

Air Quality Permit

Issued To: Ocean Energy, Inc./Havre Pipeline Co. Permit #1626-05
Blaine County #1 Compressor Station Modification Request Received: 11/18/99
P.O. Box 2606 Dept. Decision on Modification: 3/28/00
Clear Creek Road Final Permit Issued: 04/13/00
Havre, Montana 59501 AFS #005-0001

An air quality permit, with conditions, is hereby granted to Ocean Energy Inc., Havre Pipeline Company, hereinafter referred to as "HPC," pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM), ARM 17.8.701, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

A natural gas compressor station and associated equipment located in the North ¼ of Section 29, Township 31 North, Range 18 East, in Blaine County, Montana. This facility is known as the Blaine County #1 Natural Gas Compressor Station. A list of the equipment can be found in the permit analysis.

B. Current Permit Action

The current permit action is a modification of permit #1626-04. In 1999, the U.S. Environmental Protection Agency (EPA) informed the Montana Department of Environmental Quality (department) that any condition in an air quality preconstruction permit would be considered a federally enforceable condition. However, there are certain state rules that were never intended to be federally enforceable. The department notified all facilities holding preconstruction permits that they could request deletion of the conditions based on ARM 17.8.717 and 17.8.315. Removing either of these conditions does not relieve the facility from complying with the rule upon which the permit condition was based; removal only ensures that enforcement of that condition remains with the department. The current permit action removes the condition based on ARM 17.8.315 from HPC's permit. Permit #1626-05 replaces permit #1626-04.

Section II: Limitations and Conditions

A. Emission Limitations

1. Each 1,140-hp Caterpillar G3516 TALE natural gas compressor engine (#04, #05 and #06), shall be equipped with a low emission package and shall operate as lean burn engines. Also, each engine shall be equipped with an electronic AFR controller and the speed of each engine shall not exceed 1,400 rpm of continuous duty operation. Each engine shall have a minimum stack height of 20 feet above ground level and emissions from each engine shall not exceed the following limits (ARM 17.8.705 and ARM 17.8.710):

NOx ¹	3.02 lbs/hr
CO	4.78 lbs/hr
VOC	1.78 lbs/hr

2. Each 5,500-hp Ingersoll Rand KVR 616 natural gas compressor engine (#01 and

¹ NOx reported as NO₂.

#02, serial numbers KVR616131 and KVR616130, respectively) shall have a minimum stack height of 45 feet above ground level in order to comply with the Montana Ambient Air Quality Standard for NO₂ (ARM 17.8.710).

3. HPC shall extend the existing fence line at the site to enclose the 26-acre area that was specified in the ambient air modeling submitted by HPC in its permit application in order to comply with the Montana Ambient Air Quality Standard for NO₂. This fence shall be constructed in a manner adequate to restrict the general public from the premises and HPC shall post "No Trespassing" signs in a manner adequate to deter access by the general public (ARM 17.8.211 and ARM 17.8.710).
4. HPC shall operate Source #03, the 297-hp Waukesha L1616 emergency generator, only when commercially supplied electrical power is not available or during periods of planned maintenance. HPC shall not operate this generator as a part of routine operations (ARM 17.8.710).
5. HPC shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.715).
6. HPC shall not cause or authorize emissions from the Blaine County #1 Compressor Station to be discharged into the outdoor atmosphere from any source installed after November 23, 1968 that exhibit an opacity of twenty percent (20%) or greater averaged over six (6) consecutive minutes (ARM 17.8.304).
7. HPC shall not cause or authorize emissions to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
8. HPC shall treat all unpaved portions of the access roads, parking lots, and general plant area with fresh water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation (ARM 17.8.710).

B. Testing Requirements:

1. HPC shall test each 1,140-hp Caterpillar G3516 TALE natural gas compressor engine (#04, #05 and #06) for NO_x and CO, concurrently to demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.1. The testing shall continue on an every-four-year basis or another testing/monitoring schedule as approved by the department. As of the date of this permit, the last test was performed in 1997; therefore, further testing will occur in 2001, 2005, etc. (ARM 17.8.105 and ARM 17.8.710).
2. During each test, HPC shall monitor the compressor engine: intake manifold temperature and pressure, exhaust temperature, manifold pressure, rpm, and all parameters necessary to calculate horsepower. This data shall be submitted to the department with the source test report (ARM 17.8.105).
3. All source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
4. The department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements:

1. HPC 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 Section I of the permit analysis.

Production information shall be gathered on a calendar-year basis and be submitted to the department by the date required in the emission inventory request. Information shall be in units as required by the department.

In addition, HPC shall submit the following information annually to the department by the date specified in the annual emission inventory request. This information is required for the annual emission inventory, as well as to verify compliance with permit conditions (ARM 17.8.505):

- a. Amount of fuel consumed by each natural gas compressor engine (corrected to 14.7 psia and 60° F);
 - b. Hours of operation for each natural gas compressor engine;
 - c. Estimated amount of fuel consumed by each 2.9 MMBtu/hr natural gas fired boiler (corrected to 14.7 psia and 60° F);
 - d. Estimated amount of fuel consumed by each 0.16 MMBtu/hr natural gas fired space heater (corrected to 14.7 psia and 60° F);
 - e. Estimated amount of fuel consumed by the 0.85 MMBtu/hr dehydrator reboiler and the 0.12 MMBtu/hr dehydrator tank heater (corrected to 14.7 psia and 60° F);
 - f. Hours of operation for the dehydration unit;
 - g. Estimated amount of fuel consumed by the 297-hp Waukesha L1616 emergency generator (corrected to 14.7 psia and 60° F);
 - h. Hours of operation for the 297-hp Waukesha L1616 emergency generator; and a
 - i. Summary report listing the reasons the 297-hp Waukesha L1616 emergency generator was operating.
2. HPC shall notify the department of any construction or improvement project conducted pursuant to ARM 17.8.705(1)(r) 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 emissions unit.

The notice must be submitted to the department, in writing, 10 days prior to startup 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 17.8.705(1)(r)(iv) (ARM 17.8.705).

3. All records compiled in accordance with this permit must be maintained by HPC

as a permanent business record for at least five (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 17.8.710).

D. Notification:

HPC shall follow all notification requirements as stated in the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

SECTION III: General Conditions

- A. Inspection - HPC shall allow the department representatives access to the source at all reasonable times for the purpose of making inspections, 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 all the terms, conditions, and matters stated herein shall be deemed accepted if HPC fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving HPC of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.701, *et seq.* (ARM 17.8.717).
- D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement 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 fifteen (15) days after the department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The department's decision on the application is not final unless fifteen (15) days have elapsed and there is no request for a hearing under this rule. The filing of a request for a hearing postpones the effective date of the department's decision until the conclusion of the hearing and issuance of a final decision by the Board.
- F. Permit Inspection - As required by ARM 17.8.716, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by department personnel at the location of the permitted source.
- G. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by HPC 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 (3) years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (ARM 17.8.731).

Permit Analysis
Ocean Energy Inc./Havre Pipeline Company, LLC
Blaine County #1 Compressor Station
Permit #1626-05

I. Introduction/Process Description

A. Site Location

Havre Pipeline Company LLC (HPC), Blaine County #1 Compressor Station is located in the North ¼ of Section 29, Township 31 North, Range 18 East, in Blaine County, Montana. The facility is located approximately 22 miles southeast of Havre and 15 miles northeast of the Rocky Boy Indian Reservation.

B. Existing Source Description

The function of the facility is to gather, compress, dehydrate, and sell pipeline quality natural gas for further transportation to major market areas. The Blaine County #1 facility is designed to compress up to 60 MMSCF/day of pipeline quality natural gas. The Blaine County #1 facility is manned 8 hours per day, five days per week, by HPC employees and consists of the following equipment:

- Source #01: Ingersoll Rand KVR 616 natural gas compressor engine (5500-hp) with serial number KVR616131;
 - Source #02: Ingersoll Rand KVR 616 natural gas compressor engine (5500-hp) with serial number KVR616130;
 - Source #03: Waukesha L1616 emergency generator (297-hp);
 - Source #04: Caterpillar G3516 TALE natural gas compressor engine(1140-hp);
 - Source #05: Caterpillar G3516 TALE natural gas compressor engine(1140-hp);
 - Source #06: Caterpillar G3516 TALE natural gas compressor engine(1140-hp);
- Two natural gas-fired boilers (2.9-Mmbtu/hr);
Three space heaters (0.16-Mmbtu/hr);
Tri-Ethylene Glycol (TEG) dehydrator with an uncontrolled still vent,
One Reboiler (0.85-Mmbtu/hr) and one tank heater (0.12-Mmbtu/hr); and

Miscellaneous fugitive VOC sources such as: storage tanks for Methanol, gasoline, diesel, antifreeze, TEG and lube oil; scrubbers, headers, meters and other insignificant emitting units.

C. Permit History

On March 10, 1972, Northern Natural Gas was issued a permit to construct and operate a glycol dehydration unit, located in Section 29, T31N, R18E, Blaine County near Havre, Montana. The application was given Permit **#411-060772**.

On October 26, 1981, Northern Natural Gas was issued a permit to operate an existing natural gas compressor station, located in Section 25, T27N, R18E, Blaine County near Havre, Montana. The application was given Permit **#1626**.

Effective January 1, 1992, pursuant to ARM 16.8.1903, the Air Quality Bureau began assessing annual air quality operation fees for all sources holding or required to hold

an air quality permit. In assessing bills to Northern Natural Gas, it was brought to the department's attention that Northern Natural Gas operated three (3) natural gas compressor stations in Montana, but held four air quality permits. It was determined that permit #411-060772 and permit #1626 were for separate equipment at the same site. Permit **#1626-01** was issued on February 7, 1993 to consolidate the two permits and to properly identify the permitted equipment and the facility location.

HPC acquired the Blaine County #1 Compressor Station from the Northern Natural Gas Company on September 30, 1995. On August 4, 1996 permit **#1626-02** was issued to HPC. This permit acknowledged the change of ownership of the Blaine County #1 compressor station and included the installation and operation of an additional three 1,140-hp Caterpillar G3516 TALE natural gas compressor engines. Other insignificant emitting units, including scrubbers, headers, meters and coolers, also were installed during this project.

On July 23, 1998, the department received a request to modify permit #1626-02. The request was to remove the VOC testing requirements for the three 1,140-hp Caterpillar G3516 TALE compressor engines and to correct the source numbering within the permit. The department previously determined VOC testing was not necessary; however, the limit remained in case testing would be required in the future. This permit was modified consistent with actions taken at other compressor stations. Rule references were also updated. Permit **#1626-03** replaced permit 1626-02.

On May 7, 1999, the department received notification that UMC Petroleum Corp had merged with Ocean Energy, Inc. The Havre Pipeline Co., LLC, Blaine County #1 compressor station now operated as a subsidiary of Ocean Energy, Inc. On June 27, 1999 permit **#1626-04** replaced permit 1626-03.

D. Current Permitting Action

The current permit action is a modification of permit #1626-04. In 1999, the U.S. Environmental Protection Agency (EPA) informed the Montana Department of Environmental Quality (department) that any condition in an air quality preconstruction permit would be considered a federally enforceable condition. However, there are certain state rules that were never intended to be federally enforceable. The department notified all facilities holding preconstruction permits that they could request deletion of the conditions based on ARM 17.8.717 and 17.8.315. Removing either of these conditions does not relieve the facility from complying with the rule upon which the permit condition was based; removal only ensures that enforcement of that condition remains with the department. The current permit action removes the condition based on ARM 17.8.315 from HPC's permit. Permit **#1626-05** replaces permit 1626-04.

E. Additional Information

Additional information, such as applicable rules and regulations, BACT/RACT determinations, air quality impacts, and environmental assessments, are included in the permit analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations which 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 locations 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 17.8.105, Testing Requirements. Any person or persons responsible for the emissions 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.

Based on the department's current requirements, the testing necessary to show compliance with the emission limits shall occur on an every-four-year basis or another monitoring/testing schedule as may be approved by the department. The department may require further testing.

2. 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.*, MCA.

HPC 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 Testing Protocol and Procedures Manual is available from the department upon request.

3. ARM 17.8.110, Malfunctions. The department must be notified promptly by phone 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.
4. ARM 17.8.111, Circumvention. No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality. The following ambient air quality standards or requirements apply, including, but not limited to:

1. ARM 17.8.204, Ambient Air Monitoring Quality Assurance Procedures;
2. ARM 17.8.210, Ambient Air Quality Standards for Sulfur Dioxide;
3. ARM 17.8.211, Ambient Air Quality Standards for Nitrogen Dioxide;

4. ARM 17.8.212, Ambient Air Quality Standards for Carbon Monoxide;
5. ARM 17.8.213, Ambient Air Quality Standard for Ozone;
6. ARM 17.8.214, Ambient Air Quality Standard for Hydrogen Sulfide;
7. ARM 17.8.220, Ambient Air Quality Standard for Settled Particulate Matter;
8. ARM 17.8.221, Ambient Air Quality Standard for Visibility;
9. ARM 17.8.222, Ambient Air Quality Standard for Lead;

10. ARM 17.8.223, Ambient Air Quality Standard for PM₁₀; and
11. ARM 17.8.230, Fluoride in Forage.

HPC 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 to an 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. Under this rule, HPC 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 17.8.315, Emission Standards - Odors. This rule requires that no person shall cause, suffer, or allow any emissions of gases, vapors, or odors beyond his property line in such manner as to create a public nuisance. A person operating any business or using any machine, equipment, device, facility or process which discharges into the outdoor air any odorous matter or vapors, gases, dusts, or any combination thereof, which create odors, shall provide, properly install, and maintain in good working order and operation such odor control devices or procedures as may be specified by the department.
6. ARM 17.8.322, Sulfur Oxide Emissions--Sulfur in Fuel. 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. HPC will consume pipeline quality natural gas, which will meet this limitation, in the compressor engines and the dehydration unit reboiler.
7. ARM 17.8.324(3), Hydrocarbon Emissions--Petroleum Products. 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 a tank is equipped with a vapor loss control device as described in (1) of this rule, or is a pressure tank as described in (1) of this rule.
8. ARM 17.8.340, Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the

NSPS. The HPC, Blaine County #1 compressor station is not an NSPS affected source because it does not meet the definitions in 40 CFR Part 60. Subpart KKK, Standards of performance for equipment leaks of VOC from onshore natural gas processing plants, is not applicable to this facility because it does not process natural gas.

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

1. ARM 17.8.504, Air Quality Permit Application Fees. This rule requires that an applicant submit an 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. The current permit modification is an administrative action; thus, a permit application and fee were not required.
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; and 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, as 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 which prorate the required fee amount.

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

1. ARM 17.8.704, General Procedures for Air Quality Preconstruction Permitting. This air quality preconstruction permit contains requirements and conditions applicable to both construction and subsequent use of the permitted equipment.
2. ARM 17.8.705, When Permit Required, Exclusions. This rule requires a facility to obtain an air quality permit or permit alteration if they construct, alter, or use an air contaminant source which has the potential to emit more than 25 tons per year of any pollutant. HPC has the potential to emit more than 25 tons per year of NOx, CO and VOC; therefore, a permit is required.
3. ARM 17.8.706, New or Altered Sources and Stacks, Permit Application Requirements. This rule requires that an application for an air quality permit be submitted for a new or altered source or stack. The current permit modification is an administrative action; thus, a permit application and fee were not required.
4. ARM 17.8.707, Waivers. ARM 17.8.706 requires the permit application to be submitted 180 days before construction begins. This rule allows the department

to waive this time limit. The department hereby waives this limit.

5. ARM 17.8.710, Conditions for Issuance of Permit. This rule requires that HPC demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. HPC has demonstrated compliance with applicable rules and standards as required for permit issuance.
6. ARM 17.8.715, Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability which is technically practicable and economically feasible, except that best available control technology (BACT) shall be utilized. The current permit modification is an administrative action and will not increase emissions at this facility; therefore, a BACT analysis was not required.
7. ARM 17.8.716, 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.
8. ARM 17.8.717, Compliance with Other Statutes and Rules. This rule states that nothing in the permit shall be construed as relieving HPC of the responsibility for complying with any applicable federal and Montana statutes, rules and standards, except as specifically provided in ARM 17.8.101, *et seq.*
9. ARM 17.8.720, Public Review of Permit Applications. 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. The current permit modification is an administrative action; thus, an affidavit of publication of public notice was not required.
10. ARM 17.8.731, 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 one year after the permit is issued.
11. ARM 17.8.733, Modification of Permit. An air quality permit may be modified for changes in any applicable rules and standards adopted by the board or changed conditions of operation at a source or stack which do not result in an increase in emissions because of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
12. ARM 17.8.734, Transfer of Permit. This rule states 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.

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

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 Federal Clean Air Act that it would emit, except as this subchapter would otherwise allow.

This facility is not a PSD-listed source but it does have the potential to emit above 250 tons per year (excluding fugitive emissions) of NO_x; therefore, the facility is major. However, a PSD review is not required because this permit modification is an administrative action with no increase in emissions.

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

1. ARM 17.8.1201 Definitions. (23) Major Source under sec. 7412 of the Federal Clean Air Act (FCAA) is defined as any stationary source having:

- a. Potential To Emit (PTE) > 10 tons/year of any one hazardous air pollutant (HAP), or PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the department may establish by rule.
- b. PTE > 100 tons/year of any pollutant.
- c. Sources with the PTE > 70 tons/year of PM-10 in a serious PM-10 nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. Title V of the FCAA 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 #1626-05 for the HPC Blaine County #1 Compressor Station the following conclusions were made:

- a. The emission limitations and conditions set in the permit will not limit criteria pollutant emissions to less than 100 tons per year.
- b. The emission limitations and conditions set in the permit will limit HAP emissions to less than 10 tons/year of any one HAP, and less than 25 tons/year of a combination of 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 a [major source] as designated by Title V.

HPC operates existing equipment at the Blaine County #1 Compressor Station which has total emissions greater than 100 tons/year for NOx, CO and VOC; therefore, this facility is a designated Title V source.

III. BACT Determination

A Best Available Control Technology (BACT) determination is required for each new or altered source. HPC shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that best available control technology shall be utilized. The current permit modification is an administrative action that will not increase emissions; therefore, a BACT determination is not required.

IV. Emission Inventory – Blaine County #1 Compressor Station - Permit #1626-05

Emission Unit	Air Pollutants (tons/year)				
	PM10	NOx	VOC	CO	SOx
#01 5,500-hp IRKVR 616 Compressor Engine	1.57	956.13	42.49	79.68	0.0941
#02 5,500-hp IRKVR 616 Compressor Engine	1.57	956.13	42.49	79.68	0.0941
#03 297-hp Waukesha L1616 Emergency Generator	0.01	2.95	0.13	0.25	0.0003
#04 1,140-hp Cat G3516 TALE Compressor Engine	0.39	13.21	7.82	20.92	0.0231
#05 1,140-hp Cat G3516 TALE Compressor Engine	0.39	13.21	7.82	20.92	0.0231
#06 1,140-hp Cat G3516 TALE Compressor Engine	0.39	13.21	7.82	20.92	0.0231
TEG Dehydrator Still Vent	0.00	0.00	11.21	0.00	0.0000
Natural Gas-Fired Boilers	0.31	2.57	0.14	0.54	0.0154
Natural Gas-Fired Heaters	0.02	0.64	0.03	0.13	0.0038
Miscellaneous VOC Sources	0.00	0.00	0.22	0.00	0.0000
Total Emissions	4.65	1,958.05	120.17	223.04	0.2770

A complete emission inventory is on file with the department.

V. Air Quality Impacts

This facility is located in the North ¼ of Section 29, Township 31 North, Range 18 East, in Blaine County, Montana. Blaine County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. This permitting action does not increase emissions from the facility and is considered an administrative action. No air quality impacts are expected.

However, modeling was performed for the issuance of permit #1626-02. HPC performed this air quality modeling using a refined model, Industrial Source Complex Short Term, version 95250 (ISCST3). The Blaine County #1 Compressor Station contains nine existing sources of NOx emissions: two compressor engines, two boilers, three space heaters, a dehydrator reboiler and tank heater. Estimated emissions from the three Caterpillar G3516 TALE compressor engines were derived using Caterpillar's emission factors and were modeled at 0.379250 grams/sec (3.01 lbs/hr or 13.2 tons/yr) of NOx. Emissions from the two existing IR KVR 616 compressor engines were estimated using emission factors from Ingersoll Rand and had a NOx input emission rate for each existing engine equal to 27.47507 grams/sec (218.06 lbs/hr or 955.11 tons/yr). Emission factors for the rest of the equipment were obtained from AP-42. NOx emission rates for each boiler and space heater were 0.041580 grams/sec (0.33 lbs/hr or 1.43 tons/yr) and 0.002520 grams/sec (0.02 lbs/hr or 0.08 tons/yr), respectively. For the dehydrator, the estimated reboiler NOx emission rates were 0.01134 grams/sec (0.09 lbs/hr or 0.41 tons/yr), and the tank heater's emission rates were 0.001640 grams/sec (0.01 lbs/hr or 0.06 tons/yr).

Four other HPC sources are located within a radius of 20 miles of this facility and were

included in the modeling: the Hill County #1, the Blaine County #3, the Boyce-Nystrom, and the Herron compressor stations. Specific emission sources and rates for three of these facilities can be obtained from their air permits: the Hill County #1 (Permit #1627-02), the Boyce-Nystrom (#2924-00) and the Herron (#2923-00). Emissions information pertaining to the Blaine County #3 facility was not provided.

ISCST3 predicted the maximum 1-hour NO_x concentration from the Blaine County #1 Compressor Station to be 4,891 µg/m³. The location of this concentration was inside the facility. The next highest concentration, located outside this facility's fence line, was 3,508 µg/m³. Total contributions from the other HPC sources were 20 µg/m³ at a neighboring receptor location. The Ozone Limiting Method (OLM) assumes that only 10% of NO_x is converted to NO₂. Using this method, the combined maximum NO₂ concentration from these sources was 353 µg/m³. The maximum 1-hour ozone and background NO₂ concentrations were assumed to be 75 µg/m³ each. The total maximum 1-hour NO₂ concentration was 503 µg/m³. This predicted ambient concentration is less than the Montana 1-hour NO₂ standard of 564 µg/m³.

Annual results predicted a maximum NO_x concentration of 216 µg/m³ from the facility. The other four HPC sources contributed one µg/m³ at a neighboring receptor location. Using OLM, the maximum annual NO₂ concentration was 22 µg/m³. The maximum annual ozone and background NO₂ concentrations were assumed to be six µg/m³ each. The total maximum annual NO₂ concentration was 34 µg/m³. This predicted ambient concentration is less than the Montana and federal annual NO₂ standards of 94 and 100 µg/m³, respectively.

The Blaine County #1 Compressor Station emits other criteria and hazardous air pollutants; but they were not modeled. However, their hourly and annual emissions were estimated to be lower than the NO_x emissions, often substantially, which allowed inference of compliance with the state and federal standards.

The Blaine County #1 Compressor Station is located in North ¼ of Section 29, T31N, R18E in Blaine County, approximately 22 miles southeast of Havre. The Blaine County #1 Compressor Station will have a total fenced area of 26 acres – at the time of modeling the facility was situated on 15 acres and HPC had recently acquired an additional 11 acres. The elevation of the site is approximately 3117 feet. The land surrounding the facility is primarily used for agriculture. The area is considered semi-arid with an average rainfall of 10 inches per year and an annual average temperature of 43° F with summer maximums from 90-100° F and winter minimums below 0° F.

The modeling analysis demonstrated that this facility will not violate Montana or federal air quality standards. No ambient monitoring was required since NO₂ emissions from the facility would not significantly affect the concentration of NO₂ in the ambient air.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the department has conducted a private property taking and damaging assessment and has determined there are no taking or damaging implications.

VII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, is not required for the current permit modification because it is an administrative action.

Permit Analysis Prepared by: Robert K. Jeffrey
Date: 20 March 2000