March 2, 2015

Ruth Jensen
Northern Border Pipeline Company – Compressor Station #3
13710 FNB Parkway, Suite 300
Omaha, NE 68154

Dear Ms. Jensen:

Montana Air Quality Permit #2974-03 is deemed final as of February 28, 2015, by the Department of Environmental Quality (Department). This permit is for a natural gas compressor station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie A. Merkel
Air Permitting Supervisor
Air Resources Management Bureau
(406) 444-3626

Ed Warner
Lead Engineer – Air Permitting Section
Air Resources Management Bureau
(406) 444-2467

JM:EW
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #2974-03

Northern Border Pipeline Company – Compressor Station #3
13710 FNB Parkway, Suite 300
Omaha, Nebraska 68154

February 28, 2015

# MONTANA AIR QUALITY PERMIT

Issued To: Northern Border Pipeline Company
Compressor Station No. 3
13710 FNB Parkway Suite 300
Omaha, NE 68154

MAQP: #2974-03
Application Complete: 01/08/2015
Preliminary Determination Issued: 01/22/2015
Department's Decision Issued: 2/12/2015
Permit Final: 2/28/2015
AFS: # 085-0006

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Northern Border Pipeline Company (NBPL), 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

MAQP #2974-03 is issued to NBPL for the operation of a natural gas turbine and associated equipment located in the NE¼ of the NE¼ of Section 6, Township 28 North, Range 57 East in Roosevelt County.

### B. Current Permit Action

On December 12, 2014, the Department of Environmental Quality (Department) received an application to modify MAQP #2974-02 to change the long-term carbon monoxide (CO) emission limit from 109.5 tons per rolling 12-month period to 162 tons per rolling 12-month period for the Cooper Rolls 40,350-hp turbine. Materials required to complete the application were received by the Department on January 8, 2015. In addition, the permit was updated to reflect the current permit language and rule references used by the Department.

## SECTION II: Conditions and Limitations

### A. Emission Limitations

1. NBPL shall operate and properly maintain the dry low emissions (DLE) combustion system in a manner for which it was designed, as part of the Cooper Rolls turbine system. Emissions from the turbine with DLE shall not exceed the following limits (ARM 17.8.752):

| | |
|---|---|
| $NO_X$[1] | 40 parts per million, dry volume basis ($ppm_{vd}$) |
| $NO_X$[1] | 51.5 pounds per hour (lb/hr) |
| VOC | 3.00 lb/hr |

[1] $NO_X$ reported as $NO_2$.

2. NBPL shall not operate Cooper Rolls 40,350-hp turbine (Source #01) for more than 750 hours per rolling 12-month time period while the DLE is not in operation. Emissions from Source #01 during non-DLE operations shall not exceed the following limits (ARM 17.8.752):

| | |
|---|---|
| $NO_X$[1] | 78.0 lb/hr |
| VOC | 3.00 lb/hr |

3. CO emissions from Source #01 shall not exceed 460 lb/hr for Source #01 when the ambient temperature is 20 degrees Fahrenheit or colder (ARM 17.8.752).

4. CO emissions from Source #01 shall not exceed 56 lb/hr for Source #01 when ambient temperature is 20 degrees Fahrenheit or warmer (ARM 17.8.752).

5. NBPL shall limit the hours of operation, capacity, natural gas consumption, or other parameters (as approved by the Department) of Source #01 such that the sum of the CO emissions does not exceed 162 tons per rolling 12-month time period. Any calculations used to establish CO emissions shall be approved by the Department (ARM 17.8.752).

6. Minimum stack height for Source #01 shall be 55 feet above ground level (ARM 17.8.752).

7. NBPL shall operate the 245-kW emergency backup generator engine, only when commercially supplied electrical power is not available or during planned generator maintenance. NBPL may operate this emergency backup generator engine no more than 500 hours per calendar year and shall not operate the generator as part of routine operations (ARM 17.8.749).

8. NBPL shall utilize pipeline quality natural gas in the Cooper Rolls 40,350-hp turbine, the 245-kW emergency backup generator, and the 1.67-million British thermal units per hour (MMBtu/hr) heating boiler (ARM 17.8.752).

9. NBPL shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).

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

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

13. NBPL shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60, Subpart GG (ARM 17.8.340 and 40 CFR 60, Subpart GG).

B. Testing Requirements

1. Source #01 shall be tested for $NO_x$ and CO to demonstrate compliance with the $NO_X$ and CO emission limits contained in Sections II.A.1, II.A.2, II.A.3, and II.A.4 on a semiannual basis with a portable analyzer or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

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

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

C. Operational Reporting Requirements

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

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

   b. Summary report listing the reasons why the emergency generator was operated.

   c. Hours of operation of Source #01 in non-DLE operation.

   d. Summary report listing the reasons when and why Source #01 was operated with non-DLE operation.

2. NBPL shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to 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 17.8.745(l)(d) (ARM 17.8.745)).

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

4. NBPL shall document, by month, the hours that Source #01 is operated without the DLE. By the 25th day of each month, NBPL shall total the hours Source #01 is operated without the DLE during the previous 12 months to verify compliance with the limitation in Section II.A.2. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.749).

5. NBPL shall document, by month, CO emissions from Source #01. By the 25th day of each month, NBPL shall total the CO emissions from Source #01 during the previous 12 months to verify compliance with the limitation in Section II.A.5. A written report of the compliance verification shall be submitted along with annual emission inventory (ARM 17.8.749).

SECTION III: General Conditions

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

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

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

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

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on 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, failure to pay the annual operation fee by NBPL may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit Analysis
Northern Border Pipeline Company
Compressor Station No. 3
MAQP #2974-03

# I. Introduction/Process Description

Northern Border Pipeline Company owns and operates a natural gas compressor station. The facility is located in the NE¼ of the NE¼ of Section 6, Township 28 North, Range 57 East in Roosevelt County and is known as Compressor Station No. 3.

## A. Permitted Equipment

The Northern Border Pipeline Company (NBPL) facility consists of the following equipment:

- One 40,350-horsepower (hp) Cooper-Rolls natural gas fired turbine (Source #01);
- One 245-kilowatt (kW) emergency backup generator (Source #02); and
- One 1.67-million British thermal units per hour (MMBtu/hr) natural gas fired heater boiler (Source #03).

## B. Source Description

The purpose of the NBPL Compressor Station No. 3 is to compress natural gas for transmission through a natural gas pipeline. The compression of the gas is accomplished with the turbine listed in Section I.A of the permit analysis.

## C. Permit History

On December 23, 1996, NBPL submitted a complete permit application to construct and operate one 40,350-hp Cooper-Rolls natural gas turbine, one 300-kW emergency backup generator engine, one 1.67-MMBtu/hr heating boiler, and one 15-kW emergency backup generator engine. **MAQP #2974-00** became final on March 9, 1997.

On May 13, 1998, NBPL requested that MAQP #2974-00 be modified to accurately reflect the emergency generator engine size of 245-kW. Also, the monitoring requirement in Section II.B.2 was changed from "after issuance of MAQP #2974-00" to "after initial startup of the facility." MAQP #2974-01 became final on March 19, 1998. **MAQP #2974-01** replaced MAQP #2974-00.

On April 16, 2004, the Department of Environmental Quality (Department) received a complete permit application from NBPL for changes to MAQP #2974-01. The proposed changes include a modification to the original nitrogen oxide ($NO_X$) Best Available Control Technology (BACT) determination by the Department. NBPL Source #01 (40,350-horsepower (hp) natural gas turbine) is unable to operate the dry low $NO_X$ combustion system (DLE), determined by the Department to be BACT, every hour and at all conditions for which the turbine operates. The modification

proposed would allow NBPL to operate Source #01 up to 750 hours per year while the DLE is not in operation. Reasons for non-DLE operation included periods of start-up and shutdown, when operation is required during downstream maintenance requirements, and operation during low ambient temperatures at the site. New carbon monoxide (CO) emissions limits for Source #01 of 460 lb/hr when the ambient temperature is 20 degrees Fahrenheit or colder, 56 lb/hr when the ambient temperature is 20 degrees Fahrenheit or warmer, and 109.5 tons per rolling 12-month time period replaced Section II.A.2 that limited the operation of Source #01 to running at 80% or greater load when the ambient temperature is below 5 degrees Fahrenheit. The new 109.5 tons/year CO limit would be made enforceable by monitoring a combination of ambient and turbine parameters. Cooper-Rolls, the manufacturer of the turbine, would test the turbine under different operating scenarios to develop a correlation between the monitored parameters and CO emissions. The 15-kW emergency generator has been removed from the facility. **MAQP #2974-02** replaced MAQP #2974-01.

D. Current Permit Action

On December 12, 2014, the Department received an application to modify MAQP #2974-02 to change the long-term turbine carbon monoxide (CO) emission limit from 109.5 tons per rolling 12-month period to 162 tons per rolling 12-month period. The change in the long-term CO emissions limit is proposed to more accurately reflect actual CO emissions from the turbine based on operating experience and methods of operation. The current permit action changes the CO emission limit to 162 tons per rolling 12-month period and updates the permit to reflect the current permit language and rule references used by the Department. **MAQP #2974-03** replaces MAQP#2974-02.

E. Additional Information

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

   Further, in addition to operating under MAQP #2974-03, NBPL operates under Title V Operating Permit #OP2974-05. The Title V operating permit includes source-testing requirements on a semiannual basis; therefore, the Department removed the every 4-year testing requirements for Source #01 from the MAQP.

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

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

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

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

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

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

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

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

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

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, NBPL 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. NBPL will burn natural gas in all fuel burning equipment, which will meet this limitation.

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

7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). NBPL is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart GG – Source #01 is an NSPS affected source because it meets the definition of a stationary gas turbine and was manufactured after October 3, 1977, as defined in 40 CFR 60, subpart GG.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:

40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an NESHAP Subpart as listed below:

40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAP) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR 63, Subpart HH. Based on the information submitted by NBPL, the facility is not subject to the provisions of 40 CFR 63, Subpart HH because the facility is not a major source of HAPs.

40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR 63, Subpart HHH. Second, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR 63, Subpart HHH. Finally, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR 63, Subpart HHH. Based on the information submitted by NBPL, the facility is not subject to the provisions of 40 CFR 63, Subpart HHH because the facility is not a major source of HAPs.

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. NBPL submitted the appropriate permit 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.

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. NBPL has a PTE greater than 25 tons per year of $NO_X$ and 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, modification or use of a source. NBPL 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. NBPL submitted an affidavit of publication of public notice for the December 11, 2014, issue of the *Searchlight*, a newspaper of general circulation in the Town of Culbertson, MT, in Roosevelt 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 NBPL 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 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. 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 modified 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.

13. 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).

14. 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.

15. 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.

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

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

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

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

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

1. ARM 17.8.1201 Definitions. (23) 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 MAQP #2974-03 for NBPL, the following conclusions were made:

a. The facility's PTE is greater than 100 tons/year of $NO_X$ and CO.

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 subject to a current NSPS--40 CFR 60, Subpart GG.

e. This facility is not subject to any current NESHAP standards.

f. This source is not a Title IV affected source

g. This source is not a solid waste combustion unit.

h. This source is not an Environmental Protection Agency (EPA) designated Title V source.

Based on these facts, the Department determined that NBPL is subject to the Title V operating permit program. Operating Permit #OP2974-11 was issued to NBPL on April 21, 2011, and expires on October 15, 2015.

III. BACT Determination

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

A. CO

NBPL is not adding a new source or altering an existing source. With this permit action, NBPL proposes to change the existing CO BACT determination made in MAQP #2974-02. In MAQP #2974-02, NBPL proposed new CO emissions limits for Source #01 of 460 lb/hr when the ambient temperature is 20 degrees Fahrenheit or colder, 56 lb/hr when the ambient temperature is 20 degrees Fahrenheit or warmer, and 109.5 tons per rolling 12-month time period. The 109.5 ton, 12-month limit represented a good-faith estimate of projected reasonable worst-case annual CO emissions, based on turbine manufacturer calculations. The current permit action proposes leaving the two hourly CO emission limits unchanged and increasing the annual CO emissions limit to 162 tons per rolling 12-month time period. A continuous monitoring system is not required at the NBPL facility; however NBPL has voluntarily installed a Continuous Calculated Emissions Monitoring System (CCEMS) to monitor emissions from the turbine. The new ton/year CO emission limit is based on eight years of actual operating experience and data collected with the CCEMS. Actual data indicate that based on current pipeline operating load, CO

emissions at Source #1 could reasonably be expected to reach as high as 162 tons/yr (an increase of 52.5 tons/yr). The proposed modification does not represent a change in equipment or methods of operation. NBPL will continue to use the DLE combustion system, lean-burn design with lean fuel mixture, good combustion practices, and exclusive use of natural gas as a fuel to achieve the existing hourly average emission limits and proposed long-term average limit.

Based on information submitted by NBPL the Department determined that DLE combustion technology, lean-burn design, with lean fuel mixture, good combustion practices, and exclusive use of natural gas as fuel as well as the limits of 460 lb/hr when the ambient temperature is 20 degrees Fahrenheit or colder, 56 lb/hr when the ambient temperature is 20 degrees Fahrenheit or warmer, and 162 tons per rolling 12-month time period calculated based on actual operating experience and project operating loads constitutes BACT for CO for Source #01.

IV. Emission Inventory

| | | Tons/Year | | | | |
|---|---|---|---|---|---|---|
| **Source** | | **$PM_{10}$** | **$NO_X$** | **CO** | **VOC** | **$SO_X$** |
| #01 | 40,350-hp Turbine | 19.32 | 235.50 | 162 | 13.14 | 8.76 |
| #02 | 245-kW Emergency Generator | 0.01 | 2.94 | 0.37 | 0.07 | 0.00 |
| #03 | Heating Boiler | 0.09 | 0.75 | 0.16 | 0.04 | 0.00 |
| **Total** | | **19.42** | **239.19** | **162.53** | **13.25** | **8.76** |

(SOURCE #01)
Cooper-Rolls 40,350-hp Turbine
Brake Horse Power: 40,350
Hours of Operation: 8,760 hr/yr
Max Fuel Combustion Rate: 7.038 MBtu/hp-hr and 315 MMBtu/hr
Fuel Heating Value: 1,025 Btu/SCF or 0.00098 (0.001) MMSCF/MMBtu (Natural Gas)

$PM_{10}$ Emissions
Emission Factor: 14.0 lb/MMscf {AFSEF PC-version 9/90, 2-02-002-01}
Calculations: 14.0 lb/MMscf * 0.001 Mmscf/MMBtu * 315 MMBtu/hr=4.41 lb/hr
4.41 lb/hr * 8760 hr/yr * 0.0005 tons/lb = 19.3 ton/yr

$NO_X$ Emissions
Emission Factor: 51.5 lb/hr {Manufacturer's emission factor based on 40 ppmvd at 15 percent $O_2$, DLE in operation, BACT Determination}
Calculations: 51.5 lb/hr * 8010 hr/yr * 0.0005 ton/lb = 206.25 ton/yr

Emission Factor: 78.0 lb/hr {Company's emission factor, DLE in Non-operation, BACT Determination}
Calculations: 78.0 lb/hr * 750 hr/yr * 0.0005 ton/lb = 29.25 ton/yr

CO Emissions
Calculations: = 162 ton/yr {Based on a correlation between ambient and operational parameters and CO emissions established by Cooper Rolls and subsequently on actual operating experience and methods of operation as approved by the Department.}

VOC Emissions
Emission Factor: 3.0 lb/hr {Manufacturer's emission factor BACT Determination}
Calculations: 3.0 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 13.1ton/hr

$SO_X$ Emissions
Emission Factor: 2.0 lb/hr {Manufacturers emission factor at 60% load}
Calculations: 2.0 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.76 ton/hr

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(SOURCE #02)
Emergency backup generator Engine (300 kW)
Horsepower: 402 hp
Max Fuel Combustion Rate: 3.46 MMBtu/hr
Hours of Operation: 500 hr/yr
Fuel Heating Value: 1,000 Btu/SCF or 0.0010 MMSCF/MMBtu (Natural Gas)

$PM_{10}$ Emissions
Emission Factor: 10.0 lb/MMSCF {AFSEF PC Version 9/90, 2-01-002-02}
Calculations: 10.0 lb/MMSCF * 0.001 MMSCF/MMBtu * 3.46 MMBtu/hr = 0.035 lb/hr
0.035 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.009 ton/yr

$NO_X$ Emissions
Emission Factor: 3400.0 lb/MMSCF {AFSEF PC Version 9/90, 2-01-002-02}
Calculations: 3400.0 lb/MMSCF * 0.001 MMSCF/MMBtu * 3.46 MMBtu/hr = 11.76 lb/hr
11.76 lb/hr * 500 hr/yr * 0.0005 ton/lb = 2.94 ton/yr

CO Emissions
Emission Factor: 430.0 lb/MMSCF {AFSEF PC Version 9/90, 2-01-002-02}
Calculations: 430.0 lb/MMSCF * 0.001 MMSCF/MMBtu * 3.46 MMBtu/hr = 1.49 lb/hr
1.49 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.372 ton/yr
VOC Emissions
Emission Factor: 82.9 lb/MMSCF {AFSEF PC Version 9/90, 2-01-002-02}
Calculations: 82.9 lb/MMSCF * 0.001 MMSCF/MMBtu * 3.46 MMBtu/hr = 0.287 lb/hr
0.287 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.072 ton/yr

$SO_X$ Emissions
Emission Factor: 0.60 lb/MMSCF {AFSEF PC Version 9/90, 2-01-002-02}
Calculations: 0.60 lb/MMSCF * 0.001 MMSCF/MMBtu * 3.46 MMBtu/hr = 0.002 lb/hr
0.002 lb/hr * 500 hr/yr * 0.0005 ton/lb = 0.001 ton/yr

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(SOURCE #03)
Heating Boiler
Max Fuel Combustion Rate: 1.67 MMBtu/hr
Hours of Operation: 8760 hr/yr

$PM_{10}$ Emissions
Emission Factor: 0.012 lb/MMBtu {AP-42 Table 1.3-1,-2,-3}
Calculations: 0.012 lb/MMBtu * 1.67 MMBtu/hr = 0.020 lb/hr
0.020 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.090 ton/yr

$NO_X$ Emissions

Emission Factor: 0.10 lb/MMBtu {AP-42 Table 1.3-1,-2,-3}

Calculations: 0.10 lb/MMBtu * 1.67 MMBtu/hr = 0.171 lb/hr

0.171 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.747 ton/yr

CO Emissions

Emission Factor: 0.0210 lb/MMBtu {AP-42 Table 1.3-1,-2,-3}

Calculations: 0.0210 lb/MMBtu * 1.67 MMBtu/hr = 0.036 lb/hr

0.036 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.157 ton/yr

VOC Emissions

Emission Factor: 0.0053lb/MMBtu {AP-42 Table 1.3-1,-2,-3}

Calculations: 0.0053 lb/MMBtu * 1.67 MMBtu/hr = 0.009 lb/hr

0.009 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.040 ton/yr

$SO_X$ Emissions

Emission Factor: 0.0006lb/MMBtu {AP-42 Table 1.3-1,-2,-3}

Calculations: 0.0006 lb/MMBtu * 1.67 MMBtu/hr = 0.001 lb/hr

0.001 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.004 ton/yr

## V. Existing Air Quality

NBPL is located in the NE¼ of the NE¼ of Section 6, Township 28 North, Range 57 East in Roosevelt County. Roosevelt County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

## VI. Ambient Air Impact Analysis

The current permit modification will not result in an increase in potential short-term emissions from this source. NBPL conducted air quality modeling as part of the original permit application, using the Industrial Source Complex Short Term (ISCST3) model. The meteorological data used was from National Weather Service Site at the Glasgow International Airport in Glasgow, Montana. Four years (1988-1991) of concurrent Glasgow surface and upper air meteorological data were used to evaluate the potential air quality impacts from the proposed natural gas compressor station. The modeling used a stack height of 55 feet and also took into account the downwash effect from two buildings.

The modeling results showed the maximum 1-hour $NO_2$ ambient air quality impact was 218.4 $\mu g/m^3$, (based on 1988), which is well below the Montana 1-hour standard of 564 $\mu g/m^3$. The maximum annual $PM_{10}$ ambient air quality impact was 8.06 $\mu g/m^3$, and the maximum 24-hour ambient air quality impact was 34.5 $\mu g/m^3$. Both of these values are well below the annual and 24-hour Montana Ambient Air Quality Standards (MAAQS) of 50 $\mu g/m^3$ and 150 $\mu g/m^3$, respectively. Modeling also showed similar results for CO, with a maximum 1-hour CO ambient air quality impact of 3,074 $\mu g/m^3$, and an 8-hour maximum of 1,574 $\mu g/m^3$. Again, the values are well below the MAAQS of 26,450 $\mu g/m^3$ (1-hour) and 10,000 $\mu g/m^3$ (8-hour). The CO modeling was performed at 60% percent load and -40°C ambient temperature, which were worst-case conditions. No refined air quality modeling or monitoring was required.

The Department determined that the impacts from this permitting action will not cause or contribute to a violation of any ambient air quality standard.

## VII. Taking or Damaging Implication Analysis

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

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

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

## VIII. Environmental Assessment

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

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

# FINAL ENVIRONMENTAL ASSESSMENT (EA)

*Issued To*: Northern Border Pipeline Company
Compressor Station No. 3
P.O. Box 542500
Omaha, NE 68154

*Air Quality Permit Number*: #2974-03

*Preliminary Determination Issued*: January 22, 2015
*Department Decision Issued*: February 12, 2015
*Permit Final*: February 28, 2015

1. *Legal Description of Site*: Northern Border Pipeline Company (NBPL) Compressor Station No. 3 is located in the NE¼ of the NE¼ of Section 6, Township 28 North, Range 57 East in Roosevelt County. The site is approximately four miles north of the town of Culbertson on route 16, then 4.8 miles east on a gravel road.

2. *Description of Project*: On December 12, 2014, the Department of Environmental Quality (Department) received an application to modify Montana Air Quality Permit (MAQP) #2974-02 to change the long-term Cooper Rolls 40,350-hp turbine (Source #1) carbon monoxide (CO) emission limit from 109.5 tons per rolling 12-month period to 162 tons per rolling 12-month period. The change in the long-term CO emissions limit is proposed to more accurately reflect actual CO emissions from the turbine based on actual operating experience and methods of operation.

3. *Objectives of Project*: The proposed project would modify MAQP #2974-02 to replace the turbine estimated rolling 12-month CO emission limit with a more accurate value that is based on actual operating experience and projected operating loads.

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

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #2974-03.

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

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

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

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

A. Terrestrial and Aquatic Life and Habitats

The facility would continue to potentially emit air pollutants and corresponding deposition of pollutants would occur. However, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor. The proposed permit action would have no impacts on terrestrial and aquatic life and habitats.

B. Water Quality, Quantity, and Distribution

Minor amounts of water may continue be required to control fugitive dust emissions from the access roads and the general facility property. The facility would emit air pollutants and corresponding deposition of pollutants would occur, however, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor. The proposed permit action would have no impacts on water quality, quantity, and distribution.

C. Geology and Soil Quality, Stability, and Moisture

Minor impacts would occur on the geology and soil quality, stability, and moisture from the proposed project but no construction would be required to develop the facility. No discharges, other than additional air emissions, would occur at the facility. Any impacts to the geology and soil quality, stability, and moisture would be minor due to the relatively small increase in emissions over existing levels.

Deposition of pollutants would continue to occur; however, as described in Section 7.F of this EA, the Department determined that the chance of deposition of pollutants impacting the geology and soil in the areas surrounding the site would be minor. The proposed permit action would have no impacts on geology and soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would continue to occur on vegetation cover, quantity, and quality, but the permit action would require no construction at the facility.

In addition, no discharges, other than air emissions, would continue to occur at the facility. The facility would be a source of air pollutants, and corresponding deposition of pollutants would occur; however, as described in Section 7.F of this EA, the Department determined that the chance of deposition of pollutants impacting the vegetation in the area surrounding the site would be minor. Overall, the proposed permit action would have no impacts on vegetation cover, quantity, and quality would be minor

E. Aesthetics

No aesthetic impacts would result because the look of the facility would not be changing. Overall, there would be no aesthetic impacts from the proposed changes in operating conditions.

F. Air Quality

The air quality of the area would experience a minor impact from the proposed project. The facility would continue to emit the following air pollutants at the same short-term rates: $PM_{10}$, $NO_x$, CO, VOC, and $SO_x$. The current permit action would allow for an increase in the total annual emissions of CO. Deposition of these pollutants may occur. However, the Department determined that any impacts from deposition would be minor due to dispersion characteristics of pollutants (stack height, stack temperature, etc.), the surrounding atmosphere (wind speed, wind direction, ambient temperature, etc.), and conditions placed in MAQP #2974-03. The pollutants emitted from NBPL would continue to be widely dispersed prior to deposition on any water, soil, or vegetation. Conditions would include, but would not be limited to BACT emission limits for $NO_X$, CO, and for VOC. Overall, the proposed permit action would have minor impacts on Air Quality.

G. Unique Endangered, Fragile, or Limited Environmental Resources

Due to the fact that this is an existing facility and the relatively low levels of pollutants that would be emitted, the Department determined the proposed permit action would have no impacts on unique endangered, fragile, or limited environmental resources.

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

Deposition of pollutants would continue to occur as a result of operating the facility; however, as explained in Section 7.F of this EA, the Department determined that any impacts on air and water resources from the pollutants (including deposition) would be minor. In addition the impact on the demand for the environmental resource of energy would be minor because the facility would be relatively small by industrial standards and would use a non-renewable resource.

Overall, the proposed permit action would have no impacts on the demand for the environmental resource of water, air, and energy.

I. Historical and Archaeological Sites

According to SHPO records, there are not any previously recorded historic or archaeological sites within the proposed area. However, SHPO stated that the absence of cultural properties in the area does not mean that they do not exist, but may reflect a lack of previous cultural resource inventories in the area. The Department determined that there would be no impacts to any historical and archaeological sites in the area due to the fact that this is an existing facility with no new ground disturbance and no additional equipment is being proposed.

J. Cumulative and Secondary Impacts

There would be no additional noise impacts because the facility would not be changing. There is potential for other operations to locate near the existing facility site, however, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the proposed site. Overall, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #2974-03 and any impacts to the physical and biological environment would be minor. The Department determined that there would be no cumulative and secondary impacts from this project on the physical and biological aspects of the human environment in the immediate area.

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

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

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

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

The proposed action would replace the turbine estimated rolling 12-month CO emission limit listed in the permit with a more accurate value that is based on actual operating experience and projected operating loads. The proposed project would cause no impacts to native or traditional lifestyles or communities (social structures or mores), and cultural uniqueness and diversity in the area.

C. Local and State Tax Base and Tax Revenue

The proposed project would result in no impacts to the local and state tax base and tax revenue because no new employees would be hired as a result of the change in permit and no new equipment would be added that might generate property taxes.

D. Agricultural or Industrial Production

Compressor Station No. 3 is located in an area of rural agricultural grazing land. The proposed change in the MAQP would result in no additional disturbance of rural agricultural grazing land. The proposed project would have no impacts to industrial production because the proposed project would represent a change in an emission limit for an existing industrial source located in the area. As Section 7.F of this EA explains, the Department determined that the chance of deposition of pollutants impacting agricultural or industrial production in the area surrounding the site would be minor. Overall, there would be no impacts to agricultural or industrial production.

E. Human Health

As explained in Section 7.F of this EA, deposition of pollutants would continue to occur; however, the Department determined that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Overall, there would be no impacts to human health.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed change in the CO long-term emitting limit would create no new impacts on access to recreational and wilderness activities. The proposed change would have no additional impacts on the quality of recreational and wilderness activities in the area because the facility is existing.

G. Quantity and Distribution of Employment

The proposed change would have no impact on the quantity and distribution of employment because no new permanent employees would be hired as a result of the proposed project. Current NBPL employees would continue to be responsible for the day-to-day operation of the facility.

H. Distribution of Population

The proposed change in operating conditions would have no impacts on the distribution of population in the area because the facility would be located in a relatively remote location and the proposed change in operating conditions would create no new permanent jobs. Therefore, no people would be moving to the area for employment opportunities.

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 MAQP #2974-03 and to assure compliance with applicable rules, standards, and MAQP #2974-03. Overall, any demands for government services to regulate the facility or activities associated with the facility would be minor due to the proposed change in the long-term CO emitting limit.

J. Industrial and Commercial Activity

No additional industrial or commercial activity would result solely from the operation of the facility. No impacts to industrial and commercial activities in the area would occur.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would be affected by issuing MAQP # 2974-03. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Overall, no cumulative and secondary impacts from this project would occur and no impacts would occur to the economic and social aspects of the human environment in the immediate area.

Recommendation: No EIS is required.

The current permitting action is for the proposed change to the turbine long-term CO emissions limit. MAQP #2974-03 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: Deanne Fischer
Date: January 16, 2015