



Montana Department of
ENVIRONMENTAL QUALITY

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January 22, 2013

Ron Lowney
WBI Energy Transmission, Inc.
Baker Booster and Sandstone Creek
2010 Montana Avenue
Glendive, MT 59330

Dear Mr. Lowney:

Montana Air Quality Permit #3301-04 is deemed final as of January 19, 2013, by the Department of Environmental Quality (Department). This permit is for a natural gas booster and transmission compressor station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Craig Henrikson, P.E.
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

JM:CPH
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3301-04

WBI Energy Transmission, Inc.
Baker Booster and Sandstone Creek
2010 Montana Avenue
Glendive, MT 59330

January 19, 2013



MONTANA AIR QUALITY PERMIT

Issued To: WBI Energy Transmission, Inc.
Baker Booster and Sandstone Creek
Compressor Stations
2010 Montana Avenue
Glendive, MT 59330

MAQP: #3301-04
Administrative Amendment (AA) Request
Received: 12/10/2012
Department Decision on AA: 01/03/2013
Permit Final: 01/19/2013
AFS: #025-0013

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

SECTION I: Permitted Facilities

A. Plant Location

WBI owns and operates the Baker Booster and Sandstone Creek Compressor Stations. The facility is a natural gas booster and transmission compressor station. The WBI station is located approximately 1.5 miles north of Baker, Montana, in the Northeast ¼ of Section 2, Township 7 North, Range 59 East, in Fallon County. 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 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 seven (7) 1,680 bhp Waukesha compressor engines (rich-burn) at the Baker Booster and Sandstone Creek Compressor Stations, shall be controlled by a non-selective catalytic reduction (NSCR) unit and an air to fuel ratio (AFR) controller. Emissions from each of the engines shall not exceed the following limits:

NO _x	(NO _x reported as NO ₂)	3.70 lb/hr (ARM 17.8.752)
CO		4.44 lb/hr (ARM 17.8.752)
VOC		1.85 lb/hr (ARM 17.8.752)

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.3 (ARM 17.8.749).
5. WBI shall operate and maintain non-selective catalytic reduction (NSCR) and an air-to-fuel ratio (AFR) controller on each engine (ARM 17.8.749).
6. WBI shall comply with any applicable standards, limitations, reporting, recordkeeping, and notification requirements contained in Title 40 Code of Federal Regulations (40 CFR) 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (ARM 17.8.340, 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. The proposed Booster Unit LP1a shall be initially tested for NO_x and CO to demonstrate compliance with emissions limits in Section II.A.1. Testing shall be conducted within 180 days of the initial startup date of Booster Unit LP1a (ARM 17.8.105 and ARM 17.8.749).
2. Each of the seven (7) 1,680 bhp Waukesha compressor engines shall be tested for NO_x and CO, concurrently, to demonstrate compliance with the emissions limits in section II.A.1. 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).
3. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
4. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. 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 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*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. 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 or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emissions Monitoring System (CEMS), Continuous Emission 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 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 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.
Baker Booster and Sandstone Creek Compressor Stations
MAQP #3301-04

I. Introduction/Process Description

WBI Energy Transmission, Inc. (WBI) owns and operates the Baker Booster and Sandstone Creek Compressor Stations. The facility is a natural gas booster and transmission compressor station(s) located approximately 1.5 miles north of Baker, Montana, in the Northeast ¼ of Section 2, Township 7 North, Range 59 East in Fallon County.

A. Permitted Equipment

The facility consists of the following equipment:

- Seven (7) 1,680 brake horsepower (bhp) Waukesha 7044 GSI compressor engines. Four (4) of the engines operate at the Baker Booster Station for the purpose of natural gas gathering. Three (3) engines operate at the adjacent Sandstone Creek Compressor Station for the purpose of natural gas transmission.
- Triethylene glycol (TEG) Reboiler and TEG dehydration process vent with a heat input capacity of 0.75 million British thermal units per hour (MMBtu/hr).
- Miscellaneous small heating equipment, that includes;
 - Modine 0.2 MMBtu/hr shop heater
 - AO Smith .032 MMBtu/hr water heater
 - Weil-McLain 0.155 MMBtu/hr boiler
 - Mr. Heater MHU45 0.045 MMBtu/hr shop heater
- Miscellaneous support equipment and materials equipment.

B. Source Description

The WBI facility is a natural gas booster and transmission compressor station. The Baker Booster compressor units draw natural gas directly from the production field. The natural gas at the WBI station is dehydrated and compressed for transmission through long-haul pipelines for transport to natural gas markets. The TEG unit is used to remove moisture from the wet gas drawn at the production field and the seven compressor engines are used to boost pipeline pressure for transmitting the natural gas through the pipeline.

C. Permit History

On April 27, 2004, WBI was issued **MAQP #3301-00** for the installation and operation of five 1,680 bhp Waukesha 7044 GSI compressor engines, a glycol dehydration unit with a heat input capacity of 0.75 MMBtu/hr, and miscellaneous support equipment. The permitted facility was constructed and operated for the purpose of natural gas gathering activities under Standard Industrial Classification (SIC) Code 1311 and North American Industry Classification System (NAICS) Code 211111.

On March 22, 2007, the Montana Department of Environmental Quality-Air Resources Management Bureau (Department) received a request from WBI to administratively amend MAQP #3301-00. Specifically, WBI permitted five, 1680 bhp capacity Waukesha compressor engines for the purpose of providing natural gas gathering services at the Baker Booster Compressor Station. WBI proposed to continue to maintain the five previously permitted

engines; however, WBI dedicated two of the engines for the purpose of natural gas transmission services under SIC 4922 and NAICS Code 486210. The two engines used for transmission services are located within the Baker Booster Tract and adjacent to the existing Baker Booster Compressor Station. The new adjacent station was designated the Sandstone Creek Compressor Station and the affected engines were named Sandstone Creek Unit #1 and Sandstone Creek Unit #2. The overall permitted facility is referred to as the WBI Baker Booster and Sandstone Creek Compressor Stations. All limits and conditions established under MAQP #3301-00 and applicable to the affected Waukesha engines remained the same. **MAQP #3301-01** replaced MAQP #3301-00.

On January 10, 2011, the Department received a permit modification request from WBI with additional information received on February 25, 2011. With this permit action, WBI proposed to add one additional 1,680 bhp Waukesha compressor engine to five existing 1,680 bhp compressor engines. The new engine was added to the Sandstone Creek Compressor Station and the affected engine was named Sandstone Creek Unit #3. In addition to these changes, this permit action updated rule references used by the Department, permit format, and the emission inventory. **MAQP #3301-02** replaced MAQP #3301-01.

On January 18, 2012, the Department received a permit modification request from WBI proposing the installation of one additional 1680 brake horsepower (bhp) capacity Waukesha compressor engine to the existing compressor engines for the purpose of providing natural gas gathering services at the Baker Booster Station. The proposed engine was identified as Booster LP1a. In addition to these changes, this permit action updated insignificant emission units list, current rule references, permit format, and the emissions inventory. **MAQP #3301-03** replaced MAQP #3301-02.

D. Current Permit Action

On December 10, 2012, the 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 #3301-04** replaces MAQP #3301-03.

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 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 (SO₂)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standard 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 Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard 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 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 precaution 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. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per MMBtu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. WBI will burn natural gas in its fuel burning equipment, which will meet this limitation.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such 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). This facility is an NSPS affected source because it meets the definition of an NSPS subpart defined in 40 CFR Part 60.
 - 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 provisions of this subpart are applicable to owners and operators of stationary spark ignition internal combustion engines (SI ICE) that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 horsepower. At this time, WBI is not subject to this subpart because all the engines were manufactured prior to July 1, 2007.
 - c. 40 CFR 60, Subpart KKK – Standards of Performance for Equipment leaks of VOC from Onshore Natural Gas Processing Plants. The provisions of this subpart apply to affected facilities in onshore natural gas processing plants. Natural gas processing plant (gas plant) is defined in this subpart as any processing site engaged in the extraction of natural gas liquids from field gas, fractionation of mixed natural gas liquids to natural gas products, or both. Therefore, WBI is not subject to this subpart.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. A major Hazardous Air Pollutant (HAP) source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as applicable, including the following subparts:
 - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an New Emissions 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. This subpart applies to the owners and operators of the emission points, specified in paragraph (b) of this section that are located at oil and natural gas production facilities that meet the specified criteria in paragraphs (a)(1) and either (a)(2) or (a)(3) of this section. The TEG dehydration unit at WBI's facility receives natural gas directly from the production field prior to processing. Therefore, the facility may be subject to the area source requirements in 40 CFR 63, Subpart HH.
 - c. 40 CFR 63, Subpart HHH - National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. This subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutant (HAP) emissions as defined in 40 CFR Part 63.1271. WBI is not a major source of HAP emissions; therefore, this subpart does not apply.
 - d. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary RICE at a major or area source of HAP emissions is subject to this subpart, except if the stationary RICE is being tested at a stationary RICE test cell/stand. Therefore, WBI is subject to this subpart.
- D. ARM 17.8, Subchapter 4 – Stack Height and Dispersion Techniques, including, but not limited to:
 1. ARM 17.8.401 Definitions. This rule includes a list of definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.402 Requirements. WBI must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The proposed heights of all stacks for the WBI engines are below the allowable 65-meter GEP stack height.
- E. 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 MAQP application. A permit application is incomplete until the proper application fee is paid to the Department. WBI was not required to submit a fee as this was an administrative amendment.

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 MAQP (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 MAQP 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.

F. 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 MAQP t 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 (tpy) of any pollutant. WBI has the potential to emit more than 25 tpy of oxides of nitrogen (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC); therefore, an MAQP is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the MAQP 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 are not subject to the MAQP 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 legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
 9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving 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.
- G. 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 because this facility is not a listed source and the facility's PTE is below 250 tpy of any pollutant.

H. 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 tpy of any pollutant;
 - b. PTE > 10 tpy of any single hazardous air pollutant (HAP), PTE > 25 tpy of any combination of HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tpy of particulate matter with an aerodynamic diameter of 10 microns or less (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 #3301-04 for WBI, the following conclusions were made:
 - a. The facility's PTE is > 100 tpy for CO and NO_x.
 - b. The facility's PTE is less than 10 tpy of any single HAP and less than 25 tpy of combined HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is not currently subject to NSPS.
 - e. This facility is subject to NESHAP standards (40 CFR 63, Subparts HH and ZZZZ).
 - f. This source is not a Title IV affected source.
 - g. This source is not a solid waste combustion unit.
 - h. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that WBI is subject to the Title V Operating Permit Program. WBI became subject to the Title V Operating Permit Program with the installation of Sandstone Creek Unit #3 (MAQP #3301-02) and was required to submit an application for a Title V Operating Permit within 12 months of commencing operation of Unit #3. The initial application for an Air Quality Operating Permit was submitted concurrently with air quality permit application #3301-03.

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 that is technically practicable and economically feasible, except that BACT shall be used.

A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory

The emission inventory from the previous permit was carried forward and is included below.

	Emissions Tons/Year [PTE]								HAPS ^(a)	
	PM	PM ₁₀	PM _{2.5}	PM _{cond}	CO	NO _x	SO ₂	VOC	Total	CH ₂ O
1,680 bhp Waukesha Compressor Engine - Unit #1	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
1,680 bhp Waukesha Compressor Engine - Unit #2	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
1,680 bhp Waukesha Compressor Engine - Unit #3	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
1,680 bhp Waukesha Compressor Engine - Unit #4	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
1,680 bhp Waukesha Compressor Engine - Unit #5	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
1,680 bhp Waukesha Compressor Engine - Unit #6	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
1,680 bhp Waukesha Compressor Engine - Unit #7	1.12	1.12	1.12	0.57	19.47	16.21	0.03	8.10	1.88	1.19
TEG Reboiler [0.75 MMBtu/hr]	0.03	0.03	0.03	0.02	0.28	0.34	0.002	0.019	0.009	--
TEG Dehydration Still Vent	--	--	--	--	--	--	--	2.51	0.32	--
Misc. Heaters [0.432 MMBtu/hr combined capacity]	0.015	0.015	0.015	0.011	0.16	0.19	0.001	0.01	0.022	--
EMISSION TOTALS ▶	7.91	7.91	7.91	4.05	136.74	113.97	0.24	59.26	13.50	8.32

(a) HAP emission data represents total combined HAP's and the highest single HAP [CH₂O→Formaldehyde].

BACT, Best Available Control Technology	PTE, Potential To Emit
bhp, brake-horsepower	PM, particulate matter
Btu, British Thermal Units	PM _{COND} , condensable particulate matter
CH ₂ O, formaldehyde	PM ₁₀ , particulate matter with an aerodynamic diameter of 10 microns or less
CO, carbon monoxide	PM _{2.5} , particulate matter with an aerodynamic diameter of 2.5 microns or less [Sum of condensable and filterable]
F ³ , cubic feet	SO ₂ , oxides of sulfur
g, gram	TPH, tons per hour
HAP, hazardous air pollutant	TPY, tons per year
lb, pound	VOC, volatile organic compounds
MMBtu, million British Thermal Units	
MMscf, million standard cubic feet	
NO _x , oxides of nitrogen	

Compressor Engine [SCC 2-02-002-53] Single Engine Emission Calculations

Engine Output Capacity: 1680 bhp [Design Maximum]
 Fuel Input: 13.23 MMBtu/hr [Design Maximum]*
 Hours of Operation: 8760 hours/year

* Basis: 7,876 Btu/bhp-hr - Waukesha Operating Data Sheet, Ref. Sheet 6124-76, January 02 (submitted with AQP application #3301-00)

Particulate Emissions (uncontrolled):

PM₁₀ Emissions (filterable):

Emission Factor 0.0095 lb/MMBtu [AP- 42 Table 3.2-3, 7/00]
 Calculations (0.0095 lb/MMBtu) * (13.23 MMBtu/hr) = 0.13 lbs/hr
 (0.13 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.55 TPY

PM Emissions (condensable):

Emission Factor 0.00991 lb/MMBtu [AP- 42 Table 3.2-3, 7/00]
 Calculations (0.00991 lb/MMBtu) * (13.23 MMBtu/hr) = 0.13 lbs/hr
 (0.13 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.57 TPY

Total PM₁₀ Emissions: (All PM assumed to be ≤ PM₁₀)

Calculations PM10 (filterable) + PM (condensable) = 0.68 lbs/hr
 (0.68 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 1.12 TPY

PM_{2.5} Emissions (filterable):

Emission Factor	0.0095 lb/MMBtu	[AP- 42 Table 3.2-3, 7/00]	
Calculations	(0.0095 lb/MMBtu) * (13.23 MMBtu/hr) =		0.13 lbs/hr
	(0.13 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.55 TPY

Total PM_{2.5} Emissions: (All PM assumed to be ≤ PM_{2.5})

Calculations	PM _{2.5} (filterable) + PM (condensable) =		0.26 lbs/hr
	(0.26 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		1.12 TPY

CO Emissions (controlled):

Emission Factor	1.20 gram/bhp-hr	[BACT Determination]	
Calculations	(1.2 g/bhp-hr) * (1680 hp) * 0.002205 lb/gram) =		4.44 lbs/hr
	(4.45 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		19.47 TPY

NO_x Emissions (controlled):

Emission Factor	1.00 gram/bhp-hr	[BACT Determination]	
Calculations	(1.00 g/bhp-hr) * (1680 hp) * 0.002205 lb/gram) =		3.70 lbs/hr
	(3.70 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		16.21 TPY

SO₂ Emissions (uncontrolled):

Emission Factor	0.000588 lb/MMBtu	[AP- 42 Table 3.2-3, 7/00]	
Calculations	(0.000588 lb/MMBtu) * (13.23 MMBtu/hr) =		0.01 lbs/hr
	(0.01 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.03 TPY

VOC Emissions (controlled):

Emission Factor	0.50 gram/bhp-hr	[BACT Determination]	
Calculations	(0.50 g/bhp-hr) * (1680 hp) * 0.002205 lb/gram) =		1.85 lbs/hr
	(1.85 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		8.10 TPY

Hazardous Air Pollutants (uncontrolled):

Emission Rate = Emission Factor * Fuel Input

Emission Rate_{Annual} = Emission Rate * (8760 hrs/yr) * (0.0005 tons/lb)

Emission Rate, Pollutant Emission Rate in lbs/hr

Where: EF, Pollutant Emission Factor [AP - 42 Table 3.2-3, 7/00]

Fuel Input, Maximum Hourly Fuel Consumption Rate in MMBtu/hr [Maximum Input = 13.23 MMBtu-hr]

HAP Pollutant	Emission Factor	Emission Rate	
	[lb/MMBtu]	[lb/hr]	[TPY]
1,1,2,2-Tetrachloroethane	0.0000253	0.0003	0.001
1,1,2-Trichloroethane	0.0000153	0.0002	0.001
Acetaldehyde	0.00279	0.0369	0.162
Acrolein	0.00263	0.0348	0.152
1,3-Butadiene	0.000663	0.0088	0.038
Dichloropropene	0.0000127	0.0002	0.001
Benzene	0.00158	0.0209	0.092
Carbon Tetrachloride	0.0000177	0.0002	0.001
Chlorobenzene	0.0000129	0.0002	0.001
Chloroform	0.0000137	0.0002	0.001

Ethylbenzene	0.0000248	0.0003	0.001
Ethylene Dibromide	0.0000213	0.0003	0.001
Formaldehyde	0.0205	0.2712	1.188
Methanol	0.00306	0.0405	0.177
Methylene Chloride	0.0000412	0.0005	0.002
Naphthalene	0.0000971	0.0013	0.006
PAH	0.000141	0.0019	0.008
Stryene	0.0000119	0.0002	0.001
Toluene	0.000558	0.0074	0.032
Vinyl Chloride	0.00000718	0.0001	0.0004
Xylene	0.000195	0.0026	0.011

Hazardous Air Pollutant Totals ►

0.4289	1.879
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TEG Dehydration Reboiler [SCC 3-10-002-28]

Fuel Input: 0.75 MMBtu/hr [Design Maximum]
 0.0007708 MMscf/hr [Fuel Gas Analysis: 973 Btu/ft³]
 Hours of Operation: 8760 hours/year

Particulate Emissions (uncontrolled):

Total Particulate PM/PM₁₀/PM_{2.5} Emissions:

Emission Factor	7.60 lb/MMscf	[AP- 42 Table 1.4-1, 7/98]	
Calculations	(7.6 lb/MMscf) * (0.0007708 MMscf/hr) =		0.01 lbs/hr
	(0.01 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.03 TPY

Total Particulate PM/PM₁₀/PM_{2.5} Emissions (condensable):

Emission Factor	5.70 lb/MMscf	[AP- 42 Table 1.4-1, 7/98]	
Calculations	(5.7 lb/MMscf) * (0.0007708 MMscf/hr) =		0.004 lbs/hr
	(0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.02 TPY

Total Particulate PM/PM₁₀/PM_{2.5} Emissions (filterable):

Emission Factor	1.90 lb/MMscf	[AP- 42 Table 1.4-1, 7/98]	
Calculations	(1.9 lb/MMscf) * (0.0007708 MMscf/hr) =		0.001 lbs/hr
	(0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.01 TPY

CO Emissions (uncontrolled):

Emission Factor	84.00 lb/MMscf	[AP- 42 Table 1.4-1, 7/98]	
Calculations	(84 lb/MMscf) * (0.0007708 MMscf/hr) =		0.06 lbs/hr
	(0.06 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.28 TPY

NO_x Emissions (uncontrolled):

Emission Factor	100.00 lb/MMscf	[AP- 42 Table 1.4-1, 7/98]	
Calculations	(100 lb/MMscf) * (0.0007708 MMscf/hr) =		0.08 lbs/hr
	(0.08 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.34 TPY

SO₂ Emissions (uncontrolled):

Emission Factor	0.60 lb/MMscf	[AP- 42 Table 1.4-1, 7/98]	
Calculations	(0.6 lb/MMscf) * (0.0007708 MMscf/hr) =		0.0005 lbs/hr
	(0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.002 TPY

VOC Emissions (uncontrolled):

Emission Factor 5.50 lb/MMscf [AP- 42 Table 1.4-1, 7/98]
 Calculations (5.5 lb/MMscf) * (0.0007708 MMscf/hr) = 0.0042 lbs/hr
 (0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.019 TPY

Hazardous Air Pollutants-Total (uncontrolled):

Emission Factor 0.00266 lb/MMBtu [GRI-HAPCalc 3.01-External Combustion Device: Burner]
 Calculations (0.00266 lb/MMscf) * (0.75 MMBtu/hr) = 0.0020 lbs/hr
 (0.002 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.00874 TPY

TEG Dehydration Still Vent Stack [SCC 3-10-002-27]

GRI-GLYCalc 4.0 Emission Report [AQP Application 3301-03, Appendix B; 01/13/2012]
 Hours of Operation: 8760 hrs/year *

	VOC		Total HAPS	
	[lbs/hr]	[TPY]*	[lbs/hr]	[TPY]*
Regenerator Emissions	0.216	0.94	0.071	0.309
Flash Tank Off Gas	0.356	1.558	0.003	0.011
Pollutant Totals ►	0.57	2.51	0.07	0.32

Miscellaneous Facility Heaters

Fuel Input: 0.432 MMBtu/hr [Design Maximum - Combined Throughput]
 0.000444 MMscf/hr [Fuel Gas Analysis: 973 Btu/ft³]
 Hours of Operation: 8760 hours/year

Particulate Emissions (uncontrolled):

Total Particulate PM/PM₁₀/PM_{2.5} Emissions:

Emission Factor 7.60 lb/MMscf [AP- 42 Table 1.4-2, 7/98]
 Calculations (7.6 lb/MMscf) * (0.000444 MMscf/hr) = 0.003 lbs/hr
 (0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.01 TPY

Total Particulate PM/PM₁₀/PM_{2.5} Emissions (condensable):

Emission Factor 5.70 lb/MMscf [AP- 42 Table 1.4-2, 7/98]
 Calculations (5.7 lb/MMscf) * (0.000444 MMscf/hr) = 0.003 lbs/hr
 (0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.01 TPY

Total Particulate PM/PM₁₀/PM_{2.5} Emissions (filterable):

Emission Factor 1.90 lb/MMscf [AP- 42 Table 1.4-2, 7/98]
 Calculations (1.9 lb/MMscf) * (0.000444 MMscf/hr) = 0.001 lbs/hr
 (0.00 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.004 TPY

CO Emissions (uncontrolled):

Emission Factor 84.00 lb/MMscf [AP- 42 Table 1.4-1, 7/98]
 Calculations (84 lb/MMscf) * (0.000444 MMscf/hr) = 0.037 lbs/hr
 (0.04 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.16 TPY

NO_x Emissions (uncontrolled):

Emission Factor 100.00 lb/MMscf [AP- 42 Table 1.4-1, 7/98]

Calculations	$(100 \text{ lb/MMscf}) * (0.000444 \text{ MMscf/hr}) =$	0.044 lbs/hr
	$(0.04 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$	0.19 TPY

SO₂ Emissions (uncontrolled):

Emission Factor	0.60 lb/MMscf	[AP- 42 Table 1.4-2, 7/98]
Calculations	$(0.6 \text{ lb/MMscf}) * (0.000444 \text{ MMscf/hr}) =$	0.0003 lbs/hr
	$(0.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$	0.001 TPY

VOC Emissions (uncontrolled):

Emission Factor	5.50 lb/MMscf	[AP- 42 Table 1.4-2, 7/98]
Calculations	$(5.5 \text{ lb/MMscf}) * (0.000444 \text{ MMscf/hr}) =$	0.002 lbs/hr
	$(0.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$	0.01 TPY

Hazardous Air Pollutants-Total (uncontrolled):

Emission Factor	0.01187 lb/MMBtu	[GRI-HAPCalc 3.01-External Combustion Device: Heater/Boiler]
Calculations	$(0.011867 \text{ lb/MMscf}) * (0.432 \text{ MMBtu/hr}) =$	0.0051 lbs/hr
	$(0.005 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$	0.022 TPY

V. Existing Air Quality

The WBI station is located approximately 1.5 miles north of Baker, Montana, in the NE¼ of Section 2, Township 7 North, Range 59 East, in Fallon County. Fallon County is considered unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined that there will be no impact from this permitting action as no new emissions will result with implementation of this permitting action. The Department believes the permitting action will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted 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: Craig Henrikson
Date: December 21, 2012