



Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: www.deq.mt.gov

January 23, 2013

Ron Lowney
WBI Energy Transmission, Inc.
Vida Compressor Station
2010 Montana Avenue
Glendive, MT 59330

Dear Mr. Lowney:

Montana Air Quality Permit #2814-03 is deemed final as of January 23, 2013, by the Department of Environmental Quality (Department). This permit is for a natural gas compressor station and associated equipment. 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 Merkel
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3626

Doug Kuenzli
Environmental Science Specialist
Air Resources Management Bureau
(406) 444-4267

JM:DCK
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #2814-03

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

January 23, 2013



MONTANA AIR QUALITY PERMIT

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

MAQP: #2814-03
Administrative Amendment (AA) Request
Received: 12/10/2012
Department Decision on AA: 01/04/2013
Permit Final: 01/23/2013
AFS: #055-0001

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to WBI Energy Transmission, Inc. (WBI) – Vida Compressor Station, 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 is located near Vida, Montana. The legal description of the site location is the North ½ of the Northeast ¼ of Section 27, Township 25 North, Range 41 East, McCone County, Montana. A complete list of the permitted equipment can be found in the Section I.A of the permit analysis.

B. Current Permit Action

On December 10, 2012, the Montana Department of Environmental Quality (Department) received an Administrative Amendment (AA) request from WBI to change the official name of the company from Williston Basin Interstate Pipeline Company to WBI Energy Transmission, Inc.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Emissions from each of the 600 brake-horsepower (bhp) Ajax DPC-600LE natural gas fired compressor engines shall be controlled with the use of lean-burn engine technology. Emissions from each unit shall not exceed the following (ARM 17.8.749):

NO _x	8.60 lb/hr
CO	2.44 lb/hr
VOC	1.59 lb/hr

2. 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).
3. 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 (ARM 17.8.308).

4. WBI 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.5 (ARM 17.8.749).

B. Testing Requirements

1. WBI shall test each Ajax DPC 600LE for nitrogen oxides (NO_x) and CO emissions, concurrently, and demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.1. Testing shall be conducted based on WBI's Title V operating permit or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and 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. 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.
2. 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).
3. 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, 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).
4. 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 or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring Systems (CEMS), Continuous Emission Rate Monitoring Systems (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 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 therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by 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.
Vida Compressor Station
MAQP #2814-03

I. Introduction/Process Description

A. Permitted Equipment

WBI Energy Transmission, Inc. (WBI) – Vida Compressor Station natural gas compressor facility consists of the following units:

- (4) Ajax DPC 600LE natural gas fired compressor engines (600 brake-horsepower (bhp))
- (1) 1.355 million British thermal units per hour (MMBtu/hr) Eclipse Boiler
- (1) 30,000 Btu/hr 1978 AO Smith Water Heater (Model #PGC-30850)
- (1) 35,000 Btu/hr 1978 Warm Morning Office Heater (Model #WFC-35A)
- (1) 130,000 Btu/hr 1978 Armstrong Shop Heater (Model #G31-130A)

B. Source Description

WBI owns and operates a natural gas compressor station located in the North ½ of the Northeast ¼ of Section 27, Township 25 North, Range 41 East, McCone County, Montana. The facility is near Vida, Montana and is known as the Vida Compressor Station.

The Vida Compressor Station serves as a natural gas pipeline booster station. This facility enables WBI to transport additional volumes of gas purchased in the Bowdoin Field near Saco, Montana to storage at the Cabin Creek, Montana storage area and to further sales destinations.

C. Permit History

The Vida Compressor Station was constructed by the Montana Dakota Utilities Co. (MDU), Williston Basin Interstate Pipeline Company's (WBIP) and WBI's predecessor, as one planned project, but in two construction phases, between April 1978 and April 1979. MDU filed docket #CP75-154 with the Federal Energy Regulatory Commission (FERC) on November 20, 1974, which requested authority to construct and operate a natural gas compressor station for the transportation of natural gas from the Bowdoin Field near Saco to storage at the Cabin Creek, Montana storage area and to further sales destinations.

WBIP was issued a FERC certificate on May 11, 1977, to construct and operate those facilities identified in docket #CP75-154. Originally, three 1,200-hp Solar Saturn compressor engines were proposed to be installed over a two-year period. Construction was to begin in 1976 near Richey, Montana, but the FERC certificate was not issued until May 11, 1977, and equipment contracts had not been initiated beforehand. For this reason the project was delayed and during this time the construction plans were changed.

During the delay, WBIP determined that it could perform the required services with three Ajax DPC-540 compressors and one Ajax DPC-360 compressor, for a total of 1,980- horsepower (hp). The proposed station was relocated from near Richey, Montana to Vida, Montana and the Vida station was planned to be built with the first two compressor engines being installed in 1978. In 1976, Ajax was marketing the DPC-540 compressor with a nameplate rating of 540 hp. Subsequent to 1976, and before WBIP's order was placed, Ajax modified and updated the DPC-540 and it became the DPC-600 reciprocating internal combustion engines (RICE) with a nameplate rating of 600 hp. The DPC-540 was no longer offered or available. Due to this

reason, two 600 hp Ajax DPC-600 RICE were ordered and installed as units #1 and #2, instead of the originally planned compressor engines. The purchase order for units #1 and #2 were issued on September 13, 1977, with a no charge cancellation date of January 15, 1978. The actual on-site construction of the Vida station began on April 10, 1978, with the pouring of the concrete pads for all four compressor engines. The erection of the compressor building, installation of units #1 and #2, and addition of the other associated equipment followed shortly thereafter. Work on phase one of this project was completed by October 27, 1978.

In the second construction phase, the following year, two additional compressor engines were to be installed. In addition to the installation of the latter two engines, other construction activities on the mainline and at existing stations had to be completed to allow WBIP to increase capacity on the mainline.

Installing all four compressor engines in 1978 would have been unproductive because the pipeline capacity was limited to the operating pressure of the existing pipeline and only two engines were required to achieve the potential pipeline capacity in 1978. Only after additional construction work upgrading certain pipeline segments and installing two additional compressor engines at Saco, were Vida compressor engines #3 and #4 finally required. Due to the manufacturer's modification/upgrading of its 540 hp compressor engines, two 600 hp Ajax DPC-600 RICE were ordered and installed as units #3 and #4, instead of the originally planned compressor engines.

The purchase order for units #3 and #4 were issued on March 31, 1978, with no capital expenditure until April 1979. The actual installation of units #3 and #4 was April 20, 1979, and the entire project was completed by October 8, 1979. The completed Vida compressor station had estimated potential nitrogen oxides (NO_x) and carbon monoxide (CO) emissions of 300 and 70 tons per year, respectively. The completed Vida compressor station provided a capacity of 14,000 million cubic feet (Mcf) per day in the summer and 17,000 Mcf per day in the winter.

In May 1993, WBIP conducted an emission source test to determine the NO_x and CO emissions from the unit #2 compressor engine (Ajax DPC-600 RICE, Serial #75553). The results of the source test, based on averaging the 3 tests, were 11.87 pounds per hour (lbs/hr) (10.323 gram/hp-hr) for NO_x and 2.74 lbs/hr (2.382 gram/hp-hr) for CO.

On June 21, 1994, WBIP was issued **MAQP #2814-00** for the operation of the Vida Compressor Station and associated equipment.

On February 13, 2003, the Montana Department of Environmental Quality (Department) received a letter from WBIP which requested a modification to Permit #2814-00 for the addition of low emission (LE) packages to the four Ajax DPC-600 natural gas fired RICE.

The permit action added LE packages to the four Ajax DPC-600 Engines under the provisions of ARM 17.8.745 (1). In addition, MAQP #2814-01 was updated to reflect the new emission factors for the Ajax DPC-600LE compressor engines and current Department permit format and permit language. **MAQP #2814-01** replaced MAQP #2814-00.

On September 16, 2003, the Department received a letter from WBIP requesting to increase the CO limit for each of the four Ajax DPC-600LE natural gas fired compressor engines from 1.59 lbs/hr to 2.44 lbs/hr. The CO emission limit of 1.59 lbs/hr was erroneously proposed by WBIP as part of MAQP #2814-01. Because the potential emission increase of CO emissions was less than 15 tons per year and because the existing limit was not established through Best Available Control Technology (BACT) the Department determined that the onetime increase in the CO emission limit did not necessitate a permit as described in Administrative Rules of Montana (ARM) 17.8.745(1)(d). The emission limits in Section II.A.1. of MAQP #2814-01 were

referenced as ARM 17.8.752 in error. The permit action increased the CO limit for each of the Ajax DPC-600LE natural gas-fired compressor engines from 1.59 lbs/hr to 2.44 lbs/hr and corrected the reference to ARM 17.8.749. **MAQP #2814-02** replaced MAQP #2814-01.

D. Current Permit Action

On December 10, 2012, the Montana Department received an Administrative Amendment (AA) request from WBI to change the official name of the company from Williston Basin Interstate Pipeline Company to WBI Energy Transmission, Inc. **MAQP #2814-03** replaces MAQP #2814-02.

E. Additional Information

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

II. Applicable Rules and Regulations

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

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

1. 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, 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 (SO₂)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)
4. ARM 17.8.212 Ambient Air Quality Standards for CO
5. ARM 17.8.213 Ambient Air Quality Standards for Ozone (O₃)
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide (H₂S)
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standards for Lead (Pb)
10. ARM 17.8.223 Ambient Air Quality Standards for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (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. 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 less than 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions are 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. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS).
 - 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 JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The Vida Compressor Station is not subject to this subpart as the engines were manufactured and installed before the applicability dates outlined in the subpart. However, future engine installations, replacements, or reconstructions may be subject to 40 CFR 60 Subpart JJJJ.
- 7. 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 apply to all equipment or facilities subject to an 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 standards and provisions of 40 CFR 63, Subpart HH. The Vida Compressor Station is not a NESHAP-affected source under this Subpart because the facility does not include an affected emission point as defined in 63.760(b)(1) or 63.760(b)(2).
 - c. 40 CFR Part 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. In order for a natural gas transmission and storage facility to be subject to 40 CFR 63, Subpart HHH requirements, the facility must be a major source of Hazardous Air Pollutants (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. The Vida 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 Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The provisions of this subpart does not apply to the engines installed at the Vida Compressor Station at this time because the station is not a major source of HAPs and the engines meet the exemption requirements for existing units at area sources 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. A permit application and fee were not required because the current permit action was considered administrative.
 - 2. ARM 17.8.505 When Permit Required--Exclusions. 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. WBI has the potential to emit more 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. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of publication in a newspaper of general circulation in the area affected by the application for a permit. The current permitting action is an administrative permit action with no increase in emissions; therefore, no public notice was required.
 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. A BACT determination was not required for the current permit action because the current permit action is considered an administrative amendment.
 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 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 potential to emit 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 source having:
 - a. PTE > 100 tons/year of any pollutant;

- b. PTE > 10 tons/year of any single HAP, PTE > 25 tons/year of a combination of 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. (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 #2814-03 for WBI, the following conclusions were made:
- a. The facility's PTE is greater than 100 tons/year for NO_x.
 - b. The facility's PTE is less than 10 tons/year for any single HAP and less than 25 tons/year for 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 not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V Source.

Based on these facts, the Department determined that WBI is a major source of emissions as defined under Title V. Title V Operating Permit #OP2814-02 was issued by the Department on March 20, 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 analysis is not required for the current permit action, because the change is considered administrative.

IV. Emission Inventory

Source	Description	Tons/Year				
		PM ₁₀	NO _x	CO	VOC	SO _x
1	Unit 1 Ajax DPC-600LE	0.23	37.67	8.08	6.95	0.01
2	Unit 2 Ajax DPC-600LE	0.23	37.67	8.08	6.95	0.01
3	Unit 3 Ajax DPC-600LE	0.23	37.67	8.08	6.95	0.01
4	Unit 4 Ajax DP-600LE C	0.23	37.67	8.08	6.95	0.01
5	Eclipse Plant Boiler	0.05	0.59	0.50	0.03	0.00
6	Miscellaneous Heaters	0.05	0.44	0.37	0.02	0.00
7	Fugitive Emissions	0.00	0.00	0.00	0.51	0.00
Total		1.02	151.71	33.19	28.36	0.04

*A complete emission inventory for Permit #2814-02 is on file with the Department.

Source 1

Unit 1 – Ajax DPC-600LE

Engine bhp	600
Hours of operation	8760 hr/yr
Max fuel combustion rate	8775 MMBtu/hr
Fuel heating value	1000 Btu/scf

PM₁₀ Emissions

Emission factor: 10.0lb/MMscf

Calculations: $8775 \text{ MMBtu/hr} * 0.001 \text{ scf/Btu} * 600 \text{ bhp} * 8760 \text{ hr/yr} = 46121400 \text{ scf/yr}$
 $46121400 \text{ scf/yr} * 10.0 \text{ lb/MMscf} * 0.0005 \text{ ton/lb} = 0.23 \text{ ton/yr}$

NO_x Emissions

Emission factor: 6.5 g/bhp-hr

Calculations: $6.5 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 8.60 \text{ lb/hr}$
 $8.60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 37.67 \text{ ton/year}$

CO Emissions

Emission factor: 1.84 g/bhp-hr

Calculations: $1.84 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 2.44 \text{ lb/hr}$
 $2.44 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.08 \text{ ton/year}$

VOC Emissions

Emission factor: 1.2 g/bhp-hr

Calculations: $1.2 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 1.59 \text{ lb/hr}$
 $1.59 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 6.95 \text{ ton/year}$

SO_x Emissions

Emission factor: 0.002 g/bhp-hr

Calculations: $0.002 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 0.003 \text{ lb/hr}$
 $0.003 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/year}$

Source 2

Unit 2 – Ajax DPC-600LE

Engine bhp	600
Hours of operation	8760 hr/yr
Max fuel combustion rate	8775 MMBtu/hr
Fuel heating value	1000 Btu/scf

PM₁₀ Emissions

Emission factor: 10.0lb/MMscf

Calculations: $8775 \text{ MMBtu/hr} * 0.001 \text{ scf/Btu} * 600 \text{ bhp} * 8760 \text{ hr/yr} = 46121400 \text{ scf/yr}$
 $46121400 \text{ scf/yr} * 10.0 \text{ lb/MMscf} * 0.0005 \text{ ton/lb} = 0.23 \text{ ton/yr}$

NO_x Emissions

Emission factor: 6.5 g/bhp-hr

Calculations: $6.5 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 8.60 \text{ lb/hr}$
 $8.60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 37.67 \text{ ton/year}$

CO Emissions

Emission factor: 1.84 g/bhp-hr

Calculations: $1.84 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 2.44 \text{ lb/hr}$
 $2.44 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.08 \text{ ton/year}$

VOC Emissions

Emission factor: 1.2 g/bhp-hr

Calculations: $1.2 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 1.59 \text{ lb/hr}$
 $1.59 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 6.95 \text{ ton/year}$

SO_x Emissions

Emission factor: 0.002 g/bhp-hr

Calculations: $0.002 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 0.003 \text{ lb/hr}$
 $0.003 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/year}$

Source 3

Unit 3 – Ajax DPC-600LE

Engine bhp	600
Hours of operation	8760 hr/yr
Max fuel combustion rate	8775 MMBtu/hr
Fuel heating value	1000 Btu/scf

PM₁₀ Emissions

Emission factor: 10.0lb/MMscf

Calculations: $8775 \text{ MMBtu/hr} * 0.001 \text{ scf/Btu} * 600 \text{ bhp} * 8760 \text{ hr/yr} = 46121400 \text{ scf/yr}$
 $46121400 \text{ scf/yr} * 10.0 \text{ lb/MMscf} * 0.0005 \text{ ton/lb} = 0.23 \text{ ton/year}$

NO_x Emissions

Emission factor: 6.5 g/bhp-hr

Calculations: $6.5 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 8.60 \text{ lb/hr}$
 $8.60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 37.67 \text{ ton/year}$

CO Emissions

Emission factor: 1.84 g/bhp-hr

Calculations: $1.84 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 2.44 \text{ lb/hr}$
 $2.44 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.08 \text{ ton/year}$

VOC Emissions

Emission factor: 1.2 g/bhp-hr

Calculations: $1.2 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 1.59 \text{ lb/hr}$
 $1.59 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 6.95 \text{ ton/year}$

SO_x Emissions

Emission factor: 0.002 g/bhp-hr

Calculations: $0.002 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 0.003 \text{ lb/hr}$
 $0.003 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/year}$

Source 4

Unit 4 – Ajax DPC-600LE

Engine bhp	600
Hours of operation	8760 hr/yr
Max fuel combustion rate	8775 MMBtu/hr
Fuel heating value	1000 Btu/scf

PM₁₀ Emissions

Emission factor: 10.0lb/MMscf

Calculations: $8775 \text{ MMBtu/hr} * 0.001 \text{ scf/Btu} * 600 \text{ bhp} * 8760 \text{ hr/yr} = 46121400 \text{ scf/yr}$
 $46121400 \text{ scf/yr} * 10.0 \text{ lb/MMscf} * 0.0005 \text{ ton/lb} = 0.23 \text{ ton/year}$

NO_x Emissions

Emission factor: 6.5 g/bhp-hr

Calculations: $6.5 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 8.60 \text{ lb/hr}$
 $8.60 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 37.67 \text{ ton/year}$

CO Emissions

Emission factor: 1.84 g/bhp-hr

Calculations: $1.84 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 2.44 \text{ lb/hr}$
 $2.44 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.08 \text{ ton/year}$

VOC Emissions

Emission factor: 1.2 g/bhp-hr

Calculations: $1.2 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 1.59 \text{ lb/hr}$
 $1.59 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 6.95 \text{ ton/year}$

SO_x Emissions

Emission factor: 0.002 g/bhp-hr

Calculations: $0.002 \text{ g/bhp-hr} * 600 \text{ bhp} * 0.002205 \text{ lb/g} = 0.003 \text{ lb/hr}$
 $0.003 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/year}$

Source 5

Eclipse Plant Boilers

Boiler heat output	1.35 MMBtu/hr
Hours of operation	8760 hr/yr
Fuel heating value	1000 Btu/scf
Fuel consumption	$1.35 \text{ MMBtu/hr} * 0.001 \text{ MMscf/MMBtu} * 8760 \text{ hr/yr} = 11.826 \text{ MMscf/yr}$

PM₁₀ Emissions

Emission factor: 7.6 lb/MMscf (AP-42 Chapter 1, Table 1.4-2, 3/98)
Calculation: 7.6 lb/MMscf * 11.826 MMscf/yr * 0.0005 ton/lb = 0.045 ton/yr

NO_x Emissions

Emission factor: 100 lb/MMscf (AP-42 Chapter 1, Table 1.4-1, 3/98)
Calculation: 100 lb/MMscf * 11.826 MMscf/yr * 0.0005 ton/lb = 0.591 ton/yr

CO Emissions

Emission factor: 84 lb/MMscf (AP-42 Chapter 1, Table 1.4-1, 3/98)
Calculation: 84 lb/MMscf * 11.826 MMscf/yr * 0.0005 ton/lb = 0.497 ton/yr

VOC Emissions

Emission factor: 5.5 lb/MMscf (AP-42 Chapter 1, Table 1.4-2, 3/98)
Calculation: 5.5 lb/MMscf * 11.826 MMscf/yr * 0.0005 ton/lb = 0.033 ton/yr

SO_x Emissions

Emission factor: 0.6 lb/MMscf (AP-42 Chapter 1, Table 1.4-2, 3/98)
Calculation: 0.6 lb/MMscf * 11.826 MMscf/yr * 0.0005 ton/lb = 0.004 ton/yr

Source 6

Miscellaneous Heaters

Heat output	< 1 MMBtu/hr	AO Smith	30,000 Btu/hr
		Warm Morning	35,000 Btu/hr
		Armstrong	130,000 Btu/hr
Hours of operation:	8760 hr/yr		
Fuel consumption:	8.76 MMscf/yr	(Information from company)	

PM₁₀ Emissions

Emission factor: 12 lb/MMscf (AP-42 Chapter 1, Table 1.4-2, 3/98)
Calculation: 12 lb/MMscf * 8.76 MMscf/yr * 0.0005 ton/lb = 0.053 ton/yr

NO_x Emissions

Emission factor: 100 lb/MMscf (AP-42 Chapter 1, Table 1.4-1, 3/98)
Calculation: 100 lb/MMscf * 8.76 MMscf/yr * 0.0005 ton/lb = 0.438 ton/yr

CO Emissions

Emission factor: 84 lb/MMscf (AP-42 Chapter 1, Table 1.4-1, 3/98)
Calculation: 84 lb/MMscf * 8.76 MMscf/yr * 0.0005 ton/lb = 0.368 ton/yr

VOC Emissions

Emission factor: 5.5 lb/MMscf (AP-42 Chapter 1, Table 1.4-2, 3/98)
Calculation: 5.5 lb/MMscf * 8.76 MMscf/yr * 0.0005 ton/lb = 0.024 ton/yr

SO_x Emissions

Emission factor: 0.6 lb/MMscf (AP-42 Chapter 1, Table 1.4-2, 3/98)
Calculation: 0.6 lb/MMscf * 8.76 MMscf/yr * 0.0005 ton/lb = 0.003 ton/yr

Source 7

Fugitive Emissions

Components		TOC emission factors (AP-42)	TOC emissions
Compressor seals	8	1.9699 tpy/compressor seal	15.759
Relief valves	5	1.8154 tpy/relief valve	9.077
Valves	33	0.1931 tpy/valve	6.372
Flanges	110	0.0106 tpy/flange	1.166
Open-ended lines	6	0.2124 tpy/open-ended line	<u>1.274</u>
		Total	33.649 ton/yr

Natural gas composition

<u>Pollutant</u>	<u>Weight fraction</u>	<u>Ton/yr</u>	<u>Method of determination</u>
TOC	1	33.649	AP-42 Emission factors
Methane	0.93	31.293	AP-42 Factors/WBI estimates
Ethane	0.055	1.851	AP-42 Factors/WBI estimates
Propane	0.008	0.269	AP-42 Factors/WBI estimates
Butane	0.001	0.034	AP-42 Factors/WBI estimates
Iso-Butane	0.0008	0.027	AP-42 Factors/WBI estimates
Pentane	0.0005	0.017	AP-42 Factors/WBI estimates
Iso-Pentane	0.00045	0.015	AP-42 Factors/WBI estimates
Hexane	0.003	0.101	AP-42 Factors/GRI specification factors
Benzene	0.00023	0.008	AP-42 Factors/GRI specification factors
Ethylbenzene	0.00002	0.001	AP-42 Factors/GRI specification factors
Toluene	0.00039	0.013	AP-42 Factors/GRI specification factors
Xylenes	0.0001	0.003	AP-42 Factors/GRI specification factors
VOC Emissions			
Calculations:	1.5% TOC Emissions =		0.505 ton/yr
	or		
	TOC-Methane-Ethane =		0.505 ton/yr

V. Existing Air Quality

The facility is located in the North ½ of the Northeast ¼ of Section 27, Township 25 North, Range 41 East, in McCone County, Montana. The air quality of the area is classified as either Better than National Standards or unclassified/attainment for the National Ambient Air Quality Standards (NAAQS) for criteria pollutants.

VI. Ambient Air Impact Analysis

The current permit action is an administrative permit action; therefore, the Department did not conduct an ambient air impact analysis.

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?

YES	NO	
	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

This permitting action is considered an administrative action; therefore, an Environmental Assessment is not required.

Analysis Prepared By: D. Kuenzli

Date: December 26, 2012