

AIR QUALITY PERMIT

Issued To: Hiland Partners, LP
Bakken Gathering Plant
P.O. Box 5103
Enid, Oklahoma 73702

Permit: #3331-04
Application Complete: 4/17/06
Preliminary Determination Issued: 5/01/06
Department Decision Issued: 5/17/06
Permit Final: 6/02/06
AFS: #083-0038

An air quality permit, with conditions, is hereby granted to Hiland Partners, LP (HPL), 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 facility is located approximately 8 miles northwest of Sidney, Montana, in the NE¼ of the NW¼ of Section 3, Township 23 North, Range 58 East, in Richland County, Montana. The facility is known as the Bakken Gathering Plant.

B. Current Permit Action

On March 17, 2006, the Department of Environmental Quality (Department) received an application from HPL for a number of process changes to eliminate production bottlenecks and ensure processing capability for 20 million standard cubic feet per day (MMSCFD) of natural gas. The project includes installation of two natural gas-fired compressor engines up to 185-horsepower (hp) and 930-hp, as well as other process improvements. The application included an administrative amendment request to reduce the maximum rating for Unit #1 from 1,478 hp to 912 hp. HPL submitted further information on April 17, 2006, including a request to reduce the maximum rating for Unit #2 from 1,478 hp to 912 hp, and permit the use of an emergency flare for up to 35 MMSCF per year. Permit #3331-04 replaces Permit #3331-03.

SECTION II. Conditions and Limitations

A. Emission Limitations

1. HPL shall not operate more than seven natural gas compressor engines at any given time. The maximum rated design capacities shall not exceed (ARM 17.8.749):

| | |
|--------|--------|
| Unit 1 | 912 hp |
| Unit 2 | 912 hp |
| Unit 3 | 912 hp |
| Unit 4 | 185 hp |
| Unit 5 | 500 hp |
| Unit 6 | 185 hp |
| Unit 7 | 930 hp |

- The Units 1 – 5 compressor engines shall each be a rich-burn engine controlled with non-selective catalytic reduction (NSCR) units and air-to-fuel ratio (AFR) controllers. The pound per hour (lb/hr) emission limits for each of the engines shall be determined using the following equation and pollutant specific grams per horsepower-hour (g/hp-hr) emission factors (ARM 17.8.752):

Equation

$$\text{Emission Limit (lb/hr)} = \text{Emission Factor (g/hp-hr)} * \text{maximum rated design capacity of engine (hp)} * 0.002205 \text{ lb/g}$$

| <u>Emission Factors</u> | <u>Units 1 – 5</u> |
|------------------------------------|--------------------|
| Nitrogen Oxides (NO _x) | 1.0 g/hp-hr |
| Carbon Monoxide (CO) | 2.0 g/hp-hr |
| Volatile Organic Compounds (VOC) | 1.0 g/hp-hr |

- The Units 6 and 7 compressor engines shall both be four-stroke rich-burn engines controlled with non-selective catalytic reduction (NSCR) units and air-to-fuel ratio (AFR) controllers. The pound per hour (lb/hr) emission limits for each of the engines shall be determined using the following equation and pollutant specific grams per horsepower-hour (g/hp-hr) emission factors (ARM 17.8.752):

Equation

$$\text{Emission Limit (lb/hr)} = \text{Emission Factor (g/hp-hr)} * \text{maximum rated design capacity of engine (hp)} * 0.002205 \text{ lb/g}$$

| <u>Emission Factors</u> | <u>Units 6 & 7</u> |
|-------------------------|------------------------|
| NO _x | 1.0 g/hp-hr |
| CO | 1.0 g/hp-hr |
| VOC | 1.0 g/hp-hr |

- HPL 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 six consecutive minutes (ARM 17.8.304).
- HPL 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).
- HPL 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.4 (ARM 17.8.749).
- Loading tank trucks shall be restricted to the use of submerged fill and dedicated normal service (ARM 17.8.749).
- HPL shall control VOC emitted from tank trucks during loading through use of a vapor return line (ARM 17.8.749 and 17.8.752).

9. The 1,135-hp emergency/backup generator shall be limited to 500 hours of operation during any rolling 12-month time period (ARM 17.8.749).
10. HPL shall only burn diesel fuel with a sulfur content less than 0.5% in the 1,135-hp emergency/backup generator (ARM 17.8.752).
11. HPL shall limit the use of the emergency flare to 35 MMSCF per year of gas, on a 12-month rolling basis. Any calculations used to establish emissions shall be based on the most recent AP-42 factors, unless otherwise allowed by the Department (ARM 17.8.749, 17.8.1204).
12. HPL shall comply with all applicable standards, limitations, reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart A and Subpart KKK, as applicable (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart KKK).

B. Inspection and Repair Requirements

1. Each calendar month, all new fugitive piping components (valves, flanges, pump seals, open-ended lines) installed as part of permitting action #3331-04 shall be inspected for leaks. For purposes of this requirement, detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.105 and ARM 17.8.752).
2. HPL 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. Testing Requirements

1. Each of the compressor engines shall be initially tested for NO_x and CO, concurrently, to demonstrate compliance with the emission limits as calculated in Section II.A.2 and II.A.3. The initial source testing shall be conducted within 180 days of the initial start up date of the compressor engine(s). After the initial source test, additional testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

D. Operational Reporting Requirements

1. HPL 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 permit limitations (ARM 17.8.505).

2. HPL shall document, by month, the hours of operation of the 1,135-hp emergency/backup generator. By the 25th day of each month, HPL shall calculate the total hours of operation of the 1,135-hp emergency/backup generator for the previous month. The monthly information shall be used to verify compliance with the rolling 12-month limitation in Section II.A.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
3. HPL shall document, by month, the amount of natural gas controlled by the emergency flare, in MMSCF. By the 25th day of each month, HPL shall calculate the total amount of gas combusted by the flare for the previous month. The monthly information shall be used to verify compliance with the rolling 12-month limitation in Section II.A.11. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
4. HPL shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a 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 or the addition of a new emission unit.

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).

5. HPL 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).

E. Notification

1. Prior to installation, HPL shall provide the Department with written notification of the maximum rated design capacities of each of the approved rich-burn engines to be installed at the facility (ARM 17.8.749).

2. HPL shall provide the Department with written notification of the actual start-up date(s) of the new compressor engine(s) within 15 days after the actual start-up date(s) (ARM 17.8.749).

F. Recordkeeping Requirements

1. HPL shall maintain a record that only diesel fuel with a sulfur content less than 0.5% was burned in the 1,135-hp emergency/backup generator, for use in verifying compliance with the limitation in Section II.A.10 (ARM 17.8.749).
2. A record of each monthly leak inspection required by Section II.B.1 of this permit shall be kept on file with HPL. 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.
3. All records compiled in accordance with this permit must be maintained by HPL 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).

SECTION III: General Conditions

- A. Inspection – HPL 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 permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if HPL fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving HPL 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 permit 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 therefore, 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 a permit 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 the Board does not issue a stay, 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 air quality permit 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 HPL may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within three years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.762).

PERMIT ANALYSIS
Hiland Partners, LP
Bakken Gathering Plant
Permit #3331-04

I. Introduction/Process Description

Hiland Partners, LP (HPL), is permitted for the construction and operation of the Bakken Gathering Plant. The facility will extract natural gas liquids from field gas and is located in the NE¼ of the NW¼ of Section 3, Township 23 North, Range 58 East, in Richland County, Montana.

A. Permitted Equipment

The facility consists of the following permitted equipment:

| ID | Equipment |
|---------------------|---|
| Unit 1 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 912-horsepower (hp) |
| Unit 2 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 912-hp |
| Unit 3 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 912-hp |
| Unit 4 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 185-hp |
| Unit 5 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 500-hp |
| Unit 6 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 185-hp |
| Unit 7 | Natural gas-fired, rich-burn compressor engine with a maximum rated design capacity equal to or less than 930-hp |
| Hot Oil Heater | Natural gas-fired Hot Oil Heater rated at 25 million British thermal units per hour (MMBtu/hr) |
| Fugitive | Fractionation Unit, including new debutanizer and other plant-wide leaks |
| Dehy Unit #1 | Ethylene Glycol (EG) dehydrator and associated still vent (9 MMSCFD) |
| Dehy Unit #2 | EG dehydrator and associated still vent (11 MMSCFD) |
| Truck Loading | Truck loading @ 3,375 barrels per day (bbl/day); submerged fill and vapor return lines |
| Tanks #1 & 2 | 2-400 bbl condensate storage tanks |
| Tank #3 | 1-500 gallon diesel storage tank |
| Emergency Generator | Diesel-fired backup/emergency generator with a maximum rated design capacity equal to or less than 1,135-hp. |
| Emergency Flare | Emergency Flare with 0.5 MMBTU/hr pilot |

B. Source Description

The Bakken Gathering Plant extracts natural gas liquids from field gas. The fractionation unit (including a depropanizer and a debutanizer) consists of a hot oil heater, several reboilers, multiple holding tanks, an electric refrigeration compressor, and a truck loading station. The EG dehydration units remove moisture from the gas prior to transmission.

C. Permit History

On May 4, 2004, the Department of Environmental Quality (Department) received a complete Montana Air Quality Permit Application from Hiland Partners, LLC (HPLLC) for the construction and operation of the Bakken Gathering Plant. Permit #3331-00 became final and effective on July 3, 2004.

On August 17, 2004, the Department received a complete Montana Air Quality Permit Application from HPLLC for the modification of Permit #3133-00. Specifically, HPLLC requested the following: 1) to add a natural gas compressor engine with a maximum capacity equal to or less than 500-hp; 2) to add a 1,135-hp backup/emergency diesel generator and an associated 500-gallon diesel storage tank; and 3) to remove the 10 MMBtu/hr hot oil heater. Permit #3331-01 replaced Permit #3331-00.

On June 14, 2005, the Department received a letter from HPLLC for an administrative amendment to Permit #3331-01. Specifically, HPLLC requested to add an 11 million standard cubic foot per day (MMSCFD) refrigeration unit, a standby electric compressor, and a dehydrator reboiler and still vent. The potential emissions from the proposed equipment were less than the de minimis threshold of 15 tons per year. The permit action updated the permit analysis with the new equipment. An emission inventory for HPLLC is contained in Section IV of the permit analysis. Permit #3331-02 replaced Permit #3331-01.

On November 10, 2005, the Department received a letter from HPL for an administrative amendment to Permit #3331-02. Specifically, HPL requested to change the corporate name on Permit #3331-02 from HPLLC to HPL and update the permit to reflect the current permit language and rule references used by the Department. Permit #3331-03 replaced Permit #3331-02.

D. Current Permit Action

On March 17, 2006, the Department received an application from HPL for a number of process changes to eliminate production bottlenecks and ensure processing capability for 20 MMSCFD of natural gas. The project includes installation of two natural gas-fired compressor engines up to 185-hp and 930-hp, as well as other process improvements. The application included an administrative amendment request to reduce the maximum rating for Unit #1 from 1,478 hp to 912 hp. HPL submitted further information on April 17, 2006, including a request to reduce the maximum rating for Unit #2 from 1,478 hp to 912 hp, and permit the use of an emergency flare for up to 35 MMSCF per year. Permit #3331-04 replaces Permit #3331-03.

E. 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 permit.

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 Administrative Rules of Montana (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).

HPL 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 PM₁₀

HPL 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 six 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, HPL 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. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million British thermal unit (MMBtu) fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. HPL will utilize natural gas for operating its fuel burning equipment, which will meet this limitation.
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 60, Standards of Performance for New Stationary Sources (NSPS). This facility is considered an NSPS-affected facility under 40 CFR 60 and is subject to the requirements of the following Subparts.
 - a. Subpart A - General Provisions applies to all equipment or facilities subject to an NSPS Subpart as listed below.
 - b. Subpart KKK - Standards of Performance for Onshore Natural Gas Processing: Sulfur Dioxide (SO₂) Emissions. HPL is an NSPS-affected source because it meets the definition of a natural gas processing plant as defined in 40 CFR 60, Subpart KKK.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:

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. Based on the information submitted by HPL, the facility is not subject to the provisions of 40 CFR Part 63, Subpart HH because the facility is not a major source of Hazardous Air Pollutants (HAP).

40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply

with the standards and provisions of 40 CFR Part 63, Subpart HHH. Based on the information submitted by HPL, the facility is not subject to the provisions of 40 CFR 63, Subpart HHH because the facility is not a major source of HAPs.

40 CFR 63, Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. Owners or operators of facilities that utilize reciprocating internal combustion engines (RICE) and that are a major source of HAPs, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart ZZZZ. Based on the information submitted by HPL, the Bakken Gathering Plant is not subject to the provisions of 40 CFR 63, Subpart ZZZZ because although the facility utilizes RICE with a maximum rated design capacity greater than 500-hp, the facility is not a major source of HAPs.

- D. ARM 17.8, Subchapter 4 – Stack Height and Dispersion Techniques including, but not limited to:
1. ARM 17.8.401 Definitions. This rule includes a list of definitions used in this Chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.402 Requirements. HPL must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The proposed heights of the new or altered stacks for HPL are below the allowable 65-meter GEP stack height.
- E. 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 air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. HPL submitted the appropriate permit application and fee for the current permit action.
 2. ARM 17.8.505 When Permit Required--Exclusions. 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 air quality permit (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 air quality permit 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 permit 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.
- F. 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 air quality permit or permit alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons/year of any pollutant. The Bakken Gathering Plant has a PTE greater than 25 tons/year of nitrogen oxides (NO_x), carbon monoxide (CO), and Volatile Organic Compounds (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 Montana Air Quality Permit 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 a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. HPL submitted the required permit application for the current permit 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 a permit. HPL submitted an affidavit of publication of public notice for the March 19, 2006, issue of the *Sidney Herald*, a newspaper of general circulation in the Town of Sidney in Richland County, 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 permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this Subchapter. This rule also requires that the permit 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 air quality permits 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 permit shall be construed as relieving HPL 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 permit applications and making permit decisions on those permit applications that do not require the preparation of an Environmental Impact Statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this Subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit 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 air quality permit 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 permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit 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 air quality permit 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.
- G. 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/year of any pollutant (excluding fugitive emissions).

- H. 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 > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ 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 Air Quality Permit #3331-04 for HPL, the following conclusions were made:
- a. The facility's PTE is less than 100 tons/year for any pollutant.
 - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to current NSPS (40 CFR 60, Subparts A and KKK).
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
 - 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 potential to emit.
 - 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 potential to emit does not require the source to obtain an air quality operating permit.
 - ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

HPL has taken federally enforceable permit limits to keep potential CO emissions below major source permitting thresholds by limiting the amount of natural gas combusted in the emergency flare to less than 35 MMSCF per rolling 12-months. Therefore, the facility is not a major source and, thus a Title V operating permit is not required.

The Department determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, HPL will be required to obtain a Title V Operating Permit.

III. BACT Determination

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

A. Compressor Engines (Units #6 & #7)

1. NO_x and CO BACT

As part of the NO_x and CO BACT analyses, the following control technologies were reviewed:

- Lean-burn engine with a selective catalytic reduction (SCR) unit and a catalytic oxidation unit;
- Lean-burn engine with an SCR unit;
- Lean-burn engine with a catalytic oxidation unit;
- Lean-burn engine with an air-to-fuel ratio (AFR) controller;
- Lean-burn engine with no additional controls;
- Prestratified charge combustion (PCC) (i.e. lean-burn retrofit);
- Rich-burn engine with a non-selective catalytic reduction (NSCR) unit and an AFR controller;
- Rich-burn engine with an NSCR unit;
- Rich-burn engine with an AFR controller;
- Rich-burn engine with catalytic oxidation unit; and
- Rich-burn engine with no additional controls.

HPL provided information from Waukesha and Caterpillar that stated that lean-burn engines of around the hp rating that HPL's project requires would not operate properly given the higher Btu content of the fuel gas (1,200 – 1,480 Btu/Scf). Therefore, lean-burn engines and/or PCC are technically infeasible for the project because the Btu content of the fuel gas is too high.

Catalytic oxidation units cannot be utilized on rich-burn engines because the oxygen concentration from rich-burn engines is not high enough for a catalytic oxidizer to operate properly. Therefore, a rich-burn engine with a catalytic oxidation unit is technically infeasible and will not constitute BACT for the proposed compressor engines.

Technically feasible control options, in order of the highest control efficiency to the lowest control efficiency, include:

- Rich-burn engine with an NSCR unit and an AFR controller;
- Rich-burn engine with an NSCR unit;
- Rich-burn engine with an AFR controller; and
- Rich-burn engine with no additional control.

Rich-burn Engine with an NSCR unit and an AFR Controller

An NSCR unit controls NO_x emissions by using available CO and residual hydrocarbons in the exhaust of a rich-burn engine as a NO_x reducing agent. Without the catalyst, in the presence of oxygen, the hydrocarbons will be oxidized instead of reacting with NO_x. As the excess hydrocarbon and NO_x pass over a honeycomb or monolithic catalyst (usually a combination of noble metals such as platinum, palladium, and/or rhodium), the reactants are reduced to nitrogen (N₂), water (H₂O), and carbon dioxide (CO₂). The noble metal catalyst usually operates between 800 degrees Fahrenheit (°F) and 1,200°F; therefore, the unit would normally be mounted near the engine exhaust to maintain a high enough temperature to allow the various reactions to occur. In order to achieve maximum performance, 80% to 90% reduction of NO_x concentration, the engine must burn a rich fuel mixture, causing the engine to operate less efficiently.

In order to provide for the most effective use of the catalyst in an NSCR unit, it is necessary to install an electronic AFR controller. This device maintains the proper air-to-fuel ratio thereby increasing fuel efficiency, optimizing the level of reducing agents, and minimizing agents that can poison the catalyst. The technologies provide for the maximum NO_x and CO emission reductions.

As proposed by HPL, the Department determined that an NSCR unit with an AFR controller constitutes BACT for the reduction of NO_x and CO emissions resulting from the operation of the proposed natural gas compressor engines. NSCR/AFR control typically constitutes BACT for rich-burn compressor engines. NSCR/AFR control effectively reduces NO_x and CO emissions and represents a technically, economically, and environmentally feasible option for the control of NO_x and CO resulting from internal combustion engines such as those proposed for the current permit action.

Further, it has been demonstrated that these technologies, operated together, are capable of achieving the BACT emission limits established for the proposed compressor engines (Section II.A of Permit #3331-04), of:

- NO_x – 0.41 lb/hr (Unit #6) and 2.05 lb/hr (Unit #7), based on 1.0 gram per horsepower-hour (g/Hp-hr); and
- CO – 0.41 lb/hr (Unit #6) and 2.05 lb/hr (Unit #7), based on 1.0 g/Hp-hr.

Because the highest ranking technically feasible control option was determined to be BACT, the remaining technically feasible control options (rich-burn engine with an NSCR unit; rich-burn engine with an AFR controller; and rich-burn engine with no additional control) were eliminated from consideration and do not need to be reviewed.

2. VOC BACT

The Department is not aware of any BACT determinations that have required controls for VOC emissions from natural gas fired compressor engines. In addition, the same control measures that reduce CO are effective in reducing VOC. HPL proposed the use of an NSCR unit and an AFR controller to meet 1.0 g/hp-hr. However, the Department does not consider the NSCR unit and the AFR controller to be BACT for VOC because the cost per ton of VOC reduced would be above industry norm.

The Department determined that no additional controls and burning pipeline quality natural gas to meet 0.41 lb/hr (Unit #6) and 2.05 lb/hr (Unit #7), based on 1.0 g/Hp-hr constitutes BACT for each of the proposed compressor engines (Section II.A of Permit #3331-04).

3. PM₁₀ and SO₂ BACT

The Department is not aware of any BACT determinations that have required controls for PM₁₀ or SO₂ emissions from natural gas fired compressor engines. HPL proposed no additional controls and burning pipeline quality natural gas as BACT for PM₁₀ and SO₂ emissions from each of the proposed compressor engines. Due to the relatively small amount of PM₁₀ and SO₂ emissions from the proposed engines, any add-on controls would be cost prohibitive. Therefore, the Department concurred with HPL's BACT proposal and determined that no additional controls and burning pipeline quality natural gas will constitute BACT for PM₁₀ and SO₂ emissions from each of the compressor engines.

B. Truck Loading

HPL proposed no additional controls and using best management practices as BACT for VOC emissions from the expanded truck loading operation. The current truck loading operation utilizes submerged fill and a vapor return line to control emissions. Based on the fact that the trucks are annually leak tested, the collection efficiency is estimated to be 90%. Due to the relatively small increase in VOC emissions from the proposed additional truck loading, any additional add-on controls would be cost prohibitive. Therefore, the Department concurred with HPL's BACT proposal and determined that no additional controls and best management practices will constitute BACT for VOC emissions from truck loading. Best management practices would include operating the submerged fill and vapor return line as it was designed to be operated and fixing any malfunctions as soon as reasonably practicable.

C. Fugitive VOC Emissions

HPL proposed no additional controls and using best management practices as BACT for VOC emissions from the fugitive VOC emission sources. The Department is not aware of any BACT determinations that have required controls for VOC emissions from fugitive VOC emissions, other than routine leak detection programs. Due to the relatively small amount of VOC emissions from the proposed additional fugitive VOC emission sources, any add-on controls would be cost prohibitive. Therefore, the Department concurred with HPL's BACT proposal and determined that no additional controls and best management practices will constitute BACT for VOC emissions from the fugitive VOC emission sources. Best management practices would include operating the equipment as it was designed to be operated, a leak detection program, and fixing any malfunctions as soon as reasonably practicable.

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

IV. Emission Inventory

| Source | Tons/year | | | | |
|---|------------------|-----------------|---------------|--------------|-----------------|
| | PM ₁₀ | NO _x | VOC | CO | SO _x |
| 912-hp Waukesha Compressor Engine Unit 1 | 0.60 | 8.81 | 8.81 | 17.62 | 0.02 |
| 912-hp Waukesha Compressor Engine Unit 2 | 0.60 | 8.81 | 8.81 | 17.62 | 0.02 |
| 912-hp Waukesha Compressor Engine Unit 3 | 0.60 | 8.81 | 8.81 | 17.62 | 0.02 |
| 185-hp Caterpillar Compressor Engine Unit 4 | 0.13 | 1.79 | 1.79 | 3.57 | 0.00 |
| 500-hp Caterpillar Compressor Engine Unit 5 | 0.31 | 4.83 | 4.83 | 9.66 | 0.01 |
| 185-hp Caterpillar Compressor Engine Unit 6 | 0.13 | 1.79 | 1.79 | 1.79 | 0.00 |
| 930-hp Waukesha Compressor Engine Unit 7 | 0.60 | 8.98 | 8.98 | 8.98 | 0.02 |
| 25-MMBtu/hr Natural Gas-fired Hot Oil Heater | 0.69 | 9.13 | 0.5 | 7.67 | 0.06 |
| Dehydration Unit #1--Still Vent (9 MMSCFD) | 0.00 | 0.00 | 7.27 | 0.00 | 0.00 |
| Dehydration Unit #2--Still Vent (11 MMSCFD) | 0.00 | 0.00 | 13.14 | 0.00 | 0.00 |
| Fractionation Unit (included in fugitives) | | | | | |
| <i>Fugitive Leaks (valves, flanges, etc.)</i> | 0.00 | 0.00 | 8.72 | 0.00 | 0.00 |
| Truck Loading (3775 bbl/day) – fugitive (controlled by submerged filling and VRU) | 0.00 | 0.00 | 21.00 | 0.00 | 0.00 |
| 400-bbl Condensate Storage Tank #1 | | | | | |
| --Working & Breathing Loss | 0.00 | 0.00 | 0.86 | 0.00 | 0.00 |
| --Flashing Loss | 0.00 | 0.00 | 6.70 | 0.00 | 0.00 |
| 400-bbl Condensate Storage Tank #2 | | | | | |
| --Working & Breathing Loss | 0.00 | 0.00 | 0.86 | 0.00 | 0.00 |
| --Flashing Loss | 0.00 | 0.00 | 6.70 | 0.00 | 0.00 |
| 500-Gallon Diesel Storage Tank | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| Emergency/Backup Generator @ 1135-hp | 0.19 | 7.95 | 0.31 | 3.07 | 0.08 |
| Emergency Flare (restricted to 35 MMSCF/yr) including 0.5MMBtu/hr pilot | 0.15 | 1.61 | 1.28 | 7.92 | 0.01 |
| Total | 4.00 | 62.49 | 111.15 | 95.50 | 0.24 |
| Total Title V (non-Fugitive) | 4.00 | 62.49 | 81.43 | 95.50 | 0.24 |

912-hp Compressor Engines (3 Engines)

Brake Horsepower: 912 bhp
Hours of operation: 8760 hr/yr

PM₁₀ Emissions (filterable & condensable)

Emission Factor: 1.94E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 7.11 MMBtu/hr (Maximum Design)
Calculations: 7.11 MMBtu/hr * 1.94E-02 lb/MMBtu = 0.138 lb/hr
0.138 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.60 ton/yr

NO_x Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: 1.00 gram/bhp-hr * 912 bhp * 0.002205 lb/gram = 2.011 lb/hr
2.011 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.81 ton/yr

VOC Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: 1.00 gram/bhp-hr * 912 bhp * 0.002205 lb/gram = 2.011 lb/hr
2.011 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.81 ton/yr

CO Emissions

Emission factor: 2.00 gram/bhp-hr (BACT Determination)
Calculations: 2.00 gram/bhp-hr * 912 bhp * 0.002205 lb/gram = 4.022 lb/hr
4.022 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 17.62 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 7.11 MMBtu/hr (Maximum Design)
Calculations: 7.11 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.004 lb/hr
0.004 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

185-hp Compressor Engines (2 Engines)

Brake Horsepower: 185 bhp
Hours of operation: 8760 hr/yr

PM₁₀ Emissions (filterable & condensable)

Emission Factor: 1.94E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 1.48 MMBtu/hr (Maximum Design)
Calculations: 1.48 MMBtu/hr * 1.94E-02 lb/MMBtu = 0.029 lb/hr
0.029 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.13 ton/yr

NO_x Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: 1.00 gram/bhp-hr * 185 bhp * 0.002205 lb/gram = 0.41 lb/hr
0.41 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.79 ton/yr

VOC Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: 1.00 gram/bhp-hr * 185 bhp * 0.002205 lb/gram = 0.41 lb/hr
0.41 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.79 ton/yr

CO Emissions (Unit #4)

Emission factor: 2.00 gram/bhp-hr (BACT Determination)
Calculations: 2.00 gram/bhp-hr * 185 bhp * 0.002205 lb/gram = 0.82 lb/hr
0.82 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.57 ton/yr

CO Emissions (Unit #6)

Emission factor: 1.00 gram/bhp-hr (BACT Determination - 2006)
Calculations: 1.00 gram/bhp-hr * 185 bhp * 0.002205 lb/gram = 0.41 lb/hr
0.41 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.79 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 1.48 MMBtu/hr (Maximum Design)
Calculations: 1.48 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.0009 lb/hr
0.0009 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.004 ton/yr

500-hp Compressor Engines (1 Engine)

Brake Horsepower: 500 bhp
Hours of operation: 8760 hr/yr

PM₁₀ Emissions (filterable & condensable)

Emission Factor: 1.94E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 3.60MMBtu/hr (Maximum Design)
Calculations: 3.60 MMBtu/hr * 1.94E-02 lb/MMBtu = 0.07 lb/hr
0.07 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.31 ton/yr

NO_x Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: 1.00 gram/bhp-hr * 500 bhp * 0.002205 lb/gram = 1.103 lb/hr
1.103 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.83 ton/yr

VOC Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: 1.00 gram/bhp-hr * 500 bhp * 0.002205 lb/gram = 1.103 lb/hr
1.103 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.83 ton/yr

CO Emissions

Emission factor: 2.00 gram/bhp-hr (BACT Determination)
Calculations: $2.00 \text{ gram/bhp-hr} * 500 \text{ bhp} * 0.002205 \text{ lb/gram} = 2.205 \text{ lb/hr}$
 $2.205 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 9.66 \text{ ton/yr}$

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 3.60 MMBtu/hr (Maximum Design)
Calculations: $3.60 \text{ MMBtu/hr} * 5.88\text{E-}04 \text{ lb/MMBtu} = 0.002 \text{ lb/hr}$
 $0.002 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

930-hp Compressor Engines (1 Engine)

Brake Horsepower: 930 bhp
Hours of operation: 8760 hr/yr

PM₁₀ Emissions (filterable & condensable)

Emission Factor: 1.94E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 7.07 MMBtu/hr (Maximum Design)
Calculations: $7.07 \text{ MMBtu/hr} * 1.94\text{E-}02 \text{ lb/MMBtu} = 0.137 \text{ lb/hr}$
 $0.137 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.60 \text{ ton/yr}$

NO_x Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hr} * 930 \text{ bhp} * 0.002205 \text{ lb/gram} = 2.05 \text{ lb/hr}$
 $2.05 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.98 \text{ ton/yr}$

VOC Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hr} * 930 \text{ bhp} * 0.002205 \text{ lb/gram} = 2.05 \text{ lb/hr}$
 $2.05 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.98 \text{ ton/yr}$

CO Emissions

Emission factor: 1.00 gram/bhp-hr (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hr} * 930 \text{ bhp} * 0.002205 \text{ lb/gram} = 2.05 \text{ lb/hr}$
 $2.05 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.98 \text{ ton/yr}$

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 7.07 MMBtu/hr (Maximum Design)
Calculations: $7.07 \text{ MMBtu/hr} * 5.88\text{E-}04 \text{ lb/MMBtu} = 0.004 \text{ lb/hr}$
 $0.004 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.02 \text{ ton/yr}$

25-MMBtu/hr Hot Oil Heater H-1

Hours of operation: 8760 hr/yr

Fuel Heating Value: 1200 MMBtu/MMScf (Company Information)
Fuel Consumption: 25 MMBtu/hr (Maximum Design)

PM₁₀ Emissions

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: $7.6 \text{ lb/MMScf} * 25 \text{ MMBtu/hr} / 1200 \text{ MMBtu/MMScf} = 0.16 \text{ lb/hr}$
 $0.16 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.69 \text{ ton/yr}$

NO_x Emissions

Emission factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: $100 \text{ lb/MMScf} * 25 \text{ MMBtu/hr} / 1200 \text{ MMBtu/MMScf} = 2.08 \text{ lb/hr}$
 $2.08 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 9.13 \text{ ton/yr}$

VOC Emissions

Emission Factor: 5.5 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: $5.5 \text{ lb/MMScf} * 25 \text{ MMBtu/hr} / 1200 \text{ MMBtu/MMScf} = 0.11 \text{ lb/hr}$
 $0.11 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.50 \text{ ton/yr}$

CO Emissions

Emission factor: 84 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 84 lb/MMScf * 25 MMBtu/hr / 1200 MMBtu/MMScf = 1.75 lb/hr
1.75 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 7.67 ton/yr

SO₂ Emissions

Emission Factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 0.6 lb/MMScf * 25 MMBtu/hr / 1200 MMBtu/MMScf = 0.013 lb/hr
0.013 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.06 ton/yr

Dehydration Unit #1 (9 MMSCFD)

Hours of operation: 8760 hr/yr

Dehydrator Still Vent

VOC Emissions

Emission Factor: 1.66 lb/hr (GRI GlyCalc, Version 4.0)
Calculations: 1.66 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 7.27 ton/yr

Dehydration Unit #2 (11 MMSCFD)

Hours of operation: 8760 hr/yr

Dehydrator Still Vent

VOC Emissions

Emission Factor: 3.00 lb/hr (GRI GlyCalc, Version 4.0)
Calculations: 3.00 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 13.14 ton/yr

Fugitive Emissions

VOC Emissions

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

Inlet/Fuel Gas Stream

Hours of operation: 8760 hr/yr
VOC Fraction: 0.4325

Valves, Relief valves, Flanges, and Connectors

Subtotal: 2.94 ton/yr previous + 16.41 ton/yr new = 19.35 ton/yr HC
19.35 ton/yr * 0.4325 = 8.37 ton/yr VOC

Condensate Stream

Hours of operation: 8760 hr/yr
VOC Fraction: 0.98

Valves, Relief valves, Flanges, and Connectors

Subtotals: 0.36 ton/yr * 0.98 = 0.35 ton/yr

Total: 8.37 tpy + 0.35 tpy = 8.72 tpy

Truck Loading: Submerged Fill: (Dedicated Normal Service) with VRU Control

Formula 1 of Section 5.2 of EPA's "Compilation of Air Pollutant Emission Factors – AP-42 (1/95)"

$$L_L = 12.46^{SPM}_V/T$$

L_L = loading loss; pounds per 1000 gallons loaded

S = saturation factor = 0.60 (Table 5-2.1)

P = true vapor pressure of liquid loaded; pounds per square inch absolute

M_V = molecular weight of vapors; pound per pound-mole (Table 7.1-2)

T = temperature of bulk liquid loaded; degrees Rankin (degrees Fahrenheit + 460)

Inputs

T = 70 degrees Fahrenheit
S= Submerged loading dedicated normal service
P = Gasoline RVP 13

$$L_L = 7.26 \text{ lb}/10^3 \text{ gal}$$

VRU - Controlled loading efficiency 90% (based on annual truck leak testing)

$$L_{Lcor} = (1-90/100) * 7.26/10^3 = 0.726 \text{ lb}/10^3 \text{ gal}$$

3,775 Bbl/day x 42 gal/bbl x 365 days/yr = 57.87 MM gal/yr
57.87 MM gal/yr x 0.726 lb/10³ gal = 42,007 lb/yr
42,007 lb/yr x 0.0005 ton/lb = 21.00 ton/yr (fugitive emissions)

400-bbl Condensate Storage Tanks (2 Tanks)

Hours of operation: 8760 hr/yr

VOC Emissions

Working & Breathing Loss:

Emission Factor: 1714.34 lb/yr (EPA Tanks, Version 4.0)
Calculations: 1714.34 lb/yr * 0.0005 ton/lb = 0.86 ton/yr

Flashing Loss:

Emissions: 6.70 ton/yr (Vasquez-Beggs Solution Gas/Oil Ration Correlation Method)

500-Gallon Diesel Storage Tank (1 Tank)

Hours of operation: 8760 hr/yr

VOC - Working and Breathing Losses

Emission Factor: 0.32 lb/yr (EPA Tanks, Version 4.0)
Calculations: 0.32 lb/yr * 0.0005 ton/lb = 0.000160 ton/yr

1135-hp Emergency/Backup Diesel Generator (1 Generator)

Brake Horsepower: 1135 bhp
Hours of operation: 500 hr/yr

PM₁₀ Emissions

Emission factor: 0.30 gram/bhp-hr (BACT Determination)
Calculations: 0.30 gram/bhp-hr * 1135 bhp * 0.002205 lb/gram = 0.75 lb/hr
0.75 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.19 ton/yr

NO_x Emissions

Emission factor: 12.7 gram/bhp-hr (BACT Determination)
Calculations: 12.7 gram/bhp-hr * 1135 bhp * 0.002205 lb/gram = 31.78 lb/hr
31.78 lb/hr * 500 hr/yr * 0.0005 ton/lb = 7.95 ton/yr

VOC Emissions

Emission factor: 0.5 gram/bhp-hr (BACT Determination)
Calculations: 0.5 gram/bhp-hr * 1135 bhp * 0.002205 lb/gram = 1.25 lb/hr
1.25 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.31 ton/yr

CO Emissions

Emission factor: 4.9 gram/bhp-hour (BACT Determination)
Calculations: 4.9 gram/bhp-hour * 1135 bhp * 0.002205 lb/gram = 12.26 lb/hr
12.26 lb/hr * 500 hr/yr * 0.0005 ton/lb = 3.07 ton/yr

SO₂ Emission

Emission factor: 0.13 gram/bhp-hour (BACT Determination)
Calculations: 0.13 gram/bhp-hour * 1135 bhp * 0.002205 lb/gram = 0.33 lb/hr
0.33 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.08 ton/yr

Emergency Flare

Pilot

Pilot: 0.5 MMBTU/hr
Fuel Heating Value: 1200 MMBtu/MMScf (Company Information)

PM₁₀ Emissions

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 7.6 lb/MMScf * 0.50 MMBtu/hr / 1200 MMBtu/MMScf = 0.003 lb/hr
0.003 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.014 ton/yr

NO_x Emissions

Emission factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 100 lb/MMScf * 0.50 MMBtu/hr / 1200 MMBtu/MMScf = 0.042 lb/hr
0.042 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.18 ton/yr

VOC Emissions

Emission Factor: 5.5 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 5.5 lb/MMScf * 0.50 MMBtu/hr / 1200 MMBtu/MMScf = 0.002 lb/hr
0.002 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

CO Emissions

Emission factor: 84 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 84 lb/MMScf * 0.50 MMBtu/hr / 1200 MMBtu/MMScf = 0.035 lb/hr
0.035 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.15 ton/yr

SO₂ Emissions

Emission Factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 0.6 lb/MMScf * 0.50 MMBtu/hr / 1200 MMBtu/MMScf = 0.0003 lb/hr
0.0003 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.001 ton/yr

Emergency Gas Combustion

Plant Gas: 32 MMScf/year – RESTRICTION
Fuel Heating Value: 1200 MMBtu/MMScf (Company Information)

PM₁₀ Emissions

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 7.6 lb/MMScf * 35 MMScf/yr / 2000 lb/ton = 0.13

NO_x Emissions

Emission factor: 0.068 lb/MMBtu (AP-42, Chapter 13, Table 13.5-1, 1/95)
Calculations: 0.068 lb/MMBtu * 1200 MMBtu/MMScf * 35 MMScf/yr / 2000 lb/ton = 1.43 ton/yr

VOC Emissions

Emission Factor: 0.14 lb HC/MMBtu * 43.25% VOC = 0.06055 (AP-42, Chapter 13, Table 13.5-1, 1/95)
Calculations: 0.06055 lb/MMScf * 1200 MMBtu/MMScf * 35 MMScf/yr / 2000 lb/ton = 1.27 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 * 1200 MMBtu/MMScf * 35 MMScf/yr / 2000 lb/ton = 7.77 ton/yr

SO₂ Emissions

Emission Factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 0.6 lb/MMScf * 35 MMScf/yr / 2000 lb/ton = 0.01

V. Existing Air Quality

The facility is located in the NE¼ of the NW¼ of Section 3, Township 23 North, Range 58 East in Richland County, Montana. The air quality of this area is classified as either better than National Standards or unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined that the impact from this permitting action will be minor. The Department believes that the 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 a private property taking and damaging assessment and determined there are no taking or damaging implications.

VIII. Environmental Assessment

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

Analysis Prepared By: Christine A. Weaver

Date: April 19, 2006

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: Hiland Partners, LP
Bakken Gathering Plant
P.O. Box 5103
Enid, Oklahoma 73702-5103

Air Quality Permit Number: 3331-04

Preliminary Determination Issued: May 1, 2006

Department Decision Issued: May 17, 2006

Permit Final: June 2, 2006

1. *Legal Description of Site:* The facility is located approximately 8 miles northwest of Sidney, Montana, in the NE¼ of the NW¼ of Section 3, Township 23 North, Range 58 East, in Richland County, Montana. The facility is known as the Bakken Gathering Plant.
2. *Description of Project:* The Bakken Gathering Plant is an existing natural gas processing plant that extracts natural gas liquids from field gas. On March 17, 2006, the Department received an application from HPL for a number of process changes. The project includes installation of two natural gas-fired compressor engines up to 185-hp and 930-hp, as well as other process improvements such as replacing undersized pressure vessels and adding new ones, installing a de-butanizer system, and other process changes. The application included reducing the maximum rating for Units #1 and #2 from 1,478 hp to 912 hp, each. The application also requests a restriction on the use of an emergency flare for up to 35 MMSCF per year.
3. *Objectives of Project:* To remove existing plant bottlenecks and ensure processing capability for 20 MMSCFD of natural gas. In addition, to install a de-butanizer system to make butane and natural gasoline products instead of the butane-gasoline mix that is currently produced.
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 Montana Air Quality Permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because HPL 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, is included in Permit #3331-04.
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 would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would 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 Department has prepared the following comments.

A. Terrestrial and Aquatic Life and Habitats

Emissions from the proposed project may have a minor impact on terrestrial and aquatic life and habitats in the proposed project area. However, as stated in Section V and Section VI of the permit analysis and Section 7.F of this EA, any emissions and resulting impacts from the project would be minor due to the low concentration of those pollutants emitted.

Further, the proposed project is within an existing facility and no new construction or ground disturbance to the area would be required. Overall, any impact to the terrestrial and aquatic life and habitats of the proposed project area would be minor.

B. Water Quality, Quantity, and Distribution

The proposed project would not affect water quantity or distribution in the proposed project area. The proposed project is within an existing facility and no new construction or ground disturbance to the area would be required. Further, the project would not discharge or use water as part of normal operations.

Emissions from the proposed project may have a minor impact on water quality in the proposed project area. However, as detailed in Section V and Section VI of the permit analysis and Section 7.F of this EA, any emissions and resulting deposition impacts from the project would be minor due to the low concentration of those pollutants emitted.

C. Geology and Soil Quality, Stability, and Moisture

The proposed project would not impact the geology, soil quality, stability, and moisture of the proposed project area. The proposed project is within an existing facility and no new construction or ground disturbance to the area would be required.

Further, as described in Section V and Section VI of the permit analysis, and Section 7.F of this EA, the project would result in a minor increase in air pollution emissions to the outside ambient environment. These pollutants may deposit on the soils in the surrounding area. Any impact from deposition of these pollutants would be minor due to dispersion characteristics and the low concentration of those pollutants emitted.

D. Vegetation Cover, Quantity, and Quality

Emissions from the proposed project may have a minor impact on vegetation cover, quantity, and quality in the proposed project area. However, as detailed in Section V and Section VI of the permit analysis and 7.F of this EA, any emissions and resulting impacts from the project would be minor due to dispersion characteristics of pollutants and the atmosphere, and the low concentration and magnitude of those pollutants emitted.

Further, the proposed project is within an existing facility and no new construction or ground disturbance to the area would be required. Overall, any impact to the vegetation cover, quantity, and quality of the proposed project area would be extremely minor.

E. Aesthetics

No impacts would result on the aesthetic value of the area from this project because the facility is an existing facility. The aesthetics would remain the same.

F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because of an additional 25.5 TPY of VOC, 18.2 TPY of CO, and 11.8 TPY of NO_x. However, the Department believes that the emissions would exhibit good dispersion characteristics resulting in relatively low deposition impacts. The impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants (stack height, stack temperature, etc.) and atmosphere (wind speed, wind direction, ambient temperature, etc.). The amount of air concentration of pollutants would be relatively small, and the corresponding deposition of those air pollutants would be minor.

The Department determined that controlled emissions from the source will not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality 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 did not identify any known species of special concern located within the proposed project area. In this case, the project area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone.

Due to the minor amount of construction that would be required and the fact that the project is limited to the existing facility, and due to the relatively low levels of pollutants that would be emitted, the Department determined that it would be unlikely that the proposed project would impact any species of special concern and that any potential impacts would be minor.

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

The proposed project would have minor impacts on the demands for the environmental resources of air due to the minor increase in the potential to emit air pollutants.

The proposed project would not be expected to have any impacts on the demand for the environmental resource of energy. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

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 not been any previously recorded historic or archaeological sites within the proposed area. In addition, SHPO records indicated that no previous cultural resource inventories have been conducted in the area. SHPO recommended that a cultural resource inventory be conducted to determine if cultural or historic sites exist and if they would be impacted. However, neither the Department nor SHPO has the authority to require BPE to conduct a cultural resource inventory. The Department determined that since this project is confined to the existing facility's site, there is no potential impact on historical or archaeological sites.

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 due to the relatively small size of the project. The Department believes that the facility can be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #3331-04.

Additional facilities (compressor stations, gas plants, etc.) could locate in the area to withdraw natural gas from the nearby area and/or to separate the components of natural gas. However, any future facility would be required to apply for and receive the appropriate permits from the appropriate regulating authority. Environmental impacts from any future facilities would be assessed through the appropriate permitting process.

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 | 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 Department has prepared the following comments.

- A. Social Structures and Mores
- B. Cultural Uniqueness and Diversity

The proposed project would not be expected to cause any impact to the social and cultural resources in the area because the proposed project is a modification that would take place in a relatively remote location at an existing facility. There would not be any impact on social or cultural resources in the area.

- C. Local and State Tax Base and Tax Revenue

The proposed project would result in a minor impact to the local and state tax base and tax revenue because one new employee would be expected as a result of this project. Further, the proposed project would necessitate installation activities. Therefore, any installation related jobs would be temporary and not have any foreseeable corresponding impacts on the tax base/revenue.

- D. Agricultural or Industrial Production

The proposed project would have a minor impact on agricultural production due to construction on one acre of former rangeland. The proposed project would have a minor effect on industrial production due to increased capacity at the plant.

- E. Human Health

The proposed project would result in minor, if any, impacts to human health. Deposition of pollutants would occur; however, the amount is small and the Department determined that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Overall any impacts to human health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would have no impact on access to recreational and wilderness activities because the project effects only the existing facility.

G. Quantity and Distribution of Employment

The proposed project would have a minor impact on the employment because there will be the addition of one full-time employee. There will also be a significant amount of construction; however, any installation-related employment would be temporary.

H. Distribution of Population

The proposed project would not impact population because it consists of a modification at an existing facility with the addition of only one employee.

I. Demands for Government Services

There would be minor impacts on the demands for government services because additional time would be required by government agencies to issue the appropriate permits for the proposed modifications and to assure compliance with applicable rules, standards, and conditions that would be contained in those permits. Overall, any demands for government services to regulate the project and activities associated with the synthetic minor status would be minimal.

J. Industrial and Commercial Activity

Only minor impacts would be expected on the local industrial and commercial activity because the proposed project only represents a minor increase in industrial activity, for a short period of time, at an existing facility.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals. The permit would ensure compliance with state standards and goals. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Cumulative and secondary impacts from this project would not impact the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the project, there would be no foreseeable change in the industrial production, employment, and tax revenue (etc.) impacts resulting from the proposed project. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #3331-04.

Recommendation: An EIS is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: There are no significant impacts resulting from the project; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality - Permitting and Compliance Division (Air Resources Management Bureau and Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

Individuals or groups contributing to this EA: Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana Natural Heritage Program, and State Historic Preservation Office (Montana Historical Society).

EA prepared by: Christine Weaver

Date: April 19, 2006