Montana Department of
ENVIRONMENTAL QUALITY
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February 19, 2013

Ron Lowney
WBI Energy Midstream, LLC
Visborg 25 Battery
2010 Montana Avenue
Glendive, MT 59330

Dear Mr. Lowney:

Montana Air Quality Permit #3302-03 is deemed final as of February 16, 2013, by the Department of Environmental Quality (Department). This permit is for a 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 A Merkel

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

Jenny O'Mara

Jenny O'Mara
Environmental Engineer
Air Resources Management Bureau
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JM:JO
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3302-03

WBI Energy Midstream, LLC
Visborg 25 Battery
2010 Montana Avenue
Glendive, MT 59330

February 16, 2013

MONTANA AIR QUALITY PERMIT

Issued To: WBI Energy Midstream, LLC
Visborg 25 Battery
2010 Montana Avenue
Glendive, MT 59330

MAQP: #3302-03
Administrative Amendment Request
Received: 12/10/2013
Department Decision Issued: 01/31/2013
Permit Final: 02/16/2013
AFS: # 003-0023

A Montana air quality permit (MAQP), with conditions, is hereby granted to WBI Energy Midstream, LLC - Visborg 25 Battery natural gas compressor station (WBI), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

WBI operates the Visborg 25 Battery natural gas compressor station. This station consists of up to five natural gas compressor engines utilizing lean-burn technology with catalytic oxidation units and a combined total maximum rated design capacity not to exceed 2,460 brake horsepower (bhp). The station is located in the SW¼ of Section 25, Township 9 South, Range 40 East, Big Horn County, Montana. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On December 10, 2012, the Department of Environmental Quality-Air Resources Management Bureau (Department) received a request to change the permittee name from Bitter Creek Pipelines, LLC to WBI Energy Midstream, LLC (WBI). The current permit action is an administrative amendment pursuant to ARM 17.8.764. In addition, the permit will be updated with current rule references and permit language.

Section II. Conditions and Limitations

A. Emission Limitations

1. WBI shall not operate more than five, lean-burn, natural gas compressor engines at any given time. The total maximum rated design capacity of the engines shall not exceed 2,460 bhp total (ARM 17.8.749).

2. Emissions from the 400-bhp lean-burn engines shall be controlled with a catalytic oxidation unit. The pound per hour (lb/hr) limits for each of the engines shall be determined using the following equation and pollutant specific grams per brake horsepower-hour (g/bhp-hr) emission factors (ARM 17.8.752):

Equation

Emission Limit (lb/hr) = Emission Factor (g/bhp-hr) * maximum rated design capacity of engine (bhp) * 0.002205 lb/g

Emission Factors

Oxides of Nitrogen (NO_x[1]):	1.0 g/bhp-hr
Carbon Monoxide (CO):	0.5 g/bhp-hr
Volatile Organic Compounds (VOC):	0.5 g/bhp-hr

3. Emissions from the 860-bhp lean-burn engine shall be controlled with a catalytic oxidation unit. The pound per hour (lb/hr) limits for each of the engines shall be determined using the following equation and pollutant specific grams per brake horsepower-hour (g/bhp-hr) emission factors (ARM 17.8.752):

Emission Factors

Oxides of Nitrogen (NO_x[2]):	1.5 g/bhp-hr
Carbon Monoxide (CO):	0.5 g/bhp-hr
Volatile Organic Compounds (VOC):	1.0 g/bhp-hr

4. 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).

5. 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).

6. WBI shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).

B. Testing Requirements

1. Compressor Engines #1, #2, #3, and #4 shall be tested for NO_x and CO, concurrently, to demonstrate compliance with the emission limits in Section II.A.2. Testing shall occur on an every 5-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. Compressor Engine #5 shall be tested for NO_x and CO, concurrently, to demonstrate compliance with the emission limits in Section II.A.3. The initial source test shall be performed within 180 days of the initial startup date of the compressor engine. After the initial source test, additional testing shall continue on an every 5-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).

[1] NO_x reported as NO_2.
[2] NO_x reported as NO_2.

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. 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 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).

D. Notification

WBI shall provide the Department (both the Billings regional office and the Helena office) with written notification of the following information within the specified time periods (ARM 17.8.749):

1. Commencement of construction date of engine #5 within 30 days after the commencement of construction.

2. Actual start-up date of engine #5 within 15 days after the actual start-up date of each respective engine.

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 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 Midstream Energy, LLC
Visborg 25 Battery
MAQP #3302-03

I. Introduction/Process Description

WBI Midstream Energy, LLC (WBI) is permitted to operate the Visborg 25 Battery natural gas compressor station. The facility is a natural gas compressor station located near the town of Decker, in the SW¼ of Section 25, Township 9 South, Range 40 East, Big Horn County, Montana.

A. Permitted Equipment

The facility consists of the following equipment:

1. Up to four, natural gas fired compressor engines, with lean-burn technology and catalytic oxidation units with a combined total maximum rated design capacity of up to 1,600 brake-horsepower (bhp).
2. One natural gas fired compressor engine with lean-burn technology and catalytic oxidation units with a total maximum rated design capacity of up to 860 bhp.
3. One natural gas fired heater with a maximum rated design capacity of up to 2.21 million British thermal units per hour (MMBtu/hr).

B. Source Description

The purpose of the WBI – Visborg 25 Battery natural gas compressor station is to compress natural gas for transmission through the natural gas pipeline. The compression of the gas is accomplished with the compressor engines listed in Section I.A of the permit analysis.

C. Permit History

MAQP #3302-00 was issued to Bitter Creek Pipelines, LLC (BCPL) for the construction and operation of the Visborg 25 Battery natural gas compressor station, consisting of six 400-hp catalytic oxidation controlled Waukesha F18GL engines and one natural gas fired heater (up to 2.21 MMBtu/hr). MAQP #3302-00 became final on March 31, 2004.

On April 27, 2005, the Montana Department of Environmental Quality-Air Resources Management Bureau (Department) received a request from WBI Holdings, Inc. on behalf of BCPL to write the permit in a de minimis friendly manner. This facility was permitted to operate up to six natural gas compressor engines utilizing lean-burn technology with catalytic oxidation units and a combined total maximum rated design capacity not to exceed 2,400 bhp. The permit was also updated to reflect the current permit language and rule references used by the Department. **MAQP #3302-01** replaced MAQP #3302-00.

On April 24, 2006, the Department received a request from WBI Holdings, Inc. on behalf of WBI to reduce the number of permitted engines from six to five and to increase the total bhp from 2,400 bhp to 2,460 bhp. WBI's request would add an 860-bhp lean-burn engine (engine #5) to the existing four 400-bhp lean-burn engines (engines #1, #2, #3, and #4). **MAQP #3302-02** replaces MAQP #3302-01.

D. Current Permit Action

On December 10, 2012, the Department received a request to change the permittee name from Bitter Creek Pipelines, LLC to WBI Energy Midstream, LLC (WBI). The current permit action is an administrative amendment pursuant to ARM 17.8.764. In addition, the permit will be updated with current rule references and permit language. **MAQP # 3302-03** replaces MAQP #3302-02.

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, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   WBI shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

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

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

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

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

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

1. ARM 17.8.304 Visible Air Contaminants. (1) This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, WBI shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu 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 all 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. A 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. General provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart 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, the facility must be a major or area source of Hazardous Air Pollutants (HAPs) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be a major or area source of HAPs must also either process, upgrade, or store hydrocarbon liquids, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(2) of 40 CFR 63, Subpart HH. For area sources, the affected source includes each triethylene glycol (TEG) dehydration unit located at a facility that meets the criteria specified in paragraph (a) of this section. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR 63, Subpart HH. Based on the information submitted by WBI, the natural gas compressor station is not subject to the provisions of 40 CFR 63, Subpart HH.

   b. 40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR 63, Subpart HHH. Second, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR 63, Subpart HHH. Finally, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR 63, Subpart HHH. Based on the information submitted by WBI, the Seven Brothers 35 Battery natural gas 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. WBI was not required to submit a permit application fee for the current permit action because it is considered an administrative action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. 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 oxides of nitrogen (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, modification, or use of a source. WBI was not required to submit a permit application for the current permit action because the change is considered administrative. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. WBI was not required to submit a public notice for the current permit action because 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 1 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 since 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 stationary source having:

a. PTE > 100 tons/year of any pollutant;

b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (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 #3302-03 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 PM_{10} 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 is not a solid waste combustion unit.

h. This source is not an Environmental Protection Agency (EPA) designated Title V source.

Based on these facts, the Department determined that WBI's Visborg 25 Battery natural gas compressor station would 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 that is technically practicable and economically feasible, except that BACT shall be utilized. A BACT analysis was not required for the current permit action because the current permit action is considered an administrative permit action.

IV. Emission Inventory

	Ton/year					
Source	PM_{10}	NO_x	VOC	CO	SO_x	HCHO
(Up to 4 – Units #1-#4) "Lean-Burn" Compressor Engines with a Combined Total Maximum Rated Design Capacity of up to 1,600 hp	.001	15.45	15.45	7.72	0.042	0.70
(Up to 1 – Units #5) "Lean-Burn" Compressor Engines with a Total Maximum Rated Design Capacity of up to 860 hp	.002	12.46	8.30	4.15	0.024	0.57
(1 – Unit #7) Heater with a Maximum Rated Design Capacity of up to 2.21 Million British Thermal Units Per Hour (MMBtu/hr)	.075	0.97	0.05	0.81	.006	0.00
Total	**0.078**	**28.88**	**23.8**	**12.68**	**0.072**	**1.27**

(Up to 5 – Units #1-#5) "Lean Burn" Compressor Engines with a Combined Total Maximum Rated Design Capacity of up to 2460 bhp

Brake Horsepower: 2460 (Up to a Maximum Total Design Capacity)
Hours of operation: 8760 hr/yr

PM_{10} Emissions
Emissions for (4) 400-bhp engines
Emission Factor: 7.71E-05 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Fuel Consumption: 11.44 MMBtu/hr (Maximum Design)
Calculations: 11.44 MMBtu/hr * 7.71E-05 lb/MMBtu = 0.00042 lb/hr
0.00042 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.001 ton/yr

Emissions for (1) 860-bhp engines
Emission Factor: 7.71E-05 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Fuel Consumption: 6.42 MMBtu/hr (Maximum Design)
Calculations: 6.42 MMBtu/hr * 7.71E-05 lb/MMBtu = 0.00024 lb/hr
0.00024 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.002 ton/yr

NO_x Emissions
Emissions for (4) 400-bhp engines
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 1600b hp * 0.002205 lb/gram = 3.528 lb/hr
3.528 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 15.45 ton/yr

Emissions for (1) 860-bhp engine
Emission factor: 1.50 gram/bhp-hour (BACT Determination)
Calculations: 1.50 gram/bhp-hour * 860 bhp * 0.002205 lb/gram = 2.844 lb/hr
2.844 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 12.46 ton/yr

Total NO_x Emissions from all engines = 15.45 ton/yr + 12.46 ton/yr = 27.91 ton/yr

VOC Emissions
Emissions for (4) 400-bhp engines
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 1600 bhp * 0.002205 lb/gram = 3.528 lb/hr
3.528 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 15.45 ton/yr

Emissions for (1) 860-bhp engine
Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 860 bhp * 0.002205 lb/gram = 1.896 lb/hr
1.896 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.30 ton/yr

Total VOC Emissions from all engines = 7.73 ton/yr + 8.30 ton/yr = 16.03 ton/yr

CO Emissions
Emissions for (4) 400-bhp engines
Emission factor: 0.50 gram/bhp-hour (BACT Determination)
Calculations: 0.50 gram/bhp-hour * 1600 bhp * 0.002205 lb/gram = 1.764 lb/hr
1.764 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 7.72 ton/yr

Emissions for (1) 860-bhp engine
Emission factor: 0.50 gram/bhp-hour (BACT Determination)
Calculations: 0.50 gram/bhp-hour * 860b hp * 0.002205 lb/gram = 0.948 lb/hr
0.948 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 4.15 ton/yr

SO_2 Emission
Emissions for (4) 400-bhp engines
Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Fuel Consumption: 11.44 MMBtu/hr (Maximum Design)
Calculations: 11.44 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.0095 lb/hr
0.0095 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.042 ton/yr

Emissions for (1) 860-bhp engine
Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Fuel Consumption: 6.42 MMBtu/hr (Maximum Design)
Calculations: 6.42 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.0054 lb/hr
0.0054 lb/hr * 8760 hr/hr * 0.0005 ton/lb = 0.024 ton/yr

Formaldehyde (HCOH) Emissions
Emissions for (4) 400-bhp engines
Emission factor: 0.04 lb/hr * 4 = 0.16 lb/hr (Company Information)
Calculations: 0.16 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.70 ton/yr

Emissions for (1) 860-bhp engine
Emission factor: 0.13 lb/hr * 1 = 0.13 lb/hr (Company Information)
Calculations: 0.13 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.57 ton/yr

(1 – Unit #7) Heater with a Maximum Rated Design Capacity of up to 2.21 MMBtu/hr

Heat Output: 2.21 MMBtu/hr (Maximum Design)
Hours of Operation: 8760 hr/yr
Fuel Heating Value: 0.001 MMScf/MMBtu
Fuel Consumption: 2.21 MMBtu/hr * 0.001 MMScf/MMBtu * 8760 hr/yr = 19.36 MMScf/yr

PM_{10} Emissions
Emission Factor: 7.71 lb/MMScf (AP-42, Table 1.4-1, 7/00)
Calculations: 7.71 lb/MMScf * 19.36 MMScf/yr * 0.0005 ton/lb = 0.075 ton/yr

NO_x Emissions
Emission factor: 100.00 lb/MMScf (AP-42, Table 1.4-1, 7/00)
Calculations: 100.00 lb/MMScf * 19.36 MMScf/yr * 0.0005 ton/lb = 0.97 ton/yr

VOC Emissions
Emission factor: 5.50 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 5.50 lb/MMScf * 19.36 MMScf/yr * 0.0005 ton/lb = 0.05 ton/yr

CO Emissions
Emission factor: 84.00 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 84.00 lb/MMScf * 19.36 MMScf/yr * 0.0005 ton/lb = 0.81 ton/yr

SO_2 Emission
Emission factor: 0.60 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 0.60 lb/MMScf * 19.36 MMScf/yr * 0.0005 ton/lb = 0.006 ton/yr

HCOH Emission
Emission factor: 0.075 lb/MMScf (AP-42, Chapter 1, Table 1.4-1, 7/98)
Calculations: 0.075 lb/MMScf * 19.36 MMScf/yr * 0.0005 ton/lb = 0.0007 ton/yr

V. Existing Air Quality

The WBI's Visborg 25 Battery natural gas compressor station is located in the SW¼ of Section 25, 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 ambient air quality modeling submitted with MAQP #3302-02 and the permit conditions placed in MAQP #3302-03, that the impact from this permitting action will be minor. The Department believes the current permitting action (administrative) will not cause or contribute to a violation of any ambient air quality standard.

Aspen Consulting & Engineering (Aspen) conducted air quality modeling for the WBI Visborg 25 Battery natural gas compressor station as part of the WBI air quality permit application for MAQP #3302-02. The modeling was done to demonstrate compliance with the National Ambient Air Quality Standards and Montana Ambient Air Quality Standards (MAAQS). In addition, although a New Source Review (NSR) - Prevention of Significant Deterioration of Air Quality (PSD) increment analysis was not required for the permitting action, the Department requested WBI complete a PSD increment analysis. Due to the increased coal-bed methane projects, the Department determined that NO_x increment modeling was necessary to track the effects of industry growth in this area.

The EPA approved Industrial Source Complex (ISC3) model was used along with five years of off-site meteorological data and downwash was calculated using the EPA's Building Profile Input Program (BPIP). Surface meteorological data for the years 1984, 1987-1990 was collected at the Sheridan County Airport in Sheridan, Wyoming and the upper air data utilized for the project was collected at the Lander Hunt Field, Wyoming site.

Receptor grid elevations were derived from digital elevation model (DEM) files using the United States Geological Survey (USGS) 7.5-minute series (1:24,000 scale) digitized topographical maps. The Decker, Holmes Ranch, and Pearl School quadrangles as well as the Acme, Bar N Draw, and Cedar Canyon Wyoming quadrangles in the USGS DEM file format were used to develop the receptor grid. Receptors were placed at not more than 50-meter (m) intervals along the fence-line, 100-m spacing from the fence-line to 1 kilometer (km), 250-m spacing from 1 to 3 km, and 500 meters from 3 to 10 km. Aspen also placed receptors along the southern boundary of the Northern Cheyenne Indian Reservation (NCIR) to demonstrate compliance with the Class I increment.

Modeling was conducted for both CO and NOx emissions from the Bitter Creek Visborg 25 Battery. While the CO modeling only included emissions from the Visborg 25 Battery, the NOx modeling included additional NOx emission sources located within 20 km of the site. A total of 325 emission units at CBM facilities in Montana and Wyoming were included in the cumulative NOx impact modeling.

Table 1 lists the emission rates modeling parameters entered into the model for the Visborg 25 Battery. A list of the modeling parameters for the other modeled sources is on file at the Department.

Table 1: Emission Rates and Modeling Parameters Entered in the ISC3 Model

Source ID	CO (g/s)	NO_2 (g/s)	UTM Coordinates		Stack Parameters			
			Easting (m)	Northing (m)	Height (m)	Temp. (°K)	Velocity (m/s)	Diameter (m)
VIS25#1	0.055	0.111	359,720	4,985,720	6.48	772	37.9	0.204
VIS25#2	0.055	0.111	359,720	4,985,729	6.48	772	37.9	0.204
VIS25#3	0.055	0.111	359,720	4,985,738	6.48	772	37.9	0.204
VIS25#4	0.055	0.111	359,720	4,985,747	6.48	772	37.9	0.204
VIS25#5	0.12	0.359	359,720	4,985,756	7.01	700	44.59	0.253

Table 2 shows the air dispersion modeling results for CO emissions. The modeled concentrations for the CO emissions from the Visborg 25 Battery are below the modeling significance levels, so additional CO modeling is not required. Peak modeled impacts occurred at or near the fenceline of the facility. Modeled 1-hour and 8-hour CO concentrations are the high-second-high modeled impact. Background concentrations are the typical values provided by the Department.

Table 2: Ambient Air Dispersion Results for CO (Peak Impacts)

Year	Avg. Period	Modeled Conc. ($\mu g/m^3$)	Background Conc. ($\mu g/m^3$)	Ambient Conc. ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	MAAQS ($\mu g/m^3$)	Modeling Significance
1984	1-HR	116	1725	1266	40,000	26,450	2000
1984	8-HR	203	1150	1928	10,350	10,350	500
1987	1-HR	81	1725	1231	40,000	26,450	2000
1987	8-HR	202	1150	1927	10,350	10,350	500
1988	1-HR	56	1725	1206	40,000	26,450	2000
1988	8-HR	198	1150	1923	10,350	10,350	500

Year	Avg. Period	Modeled Conc. ($\mu g/m^3$)	Background Conc. ($\mu g/m^3$)	Ambient Conc. ($\mu g/m^3$)	NAAQS ($\mu g/m^3$)	MAAQS ($\mu g/m^3$)	Modeling Significance
1989	1-HR	90	1725	1240	40,000	26,450	2000
1989	8-HR	199	1150	1924	10,350	10,350	500
1990	1-HR	55	1725	1205	40,000	26,450	2000
1990	8-HR	203	1150	1928	10,350	10,350	500

NOx emissions from the changes at Visborg 25 and at the other facilities were modeled to show compliance with the NAAQS/MAAQS. An increment analysis was not required for this permitting action, but has been provided to address concerns about the status of the PSD Class I and Class II increments in southeast Montana.

The same source groups were entered into the model for the Class I/Class II increment analysis as were entered for the ambient standards. PSD increment compliance demonstrations are typically made using actual emissions from existing sources, but this information was not available so permitted allowable emissions were entered into the PSD increment model.

Table 3 shows the NO_2 modeling results. The "All" source group includes the Visborg 25 facility and all other modeled facilities. The "New" source group only includes the proposed changes at the Visborg 25 site. The annual NAAQS for NO_2 is 100 $\mu g/m^3$ while the annual MAAQS is 94 $\mu g/m^3$ and the Montana 1-hour standard NO_2 is 564 $\mu g/m^3$. The Ambient Ratio Method (ARM) and the Ozone Limiting Method (OLM) are used to convert the modeled NOx concentrations to NO_2 for comparison to the NAAQS/MAAQS (as per MDEQ guidance). The annual Class II PSD NO_2 increment is 25 $\mu g/m^3$. Only the modeled contribution, without inclusion of the background concentration, is compared to the PSD Increment.

The peak modeled concentrations for the annual averaging time occurs at a different receptor for all of the development than for the Visborg 25 Battery. The controlling receptor for all of the coal bed methane development for the Class II increment and the NAAQS/MAAQS is located approximately 2.6 km southwest of the Visborg 25 Battery.

Table 3: Ambient Air Dispersion Model Results for NO_2 emissions

Year	Avg. Period	Source Group	Modeled NOx Conc. ($\mu g/m^3$)	NO_2 Conc. ($\mu g/m^3$)	Back-ground Conc. ($\mu g/m^3$)	Ambient Conc. ($\mu g/m^3$)	% of Class II PSD Increment ($\mu g/m^3$)	% of MAAQS
1984	Annual	All	22.2	16.7	6	23	67	25
	1-hr		579	246	75	321		57
	Annual	New	199	1.5	6	8	6.0	8.5
	1-hr		118	118	75	193		34
1987	Annual	All	23.3	17.5	6	24	70	25
	1-hr		578	246	75	321		57
	Annual	New	1.87	1.4	6	7	5.6	7.4
	1-hr		106	106	75	181		32
1988	Annual	All	21.0	15.8	6	22	63	23
	1-hr		486	236	75	311		55
	Annual	New	2.4	1.8	6	8	9.6	8.5
	1-hr		108	108	75	183		32
1989	Annual	All	22.4	16.8	6	23	67	25
	1-hr		570	245	75	320		57
	Annual	New	1.86	1.4	6	7	5.6	7.4
	1-hr		130	130	75	205		36
1990	Annual	All	22.2	16.7	6	23	67	25
	1-hr		563	244	75	319		57
	Annual	New	1.48	1.18	6	7	4.7	7.4
	1-hr		119	119	75	194		34

[a] Concentration calculated using the Ozone Limiting Method.
[b] Applying the Ambient Ratio Method with National Default of 75%.
[C] 1-hr emissions are high-second-high

Table 4 shows the Class I increment results for the NCIR receptors. The submitted modeling included receptors along the southern boundary of the NCIR, but the receptors did not cover the full boundary. For each year, the peak modeled impacts occurred at the western-most receptor. Therefore, it is likely that the modeling results presented in Table 4 do not represent the highest impacts at NCIR. The Class I modeling included all CBM sources used in the NAAQS/MAAQS model.

Table 4: Class I Modeling Results

Year	Avg. Period	Source Group	Predicted Max NO_2 Impact ($\mu g/m^3$)	Class I Increment ($\mu g/m^3$)	% Class I Increment Consumed
1984	Annual	All	0.56	2.5	22
1987	Annual	All	0.50	2.5	20
1988	Annual	All	0.41	2.5	16
1989	Annual	All	0.38	2.5	15
1990	Annual	All	0.42	2.5	17

In summary, modeling was conducted to determine compliance with the MAAQS, the NAAQS, and the NO_x PSD increment. 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 the Class II NO_x increment would not be exceeded.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted a 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.

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