



Montana Department of
ENVIRONMENTAL QUALITY

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October 9, 2012

Mr. Ron Lowney
WBI Energy Midstream, LLC
2010 Montana Avenue
Glendive, MT 59330

Dear Mr. Lowney:

Montana Air Quality Permit #3250-03 is deemed final as of October 6, 2012, by the Department of Environmental Quality (Department). This permit is for a coal bed methane natural gas central 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 Quality Permitting Supervisor
Air Resources Management Bureau
(406) 444-3626

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

JM:DF
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3250-03

WBI Energy Midstream, LLC
Symons Central Compressor Station
2010 Montana Avenue
Glendive, MT 59330

October 6, 2012



MONTANA AIR QUALITY PERMIT

Issued To: WBI Energy Midstream, LLC MAQP: #3250-03
Symons Central Compressor Station Administrative Amendment (AA) Request
2010 Montana Avenue Received: 08/27/2012
Glendive, MT 59330 Department's Decision on AA: 09/20/2012
Permit Final: 10/06/2012
AFS: #003-0019

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to WBI Energy Midstream, LLC - Symons Natural Gas Central Compressor Station (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

The WBI coal bed methane natural gas central compressor station is located approximately 3 miles southeast of Decker, Montana, in Sections 34 and 35, Township 9 South, Range 40 East, in Big Horn County, Montana.

B. Current Permit Action

On August 27, 2012, the Montana Department of Environmental Quality-Air Resources Management Bureau (Department) received a request from WBI, to amend MAQP # 3250-02 by removing four 1,680 brake horsepower (bhp) natural gas compressor engines from the list of permitted equipment. The facility would be allowed to operate two, natural gas compressor engines with a rated capacity of up to 1,680 bhp and two natural gas compressor engines with a rated capacity of up to 840 bhp, all utilizing "rich-burn" pollutant emissions technology with a nonselective catalytic reduction (NSCR) unit with an air to fuel ratio (AFR) controller. The current permit action also changes the permittee name from Bitter Creek Pipelines, LLC to WBI Energy Midstream, LLC as requested. In addition to accounting for the removal of the four natural gas compressor engines and the requested name change, the permit action updates the rule references, permit format, and the emissions inventory.

SECTION II. Conditions and Limitations

A. Emissions Limitations

1. WBI is permitted to operate up to two "rich-burn" natural gas compressor engines, each having a maximum rated design capacity equal to, or less than, 1680-bhp. Emissions from each of the two engines shall be controlled by a NSCR unit and an AFR controller. Emissions from each of the engines shall not exceed the following limits (ARM 17.8.752).

Emission Limit (pounds per hour (lb/hr)) = Emission Factor (grams per horsepower-hour (g/hp-hr)) * maximum rated capacity of engine (hp) * 0.002205 pounds per gram (lb/g)

Oxides of Nitrogen (NO _x) ¹	1.00 g/hp-hr
Carbon Monoxide (CO)	2.00 g/hp-hr
Volatile Organic Compounds (VOC)	0.05 g/hp-hr

- WBI is permitted to operate up to two “rich-burn” natural gas compressor engines, each having a maximum rated design capacity equal to, or less than, 840-hp. Emissions from each of the two engines shall be controlled by a NSCR unit with an AFR controller. Emissions from each of the engines shall not exceed the following limits (ARM 17.8.752).

NO _x ¹	1.00 g/hp-hr
CO	2.00 g/hp-hr
VOC	1.00 g/hp-hr

- 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 six consecutive minutes (ARM 17.8.304).
- 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).
- 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.4 (ARM 17.8.749).

B. Testing Requirements

- Each of the two 1,680 bhp compressor engines described in Section II.A.1 shall be initially tested for NO_x and CO concurrently, to demonstrate compliance with the emissions limits in Section II.A.1, within 180 days of the initial startup date of the compressor engines. Further testing shall continue on an every five-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).
- Each of the two 840 bhp compressor engines described in Section II.A.2 shall be initially tested for NO_x and CO concurrently, to demonstrate compliance with the emissions limits in Section II.A.2, within 180 days of the initial startup date of the compressor engines. Further testing shall continue on an every five-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).
- All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- The Department may require further testing (ARM 17.8.105).

¹ NO_x reported as NO₂

C. Operational Reporting Requirements

1. WBI shall supply the Department with annual production information for all emissions points, as required by the Department in the annual emissions inventory request. The request will include, but is not limited to, all sources of emissions identified in the emissions 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 emissions 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. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by WBI as a permanent business record for at least five 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) or continuous emissions rate monitoring system (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if WBI fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving WBI of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions, and requirements contained herein may constitute grounds for permit revocation, penalties, or other enforcement 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, 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 Midstream, LLC
Symons Natural Gas Central Compressor Station
MAQP #3250-03

I. Introduction/Process Description

WBI Energy Midstream, LLC (WBI), is permitted for the construction and operation of the Symons Natural Gas Central Compressor Station. The facility is a coal bed methane natural gas central compressor station located approximately 3 miles southeast of Decker, Montana, in Sections 34 and 35, Township 9 South, Range 40 East, in Big Horn County, Montana.

A. Permitted Equipment

The facility consists of the following equipment:

- Up to two natural gas compressor engines utilizing “rich-burn” technology with non-selective catalytic reduction (NSCR) units with air to fuel ratio (AFR) controllers and a maximum rated design capacity of up to 1,680 brake horsepower (bhp) each.
- Up to two natural gas compressor engines utilizing “rich-burn” pollutant emissions technology with NSCR units with AFR controllers and a maximum rated design capacity of up to 840 bhp each.
- Up to two glycol dehydration units with a total combined maximum capacity of up to two million British thermal units per hour (MMBtu/hr).
- One evaporator unit with a maximum capacity of up to 0.75-MMBtu/hr.
- Miscellaneous support equipment and materials including, but not limited to, tanks, tank heaters, etc.

B. Source Description

The WBI Symons natural gas central compressor station facility is a coal bed methane, natural gas central compressor station. Coal bed methane is a natural hydrocarbon gas, primarily methane, that occurs in beds of coal. Production field facilities withdraw the methane from the coal beds and send the methane to the Symons natural gas central compressor station facility to be dehydrated and compressed for transmission through the natural gas pipeline. The two glycol dehydration units are used to remove moisture from the gas, and the compressor engines are used to boost pipeline pressure for transmitting the natural gas through the pipeline. The Symons natural gas central compressor station facility is not a production field facility; the station simply dehydrates and compresses natural gas that is received from surrounding production field facilities.

C. Permit History

MAQP #3250-00 was issued to Bitter Creek Pipelines, LLC (BCPL) for the construction and operation of the Symons natural gas central compressor station. The facility is a coal bed methane natural gas central compressor station. MAQP #3250-00 became final July 16, 2003.

On December 5, 2003, the Department of Environmental Quality-Air Resources Management Bureau (Department) received a letter from BCPL to change MAQP #3250-00. The proposed changes included the addition of a 0.75 MMBtu/hr Cimarron three coil evaporator unit. Because potential emissions from the proposed equipment were less than the de minimis threshold of 15 tons per year, the proposal did not require a permit change before commencing.

The permit action also updated the permit analysis with the new equipment. An emissions inventory for the proposed evaporator and existing equipment was contained in Section IV of the permit analysis. **MAQP #3250-01** replaced MAQP #3250-00.

On April 27, 2005, the Department received a request from WBI Holdings, Inc., on behalf of BCPL to write the permit in a de minimis friendly manner. The facility, located near Decker, Montana, would be allowed to operate up to two natural gas compressor engines of up to 1,680 bhp and two natural gas compressor engines of up to 840 bhp, all utilizing “rich- burn” technology with non-selective catalytic reduction (NSCR) units with an air to fuel ratio (AFR) controllers. **MAQP #3250-02** replaced MAQP #3250-01.

D. Current Permit Action

On August 27, 2012, the Department received a request from WBI to amend MAQP # 3250-02 by removing four 1,680 bhp natural gas compressor engines from the list of permitted equipment. The facility would be allowed to operate two natural gas compressor engines with a rated capacity of up to 1,680 brake horsepower (bhp) and two natural gas compressor engines with a rated capacity of up to 840 bhp, all utilizing “rich-burn” pollutant emissions technology with a NSCR unit with an AFR controller. The current permit action also changes the permittee name from Bitter Creek Pipelines, LLC to WBI Energy Midstream, LLC as requested. In addition to accounting for the removal of the four natural gas compressor engines and the requested name change, the permit action updates the permit to reflect current permit language and rule references used by the Department. **MAQP#3250-03** replaces MAQP#3250-02.

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

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

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

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

1. ARM 17.8.304 Visible Air Contaminants. 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 exhibits opacity of 20% or greater averaged over six consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emissions sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, WBI shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (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. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR 63, as listed below:

40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63 shall comply with the applicable provisions of 40 CFR 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR 63, Subpart HH requirements, certain criteria must be met. First, a facility must either process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user (natural gas processing consists of separating certain hydrocarbons and fluids from the natural gas to produce "pipeline quality" dry natural gas). Second, the facility must also contain an affected source as specified in paragraphs (b)(1) or (b)(2) of 40 CFR 63, Subpart HH (for area sources, an affected source includes each triethylene glycol (TEG) dehydration unit). Finally if the criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR 63, Subpart HH. The facility can be either a major or area source of (hazardous air pollutants) HAPs. Based on the information submitted by WBI, the Symons natural gas central compressor station is subject to the provisions of 40 CFR Part 63, Subpart HH because the facility is a natural gas processing plant includes a TEG dehydration unit, and does not meet the exemptions in paragraphs (e)(1) and (e)(2) of 40 CFR 63, Subpart HH.

40 CFR 63, Subpart HHH - National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in

either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Second, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Finally, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HHH. Based on the information submitted by WBI, the Symons natural gas central 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. 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 height of the stack for WBI is 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 air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert, into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

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 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 a PTE greater than 25 tons per year of nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. The current permit action is an administrative amendment, and therefore, does not require the submittal of a permit application. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. WBI was not required to submit an application for the current permit action because the change is considered administrative.
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 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than one year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
- 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 tons per year of any pollutant (excluding fugitive emissions).

- 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 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (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 #3250-02 for WBI, the following conclusions were made.

- a. The facility's PTE is less than 100 tons/year for any pollutant.
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
- c. This source is not located in a serious 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.
- 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 will be a minor source of emissions as defined under Title V.

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 was not required for the current permit action because it is considered an administrative permit action.

IV. Emission Inventory

Source	Tons/Year				
	PM ₁₀	NO _x	VOC	CO	SO _x
Two Natural Gas Compressor Engines (up to 1,680-bhp each)	2.43	32.45	16.23	64.90	0.074
Two Natural Gas Compressor Engines (up to 840-bhp each)	1.21	16.23	16.23	32.42	0.04
Dehydrator(s) (Up to 2 and up to a combined total of 2-MMBtu/hr)	0.07	0.88	0.05	0.74	0.01
Miscellaneous Tanks (53)	0.00	0.00	10.00	0.00	0.00
Miscellaneous Tank Heaters (Up to 3 and up to a combined total of 1.5-MMBtu/hr)	0.05	0.66	0.04	0.55	0.00
Evaporator Unit (up to 0.75-MMBtu/hr)	0.03	0.33	0.02	0.28	0.00
Total	3.79	50.55	42.57	98.89	0.124

Note: Updated PM₁₀ emissions factor for compressor engines to include both filterable and condensable components (MAQP#3250-03)

Natural Gas Compressor Engine(s) (Up to 2 with a maximum capacity of up to 1,680-hp each)

Horsepower: (2)(1,680-hp) = 3,360 hp

Hours of operation: 8760 hr/yr

Fuel consumption: 14.28 MMBtu/hr (value from previous permit)

PM₁₀ = PM_{2.5} Emissions

Emission Factor: 9.50E-03 lb/MMBtu (Filterable) + 9.91E-03 lb/MMBtu (cond) = 1.94E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)

Fuel Consumption: (14.28 MMBtu/hr * 2 units) = 28.56 MMBtu/hr (Maximum Design)

Calculations: 28.56 MMBtu/hr * 1.94E-02 lb/MMBtu = 0.554lb/hr

0.554 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.43 ton/yr

NO_x Emissions

Emission factor: 1.00 gram/hp-hour (BACT Determination)
Calculations: 1.00 gram/hp-hour * 3,360 hp * 0.002205 lb/gram = 7.41 lb/hr
7.41 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 32.45 ton/yr

VOC Emissions

Emission factor: 0.5 gram/hp-hour (BACT Determination)
Calculations: 0.5 gram/hp-hour * 3,360 hp * 0.002205 lb/gram = 3.70 lb/hr
3.70 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 16.23 ton/yr

CO Emissions

Emission factor: 2.00 gram/hp-hour (BACT Determination)
Calculations: 2.00 gram/hp-hour * 3,360 hp * 0.002205 lb/gram = 14.82 lb/hr
14.82 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 6 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 28.56 MMBtu/hr (Maximum Design)
Calculations: 28.56 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.017 lb/hr
0.017 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.074 ton/yr

Compressor Engine(s) (Up to two with a maximum capacity of up to 840-hp each)

Horsepower: (2)(840-hp) = 1,680 hp
Hours of operation: 8760 hr/yr
Fuel consumption: 7.14 MMBtu/hr (value from previous permit)

PM₁₀ = PM_{2.5} Emissions

Emission Factor: 9.50E-03 lb/MMBtu (Filterable) + 9.91E-03 lb/MMBtu (cond) = 1.94E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 14.28 MMBtu/hr (Maximum Design)
Calculations: 14.28 MMBtu/hr * 1.94E-02 lb/MMBtu = 0.277 lb/hr
0.277 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.21 ton/yr

NO_x Emissions

Emission factor: 1.00 gram/hp-hour (BACT Determination)
Calculations: 1.00 gram/hp-hour * 1,680 hp * 0.002205 lb/gram = 3.71 lb/hr
3.71 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 16.23 ton/yr

VOC Emissions

Emission factor: 1.0 gram/hp-hour (BACT Determination)
Calculations: 1.0 gram/hp-hour * 1,680 hp * 0.002205 lb/gram = 3.71 lb/hr
3.71 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 16.23 ton/yr

CO Emissions

Emission factor: 2.00 gram/hp-hour (BACT Determination)
Calculations: 2.00 gram/hp-hour * 1,680 hp * 0.002205 lb/gram = 7.41 lb/hr
7.41 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 32.45 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Fuel Consumption: 14.28 MMBtu/hr (Maximum Design)
Calculations: 14.28 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.008 lb/hr
0.008 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

Dehydration Unit(s) (Up to 2 with a total combined maximum capacity of up to 2.0-MMBtu/hr)

Heat Output: (1.0 MMBtu/hr)(2) = 2.0 MMBtu/hr (Maximum Design)
Hours of Operation: 8760 hr/yr
Fuel Heating Value: 0.001 MMScf/MMBtu
Fuel Consumption: 2 MMBtu/hr * 0.001 MMScf/MMBtu * 8760 hr/yr = 17.52 MMScf/yr

PM₁₀ Emissions

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
 Calculations: $7.6 \text{ lb/MMScf} * 17.52 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.07 \text{ ton/yr}$

NO_x Emissions

Emission factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
 Calculations: $100 \text{ lb/MMScf} * 17.52 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.88 \text{ ton/yr}$

VOC Emissions

Emission factor: 5.5 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
 Calculations: $5.5 \text{ lb/MMScf} * 17.52 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.05 \text{ ton/yr}$

CO Emissions

Emission factor: 84 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
 Calculations: $84 \text{ lb/MMScf} * 17.52 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.74 \text{ ton/yr}$

SO₂ Emission

Emission factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
 Calculations: $0.6 \text{ lb/MMScf} * 17.52 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

- Emissions from the Still Vent, Flash Tank, and Glycol Reboiler were not calculated because the gas analyses submitted by BCPL showed that no VOC/HAP producing components are contained in the gas stream.

(53) Miscellaneous Tanks (water, oil, triethylene glycol)

VOC Emissions

	<u>Tanks</u>	<u>Emissions</u>	
Calculations:	(8) 50 gal Engine Jacket Water Tanks (EG/Water)	< 1 ton/yr	(Company Estimate)
	(8) 500 gal Ethylene Glycol Tanks (EG/Water makeup)	< 1 ton/yr	(Company Estimate)
	(8) 120 gal Compressor Crankcase Oil Tanks	< 1 ton/yr	(Company Estimate)
	(8) 230 gal Engine Crankcase Oil Tanks	< 1 ton/yr	(Company Estimate)
	(8) 350 gal Compressor Lubricator Oil Tanks	< 1 ton/yr	(Company Estimate)
	(8) 500 gal Waste Oil Tanks	< 1 ton/yr	(Company Estimate)
	(2) Triethylene Glycol Tanks	< 1 ton/yr	(Company Estimate)
	(1) Produced Water Tank	< 1 ton/yr	(Company Estimate)
	(1) Water/Oil Mix Holding Tank	< 1 ton/yr	(Company Estimate)
	(1) Filtered (Processed) Water Tank	< 1 ton/yr	(Company Estimate)
	Tank Total	< 10 ton/yr	

- Tank emissions are conservative because the tanks store oil, water, and glycol, which are relatively non-volatile liquids.

Tank Heater(s) (Up to 3 with a total combined maximum capacity of up to 1.5-MMBtu/hr)

Heat Output: (0.5 MMBtu/hr)(3) = 1.5 MMBtu/hr (Maximum Design)
 Hours of Operation: 8760 hr/yr
 Fuel Heating Value: 0.001 MMScf/MMBtu
 Number of Heaters: 3
 Fuel Consumption: $1.5 \text{ MMBtu/hr} * 0.001 \text{ MMScf/MMBtu} * 8760 \text{ hr/yr} = 13.14 \text{ MMScf/yr}$

PM₁₀ Emissions

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
 Calculations: $7.6 \text{ lb/MMScf} * 13.14 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.05 \text{ ton/yr}$

NO_x Emissions

Emission factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
 Calculations: $100 \text{ lb/MMScf} * 13.14 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.66 \text{ ton/yr}$

VOC Emissions

Emission factor: 5.5 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
 Calculations: $5.5 \text{ lb/MMScf} * 13.14 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.04 \text{ ton/yr}$

CO Emissions

Emission factor: 84 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
 Calculations: $84 \text{ lb/MMScf} * 13.14 \text{ MMScf/yr} * 0.0005 \text{ ton/lb} = 0.55 \text{ ton/yr}$

SO₂ Emission

Emission factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 0.6 lb/MMScf * 13.14 MMScf/yr * 0.0005 ton/lb = 0.004 ton/yr

Evaporator Unit (1 with a maximum capacity of up to 0.75-MMBtu/hr)

Heat Output: 0.75 MMBtu/hr (Maximum Design)
Hours of Operation: 8760 hr/yr
Fuel Heating Value: 0.001 MMScf/MMBtu
Fuel Consumption: 0.75 MMBtu/hr * 0.001 MMScf/MMBtu * 8760 hr/yr = 6.57 MMScf/yr

PM₁₀ Emissions

Emission Factor: 7.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 7.6 lb/MMScf * 6.57 MMScf/yr * 0.0005 ton/lb = 0.025 ton/yr

NO_x Emissions

Emission factor: 100 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 100 lb/MMScf * 6.57 MMScf/yr * 0.0005 ton/lb = 0.329 ton/yr

VOC Emissions

Emission factor: 5.5 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 5.5 lb/MMScf * 6.57 MMScf/yr * 0.0005 ton/lb = 0.018 ton/yr

CO Emissions

Emission factor: 84 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 84 lb/MMScf * 6.57 MMScf/yr * 0.0005 ton/lb = 0.276 ton/yr

SO₂ Emission

Emission factor: 0.6 lb/MMScf (AP-42, Chapter 1, Table 1.4-2, 7/98)
Calculations: 0.6 lb/MMScf * 6.57 MMScf/yr * 0.0005 ton/lb = 0.002 ton/yr

V. Existing Air Quality

The WBI Symons central compressor station is located in Sections 34 and 35, Township 9 South, Range 40 East, in Big Horn County, Montana. Big Horn County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The Department determined, based on the information provided and the conditions established in MAQP #3250-03 that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

Previously, Aspen Consulting & Engineering (Aspen) conducted air quality modeling for the BCPL Symons natural gas central compressor station facility as part of the original BCPL air quality permit application (MAQP#3250-00). In summary, modeling was conducted to determine compliance with the MAAQS, the NAAQS, and the NO_x PSD increments. The modeling results demonstrated that neither the MAAQS nor the NAAQS would be violated. In addition, the PSD increment analysis for NO_x demonstrated that neither the Class I NO_x increment nor the Class II NO_x increment would be exceeded. Therefore, the Department determined, at that time, that the permitted facility would not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

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

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

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

VIII. Environmental Assessment

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

Analysis prepared by: Deanne Fischer

Date: September 4, 2012