr + 0.00 ton/yr = 0.50 ton/yr

HAP Emissions:

Standing and working losses

HAP Emission Rate: 0.00 lb/yr (Gas Analysis)

500-bbl Working Tank (EBM-9-3)

Permit Limitation – 694 bbl/day (Requested by Company)
Control efficiency estimated to be 98% for Vapor Recovery Unit (Company Information)

VOC Emissions:

Standing and working losses
VOC Emission Rate: 3,923.92 lb/yr (EPA Tanks Emission Estimation Program v. 4.0)
3,923.92 lb/yr * 0.0005 ton/lb * (1.0-0.98) = 0.04 ton/yr

Flashing losses
VOC Emission Rate: 120.23 lb/hr (HYSIS Flash Emission Estimation Program v.3.1)
120.23 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 10.53 ton/yr

Total losses = 0.04 ton/yr + 10.53 ton/yr = 10.57 ton/yr

HAP Emissions:

Standing and working losses
HAP Emission Rate: 0.001 lb/hr(HYSIS Flash Emission Estimation Program v.3.1)
0.001 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 0.0001 ton/yr

Flashing losses
HAP Emission Rate: 0.12 lb/hr (HYSIS Flash Emission Estimation Program v.3.1)
0.12 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 0.0105 ton/yr

Total losses = 0.0001 + 0.0105 = 0.0106 ton/yr

H_2S Emissions

H_2S Emission Rate: 6.95 lb/hr (HYSIS Flash Emission Estimation Program V.3.1)
6.95 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 - 0.98) = 0.61 ton/yr

400-bbl Working Tank (EBM-9-4)

Permit Limitation – 556 bbl/day (Requested by Company)
Control efficiency estimated to be 98% for Vapor Recovery Unit (Company Information)

VOC Emissions:

Standing and working losses
VOC Emission Rate: 3,139.14 lb/yr (EPA Tanks Emission Estimation Program v. 4.0)
3,139.14 lb/yr * 0.0005 ton/lb * (1.0-0.98) = 0.03 ton/yr

Flashing losses
VOC Emission Rate: 96.19 lb/hr (HYSIS Flash Emission Estimation Program v.3.1)
96.19 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 8.42 ton/yr

Total losses = 0.03 ton/yr + 8.42 ton/yr = 8.46 ton/yr

HAP Emissions:

Standing and working losses
HAP Emission Rate: 0.001 lb/hr(HYSIS Flash Emission Estimation Program v.3.1)
0.001 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 0.0001 ton/yr

Flashing losses
HAP Emission Rate: 0.09 lb/hr (HYSIS Flash Emission Estimation Program v.3.1)
0.09 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 – 0.98) = 0.0.0079 ton/yr

Total losses = 0.0001 + 0.0079 = 0.008 ton/yr

H_2S Emissions

H_2S Emission Rate: 5.56 lb/hr (HYSIS Flash Emission Estimation Program V.3.1)
5.56 lb/hr * 8760 hr/yr * 0.0005 ton/lb * (1.0 - 0.98) = 0.49 ton/yr

(3) 1.35 MMBtu/hr Heater Treaters (8-HT, and 9-HT, Heater Treater 3)

Fuel Consumption: 1.35 MMBtu/hr
Fuel Heating Value: 520 MMBtu/MMScf

PM Emissions (PM emissions include PM_{10} and $PM_{2.5}$):

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/00)
Calculations: 7.6 lb/MMScf * 1 MMScf/520 MMBtu * 1.35 MMBtu/hr = 0.02 lb/hr
0.02 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.09 ton/yr

NO_x Emissions:

Emission Factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/00)
Calculations: 100 lb/MMScf* 1 MMScf/520 MMBtu * 1.35 MMBtu/hr = 0.26 lb/hr
0.26 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.14 ton/yr

CO Emissions:

Emission Factor: 84 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/00)
Calculations: 84 lb/MMScf* 1 MMScf/520 MMBtu * 1.35 MMBtu/hr = 0.22 lb/hr
0.22 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.96 ton/yr

VOC Emissions:

Emission Factor: 5.5 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/00)
Calculations: 5.5 lb/MMScf* 1 MMScf/520 MMBtu * 1.35 MMBtu/hr = 0.01 lb/hr
0.01 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.06 ton/yr

SO_2 Emissions:

Emission Factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/00)
Calculations: 0.6 lb/MMScf* 1 MMScf/520 MMBtu * 1.35 MMBtu/hr = 0.0016 lb/hr
0.0016 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

HAP Emissions:

Emission Factor: 1.88 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/00 (*sum of all HAPs listed))
Calculations: 1.88 lb/MMScf* 1 MMScf/520 MMBtu * 1.35 MMBtu/hr = 0.0049 lb/hr
0.0049 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

300-bbl Emergency Pop Tank (11-PT)

VOC Emissions:

Emergency Venting

Production Vessels Gas Stream

Gas Volume:	75000 Scf/day or 3,125 Scf/hr	(Company Information)
Gas Specific Gravity:	1.077	(Company Information)
Hours of Operation:	475 hr/yr	(Requested to limit VOC below 100 ton/yr)
Density of Air:	0.078 lb/Scf	(average of at STP and 59˚ F)
VOC Weight %:	36.42	(Gas Analysis)

Calculations: 3125 Scf/hr * 0.078 lb/Scf * 1.077 = 262.52 lb/hr
262.52 lb/hr * 475 hr/yr * 0.0005 ton/lb = 62.35 ton/yr
62.35 ton/yr * 36.42 / 100 = 22.71 ton/yr

Oil Production Flash Gas Stream

Gas Volume:	40,000 Scf/day or 1,667 Scf/hr	(Company Information)
Gas Specific Gravity:	1.285	(Company Information)
Hours of Operation:	475 hr/yr	(Requested to limit VOC below 100 ton/yr)
Density of Air:	0.078 lb/Scf	(average of at STP and 59˚ F)
VOC Weight %:	71.33	(HYSIS Flash Emission Estimation Program V.3.1)

Calculations: 1667 Scf/hr * 0.078 lb/Scf * 1.285 = 167.08 lb/hr
167.08 lb/hr * 475 hr/yr * 0.0005 ton/lb = 39.68 ton/yr
39.68 ton/yr * 71.33 / 100 = 28.30 ton/yr

Total losses = 22.71 ton/yr + 28.30 ton/yr = 51.01 ton/yr

HAP Emissions:

Emergency Venting

Production Vessels Gas Stream

HAP Emission Rate: 0.00 lb/yr (Gas Analysis)

Oil Production Flash Gas Stream

Gas Volume:	40,000 Scf/day or 1,667 Scf/hr	(Company Information)
Gas Specific Gravity:	1.285	(Company Information)
Hours of Operation:	475 hr/yr	(Requested to limit VOC below 100 ton/yr)
Density of Air:	0.078 lb/Scf	(average of at STP and 59˚ F)
HAP Weight %:	0.07	(HYSIS Flash Emission Estimation Program V.3.1)

Calculations: 1667 Scf/hr * 0.078 lb/Scf * 1.285 = 167.08 lb/hr
167.08 lb/hr * 475 hr/yr * 0.0005 ton/lb = 39.68 ton/yr
39.68 ton/yr * 0.07 / 100 = 0.03 ton/yr

Total losses = 0.00 ton/yr + 0.03 ton/yr = 0.03 ton/yr

H_2S Emissions

Emergency Venting

Production Vessels Gas Stream

H_2S Emission Rate: 10.29 lb/hr (Gas Analysis)
10.29 lb/hr * 475 hr/yr * 0.0005 ton/lb = 2.44 ton/yr

Oil Production Flash Gas Stream

H_2S Emission Rate 1.85 lb/hr (HYSIS Flash Emission Estimation Program V.3.1)
1.85 lb/hr * 475 hr/yr * 0.0005 ton/lb = 0.44 ton/yr

Total Losses = 2.44 ton/yr + 0.44 ton/yr = 2.88 ton/yr

Fugitive Emissions – Piping (12-FE)

VOC Emissions

Basis for Emission Factors: EPA Protocol for Equipment Leak Emission Estimates, November 1995 (EPA-453/R-95-017)

VOC Weight %: 63.1 (Gas Analysis)
Connector (Oil): 241 components in light oil service (>=20 API Gravity)
Emission Factor: 0.000210 kg/hr - component or 0.0111 lb/day - component
Calculation: 241 components * 0.0111 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.49 ton/yr
0.49 ton/yr * 63.1 / 100 = 0.31 ton/yr

Connector (Gas): 232 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0002 kg/hr - component or 0.0106 lb/day - component
Calculation: 232 components * 0.0106 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.45 ton/yr
0.45 ton/yr * 63.1 / 100 = 0.28 ton/yr

Total connector emissions (Oil & gas) = 0.31 ton/yr + 0.28 ton/yr = 0.59 ton/yr

Flange (Oil): 99 components in light oil service (>=20 API Gravity)
Emission Factor: 0.00011 kg/hr - component or 0.0058 lb/day - component
Calculation: 99 components * 0.0058 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.11 ton/yr
0.11 ton/yr * 63.1 / 100 = 0.07 ton/yr

Flange (Gas): 38 components in light oil service (>=20 API Gravity)
Emission Factor: 0.00039 kg/hr - component or 0.0206 lb/day - component
Calculation: 38 components * 0.0206 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.14 ton/yr
0.14 ton/yr * 63.1 / 100 = 0.09 ton/yr

Total flange emissions (Oil & gas) = 0.07 ton/yr + 0.09 ton/yr = 0.16 ton/yr

Open-Ended Lines (Oil): 9 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0014 kg/hr - component or 0.0741 lb/day - component
Calculation: 9 components * 0.0741 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.12 ton/yr
0.12 ton/yr * 63.1 / 100 = 0.08 ton/yr

Open-Ended Lines (Gas): 8 components in light oil service (>=20 API Gravity)
Emission Factor: 0.002 kg/hr - component or 0.1058 lb/day - component
Calculation: 8 components * 0.1058 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.16 ton/yr
0.16 ton/yr * 63.1 / 100 = 0.10 ton/yr

Total open-ended line emissions (Oil & gas) = 0.08 ton/yr + 0.10 ton/yr = 0.18 ton/yr

Pumps (Oil): 3 components in light oil service (>=20 API Gravity)
Emission Factor: 0.013 kg/hr - component or 0.6878 lb/day - component
Calculation: 3 components * 0.6878 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.38 ton/yr
0.38 ton/yr * 63.1 / 100 = 0.24 ton/yr

Pumps (Gas): 0 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0024 kg/hr - component or 0.127 lb/day - component
Calculation: 0 components * 0.127 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.00 ton/yr
0.00 ton/yr * 63.1 / 100 = 0.00 ton/yr

Total pump emissions (Oil & gas) = 0.24 ton/yr + 0.00 ton/yr = 0.24 ton/yr

Valves (Oil): 80 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0025 kg/hr - component or 0.1323 lb/day - component
Calculation: 80 components * 0.1323 lb/day-component * 365 day/yr * 0.0005 ton/lb = 1.93 ton/yr
1.93 ton/yr * 63.1 / 100 = 1.22 ton/yr

Valves (Gas): 50 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0045 kg/hr - component or 0.2381 lb/day - component
Calculation: 50 components * 0.2381 lb/day-component * 365 day/yr * 0.0005 ton/lb = 2.17 ton/yr
2.17 ton/yr * 63.1 / 100 = 1.37 ton/yr

Total valve emissions (Oil & gas) = 1.22 ton/yr + 1.37 ton/yr = 2.59 ton/yr

Others (Oil): 4 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0075 kg/hr - component or 0.3968 lb/day - component
Calculation: 4 components * 0.3968 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.29 ton/yr
0.29 ton/yr * 63.1 / 100 = 0.18 ton/yr

Others (Gas): 5 components in light oil service (>=20 API Gravity)
Emission Factor: 0.0088 kg/hr - component or 0.4656 lb/day - component
Calculation: 5 components * 0.4656 lb/day-component * 365 day/yr * 0.0005 ton/lb = 0.42 ton/yr
0.42 ton/yr * 63.1 / 100 = 0.27 ton/yr

Total other emissions (Oil & gas) = 0.18 ton/yr + 0.27 ton/yr = 0.45 ton/yr

Total fugitive emissions – piping (12-FE) = 0.59 ton/yr + 0.16 ton/yr + 0.18 ton/yr + 0.24 ton/yr + 2.59 ton/yr + 0.45 ton/yr = 4.22 ton/yr

HAP Emissions

Basis for Emission Factors: EPA Protocol for Equipment Leak Emission Estimates, November 1995 (EPA-453/R-95-017)

HAP	Speciation Factor (% HAP in vapor phase)	VOC Emissions (ton/yr)	Control Efficiency (%)	HAP Emissions (ton/yr)
Benzene	0.0054	4.21	0	0.0227
Toluene	0.0559	4.21	0	0.2353
Ethylbenzene	0.0073	4.21	0	0.0307
Xylene	0.0089	4.21	0	0.0375
Tolulene	0.0303	4.21	0	0.1276
Total HAPs from fugitives				0.4538 ton/yr

H_2S Emissions

Calculation: 0.13 lb/hr*8760 hr/yr * 0.0005 ton/lb = 0.57 ton/yr (HYSIS Flash Emission Estimation Program V.3.1)

Pneumatic Devices (13-PD)

VOC Emissions

Fuel Consumption Rate: 0.2 Scf/min or 12 Scf/hr (Company Information (EPA Estimate))
Gas Specific Gravity: 0.8586 (Gas Analysis)
Density of Air: 0.078 (average of at STP and 59˚ F)
# of Pneumatic Devices: 13 (Company Information)
VOC Weight %: 1.09 (Gas Analysis)

Calculation: 12 Scf/hr/device * 0.078 lb/Scf * .8586 * 13 device = 10.45 lb/hr
10.45 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 45.77 ton/yr
45.77 ton/yr * 1.09 / 100 = 0.49 ton/yr

Hap Emissions

0 % Haps based on analysis of the fuel gas from the Elk Basin Gas Plant

Emergency Flare Pit (5-EF)

Maximum Gas Rate: 785 MScf/day or 32,708 Scf/hr (Company Information)
Hours of Operation: 135 hr/yr (Requested to limit SO_2 below modeling threshold)
Fuel Gas Heating Value: 1,140 Btu/Scf or 36.5574 MMBtu/hr (Company Information)
Density of Air: 0.078 (average of at STP and 59˚ F)
VOC Weight %: 25.46 (Gas Analysis)
Efficiency: 98% (AP-42, Chapter 13)
Gas Usage (Combusted): 32,708 Scf/hr * 0.98 = 32,054 Scf/hr
Gas not combusted: 32,708 Scf/hr * 0.02 = 654.16 Scf/hr

Combusted Gas

PM Emissions (Soot)

Emission Factor: 11 lb/MMBtu (AP-42, Chapter 13, Table13.5-1, 1/95)
Calculations: 11 lb/MMBtu * 36.5574 MMBtu/hr * 135 hr/yr * 0.0005 ton/lb = 27.14 ton/yr

NO_x Emissions

Emission Factor: 0.068 lb/MMBtu (AP-42, Chapter 13, Table 13.5-1, 1/95)
Calculations: 0.068 lb/MMBtu * 36.5574 MMBtu/hr * 135 hr/yr * 0.0005 ton/lb = 0.17 ton/yr

CO Emissions

Emission Factor: 0.37 lb/MMBtu (AP-42, Chapter 13, Table 13.5-1, 1/95)
Calculations: 0.37 lb/MMBtu * 36.5574 MMBtu/hr * 135 hr/yr * 0.0005 ton/lb = 0.91 ton/yr

SO_x Emissions

Emission Factor: 0.02252 lb/Scf (Company Information (based on 15.2522 weight % H_2S))
0.02252 lb/Scf * 32,054 Scf/hr * 135 hr/yr * 0.0005 ton/lb = 48.73 ton/yr

Non-combusted Gas

VOC Emissions

Calculations: 654.16 Scf/hr * 0.078 lb/Scf * 1.007 = 51.38 lb/hr
51.38 lb/hr * 135 hr/yr * 0.0005 ton/lb = 3.47 ton/yr
3.47 ton/yr * 25.46 / 100 = 0.88 ton/yr

HAP Emissions

HAP Emission Rate: 0.00 lb/yr (Gas Analysis)

H_2S Emissions

Total Uncombusted Waste Gas = 3.47 tons/yr
H_2S Weight Percent: 15.25%
Calculations: 3.47 tons/yr *0.1525 H_2S = 0.53 ton /yr

V. Existing Air Quality

The Encore facility is located in eastern Montana in a sparsely populated area with generally very good ventilation throughout the year. The legal description of the facility is Section 35, Township 9 South, Range 23 East, in Carbon County, Montana. Carbon County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined, based on the relatively small amount of emissions and the existing air quality in the area, that the impact from this permitting action will be minor. The Department believes that the Encore facility will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Encore Energy Partners Operating, LLC
Elk Basin Battery No. 9
777 Main Street, Suite 1400
Fort Wroth, TX 76102

Air Quality Permit Number: 3300-03

Preliminary Determination Issued: 12/17/08
Department Decision Issued: 1/22/09
Permit Final: 2/7/09

1. *Legal Description of Site*: Encore owns and operates an oil and gas production battery located approximately 3.5 miles Northwest of Elk Basin, Wyoming, in Section 35, Township 9 South, Range 23 East, in Carbon County, Montana. The battery is known as Elk Basin Battery No. 9.

2. *Description of Project*: Encore proposes to combine its Elk Basin Tensleep Battery No. 2 and Madison Battery No. 9 into a single facility called Elk Basin Battery No. 9. Presently, the two batteries are located adjacent to one another. Combining the two facilities would render some equipment obsolete and require the installation of additional equipment. Two oil storage tanks (1-OT and 2-BT) and two heater treaters (3-HT and 4-HT) would be removed from service and one oil storage tank (6-OT) would change service from a working oil tank to an emergency oil tank. Two new storage tanks (EBM-9-3 and EBM-9-4) would be commissioned and an out-of-service heater treater that has been on-site since the site was originally commissioned (Heater Treater 3) would be returned to service. The two new tanks would be connected to the existing vapor recovery unit to minimize emissions.

3. *Objectives of Project*: The proposed project would allow Encore to continue to generate business and revenue for the company.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Encore demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #3300-03.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats				X		Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture				X		Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics				X		Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Various species of animals and birds indigenous to south central Montana inhabit areas surrounding the project site. However, no additional impacts on terrestrial or aquatic habitat would be expected from the proposed project since the project would occur in an already disturbed (industrial) area.

B. Water Quality, Quantity and Distribution

The facility is an existing facility and the proposed project would not involve additional land disturbance. As such, the proposed project would not have any impacts on water quality, quantity, and distribution due to facility construction because any impacts associated with facility construction would already have been realized (construction of concrete pads, the pipeline, etc.).

Impacts would be expected on water quality, quantity, and distribution from facility operation, however. The nearest surface water is Silver Tip Creek, which is approximately 1 mile from the facility. The facility would continue to produce air emissions and corresponding deposition of pollutants would continue to occur. However, as described in Section 7.F of this EA, the Department determined that any impacts from deposition would be minor due to the dispersion characteristics of the pollutants and the atmosphere and due to conditions that would be included in MAQP #3300-03.

Additionally, impacts to water quality, quantity, and distribution would be expected because MAQP #3300-03 would require Encore to use water and/or chemical dust suppressant to control fugitive dust emissions from roads and the general facility property. However, any impacts associated with using water to control fugitive dust would be minor due to the nature of the industry. Typically, these facilities do not require daily activities, which would reduce the amount of dust that would be generated by daily activity at the facility. In addition, any

impacts to water quantity and distribution associated with using water for dust suppression would be minimized by utilizing the ground water that is removed as part of the oil extraction process for dust suppression application.

Overall, any impacts on water quality, quantity, and distribution associated with the proposed project would be minor.

C. Geology and Soil Quality, Stability and Moisture

The facility is an existing facility and the proposed project would not involve additional land disturbance. Therefore, the proposed project would not have any impacts on geology and soil quality, stability, and moisture from facility construction because any impacts associated with facility construction would already have been realized.

D. Vegetation Cover, Quantity, and Quality

The facility is an existing facility and the proposed project would not involve additional land disturbance. Therefore, the proposed project would not have any impacts on vegetation cover, quantity, and quality from facility construction because any impacts associated with facility construction would already have been realized.

Impacts would be expected on vegetation cover, quantity, and quality from facility operation because the facility would continue to produce air emissions and corresponding deposition of pollutants would continue to occur. However, as described in Section 7.F of this EA, the Department determined that any impacts from deposition would be minor due to conditions that would be included in MAQP #3300-03.

Overall, any impacts on vegetation cover, quantity, and quality associated with the proposed project would be minor.

E. Aesthetics

No impacts would result on the aesthetics of the area because the proposed facility is an existing facility. In addition, additional noise would not be expected as a result of this project. Overall, the proposed project would not have any impacts on the aesthetics of the area.

F. Air Quality

The proposed project would reduce emission rates from currently permitted levels. While the facility would continue to be a source of air pollution and corresponding deposition of pollutants would continue to occur, any air quality impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants (stack height, stack temperature, etc.) and the atmosphere (wind speed, wind direction, ambient temperature, etc.) and due to conditions that would be placed in MAQP #3300-03. Overall, any impacts to air quality resulting from the proposed project would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique, endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search identified one species of special concern in the vicinity of the project area: the Greater Sage-Grouse. In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone.

Because the facility is an existing facility, the Department determined that the proposed project would not impact any unique, endangered, fragile, or limited environmental resources. In addition, due to dispersion characteristics of pollutants and the atmosphere and due to conditions that would be placed in MAQP #3300-03, the Department determined that the chance of the proposed project having any impacts to any unique, endangered, fragile, or limited environmental resources from facility operations would be minor.

H. Demands on Environmental Resource of Water, Air and Energy

The proposed project would have impacts on the demands on the environmental resources of water and air because the facility would continue to produce air emissions and corresponding deposition would continue to occur. However, as explained in Sections 7. B and 7.F of this EA, the Department determined that any impacts on the demands on air and water resources would be minor.

The proposed project would also have impacts on the demand on the environmental resource of energy because the facility utilizes several pieces of equipment that consume natural gas. However, any impacts to the non-renewable resource of natural gas would be minor due to the very small size of the equipment that consumes natural gas. In addition, the non-renewable resources of crude oil and natural gas would be impacted because the facility would extract commingled crude oil/natural gas. Overall, any impacts to the non-renewable resources of crude oil and natural gas would be minor due to the relatively small size of the operation.

I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there have been a few previously conducted cultural resource inventories conducted in or near the proposed area that indicated a few historic or archaeological sites. However, SHPO stated that as long as there will be no disturbance or alteration to structures over 50 years of age, there would be low likelihood that cultural properties would be impacted. Therefore, the Department determined that the chance of the project impacting any cultural or historic sites would be minor.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment in the immediate area would be minor because the facility is an existing facility. In addition, potential emissions from the facility would be relatively small by industrial standards. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #3300-03.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				X		Yes
B	Cultural Uniqueness and Diversity				X		Yes
C	Local and State Tax Base and Tax Revenue				X		Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities				X		Yes
G	Quantity and Distribution of Employment				X		Yes
H	Distribution of Population				X		Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity				X		Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores

The proposed project would not cause a disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the facility is an existing facility. Therefore, there would be no impacts to existing social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of the area would remain unchanged (no impact) because the facility is an existing facility. Therefore, there would be no impacts to the existing cultural uniqueness and diversity of the area.

C. Local and State Tax Base and Tax Revenue

The local and state tax base and tax revenue would remain unchanged (no impact) because the facility is an existing facility. Because the facility is an existing facility, any impacts to the local and state tax base and tax revenue would already have been realized. In addition, no new employees would be hired as a result of this project.

D. Agricultural or Industrial Production

Because the facility is an existing facility, the proposed project would not displace any agricultural or industrial land. Therefore, the proposed project would not have any impacts to agricultural or industrial production associated with facility construction.

However, the source would continue to be a source of air emissions and corresponding deposition of pollutants would continue to occur. Therefore, agricultural production could be impacted through deposition of pollutants. However, as Section 7.F of this EA explains, the

Department determined that the chance of deposition of pollutants impacting agricultural or industrial production in the areas surrounding the site would be minor due to dispersion characteristics of pollutants, the atmosphere, and conditions that would be placed in MAQP #3300-03.

Overall, any impacts to agricultural or industrial production would be minor.

E. Human Health

The proposed project would impact human health because the facility would continue to be a source of air pollution and deposition of pollutants would continue to occur. However, as explained in Section 7.F of this EA, the Department determined that the chance of deposition of pollutants impacting human health would be minor due to dispersion characteristics of pollutants, the atmosphere, and conditions that would be placed in MAQP #3300-03. In addition, the proposed project, permitted by MAQP #3300-03, would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Therefore, the Department determined that any impacts on human health resulting from the proposed project would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

Access to and quality of recreational and wilderness activities in the area of the proposed project would remain unchanged (no impact) because the facility is an existing facility. Because the facility is an existing facility, any impacts to the access to and quality of recreational and wilderness activities in the area of the proposed project would already have been realized.

G. Quantity and Distribution of Employment

The quantity and distribution of employment in the area of the proposed project would remain unchanged (no impact) because the facility is an existing facility. Because the facility is an existing facility, any impacts to the quantity and distribution of employment in the area of the proposed project would already have been realized. The proposed project would not create any new permanent or temporary employment in the area.

H. Distribution of Population

The distribution of employment in the area of the proposed project would remain unchanged (no impact) because the facility is an existing facility. Because the facility is an existing facility, any impacts to the quantity and distribution of employment in the area of the proposed project would already have been realized. The proposed project would not create any new permanent employment that would cause an increase in population in the area.

I. Demands for Government Services

There would be minor impacts on demands of government services because additional time would be required by government agencies to issue MAQP #3300-03 and to monitor compliance with applicable rules, standards, and MAQP #3300-03. However, government services to monitor compliance with MAQP #3300-03 would be equivalent to the government services currently used to monitor compliance with MAQP #3300-02. Overall, any impacts on the demands for government services would be minor.

J. Industrial and Commercial Activity

No impacts would be expected on the local industrial and commercial activity in the area because the facility is an existing facility and would not represent an increase in the industrial and commercial activity in the area.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would be affected by issuing MAQP #3300-03. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from the proposed project would result in minor impacts to the economic and social aspects of the human environment in the immediate area because the facility is an existing facility. Because the facility is an existing facility, the majority of cumulative and secondary impacts would already have been realized. The Department would not expect other industries to be impacted by the proposed project and the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #3300-03.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the commingling of Elk Basin Tensleep Battery No. 2 and Madison Battery No. 9 into a single facility called Elk Basin Battery No. 9. MAQP #3300-03 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Moriah Peck, P.E.
Date: 12/10/08