



Steve Bullock, Governor
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January 18, 2013

Mr. Ron L. Lowney
WBI Energy Transmission, Inc.
2010 Montana Avenue
Glendive, MT 59330

Dear Mr. Lowney:

Montana Air Quality Permit #2741-05 is deemed final as of January 18, 2013, 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,

A handwritten signature in cursive script that reads "Julie A. Merkel".

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

A handwritten signature in cursive script that reads "Deanne Fischer".

Deanne Fischer, P.E.
Environmental Engineer
Air Resources Management Bureau
(406) 444-3403

JM:DF
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #2741-05

WBI Energy Transmission, Inc.
Little Beaver Compressor Station
2010 Montana Avenue
Glendive, MT 59330

January 18, 2013



MONTANA AIR QUALITY PERMIT

Issued To: WBI Energy Transmission, Inc.
Little Beaver Compressor Station
2010 Montana Avenue
Glendive, Montana 59330

MAQP: #2741-05
Administrative Amendment (AA)
Request Received: 12/10/2012
Department Decision on AA: 01/02/2013
Permit Final: 01/18/2013
AFS #: 025-0002

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to WBI Energy Transmission, Inc. (WBI), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended for the following:

SECTION I: Permitted Facilities

A. Plant Location

WBI owns and operates a natural gas compressor station and associated equipment located in the Northeast ¼ of Section 19, Township 4 North, Range 62 East in Fallon County, Montana. The facility is known as the Little Beaver Compressor Station. A complete list of the permitted equipment is contained in Section I.A of the Permit Analysis.

B. Current Permit Action

On December 10, 2012 the Department of Environmental Quality-Air Resources Management Bureau (Department) received a request to change the permittee name from Williston Basin Interstate Pipeline Company to WBI Energy Transmission, Inc. (WBI). The current permit action is an administrative amendment pursuant to ARM 17.8.764 that changes the permittee name as requested.

SECTION II: Conditions and Limitations

A. Emission Limitations:

1. WBI shall install, operate and properly maintain a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller on the 880-horsepower (hp) Ingersoll Rand compressor engine (Unit #09). Oxides of Nitrogen (NO_x¹) emissions from the engine shall not exceed 5.82 pound per hour (lb/hr) (ARM 17.8.749).
2. WBI shall not operate more than one 1,100-hp natural gas compressor engine (Unit #10) at any given time (ARM 17.8.749).
3. The 1,100-hp natural gas compressor engine shall be a lean burn engine operated with an AFR controller. The engine speed shall not exceed 900 revolutions per minute (rpm) of continuous duty operation. Emissions from the engine shall not exceed the following lb/hr limits (ARM 17.8.752):

NO _x ¹	4.85 lb/hr
Carbon Monoxide (CO)	7.28 lb/hr
Volatile Organic Compounds (VOC)	2.43 lb/hr

¹ NO_x reported as NO₂

4. WBI shall not operate more than one 1,680-hp natural gas compressor engine (Unit #15) at any given time (ARM 17.8.749).
5. Emissions from the 1,680-hp natural gas compressor engine (Unit #15) shall be controlled by an NSCR unit and an AFR controller. Emissions from the engine shall not exceed the following limits:

NO _x ¹	3.70 lb/hr (ARM 17.8.752)
CO	4.44 lb/hr (ARM 17.8.749)
VOC	1.85 lb/hr (ARM 17.8.752)
6. WBI shall maintain the minimum stack heights of each compressor engine and the generator engine to correspond with the following heights (ARM 17.8.749):

<u>Source #</u>	<u>Stack Height (feet above ground level)</u>
08	35
09	30
10	30
11	30
15	27

7. WBI shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).
8. WBI 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).
9. WBI shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
10. WBI 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).
11. WBI shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.10 (ARM 17.8.749).
12. WBI shall operate the 1,000 gallon unleaded gasoline tank with a permanent submerged fill pipe or another vapor loss control device (ARM 17.8.324(3)).

B. Testing Requirements

1. The 1,680-hp natural gas compressor engine shall be initially tested for NO_x and CO, concurrently, to demonstrate compliance with the emission limits in Section II.A.5. The testing shall be conducted within 180 days of the initial start up date of the respective compressor engine. Further testing shall continue on an every 4-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. All compliance source tests shall be conducted in accordance with 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. WBI 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 be submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. WBI 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*, 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. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by WBI 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).

SECTION III: General Conditions

- A. Inspection - WBI shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (continuous emissions monitoring system (CEMS) or continuous emissions rate monitoring system (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 WBI fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving WBI 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 as specified in Section 75-2-401, *et seq.*, MCA.

- E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding 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 WBI 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 (MAQP) Analysis
WBI Energy Transmission, Inc.
Little Beaver Compressor Station
MAQP #2741-05

I. Introduction/Process Description

A. Permitted Equipment

WBI Energy Transmission, Inc. (WBI) owns and operates a natural gas compressor station and associated equipment located in the Northeast ¼ of Section 19, Township 4 North, Range 62 East in Fallon County, Montana. The facility is known as the Little Beaver Compressor Station and is located in a remote area, approximately 20 miles southeast of Baker and one mile from the Montana/North Dakota border. The facility includes, but is not limited to, the following:

Source #	Make	Model	Size/Description
08	Ingersoll Rand	8SVG	400-horsepower (hp) Compressor Engine
09	Ingersoll Rand	48KVG	880-hp Compressor Engine
10	Superior	8GTLE	1,100-hp Compressor Engine
11	Waukesha	WAK-6	190-hp Generator Engine
12	Miscellaneous Natural Gas Fired Heaters and Boilers		
13	Tri-ethylene glycol Dehydration Unit		
14	Miscellaneous Volatile Organic Compound (VOC) Sources (tanks, valves, flanges, etc.)		
15	Waukesha	7044 GSI	1,680-hp Compressor Engine

* There are no flares at the Little Beaver Compressor Station

B. Source Description

The Little Beaver Compressor Station has two primary purposes. The first is to gather natural gas from natural gas fields in the area and to compress the field gas up to the required pressure in the natural gas transmission system. Natural gas from the Little Beaver Compressor Station is transported via pipeline to a WBI facility at Belle Fourche, South Dakota. The Little Beaver Compressor Station moves an average of 45-million standard cubic feet per day (MMScf/day) of natural gas during the winter months. The volume of gas moved during the summer months is considerably lower.

The second purpose of the facility is to “dry” the gas as it is being processed. The gas contains some moisture, which must be removed from the system prior to being sent into the transmission system. This is accomplished with a dehydrator, also commonly called a reboiler or glycol unit.

C. Permit History

Williston Basin Interstate Pipeline Company’s (WBI’s) predecessor, the Montana Dakota Utility Company (MDU), constructed the Little Beaver Compressor Station in 1936. The original facility was comprised of five 190-hp Ingersoll Rand compressor engines. Two 300-hp Ingersoll Rand compressor engines were added to the facility in 1939. In 1952 the 190-hp Waukesha generator engine was installed at the facility. The 440-hp Ingersoll Rand compressor engine was added in 1954 and the 880-hp Ingersoll Rand compressor engine was added in 1962. WBI was issued **MAQP #2741-00** in 1992, which allowed WBI to install the dehydration unit.

On February 1, 1997, WBI was issued MAQP #2741-01. This permit action allowed the installation and operation of an 1,100-hp compressor engine (Source #10). WBI was required to install a Non Selective Catalytic Reduction (NSCR) unit and an Air/Fuel ratio (AFR) controller on the existing 880-hp Ingersoll-Rand compressor engine (Source #09) in order to offset emissions from the new engine. In addition, minimum stack height requirements were placed in the permit to improve dispersion of emissions and enable the facility to meet ambient air quality standards.

Based on the results from recent source tests at similar WBI facilities, the earlier model Ingersoll-Rand compressor engines were found to have average emission rates of 25.0 grams per horsepower-hour (grams/hp-hr) Oxides of Nitrogen (NO_x) and 16.0 grams/hp-hr Carbon Monoxide (CO). In addition, VOC emissions were calculated using an emission factor for Total Organic Carbon (TOC) in the initial permit, which resulted in an over-estimation greater than 90%. Therefore, emissions from the older engines were re-calculated using the current, more accurate emission factors for NO_x and CO. Further, VOC emissions were recalculated using the appropriate VOC emission factor.

Because the Ingersoll Rand compressor engines and the Waukesha generator engine were manufactured and installed prior to 1968 (grandfathered sources), the plant-wide emissions limits contained in Section II.A.5 of Permit #2741-00 were not required; therefore, the Department of Environmental Quality-Air Resources Management Bureau (Department) removed the limits. **MAQP #2741-01** replaced MAQP #2741-00.

On November 1, 2002, the Department received a letter from WBI requesting that the Department remove the every 4-year testing requirements for the 880-hp Ingersoll-Rand compressor engine (Source #09) and the 1,100-hp Superior compressor engine (Source #10) from the permit because WBI's Operating Permit #OP2741-00 required both units to be tested every 6 months. In addition, WBI requested that the Department make "off-sets" a federally enforceable condition for the 1,100-hp Superior compressor engine so that WBI may be able to make "like for like" engine swaps according to the provisions of the Administrative Rules of Montana (ARM) 17.8.745(1)(r) for the 1,100-hp Superior compressor engine.

The Department removed the every 4-year testing requirements for Source #09 and Source #10 from the permit. In addition, the Department added a federally enforceable condition for Source #10 so that WBI may make "like for like" engine swaps according to the provisions of ARM 17.8.745(1)(r) for Source #10. Further, the permit format and language were updated to reflect current Department permit format and permit language. **MAQP #2741-02** replaced MAQP #2741-01.

On June 6, 2004, Aspen Consulting and Engineering (Aspen) on behalf of WBI, submitted modeling to complete the Montana Air Quality Permit application received by the Department on April 5, 2004. In the application, WBI requested a modification to MAQP #2741-02 which included the installation and operation of two 1,680-hp natural gas-fired engines. Each engine drives a natural gas compressor and has the ability to pull suction on production and/or storage pipelines and to discharge into gathering and/or transmission pipelines. The units replaced the existing Little Beaver Units #1, 2, 3, 4, 5, 6, and 7. In addition, rule references and language were updated to reflect current rule references and language used by the Department. **MAQP #2741-03** replaced MAQP #2741-02.

On March 25, 2010, WBI submitted a request to the Department to remove one of the 1,680-hp natural gas-fired engines from the facility's MAQP. The engine was permitted in 2004, but never installed at the facility. The Department removed the engine from the MAQP, as requested and updated permit language to reflect current permit language. **MAQP #2741-04** replaced MAQP #2741-03.

D. Current Permit Action

On December 10, 2012 the Department received a request to change the permittee name from Williston Basin Interstate Pipeline Company to WBI Energy Transmission, Inc. (WBI). The current permit action is an administrative amendment pursuant to ARM 17.8.764 that changes the permittee name as requested. **MAQP #2741-05** replaces MAQP #2741-04.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARM and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

WBI 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 PM₁₀

WBI 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. (1) This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes. (2) 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, WBI 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. 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. WBI consumes pipeline quality natural gas in each engine, the dehydration unit reboiler, and the miscellaneous heaters. The use of natural gas 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 a 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). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60. The WBI Little Beaver Compressor Station is not an NSPS affected source because it does not meet any of the definitions in 40 CFR Part 60.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
 - a. 40 CFR 63, Subpart A – General Provisions. General provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart as listed below:
 - b. 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 or area source of Hazardous Air Pollutants (HAPs) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be a major or area source 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 WBI, the facility is not a major source of HAPs. For area sources under 40 CFR 63, Subpart HH, the affected sources include each TEG glycol dehydration unit. The WBI Little Beaver Station operates TEG units; however, because the glycol dehydration unit emits less than 0.9 megagrams (one ton per year (TPY)) of benzene, it is exempt from the control requirements listed in 40 CFR 63, Subpart HH. Records of the determinations applicable to this exemption must be maintained as required in 40 CFR 63.774(d)(1).

- c. 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 WBI, the Little Beaver Compressor Station is not subject to the provisions of 40 CFR 63, Subpart HHH because the facility is not a major source of HAPs.
- d. 40 CFR 63, Subpart ZZZZ - National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines (RICE). An affected engine is any existing, new, or reconstructed stationary RICE that remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year.

As an area source, the five RICE engines may be subject to this rule. However, since the 5 natural gas RICE engines were constructed prior to June 12, 2006, the engines are considered existing stationary RICE and do not currently have requirements under this Maximum Achievable Control Technology (MACT), as specified by 40 CFR 63.6590(b)(3). Based on information submitted by WBI, the Little Beaver Station is not subject to any current provisions of 40 CFR 63, Subpart ZZZZ because the facility does not have any engines that are new or reconstructed after June 12, 2006 and is not a major source of HAPs. However, since the permit is written in a de minimis-friendly manner, MACT requirements could apply to future engines.

- 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. WBI was not required to submit a permit application fee for the current permit action because it is considered an administrative 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. This 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 which pro-rate 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. WBI has PTE greater than 25 tons per year of NO_x, CO, and VOC; therefore, an air quality permit is required.
 3. ARM 17.8.744 Montana Air Quality Permits—General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 4. ARM 17.8.745 Montana Air Quality Permits – Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
 5. ARM 17.8.748 New or Modified Emitting Units – Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. WBI was not required to submit a permit application for the current permit action because it is considered an administrative 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. WBI was not required to submit a public notice for the current permit action because it is considered an administrative action.
 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, which 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 WBI of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
 10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
 11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified as provided in this subchapter, except that a permit issued prior to construction of a new or 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.
 12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- 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 Federal Clean Air Act (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 PTE of the facility is below 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) Major Source under Section 7412 of the FCAA is defined as any stationary 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 PM₁₀ in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. 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 #2741-05 for WBI, the following conclusions were made:
 - a. The facility's PTE is greater than 100 tons/year for NO_x and CO.
 - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not subject to any current NSPS.
 - e. This facility is subject to area source provisions of a current NESHAP standard (40 CFR 63, Subpart HH).
 - f. This source is not a Title IV affected source nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that the WBI-Little Beaver Compressor Station is a major source of emissions as defined under Title V. WBI's Title V Permit #OP2741-04 became effective September 28, 2010.

III. BACT Determination

A BACT determination is required for each new or modified source. WBI shall install on the new or modified source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination is required for each new or modified source. However, a BACT determination was not required for the current permit action because it is considered an administrative action.

IV. Emission Inventory

Tons/Year						
Source #	Source	PM ₁₀	NO _x	CO	VOC	SO _x
08	440-hp Ingersoll-Rand	0.19	106.24	67.99	0.59	0.0116
09	880-hp Ingersoll-Rand	0.37	25.50	25.50	8.50	0.0220
10	1,100-hp Superior	0.34	21.25	31.87	10.62	0.0205
11	190-hp Waukesha	0.07	36.70	1.84	0.26	0.0041
12	Misc. Heaters and Boilers	0.03	1.11	0.22	0.06	0.0067
13	TEG Dehydration Still Vent	-----	-----	-----	1.45	-----
14	Misc. VOC Sources	-----	-----	-----	0.65	-----
15	1,680-hp Waukesha compressor Engine	0.55	16.22	19.47	8.11	0.03
Totals		1.55	207.02	146.89	30.24	0.0994

(SOURCE #08)

440 hp Ingersoll Rand Compressor Engine

Brake Horse Power: 440 hp
 Hours of Operation: 8,760 hr/year
 Max Fuel Combustion Rate: 4.40 million British thermal units per hour (MMBtu/hr)
 Fuel Heating Value: 1,000 Btu/Scf or 0.0010 MMScf/MMBtu (Natural Gas)

PM₁₀ Emissions

Emission Factor: 10.0 lb/MMScf {FIRE - PC Version, 1/95, 2-02-002-02}
 Calculations: 10.0 lb/MMScf * 0.001 MMScf/MMBtu * 4.40 MMBtu/hr = 0.04 lb/hr
 0.04 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.19 ton/yr

NO_x Emissions

Emission Factor: 25.0 gram/hp-hr {WBI Source Test Data}
 Calculations: 25.0 gram/hp-hr * 440 hp * 0.002205 lb/gram = 24.26 lb/hr
 24.26 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 106.24 ton/yr

CO Emissions

Emission Factor: 16.0 gram/hp-hr {WBI Source Test Data}
 Calculations: 16.0 gram/hp-hr * 440 hp * 0.002205 lb/gram = 15.52 lb/hr
 15.52 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 67.99 ton/yr

VOC Emissions

Emission Factor: 0.14 gram/hp-hr {Table 3.2-1, AP-42, 7/93}
 Calculations: 0.14 gram/hp-hr * 440 hp * 0.002205 lb/gram = 0.14 lb/hr
 0.14 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.59 ton/yr

SO_x Emissions

Emission Factor: 0.60 lb/MMScf {FIRE - PC Version, 1/95, 2-02-002-02}
 Calculations: 0.60 lb/MMScf * 0.001 MMScf/MMBtu * 4.40 MMBtu/hr = 0.0026 lb/hr
 0.0026 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.0116 ton/yr

(SOURCE #09)

880 hp Ingersoll Rand Compressor Engine

Brake Horse Power: 880 hp
 Hours of Operation: 8,760 hr/year
 Max Fuel Combustion Rate: 8.36 MMBtu/hr
 Fuel Heating Value: 1,000 Btu/Scf or 0.0010 MMScf/MMBtu (Natural Gas)

PM₁₀ Emissions

Emission Factor: 10.0 lb/MMScf { FIRE - PC Version, 1/95, 2-02-002-02 }
Calculations: $10.0 \text{ lb/MMScf} * 0.001 \text{ MMScf/MMBtu} * 8.36 \text{ MMBtu/hr} = 0.08 \text{ lb/hr}$
 $0.08 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.37 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 3.00 gram/hp-hr { WBI Permit Application }
Calculations: $3.00 \text{ gram/hp-hr} * 880 \text{ hp} * 0.002205 \text{ lb/gram} = 5.82 \text{ lb/hr}$
 $5.82 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 25.50 \text{ ton/yr}$

CO Emissions

Emission Factor: 3.00 gram/hp-hr { WBI Permit Application }
Calculations: $3.00 \text{ gram/hp-hr} * 880 \text{ hp} * 0.002205 \text{ lb/gram} = 5.82 \text{ lb/hr}$
 $5.82 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 25.50 \text{ ton/yr}$

VOC Emissions

Emission Factor: 1.00 gram/hp-hr { WBI Permit Application }
Calculations: $1.00 \text{ gram/hp-hr} * 880 \text{ hp} * 0.002205 \text{ lb/gram} = 1.94 \text{ lb/hr}$
 $1.94 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.50 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.60 lb/MMScf { FIRE - PC Version, 1/95, 2-02-002-02 }
Calculations: $0.60 \text{ lb/MMScf} * 0.001 \text{ MMScf/MMBtu} * 8.36 \text{ MMBtu/hr} = 0.0050 \text{ lb/hr}$
 $0.0050 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.0220 \text{ ton/yr}$

(SOURCE #10)

1,100 hp Superior Compressor Engine

Brake Horse Power: 1,100 hp @ 900 rpm
Hours of Operation: 8,760 hr/year
Max Fuel Combustion Rate: 7.81 MMBtu/hr
Fuel Heating Value: 1,000 Btu/Scf or 0.0010 MMScf/MMBtu (Natural Gas)

PM₁₀ Emissions

Emission Factor: 10.0 lb/MMScf { FIRE - PC Version, 1/95, 2-02-002-02 }
Calculations: $10.0 \text{ lb/MMScf} * 0.001 \text{ MMScf/MMBtu} * 7.81 \text{ MMBtu/hr} = 0.08 \text{ lb/hr}$
 $0.08 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.34 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 2.00 gram/hp-hr { BACT Determination }
Calculations: $2.00 \text{ gram/hp-hr} * 1,100 \text{ hp} * 0.002205 \text{ lb/gram} = 4.85 \text{ lb/hr}$
 $4.85 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 21.25 \text{ ton/yr}$

CO Emissions

Emission Factor: 3.00 gram/hp-hr { BACT Determination }
Calculations: $3.00 \text{ gram/hp-hr} * 1,100 \text{ hp} * 0.002205 \text{ lb/gram} = 7.28 \text{ lb/hr}$
 $7.28 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 31.87 \text{ ton/yr}$

VOC Emissions

Emission Factor: 1.00 gram/hp-hr { BACT Determination }
Calculations: $1.00 \text{ gram/hp-hr} * 1,100 \text{ hp} * 0.002205 \text{ lb/gram} = 2.43 \text{ lb/hr}$
 $2.43 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 10.62 \text{ ton/yr}$

SO_x Emissions

Emission Factor: 0.60 lb/MMScf { FIRE - PC Version, 1/95, 2-02-002-02 }
Calculations: $0.60 \text{ lb/MMScf} * 0.001 \text{ MMScf/MMBtu} * 7.81 \text{ MMBtu/hr} = 0.0047 \text{ lb/hr}$
 $0.0047 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.0205 \text{ ton/yr}$

(SOURCE #11)

190 hp Waukesha Generator Engine

Brake Horse Power: 190 hp
Hours of Operation: 8,760 Hr/year
Max Fuel Combustion Rate: 1.57 MMBtu/hr
Fuel Heating Value: 1,000 Btu/Scf or 0.0010 MMScf/MMBtu (Natural Gas)

PM₁₀ Emissions

Emission Factor: 10.0 lb/MMScf {FIRE - PC Version, 1/95, 2-02-002-02}
Calculations: 10.0 lb/MMScf * 0.001 MMScf/MMBtu * 1.57 MMBtu/hr = 0.02 lb/hr
0.02 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.07 ton/yr

NO_x Emissions

Emission Factor: 20.0 gram/hp-hr {WBI Source Test Data}
Calculations: 20.0 gram/hp-hr * 190 hp * 0.002205 lb/gram = 8.38 lb/hr
8.38 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 36.70 ton/yr

CO Emissions

Emission Factor: 1.00 gram/hp-hr {WBI Source Test Data}
Calculations: 1.00 gram/hp-hr * 190 hp * 0.002205 lb/gram = 0.42 lb/hr
0.42 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 1.84 ton/yr

VOC Emissions

Emission Factor: 0.14 gram/hp-hr {Table 3.2-1, AP-42, 7/93}
Calculations: 0.14 gram/hp-hr * 190 hp * 0.002205 lb/gram = 0.06 lb/hr
0.06 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.26 ton/yr

SO_x Emissions

Emission Factor: 0.60 lb/MMScf {FIRE - PC Version, 1/95, 2-02-002-02}
Calculations: 0.60 lb/MMScf * 0.001 MMScf/MMBtu * 1.57 MMBtu/hr = 0.0009 lb/hr
0.0009 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.0041 ton/yr

(SOURCE #12)

Miscellaneous Natural Gas Fired Heaters and Boilers

Max Fuel Combustion Rate:
Bryant Steam Boiler = 1.470 MMBtu/hr
Dehydration Unit Reboiler = 0.500 MMBtu/hr
AO Smith Recirculating Water Tank Heater = 0.160 MMBtu/hr
AO Smith Recirculating Water Tank Heater = 0.160 MMBtu/hr
Sterling Space Heater = 0.075 MMBtu/hr
AO Smith Water Tank Heater = 0.065 MMBtu/hr
Carrier Space Heater = 0.060 MMBtu/hr
Empire Space Heater = 0.050 MMBtu/hr
Total = 2.540 MMBtu/hr

Hours of Operation: 8,760 hr/yr
Fuel Heating Value: 1,000 Btu/Scf or 0.0010 MMScf/MMBtu (Natural Gas)

PM₁₀ Emissions

Emission Factor: 3.00 lb/MMScf {FIRE, PC Version 1/95, 1-05-001-06}
Calculations: 3.00 lb/MMScf * 0.001 MMScf/MMBtu * 2.54 MMBtu/hr = 0.01 lb/hr
0.01 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.03 ton/yr

NO_x Emissions

Emission Factor: 100.0 lb/MMScf {FIRE, PC Version 1/95, 1-05-001-06}
Calculations: 100.0 lb/MMScf * 0.001 MMScf/MMBtu * 2.54 MMBtu/hr = 0.25 lb/hr
0.25 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 1.11 ton/yr

CO Emissions

Emission Factor: 20.0 lb/MMScf {FIRE, PC Version 1/95, 1-05-001-06}
Calculations: 20.0 lb/MMScf * 0.001 MMScf/MMBtu * 2.54 MMBtu/hr = 0.05 lb/hr
0.05 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.22 ton/yr

VOC Emissions

Emission Factor: 5.3 lb/MMScf {FIRE, PC Version 1/95, 1-05-001-06}
Calculations: 5.3 lb/MMScf * 0.001 MMScf/MMBtu * 2.54 MMBtu/hr = 0.01 lb/hr
0.01 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.06 ton/yr

SO_x Emissions

Emission Factor: 0.60 lb/MMScf {FIRE, PC Version 1/95, 1-05-001-06}
Calculations: 0.60 lb/MMScf * 0.001 MMScf/MMBtu * 2.54 MMBtu/hr = 0.0015 lb/hr
0.0015 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.0067 ton/yr

(SOURCE #13)

TEG Dehydration Unit Still Vent

Hours of Operation: 8,760 hr/yr
Average Dry Gas Flow Rate: 5.5 MMSCF/day
Maximum Dry Gas Flow Rate: 4 5.0 MMSCF/day
Control Device: none
Wet Gas Water Content: 40.0 lb H₂O/MMScf
Dry Gas Dew Point: 3.9 lb H₂O/MMScf
Stripping Gas Flow Rate: 6.0 Scf/min of dry product gas
Temperature: 61.0 °F
Pressure: 175.0 psig

VOC Emissions

Still Vent: Emission Factor: 0.33 lb/hr {GRI GLYCalc Program}
Calculations: 0.33 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 1.45 ton/yr

(SOURCE #14)

Miscellaneous VOC Sources - Tanks:

1,000 gal Gasoline = 278 lb/yr {Tanks 2.0 Program}
1,000 gal Slop Oil = 41 lb/yr {Tanks 2.0 Program}
300 gal Solvent = 14 lb/yr {Tanks 2.0 Program}
300 gal Alcohol = 4 lb/yr {Tanks 2.0 Program}
300 gal TEG = 2 lb/yr {Tanks 2.0 Program}
300 gal TEG = 2 lb/yr {Tanks 2.0 Program}
300 gal diesel = 0 lb/yr {Tanks 2.0 Program}
Tank Total = 284 lb/yr * 0.0005 ton/lb = 0.14 ton/yr

Fugitives:

<u>Source</u>	<u>Quantity</u>	*	<u>AP-42 Emission Factor</u>	=	<u>TOC (lb/hr)</u>
Valves =	93	*	0.0440	=	4.09
Connections =	312	*	0.0024	=	0.75
Seals =	26	*	0.4500	=	11.70
Open ended lines =	17	*	0.0490	=	0.83
psv's =	16	*	0.414	=	6.62
Fugitive Total =					24.00

Fugitive VOC = TOC - methane - ethane = 100 - 95.75 - 3.77 = 0.49% { WBI Gas Analysis }
Fugitive VOC = 24.00 lb/hr * 0.49% * 8760 hr/yr * 0.0005 ton/lb = 0.51 ton/yr

Total Miscellaneous VOC = Tanks + Fugitives = 0.14 + 0.51 = 0.65 ton/yr

(SOURCE #15)

1680 hp Compressor Engines

Brake Horse Power: 1680 bhp
Hours of Operation: 8,760 hr/yr

PM₁₀ Emissions

Emission Factor: 9.50E-3 lb/MMBtu { AP-42, Chapter 3, Table 3.2-3, 7/00 }
Fuel Consumption 13.23 MMBtu/hr (Maximum Design)
Calculations: 13.23 MMBtu/hr * 9.5E-3 lb/MMBtu = 0.14 lb/hr
0.14 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.55 ton/yr

NO_x Emissions

Emission Factor: 1 gram/bhp-hr { BACT Determination }
Calculations: 1.0 gram/bhp-hr * 1680 bhp * 0.002205 lb/gram = 3.70 lb/hr
3.7 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 16.22 ton/yr

CO Emissions

Emission Factor: 1.2 gram/bhp-hr { Permit Limit }
Calculations: 1.2.0 gram/bhp-hr * 1680 hp * 0.002205 lb/gram = 4.44 lb/hr
4.44 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 19.47 ton/yr/engine

VOC Emissions

Emission Factor: 0.5 gram/bhp-hr { BACT Determination }
Calculations: 0.5 gram/bhp-hr * 1680bhp * 0.002205 lb/gram = 1.85 lb/hr
1.85 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.10 ton/yr/engine

SO_x Emissions

Emission Factor: 5.88E-04 lb/MMBtu { AP-42, Chapter 3, Table 3.2-3, 7/00 }
Fuel Consumption 13.23 MMBtu/hr
Calculations: 13.23 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.01 lb/hr
0.01 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.03 ton/yr

V. Existing Air Quality

The facility is located in the Northeast ¼ of Section 19, Township 4 North, Range 26 East in a remote part of Fallon County, Montana. The air quality of the area is classified as either Better than National Standards or unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined that there will be no additional impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the Department believes this 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 a private property taking and damaging assessment and determined there are no taking or damaging implications.

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)

VIII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared By: Deanne Fischer

Date: December 31, 2012