



**Brian Schweitzer, Governor**

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: [www.deq.mt.gov](http://www.deq.mt.gov)

May 11, 2012

Ruth Jensen  
Northern Border Pipeline Company – Compressor Station #1  
13710 FNB Parkway, Suite 300  
Omaha, Nebraska 68154

Dear Ms. Jensen:

Montana Air Quality Permit #2979-03 is deemed final as of May 11, 2012, 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,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3490

Ed Warner  
Environmental Engineer  
Air Resources Management Bureau  
(406) 444-2467

VW:EW  
Enclosures

**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. 1  
P.O. Box 542500  
Omaha, NE 68154

*Montana Air Quality Permit (MAQP) Number:* #2979-03

*Preliminary Determination Issued:* 4/9/12

*Department Decision Issued:* 4/25/12

*Permit Final:* 5/11/12

1. *Legal Description of Site:* Northern Border Pipeline Company (NBPL) Compressor Station No. 1 is located in the NE $\frac{1}{4}$  of the SE $\frac{1}{4}$  of Section 12, Township 33 North, Range 38 East in Valley County. From the intersection of Highway 2 and 24, travel north 24 miles to mile marker #34 and turn left. Traveling 11 miles on a county road, turn and go southwest, and the site is located to the left approximately 5 miles.
2. *Description of Project:* On March 7, 2012, the Department received a complete application from NBPL to increase the rolling 12-month carbon monoxide (CO) emission limit in MAQP #2979-02 for the natural gas compressor turbine (Source #01) to 162 tons per year (TPY). The modification request does not represent a change in equipment or methods or operation, or a change in the Best Available Control Technology (BACT) emission limits based on a pound per hour (lb/hr) basis. All of the existing BACT pollution control systems remain in place. The previous rolling 12-month CO limit of 109.5 TPY was established as a good-faith estimate of projected reasonable worst-case annual CO emissions based on turbine manufacturer calculations and projected ambient temperatures. The updated 12-month rolling limit is based on historical emissions data gathered by the Continuous Calculated Emissions Monitoring System (CCEMS) that was put in place as a result of the previous permit action, average monthly temperatures, and projected average daily hp by month.
3. *Objectives of Project:* The proposed project would provide NBPL the opportunity to operate Compressor Station No. 1 in compliance with all conditions listed in MAQP #2979-03. Actual operating experience has shown that CO emissions could reasonably be expected to exceed the previous 12-month rolling average CO limit while still being in compliance with the lb/hr CO emission limits. NBPL proposes to modify the 12-month rolling average of CO to 162 TPY which they feel more accurately reflects a projected worst-case annual CO emission level based on historical CCEMS data, average monthly ambient temperatures, and projected average daily hp by month.
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 #2979-03.
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

There would be no change in the short term emission levels or methods of operation at the facility. However, the facility could potentially emit additional CO on an annual basis and corresponding deposition of pollutants could occur. However, the Department determined that any impacts from deposition would be minor because CO is a gaseous pollutant. Any impacts on terrestrial and aquatic life and habitats would be minor due to the relatively small increase in emissions over existing levels. Overall, any impacts to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity, and Distribution

Minor impacts would be expected on water quality, quantity, and distribution from the proposed action because the facility could potentially emit additional CO on an annual basis and corresponding deposition of pollutants could occur. No change in water usage at the facility is proposed.

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. No discharges, other than additional CO emissions on an annual basis, 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 occur; however, the Department determined that the chance of deposition of pollutants impacting the geology and soil in the areas surrounding the site would be minor. Overall, any impacts to the geology and soil quality, stability, and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would occur on vegetation cover, quantity, and quality, but no construction would be required for the proposed action.

In addition, no discharges, other than additional CO emissions on an annual basis, would occur at the facility. Any impacts to the vegetation cover, quantity, and quality would be minor due to the relatively small increase in emissions over existing levels.

The facility would be a source of air pollutants, and corresponding deposition of pollutants would occur; however, the Department determined that the chance of deposition of pollutants impacting the vegetation in the area surrounding the site would be minor. Overall, any impacts to 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 realize minor impacts from the proposed project because the facility could potentially emit more CO on an annual basis. Deposition of CO may occur. However, the Department determined that any impacts from deposition would be minor due to dispersion characteristics of the pollutant (stack height, stack temperature, etc.), the surrounding atmosphere (wind speed, wind direction, ambient temperature, etc.), and conditions placed in MAQP #2979-03. The pollutants emitted from NBPL would 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 CO.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS) during the initial permitting of this facility. The NRIS search identified no species of special concern in the area of the facility at that time. In this case, the area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. For the current permit action,

the Department again contacted NRIS to see if there were any updates to the unique endangered, fragile, or limited environmental resources in the area. Updated NRIS information indicates there are 111 species occurrence reports for 10 species of concern and two ecological site reports in the area of the facility. There are nine bird species of concern: Ferruginous Hawk, Greater Sage-Grouse, Ling-billed Curlew, Sprague's Pipit, Baird's Sparrow, Grasshopper Sparrow, McCown's Longspur, Chestnut-collared Longspur, and Bobolink. The remaining species of concern is the mammal Swift Fox. None of the species occurrence reports are centered within the same section as the facility location. The ecological site reports are for the Dry Fork Creek Landscape and Buggy Creek Landscape which are both located in sections south of the facility location.

Due to the fact that this is an existing facility and the current permit action does not include any new land disturbances, the Department determined that it would be unlikely that the proposed project would impact any species of special concern and that any potential impacts would be minor. The current permit action is for an increase in the amount of potential CO emissions on an annual basis; however, there are no anticipated changes to facility operation so no new impacts would be expected.

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

The proposed changes in operating conditions would have minor impacts on the demands for the environmental resources of air because the facility would potentially emit additional CO on an annual basis. Additional deposition of pollutants would occur as a result of operating the facility at the new maximum potential; however, the Department determined that any impacts on air and water resources from the pollutant (including deposition) would be minor.

The proposed project would be expected to have minor impacts on the demand for the environmental resource of energy because additional power would be required at the site if turbine utilization increases due to the higher 12-month rolling CO limitation. 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.

The proposed project would not require the use of water so no impacts on the demand for water are expected.

Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

#### I. Historical and Archaeological Sites

In an effort to identify any historical and archaeological sites located near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO) during the initial permitting of the facility. According to SHPO records, there were 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 the current action of increasing the potential CO emission limit on an annual basis would not impact 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 being proposed. There are no changes in facility operations from this permit action.

J. Cumulative and Secondary Impacts

The cumulative and secondary impacts from this project on the physical and biological aspects of the human environment in the immediate area would be minor due to the relatively small size of the additional air emissions. There would be no additional noise impacts because the facility would not be changing. 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 #2979-03 and any impacts to the physical and biological environment would be minor.

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

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

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

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

The proposed project would have no impact on native or traditional lifestyles or communities (social structures or mores), and cultural uniqueness and diversity in the area because there are no proposed changes in operating conditions and no modifications of the facility would occur.

- 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 proposal and no new equipment would be added that might generate property taxes. The increase in the annual CO limit would not generate additional state fees by itself; however, it could potentially increase the turbine utilization during a year which would result in increases in actual levels other pollutant emissions that the state collects fees on. However, the basis of the new annual CO emission limit is for reasonably expected operation during a year and not upon any anticipated increase in production.

D. Agricultural or Industrial Production

The land at the location is rural agricultural grazing land. The proposed change in potential annual emissions of CO would result in no additional disturbance of rural agricultural grazing land. The proposed project would have a minor impact to industrial production because it could increase the utilization of the turbine during a year which may result in an increase in natural gas transmission over the course of a year. However, the basis of the new annual CO emission limit is for reasonably expected operation during a year and not upon any anticipated increase in production. The facility would have the potential to emit additional CO on an annual basis and corresponding deposition of pollutants would occur. However, 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, impacts to agricultural or industrial production would be minor.

E. Human Health

The proposed change in the annual CO emission limit would result in only minor, if any, impacts to human health. As explained in Section 7.F of this EA, deposition of pollutants would occur; however, the Department determined that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed change in the annual CO emission limit would create no new impacts on access to recreational and wilderness activities because of the relatively remote location and the relatively small size of the existing facility. The proposed change in the annual CO emission limit would have no additional impacts on the quality of recreational and wilderness activities in the area because the facility is existing and no changes to operation or layout would occur.

G. Quantity and Distribution of Employment

The proposed change in the annual CO emission limit 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 be responsible for the day-to-day operation of the facility.

H. Distribution of Population

The proposed change in the annual CO emission limit 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 #2979-03 and to assure compliance with applicable rules, standards, and MAQP #2979-03. 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 annual CO emission limit for the turbine.

J. Industrial and Commercial Activity

No additional industrial or commercial activity would result solely from the increase in the annual CO emission limit. The increase in the annual CO emission limit could result in an increase in the turbine utilization during a year. However, the basis of the new annual CO emission limit is for reasonably expected operation during a year and not upon any anticipated increase in production. 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 # 2979-03. The state standards would protect the proposed site and the environment surrounding the site.

L. Cumulative and Secondary Impacts

Overall, minor 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. While there are no proposed changes in operating conditions, the increase in potential annual CO emissions could result in an increase of the turbine utilization which may result in minor changes in the industrial production and air quality operating fees. However, the basis of the new annual CO emission limit is for reasonably expected operation during a year and not upon any anticipated increase in production. No changes to the facility employment are expected.

Recommendation: No EIS is required.

The current permitting action is for the proposed change in operating conditions of a natural gas booster station. MAQP #2979-03 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 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: Ed Warner  
Date: 3/21/12