AIR QUALITY PERMIT

Issued To:	KOB General Partnership Blaine County #4 Compressor Station P.O. Box 40 Havre, MT 59501	Permit: #3060-05 Application Complete: 10/27/06 Preliminary Decision Issued: 11/28/06 Department Decision Issued: 12/14/06 Permit Final: AFS #: 005-0010

An air quality permit, with conditions, is hereby granted to KOB General Partnership (KOB), 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

KOB owns and operates a natural gas compressor station known as the Blaine County #4 Compressor Station. The facility is located in the SW¼ of Section 8, Township 33 North, Range 19 East, in Blaine County, Montana. A complete list of the permitted equipment is contained in Section I.A of the Permit Analysis.

B. Current Permit Action

On October 27, 2006, the Department of Environmental Quality (Department) received a complete application from KOB for the modification of Permit #3060-04. KOB requested the installation of a lean-burn compressor engine with a maximum rated design capacity equal to or less than 2,400-brake-horsepower (bhp) equipped with an oxidation catalyst and air-to-fuel ratio (AFR) controller. Also, the testing requirements for engine #6 and engine #7 were changed and the reporting requirement for the backup generator was changed.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. The maximum rated design capacity of compressor engine #6 shall not exceed 1,341-bhp (ARM 17.8.749).

2. Compressor engine #6 shall be a 4-stroke lean-burn engine with oxidation catalyst and electronic AFR controller. The pound per hour (lb/hr) emission limits for the 1,341-bhp lean-burn engine shall be determined using the following equation and pollutant specific gram per brake-horsepower-hour (g/bhp-hr) emission factors (ARM 17.8.752):

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

   <u>Emission Factors</u>

Oxides of Nitrogen (NO_x):	1.0 g/bhp-hr
Carbon Monoxide (CO):	0.5 g/bhp-hr
Volatile Organic Compounds (VOC):	1.0 g/bhp-hr

3. The maximum rated design capacity of compressor engine #7 shall not exceed 1,341-bhp (ARM 17.8.749).

4. Compressor engine #7 shall be a 4-stroke lean-burn engine with an oxidation catalyst and electronic AFR controller. The lb/hr emission limits for the 1,341-bhp lean-burn engine shall be determined using the following equation and pollutant specific g/bhp-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/gram

   Emission Factors

NO_x:	1.0 g/bhp-hr
CO:	0.5 g/bhp-hr
VOC:	1.0 g/bhp-hr

5. The maximum rated design capacity of compressor engine #8 shall not exceed 2,400-bhp (ARM 17.8.749).

6. Compressor engine #8 shall be a 4-stroke lean-burn engine with an oxidation catalyst and electronic AFR controller. The lb/hr emission limits for the 2,400-bhp lean-burn engine shall be determined using the following equation and pollutant specific g/bhp-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/gram

   Emission Factors

NO_x:	1.0 g/bhp-hr
CO:	0.5 g/bhp-hr
VOC:	0.5 g/bhp-hr

7. The 60-kilowatt (kW) Generac generator shall only be used as a backup generator or in emergency situations (ARM 17.8.749).

8. KOB shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.749).

9. Compressor engine #6, compressor engine #7, compressor engine #8, and the TEG dehydrator reboiler shall combust only pipeline quality natural gas (ARM 17.8.752).

10. KOB 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).

11. KOB 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).

12. KOB 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.8 (ARM 17.8.749).

B. Testing Requirements

1. KOB shall initially test compressor engine #6 (maximum design capacity 1,341 bhp) for NO_x and CO, concurrently, to demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.2. The initial source testing shall be conducted within 180 days of the initial start-up date of compressor engine #6. After the initial source test, additional testing shall continue on an every four-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. KOB shall initially test compressor engine #7 (maximum design capacity 1,341 bhp) for NO_x and CO, concurrently, to demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.4. The initial source testing shall be conducted within 180 days of the initial start-up date of compressor engine #7. After the initial source test, additional testing shall continue on an every four-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).

3. KOB shall initially test compressor engine #8 (maximum design capacity 2,400 bhp) for NO_x and CO, concurrently, to demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.6. The initial source testing shall be conducted within 180 days of the initial start-up date of compressor engine #8. After the initial source test, additional testing shall continue on an every four-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).

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

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

C. Operational Reporting Requirements

1. KOB 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. KOB shall submit the following information annually to the Department by March 1 of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

   a. Hours of operation for the 60-kW Generac generator; and

   b. A summary report listing the reasons the 60-kW Generac generator was operating.

2. KOB 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).

3. All records compiled in accordance with this permit must be maintained by KOB as a permanent business record for at least five 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 – KOB 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 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 KOB fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving KOB 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. 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 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 KOB 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
KOB General Partnership
Permit #3060-05

I. Introduction/Process Description

KOB General Partnership (KOB) owns and operates a natural gas compressor station. The facility is located in the SW¼ of Section 8, Township 33 North, Range 19 East, of Blaine County, Montana, and is known as the Blaine County #4 Compressor Station.

A. Permitted Equipment

The facility consists of the following equipment and materials:

- (2) 1,341 brake-horsepower (bhp) natural gas-fired 4-stroke lean-burn compressor engines equipped with an oxidation catalysts and air-to-fuel ratio (AFR) controllers
- (1) 2,400 bhp natural gas-fired 4-stroke lean-burn compressor engine equipped with an oxidation catalyst and AFR controller
- (2) 0.3-million British thermal units per hour (MMBtu/hr) glycol dehydrator;
- (4) Natural gas space heaters
- (2) Glycol dehydrator Vent Stack
- (1) 60-kilowatt (kW) Genarac generator to be used as an emergency back-up generator

B. Source Description

The Blaine County #4 Compressor Station utilizes three lean-burn compressor engines to gather, compress, and transmit natural gas through a natural gas pipeline.

C. Permit History

On November 20, 1999, the Department of Environmental Quality (Department) issued Havre Pipeline Company, LLC (HPC) **Permit #3060-00** for the operation of the Blaine County #4 Compressor Station and associated equipment.

On March 15, 2001, the Department issued Permit #3060-01 to HPC. The permit was a modification of Permit #3060-00. HPC requested to add a 60-kW Generac emergency generator to their permitted equipment. HPC requested the generator be added to the permit as a de minimis source. The Department added the 60-kW Generac generator to Permit #3060-00 and updated the permit to reflect current permit format and rule references. **Permit #3060-01** replaced Permit #3060-00.

On August 23, 2004, the Department received a request to change the corporate name on Permit #3060-01 from HPC to KOB-Louisiana Corporation (KOB-LC). The current permit action changed the corporate name on Permit #3060-01 from HPC to KOB-LC, and updated the permit to reflect current permit language and rule references used by the Department. **Permit #3060-02** replaced Permit #3060-01.

On July 18, 2005, the Department received a transfer of ownership request to transfer the permit ownership from KOB-LC to KOB. The permit was also updated to reflect current permit language and rule references used by the Department. **Permit #3060-03** replaced Permit #3060-02.

On August 8, 2006, the Department received a complete application for the modification of Permit #3060-03. KOB's request included the installation of two lean-burn compressor engines with a maximum rated design capacity equal to or less than 1,341 bhp each with oxidation catalysts and AFR controllers. In addition, KOB requested to install a second tri-ethylene glycol (TEG) dehydrator and associated 0.30 MMBtu/(hr) reboiler and still vent, and to remove the 2,400 bhp Caterpillar G3608 TA compressor engine from the permit. **Permit #3060-04** replaced Permit #3060-03.

D. Current Permit Action

On October 27, 2006, the Department received a complete application from KOB for the modification of Permit #3060-04. KOB requested the installation of a lean-burn compressor engine with a maximum rated design capacity equal to or less than 2,400 bhp equipped with an oxidation catalyst and AFR controller. Also, the testing requirements for engine #6 and engine #7 were changed and the reporting requirement for the backup generator was changed. **Permit #3060-05** replaces Permit #3060-04.

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

2. <u>ARM 17.8.105 Testing Requirements</u>. 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. <u>ARM 17.8.106 Source Testing Protocol</u>. 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).

   KOB 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 four 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}

KOB 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 (PM). (2) Under this rule, KOB 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 Btu 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. KOB will burn pipeline quality natural gas in the compressor engine, 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 Code of Federal Regulations (CFR) 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. A major source of Hazardous Air Pollutants (HAPs), as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as applicable, including the following subparts:

   - Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities
   - Subpart HHH – National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities
   - Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (Internal Combustion Engines > 500hp)

   Based on the information submitted by KOB, the Blaine County #4 Compressor Station is not subject to the provisions of 40 CFR 63, because 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. KOB must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The height of the stack for KOB is 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. KOB submitted the required application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an 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. KOB has a PTE greater than 25 tons per year of NO_x and carbon monoxide (CO); 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. KOB 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. KOB submitted an affidavit of publication of public notice for the October 23, 2006, issue of the *Havre Daily News*, a newspaper of general circulation in Blaine 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 KOB 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 #3060-05 for KOB, 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 KOB 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. KOB 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 determination is required for each new or modified source. The BACT analysis addresses the available methods for controlling NO_x, CO, volatile organic compounds (VOC), PM_{10}, and sulfur dioxide (SO_2) emissions from the proposed project. The Department reviewed previous BACT determinations for internal combustion engines before making the following BACT determination.

A. 2,400 bhp Capacity Natural Gas Compressor Engine

1. CO BACT

a. *Identification of CO Control Options:*

CO is a product of incomplete combustion. Reciprocating engines have the following available types of CO control options:

- Parametric controls (timing and operating at a leaner AFR)
- Post-combustion catalytic controls:
  - Lean-burn: oxidation catalysts
  - Rich-burn: nonselective catalytic reduction (NSCR)

b. *Eliminate Technically Infeasible CO Options:*

Catalytic oxidation applied to a rich-burn is technically infeasible because the oxygen concentration from a rich-burn engine is not high enough for a catalytic oxidizer to operate properly. Excess oxygen is needed by the catalytic oxidizers to efficiently oxidize CO to CO_2.

An NSCR unit applied to a lean-burn or lean-burn retrofit engine is also technically infeasible because the NSCR unit needs a rich fuel-to-air ratio to operate effectively.

c. *Rank Feasible CO Control Options:*

Technically feasible control options, in order of the lowest CO emission rate to the highest CO emission rate:

Control Technology	% Control	CO Emission Rate (g/bhp-hr)
Lean-burn with Catalytic Oxidizer and AFR	70% - 90%	0.5
Rich-burn with NSCR and AFR	80% - 90%	2 .0
Lean-burn without Control	0%	2.5
Rich-burn without Control	0%	32

The control methods listed above are widely used; these control options cannot be eliminated solely based on environmental or energy impacts. Lean-burn engines do emit relatively higher HAP (formaldehyde) emissions than rich-burn engines. Lean-burn engines cannot be eliminated based on higher formaldehyde emissions, but the higher formaldehyde emissions can affect the BACT determination.

d. *Select CO BACT:*

Lean-burn engine technology with an oxidation catalyst and an AFR controller is considered the most technically practicable and economically feasible CO control option for internal combustion natural gas compressor engines. Under the current permit action, KOB proposed one lean-burn engine with an oxidation catalyst and AFR controller. After consideration of potential impacts (energy, environment, economic and other costs) and reviewing previous BACT determinations for similar sources, the Department determined that a 4-stroke lean-burn natural gas compressor engine with an oxidation catalyst and an AFR controller meeting an emission limit of 0.5 gram per brake horsepower-hour (g/bhp-hr) of CO constitutes BACT in this case. The Department believes that the proposed 2,400-bhp lean-burn compressor engine, operating with an oxidation catalyst and AFR controller, is capable of meeting the BACT-determined CO emission limit.

2. NO_X BACT

a. *Identification of NO_x Control Options:*

Essentially all NO_x formed in natural gas-fired reciprocating engines occurs through the thermal NO_x mechanism, which is mostly formed in high-temperature regions in the cylinder where combustion air has mixed sufficiently with the fuel. Maximum NO_x formation occurs near the stoichiometric air-to-fuel mixture ratio. Lean-burn engines typically have lower NO_x emissions than rich-burn engines. Reciprocating engines have the following types of NO_x control options:

- Parametric controls (timing and operating at a leaner AFR)

- Postcombustion catalytic controls:

  - Lean-burn: selective catalytic reduction (SCR)
  - Rich-burn: NSCR

b. *Eliminate Technically Infeasible Options:*

SCR is not applied to rich-burn engines because oxygen in the exhaust is not high enough for an SCR to operate properly. Additionally, an SCR is not designed to operate on compressor engines that can expect variable load demands and rapid start and stop operation. Typical compressor engines operate at variable loads creating technical difficulties for SCR operation such as periods of ammonia slip or periods of insufficient ammonia injection. SCR units have not been installed on lean-burn compressor engines in Montana.

An NSCR unit applied to a lean-burn or lean-burn retrofit engine is also technically infeasible because the NSCR unit needs a rich fuel-to-air ratio to operate effectively.

c. *Rank Feasible NO_x Control Options:*

Technically feasible control options, in order of the lowest to the highest NO_x emission rate:

Control Technology	% Control	NO_X Emission Rate (g/bhp-hr)
Rich-burn with NSCR and AFR	90%	1.0
Lean-burn without Control	0%	1.0
Rich-burn without Control	0%	8.5

The control methods listed above are widely used; these control options cannot be eliminated solely based on environmental or energy impacts.

Lean-burn engines do emit relatively higher HAP (formaldehyde) emissions than rich-burn engines. Lean-burn engines cannot be eliminated based on higher formaldehyde emissions, but the higher formaldehyde emissions can affect the BACT determination.

d. *Select NO_x BACT:*

Lean-burn engine technology with an AFR controller and rich-burn engine technology with NSCR and AFR are considered the two most technically practicable and economically feasible NO_X control options for internal combustion natural gas compressor engines. Under the current permit action, KOB proposed a lean-burn engine with AFR controller. After consideration of potential impacts (energy, environment, economic and other costs) and reviewing previous BACT determinations for similar sources, the Department determined that a 4-stroke lean-burn natural gas compressor engine with an AFR controller meeting an emission limit of 1.0 g/bhp-hr of NO_x constitutes BACT in this case. The Department believes that the proposed 2,400-bhp lean-burn compressor engine, operating with AFR controller, is capable of meeting the BACT-determined NO_x emission limit.

3. VOC BACT

The Department is not aware of any similar source BACT determinations that have required controls for VOC emissions from natural gas fired compressor engines comparable to the proposed lean-burn compressor engine. Further, the BACT determined controls for NO_x and CO (oxidation catalyst and an AFR controller) will result in co-benefit control of VOCs. Therefore, the Department determined that no additional VOC specific controls and the proposed emission limit of 0.5 g/bhp constitutes BACT for VOC emissions, in this case.

4. PM_{10} BACT

The Department is not aware of any BACT determinations that have required controls for PM_{10} emissions from natural gas fired compressor engines comparable to the proposed lean-burn compressor engine. Due to the relatively small amount of PM_{10} emissions from the proposed engine, any add-on controls would be cost prohibitive and likely would not result in a great deal of additional environmental benefit. Therefore, the Department determined that the combustion of pipeline quality natural gas only with no additional control constitutes BACT for PM_{10} emissions, in this case.

5. SO_2 BACT

The Department is not aware of any BACT determinations that have required controls for SO_x emissions from natural gas fired compressor engines comparable to the proposed lean-burn compressor engine. Due to the relatively small amount of SO_x emissions from the proposed engine, any add-on controls would be cost prohibitive and likely would not result in a great deal of additional environmental benefit. Therefore, the Department determined that the combustion of pipeline quality natural gas only with no additional control constitutes BACT for SO_2 emissions, in this case.

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
Compressor Engine #6 1,341-hp	0.44	12.95	12.95	6.48	0.026
Compressor Engine #7 1,341-hp	0.44	12.95	12.95	6.48	0.026
Compressor Engine #8 2,400-hp	0.38	23.17	11.59	11.59	0.023
TEG Dehydrator Reboiler	0.01	0.13	0.01	0.11	0.001
TEG Dehydrator Reboiler	0.01	0.13	0.01	0.11	0.001
Natural Gas-Fired Space Heater	0.00	0.02	0.00	0.01	0.00
Dehydrator Still Vent	0.00	0.00	3.56	0.00	0.00
Dehydrator Still Vent	0.00	0.00	3.56	0.00	0.00
Emergency Generator (60 kW)	0.00	0.57	0.01	0.93	0.00
Total	1.28	49.92	44.64	25.71	0.077

Compressor Engine #6: 1,341-bhp capacity 4-Stroke Lean-Burn Compressor Engine

Fuel Heating Value: 1,000 MMBtu/MMScf (Company Information)
Fuel Consumption Rate: 10.11 MMBtu/hr (Company Information)

NO_x Emissions:

Emission Factor: 1.0 g/hp-hr (BACT Determination)
Calculations: 1.0 g/hp-hr * 0.002205 lb/g * 1341 hp = 2.96 lb/hr
2.96 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 12.95 ton/yr

CO Emissions:

Emission Factor: 0.5 g/hp-hr (BACT Determination)
Calculations: 0.5 g/hp-hr * 0.002205 lb/g * 1341 hp = 1.48 lb/hr
1.48 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 6.48 ton/yr

VOC Emissions:

Emission Factor: 1.0 g/hp-hr (BACT Determination)
Calculations: 1.0 g/hp-hr * 0.002205 lb/g * 1085 hp = 2.96 lb/hr
2.96 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 12.95 ton/yr

SO_2 Emissions:

Emission Factor: 0.000588 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.000588 lb/MMBtu * 10.11 MMBtu/hr = 0.0059 lb/hr
0.0059 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.026 ton/yr

PM Emissions (PM emissions include PM_{10} and $PM_{2.5}$, both condensable and filterable):

Emission Factor: 0.00991 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.00991 lb/MMBtu * 10.11 MMBtu/hr = 0.10 lb/hr
0.10 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.44 ton/yr

HAP Emissions (HAP emissions include formaldehyde):

Emission Factor: 0.072 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.072 lb/MMBtu * 10.11 MMBtu/hr = 0.73 lb/hr
0.73 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.19 ton/yr

Compressor Engine #7: 1,341-bhp capacity 4-Stroke Lean-Burn Compressor Engine

Fuel Heating Value: 1,000 MMBtu/MMScf (Company Information)
Fuel Consumption Rate: 10.11 MMBtu/hr (Company Information)

NO_x Emissions:

Emission Factor: 1.0 g/hp-hr (BACT Determination)
Calculations: 1.0 g/hp-hr * 0.002205 lb/g * 1341 hp = 2.96 lb/hr
2.96 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 12.95 ton/yr

CO Emissions:

Emission Factor: 0.5 g/hp-hr (BACT Determination)
Calculations: 0.5 g/hp-hr * 0.002205 lb/g * 1341 hp = 1.48 lb/hr
1.48 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 6.48 ton/yr

VOC Emissions:

Emission Factor: 1.0 g/hp-hr (BACT Determination)
Calculations: 1.0 g/hp-hr * 0.002205 lb/g * 1085 hp = 2.96 lb/hr
2.96 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 12.95 ton/yr

SO_2 Emissions:

Emission Factor: 0.000588 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.000588 lb/MMBtu * 10.11 MMBtu/hr = 0.0059 lb/hr
0.0059 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.026 ton/yr

PM Emissions (PM emissions include PM_{10} and $PM_{2.5}$, both condensable and filterable):

Emission Factor: 0.00991 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.00991 lb/MMBtu * 10.11 MMBtu/hr = 0.10 lb/hr
0.10 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.44 ton/yr

HAP Emissions (HAP emissions include formaldehyde):

Emission Factor: 0.072 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.072 lb/MMBtu * 10.11 MMBtu/hr = 0.73 lb/hr
0.73 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.19 ton/yr

Compressor Engine #8: 2,400-bhp capacity 4-Stroke Lean-Burn Compressor Engine

Fuel Heating Value: 1,000 MMBtu/MMScf (Company Information)
Fuel Consumption Rate: 8.85 MMBtu/hr (Company Information)

NO_x Emissions:

Emission Factor: 1.0 g/hp-hr (BACT Determination)
Calculations: 1.0 g/hp-hr * 0.002205 lb/g * 2,400 hp = 5.29 lb/hr
5.29 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 23.17 ton/yr

CO Emissions:

Emission Factor: 0.5 g/hp-hr (BACT Determination)
Calculations: 0.5 g/hp-hr * 0.002205 lb/g * 2,400 hp = 2.65 lb/hr
2.65 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 11.59 ton/yr

VOC Emissions:

Emission Factor: 0.5 g/hp-hr (BACT Determination)
Calculations: 0.5 g/hp-hr * 0.002205 lb/g * 2,400 hp = 2.65 lb/hr
2.65 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 11.59 ton/yr

SO_2 Emissions:

Emission Factor: 0.000588 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.000588 lb/MMBtu * 8.85 MMBtu/hr = 0.0052 lb/hr
0.0052 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.023 ton/yr

PM Emissions (PM emissions include PM_{10} and $PM_{2.5}$, both condensable and filterable):

Emission Factor: 0.00991 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.00991 lb/MMBtu * 8.85 MMBtu/hr = 0.088 lb/hr
0.088 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.38 ton/yr

HAP Emissions (HAP emissions include formaldehyde):

Emission Factor: 0.072 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 0.072 lb/MMBtu * 8.85 MMBtu/hr = 0.64 lb/hr
0.64 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.79 ton/yr

TEG Dehydrator

VOC Emissions

Emission Factor: 0.8126 lb/hr (GRI-GLYCalc, Version 4.0)
Calculations: 0.8126 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.56 ton/yr

TEG Dehydrator Reboiler

Fuel Heating Value: 1,000 MMBtu/MMScf (Company Information)
Fuel Consumption Rate: 0.30 MMBtu/hr (Company Information)

NO_x Emissions:

Emission Factor: 100 lb/MMscf (AP-42, Table 1.4-2, 7/98)
Calculations: 100 lb/MMscf * 0.001 MMscf/MMBtu * 0.30 MMBtu/hr = 0.03 lb/hr
0.03 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.13 ton/yr

CO Emissions:

Emission Factor: 84 lb/MMscf (AP-42, Table 1.4-2, 7/98)
Calculations: 84 lb/MMscf * 0.001 MMscf/MMBtu * 0.30 MMBtu/hr = 0.025 lb/hr
0.025 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.11 ton/yr

VOC Emissions:

Emission Factor: 5.5 lb/MMscf (AP-42, Table 1.4-2, 7/98)
Calculations: 5.5 lb/MMscf * 0.001 MMscf/MMBtu * 0.30 MMBtu/hr = 0.002 lb/hr
0.002 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

SO_2 Emissions:

Emission Factor: 0.6 lb/MMscf (AP-42, Table 1.4-2, 7/98)
Calculations: 0.6 lb/MMscf * 0.001 MMscf/MMBtu * 0.375 MMBtu/hr = 0.0002 lb/hr
0.0002 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.001 ton/yr

PM_{10} Emissions:

Emission Factor: 7.6 lb/MMscf (AP-42, Table 1.4-2, 7/98)
Calculations: 7.6 lb/MMscf * 0.001 MMscf/MMBtu * 0.30 MMBtu/hr = 0.0022 lb/hr
0.0022 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

V. Existing Air Quality

The Blaine County #4 Compressor Station is located in the SW¼ of Section 8, Township 33 North, Range 19 East, of Blaine County, Montana. Blaine County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

There are no nonattainment areas within a reasonable distance of the site and the Department believes that the Blaine County #4 Compressor Station will not cause or contribute to a violation of any ambient air quality standards.

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: Eric Thunstrom
Date: November 8, 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*:** KOB General Partnership
Blaine County #4 Compressor Station
P.O. Box 40
Havre, MT 59501

Air Quality Permit Number: 3060-05

Preliminary Determination Issued: November 28, 2006
Department Decision Issued: December 14, 2006
Permit Final:

1. *Legal Description of Site:* The facility is located approximately 8 miles northwest of Sidney, Montana, in the SW¼ of Section 8, Township 33 North, Range 19 East, in Blaine County, Montana. The facility is known as the Blaine County #4 Compressor Station**.**

2. *Description of Project:* The Blaine County #4 Compressor Station is an existing natural gas processing plant that extracts natural gas liquids from field gas**.** On October 27, 2006, the Department received a complete application for the modification of Permit #3060-04. KOB requested the installation of a lean-burn compressor engine with a maximum rated design capacity equal to or less than 2,400 bhp equipped with an oxidation catalyst and AFR controller.

3. *Objectives of Project*: The proposed project would provide additional business and revenue for KOB by allowing the company to gather and sell larger quantities of natural gas. Natural gas would be received from nearby production field facilities and the KOB Blaine County #4 Compressor Station would dehydrate and compress the gas for transmission through a natural gas pipeline.

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 KOB 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 #3060-05.

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 a relatively small amount of 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 minimal construction and 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. Therefore, any impacts to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability, and Moisture

The proposed project would have a minor impact on the geology, soil quality, stability, and moisture of the proposed project area. The proposed project is within an existing facility and a relatively small amount of 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. However, any impact from deposition of these pollutants would be minor due to dispersion characteristics and the low concentration of those pollutants emitted. Overall, any impacts to geology and soil quality, stability, and moisture would be minor.

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 a minor amount of construction and 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 11.59 TPY of VOC, and 23.17 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 believes 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 identified five species of special concern located within the proposed project area. The species of special concern include Sprague's Pipit, Sauger, McCown's Longspur, and Chestnut-collared Longspur. 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 KOB 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 #3060-05.

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 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 no impact to the local and state tax base and tax revenue because no new employees would be expected to be hired as a result of this project. The proposed project would necessitate installation activities; however, 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 no impact on agricultural production because it would take place in a relatively remote location at an existing facility. 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 minor, if any, impacts on access to recreational and wilderness activities because of the relatively remote location and the relatively small size of the facility. 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 visible and would produce noise. Overall, any impacts to the access and quality of recreational and wilderness activities in the area would be minor.

G. Quantity and Distribution of Employment

The proposed project would have no impact on the employment because there would not be any additional employees. There would be a minimal 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 without the addition of new employees.

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 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. Therefore, there would be no effects on locally adopted environmental plans and goals.

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 #3060-05.

Recommendation: An Environmental Impact Statement (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: Eric Thunstrom
Date: November 8, 2006