AIR QUALITY PERMIT

Issued To: Hiland Partners, LLC
Bakken Gathering Plant
P.O. Box 5122
Enid, Oklahoma 73702

Permit: #3331-01
Application Complete: 08/17/04
Preliminary Determination Issued: 09/10/04
Department's Decision Issued: 09/28/04
Permit Final: October 14, 2004
AFS: #083-0038

An air quality permit, with conditions, is hereby granted to Hiland Partners, LLC (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 August 17, 2004, the Department of Environmental Quality (Department) received a complete Montana Air Quality Permit Application from HPL for the modification of Permit #3133-00. Specifically, HPL requested the following: 1) to add a natural gas compressor engine with a maximum capacity equal to or less than 500-horsepower (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 million British thermal unit per hour (MMBtu/hr) hot oil heater.

SECTION II. Conditions and Limitations

A. Emission Limitations

1. HPL shall not operate more than five natural gas compressor engines at any given time. The maximum rated design capacity of Units 1 and 2 shall not exceed 1,478-hp, the maximum rated design capacity of Unit 3 shall not exceed 912-hp, the maximum rated design capacity of Unit 4 shall not exceed 185-hp, and the maximum rated design capacity of Unit 5 shall not exceed 500-hp (ARM 17.8.749).

2. Each compressor engine shall 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

Emission Limit (lb/hr) = Emission Factor (g/bhp-hr) * maximum rated design capacity of engine (bhp) * 0.002205 lb/g

Emission Factors

NO_x	1.0 g/hp-hr
CO	2.0 g/hp-hr
VOC	1.0 g/hp-hr

3. 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 6-consecutive minutes (ARM 17.8.304).

4. 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).

5. 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).

6. Loading tank trucks shall be restricted to the use of submerged fill and dedicated normal service (ARM 17.8.749).

7. 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).

8. 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).

9. 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 63, Subpart A and Subpart KKK).

B. 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. 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).

C. 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 total the hours of operation of the 1,135-hp emergency/backup generator during each of the previous 12 months for use in verifying compliance with the limitation in Section II.A.7. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).

3. 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.8 (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. 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).

D. Notification

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

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

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. 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 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 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 3 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, LLC
Bakken Gathering Plant
Permit #3331-01

I. Introduction/Process Description

Hiland Partners, LLC (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 equipment:

(2) natural gas fired rich burn compressor engines (Units 1 and 2) with a maximum rated design capacity equal to or less than 1,478-horsepower (hp);
(1) natural gas fired rich burn compressor engine (Unit 3) with a maximum rated design capacity equal to or less than 912- hp;
(1) natural gas fired rich burn compressor engine (Unit 4) with a maximum rated design capacity equal to or less than 185- hp;
(1) natural gas fired rich burn compressor engine (Unit 5) with a maximum rated design capacity equal to or less than 500-hp;
(1) fractionation unit with a 25-million British thermal units per hour (MMBtu/hr) Hot Oil Heater;
(1) triethylene glycol (TEG) dehydrator and associated still vent;
(1) truck loading station;
(2) 300 barrel (bbl) condensate storage tanks;
(1) 500-gallon diesel storage tank; and
(1) 1,135-hp backup/emergency diesel generator.

B. Source Description

The Bakken Gathering Plant extracts natural gas liquids from field gas. The fractionation unit consists of a hot oil heater, several reboilers, multiple holding tanks, an electric refrigeration compressor, and a truck loading station. The TEG dehydration unit removes 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 HPL for the construction and operation of the Bakken Gathering Plant. Permit #3133-00 became final and effective on July 3, 2004.

D. Current Permit Action

On August 17, 2004, the Department received a complete Montana Air Quality Permit Application from HPL for the modification of Permit #3133-00. Specifically, HPL 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.

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 PM_{10}

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 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 (PM). (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 PM.

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 PM 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 PM 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 (SO_2) 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. In order for a natural gas production facility to be subject to 40 CFR Part 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAPs) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR Part 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR Part 63, Subpart HH do not apply, the facility is subject to 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 HAPs.

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. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Second, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Finally, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable 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. In order for a facility that utilizes a RICE to be subject to 40 CFR Part 63, Subpart ZZZZ requirements, certain criteria must be met. The RICE must have a maximum rated design capacity greater than 500-hp and the facility must be a major

source of HAPs. 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 3 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 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 per year of any pollutant. The Bakken Gathering Plant has a PTE greater than 25 tons per 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 August 15, 2004, 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 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 per 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 (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 Air Quality Permit #3331-01 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 PM_{10} nonattainment area.

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

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.

Based on these facts, the Department determined that the Bakken Gathering Plant is a minor source of emissions as defined under Title V.

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, which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by HPL in Permit Application #3331-01, addressing some available methods of controlling emissions from the proposed new sources at the Bakken Gathering Plant. The Department reviewed these methods, as well as previous BACT determinations in order to make the following BACT determinations.

A. 500-hp Compressor Engine

1. NO_x BACT

As part of the NO_x BACT analysis, the following control technologies were reviewed:

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

Lean burn and/or PCC engines are technically infeasible for the project because the Btu content of the fuel gas (1,480 Btu/Scf) is too high. HPL provided information from 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. Therefore, the Department determined that all of the control options associated with lean burn engines are technically infeasible and will not constitute BACT for the proposed compressor engine. In addition, SCR applied to rich burn engines is technically infeasible because the oxygen concentration from rich burn engines is not high enough for an SCR to operate properly; therefore, the Department determined that all of the control options involving SCR will not constitute BACT for the proposed compressor engine.

Technically feasible control options, in order of the highest control efficiency to the lowest control efficiency, are demonstrated in the following table:

Table 1 – Technically Feasible Control Options

Control Technology	% Control	NO_x Emission Rate (g/Hp-hr)	NO_x Emission Rate (ton/yr)
Rich Burn Engine with NSCR and AFR	92%	1.0	4.83
Rich Burn Engine with NSCR	92%	1.0	4.83
Crossover Engine with NSCR	90%	1.25	6.04
Crossover Engine with No Additional Controls	0.00	3.0	14.49
Rich Burn Engine with AFR	0.00	12.7	61.33
Rich Burn Engine with No Additional Controls	0.00	12.7	61.33

The control methods listed in Table 1 are widely used; these control options cannot be ruled out based on environmental or energy impacts.

Table 2 shows the cost per ton of NO_X reduction achieved for the various technically feasible control options.

Table 2 - Cost Effectiveness

Control Technology	Total Annual Cost	Resulting NO_X Emissions (tpy)	Cost Effectiveness ($/ton)
Controlled Emissions			
Rich Burn Engine with NSCR and AFR	77,707	4.83	$54
Rich Burn Engine with NSCR	77,707	4.83	$54
Crossover Engine with NSCR	106,396	6.04	$396
Rich Burn Engine with AFR	74,666	61.33	0
Baseline Emissions			
Crossover Engine with No Additional Controls	103,051	14.49	0-crossover baseline
Rich Burn Engine with No Additional Controls	74,666	61.33	0-rich burn baseline

- **$1,376 = ($77,707-$74,666) / (61.33.3 tpy-4.83 tpy)**

The use of a rich burn engine with an NSCR unit and an AFR controller is the highest ranking control alternative that was not eliminated from further consideration due to being technically infeasible or due to energy or environmental impacts. Further, the cost effectiveness for the proposal is approximately $54.00 per ton of NO_x reduced, which is

well within industry norms. The Department agrees that the proposed emission limit of 1.0 grams per brake horsepower-hr (g/bhp-hr) using an NSCR unit and an AFR controller to control NO_X emissions from the proposed rich burn engine utilizing NSCR and AFR is BACT. A rich burn engine equipped with NSCR and AFR control is frequently used in the natural gas compression industry and the BACT determination is consistent with other recently permitted similar sources.

2. CO BACT

As part of the CO BACT analysis, the following control technologies were reviewed:

- Lean burn engine with a catalytic oxidation unit and an AFR controller;
- Lean burn engine with a catalytic oxidation unit;
- Lean burn engine with an NSCR unit and an AFR controller;
- Lean burn engine with an NSCR unit;
- Lean burn engine with an AFR controller;
- Lean burn engine with no additional controls;
- PCC engine with a catalytic oxidation unit and an AFR controller;
- PCC engine with a catalytic oxidation unit;
- PCC with an NSCR unit and an AFR controller;
- PCC with an NSCR unit;
- PCC engine with an AFR controller;
- PCC engine with no additional controls;
- Rich burn engine with a catalytic oxidation unit and an AFR controller;
- Rich burn engine with a catalytic oxidation unit;
- 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;
- Rich burn engine with no additional controls;
- Crossover engine with an oxidation catalyst;
- Crossover engine with an NSCR unit; and
- Crossover engine with no additional controls.

Lean burn and/or PCC engines are technically infeasible for the project because the Btu content of the fuel gas (1,480 Btu/Scf) is too high. HPL provided information from 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. Therefore, the Department determined that all of the control options associated with lean burn engines are technically infeasible and will not constitute BACT for the proposed compressor engine. In addition, 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, the Department determined that all control technologies for rich burn engines utilizing a catalytic oxidation unit is technically infeasible and will not constitute BACT for the proposed compressor engine.

Technically feasible control options, in order of the highest control efficiency to the lowest control efficiency, are demonstrated in the following table:

Table 3 - Technically Feasible Control Options

Control Technology	% Control	CO Emission Rate (g/Hp-hr)	CO Emission Rate (ton/yr)
Crossover Engine with Oxidation Catalyst	87%	1.75	8.45
Crossover Engine with NSCR	87%	1.75	8.45
Rich burn Engine with NSCR and AFR	85%	2.0	9.66
Crossover Engine with No Additional Controls	0.00	3.0	14.49
Rich Burn Engine with AFR	0.00	13.7	66.16
Rich Burn Engine with No Additional Controls	0.00	13.7	66.16

The control methods listed in Table 3 are widely used; these control options cannot be ruled out based on environmental or energy impacts.

Table 4 shows the cost per ton of CO reduction achieved for the various technically feasible control options.

Table 4 - Cost Effectiveness

Control Technology	Total Annual Cost	Resulting CO Emissions (tpy)	Cost Effectiveness ($/ton)
Controlled Emissions			
Crossover Engine with Oxidation Catalyst	106,396	8.45	$554
Crossover Engine with NSCR	106,396	8.45	$554
Rich burn Engine with NSCR and AFR	77,707	9.66	$54
Rich Burn Engine with AFR	74,666	66.16	0
Baseline Emissions			
Crossover Engine with No Additional Controls	103,051	14.49	0-crossover baseline
Rich Burn Engine with No Additional Controls	74,666	66.16	0-rich burn baseline

- **$554 = ($106,396-$103,051) / (14.49 tpy-8.45 tpy)**
- **$54 = ($77,707-$74,666) / (66.16 tpy-9.66 tpy)**

HPL proposed the use of a rich burn engine with an NSCR unit and an AFR controller to meet an emission limit of 2.0 g/bhp-hr as BACT. However, as demonstrated in Table 4, a rich burn engine is not the highest-ranking control technology that has a cost effectiveness within industry norms. The highest-ranking control technologies, a crossover engine with an oxidation catalyst and a crossover engine with an NSCR unit, were not eliminated based on technical feasibility, energy impacts, or environmental impacts. However, there are additional environmental impacts to be considered. The Department determined that a rich burn engine with an NSCR unit and an AFR controller was BACT for NO_x emissions from the proposed engine. Because the NO_x ambient standards are more stringent than the CO ambient standards, the Department determined that NO_x emissions take precedent over CO emissions. Therefore, due to the additional environmental impacts associated with a crossover engine with an oxidation catalyst and a crossover engine with an NSCR unit, the Department determined that these control options will not constitute BACT for the proposed compressor engine. The Department agrees with HPL's proposal that a rich burn engine utilizing an NSCR unit and an AFR controller to meet an emission limit of 2.0 g/bhp-hr constitute BACT for the proposed compressor engine. A rich burn engine equipped with NSCR and AFR control is frequently used in the natural gas compression industry and the BACT determination is consistent with other recently permitted similar sources.

3. VOC BACT

The Department is not aware of any BACT determinations that have required controls for VOC emissions from natural gas fired compressor engines. HPL proposed the use of an NSCR unit and an AFR controller to meet a lb/hr limit equivalent to 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 a lb/hr emission limit equivalent to 1.0 g/hp-hr constitutes BACT for each of the proposed compressor engines (Section II.A of Permit #3331-01).

4. PM_{10} and SO_2 BACT

The Department is not aware of any BACT determinations that have required controls for PM_{10} or SO_2 emissions from natural gas fired compressor engines. HPL proposed no additional controls and burning pipeline quality natural gas as BACT for PM_{10} and SO_2 emissions from each of the proposed compressor engines. Due to the relatively small amount of PM_{10} and SO_2 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 PM_{10} and SO_2 emissions from each of the compressor engines.

B. 1,135-hp emergency/backup generator

1. NO_x BACT

As part of the NO_x BACT analysis, the following control technologies were reviewed:

- Combustion Modification;
- SCR;
- NSCR; and
- Proper Design and Combustion.

NSCR on diesel engines is technically infeasible because the NSCR units require a rich fuel mixture for the NSCR to properly operate and diesel engines cannot operate with a rich fuel mixture; therefore, the Department determined that NSCR will not constitute BACT for the proposed generator.

Technically feasible control options, in order of the highest control efficiency to the lowest control efficiency, are demonstrated in the following table:

Table 5 - Technically Feasible Control Options

Control Technology	% Control	CO Emission Rate (g/Hp-hr)	CO Emission Rate (ton/yr)
SCR	60-90%	0.49	0.31
Combustion Modification	0.00	4.9	3.07
No Additional Controls (Proper Design and Combustion	0.00	4.9	3.07

HPL did not provide a total annual cost for combustion modifications or SCR in the BACT analysis. HPL stated that combustion modifications are not applicable to or are ineffective when used to reduce NO_x emissions from diesel engines and eliminated combustion modifications from further consideration due to technical infeasibility. Likewise, HPL eliminated SCR from further consideration on the basis that in order for an SCR unit to properly control NO_x emissions, SCR must be utilized on an engine that operates on a continuous basis. While the Department agrees that combustion modifications are ineffective on diesel engines and that SCR needs to be applied to engines that operate at a constant load, the Department disagrees with HPL that combustion modifications and SCR can be considered technically infeasible and eliminated from further consideration.

Because the 1,135-hp emergency/backup diesel generator is limited to 500 hours per rolling 12-month time frame and because of the relatively small amount of emissions that the 1,135-hp emergency/backup diesel generator would produce, the cost of combustion modifications would be above industry norms and considered cost prohibitive. Therefore, the Department determined that combustion modifications would not be considered BACT for the proposed 1,135-hp emergency/backup generator.

Additional adverse environmental impacts could occur with an SCR unit operating at variable loads as required by a typical compressor engine. SCR units are typically installed on process units that have a constant or low variability in load fluctuation. When engine load changes, excess ammonia (ammonia slip) may pass through the system and out the stack or not enough ammonia will be injected. In addition, because the 1,135-hp emergency/backup diesel generator is limited to 500 hours per rolling 12-month time frame and because of the relatively small amount of emissions that the 1,135-hp emergency/backup diesel generator would produce, the cost of an SCR unit would be above industry norms and considered cost prohibitive. Therefore, the Department determined that an SCR unit would not be considered BACT for the proposed 1,135-hp emergency/backup generator.

HPL proposed the use of no additional controls – proper design and combustion as BACT for the emergency/backup generator. With the exception of no additional controls-proper design and combustion, all available control technologies were eliminated either due to being technically infeasible or due to environmental, energy, or economic impacts. Therefore, the Department determined that no additional controls – proper design and combustion is BACT for the 1,135-hp emergency/backup generator.

2. CO BACT

As part of the CO BACT analysis, the following control technologies were reviewed:

- NSCR;
- Thermal Oxidation;
- Catalytic Oxidation; and
- No Additional Controls – Proper Design and Combustion

NSCR on diesel engines is technically infeasible because NSCR units require a rich fuel mixture for the NSCR to properly operate and diesel engines cannot operate with a rich fuel mixture; therefore, the Department determined that NSCR will not constitute BACT for the proposed generator.

Technically feasible control options, in order of the highest control efficiency to the lowest control efficiency, are demonstrated in the following table:

Table 6 - Technically Feasible Control Options

Control Technology	% Control	CO Emission Rate (g/Hp-hr)	CO Emission Rate (ton/yr)
Thermal Oxidation	80-90%	1.3	0.81
Catalytic Oxidation	80-90%	1.3	0.81
No Additional Controls (Proper Design and Combustion	0.00	12.7	7.95

Table 7 shows the cost per ton of CO reduction achieved for the technically feasible control options.

Table 7 – Cost effectiveness

Control Technology	Total Annual Cost	Resulting CO Emissions (tpy)	Cost Effectiveness ($/ton)
Catalytic Oxidation	13,047	0.81	$1,827
Thermal Oxidation	N/A	0.81	N/A
No Additional Controls (Proper Design and Combustion	0.00	7.95	0.00

- **$1,827 = ($13,047-$0.00) / (7.95 tpy-0.81 tpy)**

HPL did not provide a total annual cost for thermal oxidation in the BACT analysis. HPL stated that thermal oxidation is technically infeasible because the need to add additional heat to the exhaust stream makes thermal oxidation technically impractical. The Department disagreed with HPL and did not eliminate thermal oxidation from consideration based on thermal oxidation being technically infeasible.

Although the cost effectiveness of thermal oxidation would most likely be within industry norm, the Department determined that thermal oxidation will not constitute BACT for the proposed generator because of the environmental and energy impacts associated with thermal oxidation. Thermal oxidation requires temperatures between 1,450 and 1,600 degrees Fahrenheit (ºF) and the exhaust from the proposed generator is approximately 1,000 ºF. Therefore, controlling CO would come at the expense of increasing NO_x emissions because the generator exhaust would need to be heated approximately 500 ºF. In addition, due to the high temperatures required for thermal oxidation, fuel consumption would be excessive.

HPL proposed the use of no additional controls – proper design and combustion as BACT for the emergency/backup generator. However, as demonstrated in Table 6, no additional controls – proper design and combustion is not the highest-ranking technically feasible control technology. Catalytic oxidation has a cost effectiveness of $1,827 per ton of CO removed, which the Department determined is above industry norm. Therefore, the Department determined that no additional controls – proper design and combustion will constitute BACT for the proposed emergency/backup generator.

3. PM/PM_{10}, and VOC BACT

The relatively low emission rates of PM/PM_{10} and VOC would make add-on control technology cost prohibitive for the 1,135-hp emergency/backup generator. Therefore the Department concurs with HPL's proposal of good combustion practices (proper operation and maintenance) as BACT for PM/PM_{10}, and VOC for the 1,135-hp emergency/backup generator.

4. SO_2 BACT

The relatively low emission rate of SO_2 would make add-on control technology cost prohibitive for the 1,135-hp emergency/backup generator. Therefore the Department concurs with HPL's proposal of burning low sulfur diesel fuel with a sulfur content less than 0.5% as BACT for SO_2 for the 1,135-hp emergency/backup generator.

C. 500 gallon Diesel Storage Tank

The Department is not aware of any BACT determinations that have required controls for VOC emissions from diesel storage tanks. HPL proposed no additional controls and using best management practices as BACT for VOC emissions from the diesel storage tank. Due to the relatively small amount of VOC emissions from the proposed diesel storage tank, 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 diesel storage tank. Best management practices would include operating the equipment as it was designed to be operated 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

	Ton/year				
Source	**PM_{10}**	**NO_x**	**VOC**	**CO**	**SO_x**
1,478-hp Waukesha Compressor Engine Unit 1	0.48	14.28	14.28	28.56	0.04
1,478-hp Waukesha Compressor Engine Unit 2	0.48	14.28	14.28	28.56	0.04
912-hp Waukesha Compressor Engine Unit 3	0.30	8.80	8.80	17.60	0.02
185-hp Caterpillar Compressor Engine Unit 4	0.06	1.79	1.79	3.57	0.00
500-hp Caterpillar Compressor Engine Unit 5	0.13	4.82	4.82	9.68	0.01
Dehydration Unit--Still Vent	0.00	0.00	7.27	0.00	0.00
25-MMBtu/hr Hot Oil Heater H-1	0.66	9.13	0.50	7.67	0.06
300 bbl Condensate Storage Tank #1					
--Fugitive Losses	0.00	0.00	0.86	0.00	0.00
--Flashing Losses	0.00	0.00	6.70	0.00	0.00
300 bbl Condensate Storage Tank #2					
--Fugitive Losses	0.00	0.00	0.86	0.00	0.00
--Flashing Losses	0.00	0.00	6.70	0.00	0.00
Truck Loading	0.00	0.00	12.38	0.00	0.00
Fugitive VOC Emissions					
--Inlet/Fuel Gas Stream	0.00	0.00	1.27	0.00	0.00
--Condensate Stream	0.00	0.00	0.35	0.00	0.00
500 Gallon Diesel Storage Tank	0.00	0.00	0.00	0.00	0.00
1135-hp Emergency/Backup Generator	0.19	7.95	0.31	3.07	0.08
Total	**2.30**	**61.05**	**81.17**	**98.71**	**0.25**

1,478-hp Compressor Engines (2 Engines)

Brake Horsepower: 1478 bhp
Hours of operation: 8760 hr/yr

PM_{10} Emissions
Emission Factor: 9.50E-03 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 11.53 MMBtu/hr (Maximum Design)
Calculations: 11.53 MMBtu/hr * 9.50E-03 lb/MMBtu = 0.11 lb/hr
0.11 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.48 ton/yr

NO_x Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 1478 bhp * 0.002205 lb/gram = 3.26 lb/hr
3.26 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 14.28 ton/yr

VOC Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 1478 bhp * 0.002205 lb/gram = 3.26 lb/hr
3.26 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 14.28 ton/yr

CO Emissions
Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: 2.00 gram/bhp-hour * 1478 bhp * 0.002205 lb/gram = 6.52 lb/hr
6.52 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 28.56 ton/yr

SO_2 Emission
Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 11.53 MMBtu/hr (Maximum Design)
Calculations: 11.53 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.01 lb/hr
0.01 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.04 ton/yr

912-hp Compressor Engines (1 Engine)

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

PM_{10} Emissions
Emission Factor: 9.50E-03 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 * 9.50E-03 lb/MMBtu = 0.07 lb/hr
0.07 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.30 ton/yr

NO_x Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 912 bhp * 0.002205 lb/gram = 2.01 lb/hr
2.01 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.80 ton/yr

VOC Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 912 bhp * 0.002205 lb/gram = 2.01 lb/hr
2.01 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.80 ton/yr

CO Emissions
Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: 2.00 gram/bhp-hour * 912 bhp * 0.002205 lb/gram = 4.02 lb/hr
4.02 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 17.60 ton/yr

SO_2 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/hr * 0.0005 ton/lb = 0.02 ton/yr

185-hp Compressor Engines (1 Engine)

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

PM_{10} Emissions
Emission Factor: 9.50E-03 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 * 9.50E-03 lb/MMBtu = 0.01 lb/hr
0.01 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.06 ton/yr

NO_x Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 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-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 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
Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: 2.00 gram/bhp-hour * 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

SO_2 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/hr * 0.0005 ton/lb = 0.004 ton/yr

500-hp Compressor Engines (1 Engine)

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

PM_{10} Emissions
Emission Factor: 9.50E-03 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 3.60MMBtu/hr (Maximum Design)
Calculations: 3.60 MMBtu/hr * 9.50E-03 lb/MMBtu = 0.03 lb/hr
0.03 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.13 ton/yr

NO_x Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 500 bhp * 0.002205 lb/gram = 1.10 lb/hr
1.10 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.82 ton/yr

VOC Emissions
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 500 bhp * 0.002205 lb/gram = 1.10 lb/hr
1.10 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.82 ton/yr

CO Emissions
Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: 2.00 gram/bhp-hour * 500 bhp * 0.002205 lb/gram = 2.21 lb/hr
2.21 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 9.68 ton/yr

SO_2 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 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.002 lb/hr
0.002 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.01 ton/yr

Dehydration Unit
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

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)

PM_{10} Emissions
Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 7.6 lb/MMScf * 25 MMBtu/hr / 1200 MMBtu/MMScf = 0.16 lb/hr
0.16 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.69 ton/yr

NO_x Emissions
Emission factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 100 lb/MMScf * 25 MMBtu/hr / 1200 MMBtu/MMScf = 2.08 lb/hr
2.08 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 9.13 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 * 25 MMBtu/hr / 1200 MMBtu/MMScf = 0.11 lb/hr
0.11 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.50 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

SO_x 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 = 0.01 lb/hr
0.01 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.06 ton/yr

300 bbl Condensate Storage Tanks (2 Tanks)
Hours of operation: 8760 hr/yr

VOC Emissions

Fugitive Losses

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 Losses

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

Truck Loading: Submerged Fill: (Dedicated Normal Service)

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

$L_L = 7.26$ lb/10^3 gal

Controlled loading efficiency 90%

$L_{Lcor} = (1\text{-}90/100) * 7.26/10^3 = 2.18$ lb/10^3 gal

2,225 Bbl/day
93,450 gal/day
34,109,250 gal/yr

Total Loss = 24,759 lb/yr 12.38 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

Totals: 1.30 ton/yr + 1.36 ton/yr + 0.19 ton/yr + 0.09 ton/yr = 2.94 ton/yr
2.94 ton/yr *0.4325 = 1.27 ton/yr

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

Valves, Relief valves, Flanges, and Connectors

Totals: 0.13 ton/yr + 0.17 ton/yr + 0.02 ton/yr + 0.04 ton/yr = 0.36 ton/yr
0.36 ton/yr *0.98 = 0.35 ton/yr

500 Gallon Diesel Storage Tank (1 Tank)
Hours of operation: 8760 hr/yr

VOC Emissions

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

PM_{10} Emissions
Emission factor: 0.30 gram/bhp-hour (BACT Determination)
Calculations: 0.30 gram/bhp-hour * 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-hour (BACT Determination)
Calculations: 12.7 gram/bhp-hour * 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-hour (BACT Determination)
Calculations: 0.5 gram/bhp-hour * 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

SO_2 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	

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.

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, LLC
Bakken Gathering Plant
P.O. Box 5122
Enid, Oklahoma 73702

Air Quality Permit Number: 3331-01

Preliminary Determination Issued: September 10, 2004
Department Decision Issued: September 28, 2004
Permit Final: October 14, 2004

1. *Legal Description of Site*: The HPL Bakken Gathering Plant 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.

2. *Description of Project*: HPL proposes to add a 500-hp natural gas compressor engine, a 1,135-hp emergency/backup generator, and a 500-gallon diesel storage tank to the Bakken Gathering Plant. The facility would extract and fractionate natural gas liquids from field gas.

3. *Objectives of Project*: The proposed project would provide business and revenue for HPL by allowing the company to extract and fractionate natural gas liquids from field gas. Natural gas would be received and the gas would be dehydrated and the natural gas liquids removed for sale.

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, would be included in Permit #3331-01.

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 following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Minor impacts to terrestrial and aquatic life and habitats would be expected from the proposed project because deer, antelope, coyotes, geese, ducks, and other terrestrials would potentially use the area around the facility and because the proposed project would increase air pollutants from the facility. The facility would emit air pollutants and corresponding deposition of pollutants would occur; however, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor. In addition, minor land disturbance would occur through installing the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank. Any impacts from installing the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank would be minor due to the relatively small size of the project and the relatively short installation time. Overall, any impacts to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity, and Distribution

Minor impacts would be expected on water quality, quantity, and distribution from the proposed project because the proposed project would increase air pollutants from the facility. The facility would have no discharges into surface water. However, minor amounts of water may be required to control fugitive dust emissions from the access roads and the general facility property. In addition, the facility would emit air pollutants and corresponding deposition of pollutants would occur. However, as described in Section 7.F. of this EA, the Department determined that any impact resulting from the deposition of pollutants on water quality, quantity, and distribution would be minor.

Further, water quality, quantity, and distribution would not be impacted from installing the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank because there is no surface water at or relatively close to the site. Furthermore, no direct discharges into surface water would occur and no use of surface water would be expected for facility

construction. Therefore, no impacts to water quality, quantity, and distribution would be expected from facility construction. Overall, any impacts to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Minor impacts would occur on the geology and soil quality, stability, and moisture from the proposed project because minor construction would be required to install the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank. In addition, no discharges, other than air emissions, would occur at the facility. Any impacts to the geology and soil quality, stability and moisture from installing the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank would be minor due to the relatively small size of the project.

Further, deposition of pollutants would occur; however, as described in Section 7.F of this EA, the Department determined that any impacts resulting from the deposition of pollutants on the soils surrounding the site would be minor. Overall, any impacts to the geology and soil quality, stability, and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would occur on vegetation cover, quantity, and quality because minor construction would be required to install the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank.

In addition, no discharges, other than air emissions, would occur at the facility. Any impacts to the vegetation cover, quantity, and quality from installing the proposed engine, emergency/backup generator, and 500-gallon diesel storage tank would be minor due to the relatively small size of the project.

The facility would be a source of air pollutants and corresponding deposition of pollutants would occur. However, as described in Section 7.F of this EA, the Department determined that any impacts resulting from the deposition of pollutants on the existing vegetation cover, quantity, and quality would be minor. Overall, any impacts to vegetation cover, quantity, and quality would be minor.

E. Aesthetics

Minor impacts would result on the aesthetic values of the area because the proposed project would be visible and would create additional noise. However, any visual aesthetic impacts would be minor because the natural gas gathering plant is an existing facility. In addition, any auditory aesthetic impacts would be minor because the natural gas gathering plant is an existing facility and any additional noise from the proposed project would be minimal. Overall, any aesthetic impacts would be minor.

F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because the proposed project would emit the following air pollutants: PM_{10}; NO_x; CO; VOC, including HAPs; and SO_x. Air emissions from the facility would be minimized by limitations and conditions that would be included in Permit #3331-01. Conditions would include, but would not be limited to, BACT emission limits and opacity limitations on the proposed engine,

generator, and diesel storage tank, as well as the general facility. In addition, based on previous analysis of sources of this type operating under similar conditions, the Department believes that the emissions resulting from the proposed project would exhibit good dispersion characteristics resulting in relatively low deposition impacts. While deposition of pollutants would occur as a result of implementing the proposed project, the Department determined that the impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants (stack height, stack temperature, etc.), the atmosphere (wind speed, wind direction, ambient temperature, etc.), and conditions that would be placed in Permit #3331-01. The air concentration of pollutants would be relatively small, and the corresponding deposition of those air pollutants would be minor.

Since controlled emissions from the proposed project would exhibit good dispersion characteristics and would not exceed any Montana ambient air quality modeling threshold, 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 facility 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 locating 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 amounts of construction that would be required, the relatively low levels of pollutants that would be emitted, and because the NRIS search did not identify any species of special concern in the area of the proposed facility, 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 Resource of Water, Air, and Energy

The proposed project would have minor impacts on the demands for the environmental resources of air, because the facility would be a source of air pollutants, and water because the facility may use water for dust suppression. Deposition of pollutants would occur as a result of operating the facility; however, as explained in Section 7.F of this EA, the Department determined that any impacts from deposition of pollutants would be minor.

The proposed project would be expected to have minor impacts on the demand for the environmental resource of energy because power would be required at the site. The impact on the demand for the non-renewable environmental resource of energy would be minor because the facility would be relatively small by industrial standards. 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 HPL to conduct a cultural resource inventory. The Department determined that due to the previous disturbance in the area (the facility is an existing facility and the area is an active crude oil field) and the small amount of land disturbance that would be required to implement the proposed project, 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 due to the relatively small size of the project and little construction activities associated with the proposed project. 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 #3331-01.

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		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
B. Cultural Uniqueness and Diversity

The proposed project would not impact the social structures and mores or cultural uniqueness and diversity in the area because the proposed project would take place at an existing facility that is located in a relatively remote location. Further, the predominant use of the surrounding area would not change as a result of implementing the proposed project.

C. Local and State Tax Base and Tax Revenue

The proposed project would result in minor, if any, impacts to the local and state tax base and tax revenue because no new employees would be expected as a result of implementing the proposed project. Further, the proposed project would necessitate relatively little construction and typically would not require an extended period of time for completion. Therefore, any construction related jobs would be temporary and any corresponding impacts on the tax base/revenue in the area would be minor. Overall, any impacts to the local and state tax base would be minor.

D. Agricultural or Industrial Production

The proposed project would not result in any impacts to agricultural production or land use because the proposed project would operate within the existing HPL site and any additional construction or land disturbance would take place within the existing facility boundary. Further, the nature of the project would slightly increase industrial production because the proposed project would add a 500-hp natural gas compressor engine, a 1,135-hp emergency/backup generator, and a 500-gallon diesel storage tank to the facility. 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. Overall, any impacts to agricultural or industrial production of the area would be minor.

E. Human Health

The proposed project would result in minor, if any, impacts to human health. As explained in Section 7.F of this EA, deposition of pollutants would occur; however, 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 not impact access to recreational and wilderness activities because the facility is an existing facility that is relatively small and that is located in a relatively remote location. The proposed project would have minor impacts on the quality of recreational and wilderness activities in the area because the facility, while relatively small by industrial standards, would be adding additional equipment that would be visible and would produce additional noise. Overall any impacts to the access to and quality of recreational and wilderness activities in the area would be minor.

G. Quantity and Distribution of Employment
H. Distribution of Population

The implementation of the proposed project would require the use of existing HPC personnel for operations and would likely not require any new employees. Therefore, the proposed project would have little or no impact on the quantity and distribution of employment and population in the area.

I. Demands for Government Services

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Demands for government services would be minor and consistent with current demands.

J. Industrial and Commercial Activity

Only minor impacts would be expected on the local industrial and commercial activity because the proposed project would represent only a minor increase in the industrial and commercial activity in the area. The proposed project would be relatively small and would take place at an existing facility that is located in a relatively remote location.

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. Overall, any impacts to the local industrial and commercial activity of the area would be minor.

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.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the project, the industrial production, employment, and tax revenue (etc.) impacts resulting from the proposed project would be minor. 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 #3331-01.

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.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permit action is for the construction and operation of a 500-hp natural gas compressor engine, a 1,135-hp emergency/backup generator, and a 500-gallon diesel storage tank at the existing Bakken Gathering Plant. Permit #3331-01would include 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 and Waste Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Dave Aguirre
Date: September 2, 2004