



Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: www.deq.mt.gov

January 30, 2013

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

Dear Mr. Lowney:

Montana Air Quality Permit #4066-01 is deemed final as of January 30, 2013, by the Department of Environmental Quality (Department). This permit is for the Decker 17 Battery Natural Gas Compressor Station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Shawn Juers
Environmental Engineer
Air Resources Management Bureau
(406) 444-2049

JM:SJ
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4066-04

WBI Energy Midstream, LLC
2010 Montana Avenue
Glendive, MT 59330

January 30, 2013



MONTANA AIR QUALITY PERMIT

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

MAQP: #4066-01

Administrative Amendment (AA) Request
Received: 12/10/2012
Department Decision on AA: 1/14/2013
Permit Final: 1/30/2013
AFS #: 003-0036

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to WBI Energy Midstream, LLC (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 facility is located approximately 11 kilometers northeast of Decker, Montana. The legal description of the site location is the NW¹/₄ of Section 17, Township 9 South, Range 41 East, Big Horn County, Montana. This facility is known as the Decker 17 Battery.

B. Current Permit Action

On December 10, 2012, the Montana Department of Environmental Quality - Air Resources Management Bureau (Department) received an Administrative Amendment (AA) request from WBI to change the official name of the company from Bitter Creek Pipelines, LLC to WBI Energy Midstream, LLC. The current permit action is an administrative amendment pursuant to ARM 17.8.764 that changes the permittee name as requested.

Section II: Conditions and Limitations

A. Emission Limitations

1. WBI shall not operate more than four natural gas compressor engines at any given time and the maximum-rated design capacity of each engine shall not exceed 860-brake horsepower (bhp) (ARM 17.8.749).
2. The combined maximum-rated design capacity of all engines operated at the facility shall not exceed 1,720-bhp and only the following engines may be used (ARM 17.8.749):
 - Caterpillar G3408 TA (400-bhp rich-burn);
 - Waukesha F18 GL (400-bhp lean-burn)
 - Caterpillar G3508LE (633-bhp lean-burn)
 - Waukesha 3524 GSI (840-bhp rich-burn); and
 - Caterpillar 3512LE (860-bhp lean-burn).
3. Emissions from any rich-burn natural gas compressor engine shall be controlled by the use of a non-selective catalytic reduction (NSCR) unit and an air-to-fuel ratio (AFR) controller. The pound per hour (lb/hr) emission limits for the engines shall be determined using the following equation and pollutant specific gram per brake horsepower-hour (g/bhp-hr) emission factors (ARM 17.8.752):

Equation

$$\text{Emission Limit (lb/hr)} = \text{Emission Factor (g/bhp-hr)} * \text{maximum-rated design capacity of engine (bhp)} * 0.002205 \text{ lb/gram}$$

Emission Factors

Oxides of Nitrogen (NO_x): 1.0 g/bhp-hr
Carbon Monoxide (CO): 2.0 g/bhp-hr
Volatile Organic Compounds (VOC): 1.0 g/bhp-hr

4. Emissions from any Waukesha F18 GL and any Caterpillar 3512LE natural gas compressor engines shall be controlled by the use of an oxidation catalyst. The lb/hr emission limits for the engines shall be determined using the following equation and pollutant specific g/bhp-hr emission factors (ARM 17.8.752):

Equation

$$\text{Emission Limit (lb/hr)} = \text{Emission Factor (g/bhp-hr)} * \text{maximum rated design capacity of engine (bhp)} * 0.002205 \text{ lb/gram}$$

Emission Factors

NO_x: 1.5 g/bhp-hr
CO: 0.5 g/bhp-hr
VOC: 1.0 g/bhp-hr

5. Emissions from any Caterpillar G3508LE natural gas compressor engine shall be controlled by the use of an oxidation catalyst. The lb/hr emission limits for the engines shall be determined using the following equation and pollutant specific g/bhp-hr emission factors (ARM 17.8.752):

Equation

$$\text{Emission Limit (lb/hr)} = \text{Emission Factor (g/bhp-hr)} * \text{maximum rated design capacity of engine (bhp)} * 0.002205 \text{ lb/gram}$$

Emission Factors

NO_x: 2.0 g/bhp-hr
CO: 0.5 g/bhp-hr
VOC: 1.0 g/bhp-hr

6. 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).
7. 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).
8. 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.7 (ARM 17.8.749).

B. Testing Requirements

1. Each compressor engine operated at the site shall be initially tested and compliance demonstrated with the NO_x and CO emission limits contained in Sections II.A.3, II.A.4, or II.A.5 (as appropriate) of the permit within 180 days of initial start-up of the respective engine. After the initial source test, testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved in writing by the Department of Environmental Quality (Department) (ARM 17.8.105 and 17.8.749).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. WBI shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

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 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Notification

1. WBI shall provide the Department with written notification of commencement of construction of the Decker 17 Battery within 30 days after commencement of construction (ARM 17.8.749).
2. WBI shall provide the Department with written notification of the actual start-up date of the compressor engines within 15 days after the actual start-up date(s) (ARM 17.8.749).

3. WBI shall provide the Department with written notification of the engine models installed at the site within 15 days after the actual start-up date(s) of the engine(s) (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 therefor, 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
MAQP #4066-01

I. Introduction/Process Description

WBI Energy Midstream, LLC (WBI) owns and operates the Decker 17 Battery. The facility is a coal bed methane natural gas compressor station located approximately 11 kilometers northeast of Decker, Montana, in the NW ¼ of Section 17, Township 9 South, Range 41 East, in Big Horn County, Montana.

A. Permitted Equipment

WBI is permitted to operate no more than four natural gas compressor engines at any given time and only 400-brake horsepower (bhp) Caterpillar G3408 TA, 400-bhp Waukesha F18 GL, 633 bhp Caterpillar G3508LE, 840-bhp Waukesha 3524 GSI, and/or 860-bhp Caterpillar 3512LE natural gas compressor engines may be used at the facility. In addition, the maximum-rated design capacity of any engine shall not exceed 860-bhp and the combined maximum-rated design capacity of all engines operated at the facility shall not exceed 1,720-bhp.

B. Source Description

The natural gas compressor engines at the Decker 17 Battery are used to gather natural gas from local field wells and transport the natural gas to an existing central compressor station.

C. Permit History

On May 23, 2007, the Department of Environmental Quality – Air Resources Management Bureau (Department) issued final to Bitter Creek Pipelines, LLC, MAQP #4066-00.

D. Current Permit Action

On December 10, 2012, the Montana Department of Environmental Quality - Air Resources Management Bureau (Department) received an Administrative Amendment (AA) request from WBI to change the official name of the company from Bitter Creek Pipelines, LLC to WBI Energy Midstream, LLC. **MAQP #4066-01** replaces MAQP #4066-00.

E. Additional Information

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

II. Applicable Rules and Regulations

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

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

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

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

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
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 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 or authorize 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 Processes. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 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).
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart.
 - b. 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (SI ICE). Owners and operators of stationary SI ICE that commence construction after June 12, 2006, where the stationary SI ICE are manufactured on or after July 1, 2007, for engines with a maximum engine power greater than or equal to 500 hp (except lean burn engines with a maximum engine power greater than or equal to 500 hp and less than 1,350 hp); on or after January 1, 2008, for lean burn engines with a maximum engine power greater than or equal to 500 hp and less than 1,350 hp; on or after July 1, 2008, for engines with a maximum engine power less than 500 hp; or on or after January 1, 2009, for emergency engines with a maximum engine power greater than 19 KW (25 hp) are subject to this subpart.

 Owners and operators of stationary SI ICE that are modified or reconstructed after June 12, 2006, and any person that modifies or reconstructs any stationary SI ICE after June 12, 2006, are also subject to this subpart.
8. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.

9. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
 - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an NESHAP Subpart.
 - b. 40 CFR 63, Subpart HH — National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with standards and provisions of 40 CFR 63, Subpart HH.
 - c. 40 CFR Part 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. In order for a natural gas transmission and storage facility to be subject to 40 CFR 63, Subpart HHH requirements, the facility must be a major source of Hazardous Air Pollutants (HAPs) as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR 63, Subpart HHH.
 - d. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary RICE at a major or area source of HAP emissions is subject to this subpart, except if the stationary RICE is being tested at a stationary RICE test cell/stand. Therefore, WBI is subject to this subpart.

D. ARM 17.8, Subchapter 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.

E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. WBI has a PTE greater than 25 tons per year of carbon monoxide (CO) and oxides of nitrogen (NOx); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving WBI of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 – Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one hazardous air pollutant (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 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 #4066-01 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 the current permit action is considered an administrative permit action.

IV. Emission Inventory

The current action is an administrative action and the emissions inventory remains unchanged.

Engine - PTE

Source	Tons/year					
	PM ₁₀	NO _x	VOC	CO	SO _x	HCHO
400-bhp Caterpillar G3408 TA	0.13	3.86	3.86	7.73	0.01	0.23
400-bhp Waukesha F18 GL	0.00	5.79	3.86	1.93	0.01	0.19
633-bhp Caterpillar G3508LE	0.00	12.23	6.11	3.06	0.01	0.43
840-bhp Waukesha 3524 GSI	0.27	8.11	8.11	16.23	0.02	0.41
860-bhp Caterpillar 3512LE	0.00	12.46	8.31	4.15	0.02	0.58

Facility Worst Case Engine Scenario - PTE

Source	Tons/year					
	**PM ₁₀	*NO _x	*VOC	**CO	**SO _x	*HCHO
840-bhp Waukesha 3524 GSI	0.27	8.11	8.11	16.23	0.02	0.41
860-bhp Caterpillar 3512LE	0.00	12.46	8.31	4.15	0.02	0.58
Total	0.54	24.92	16.62	32.46	0.04	1.16

*NO_x, VOC, and HCHO worst case totals are based on two 860-bhp Caterpillar 3512LE

**PM₁₀, CO, and SO_x, worst case totals are based on two 840-bhp Waukesha 3524 GSI

400-bhp Caterpillar G3408 TA Compressor Engine

Brake Horsepower: 400 bhp
Hours of operation: 8,760 hr/yr
Fuel Consumption: 3.02 MMBtu/hr (Maximum Design)

PM₁₀ Emissions

Emission Factor: 9.50E-03 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Calculations: 3.02 MMBtu/hr * 9.50E-03 lb/MMBtu = 0.029 lb/hr
0.029 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.13 ton/yr

NO_x Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 400 bhp * 0.002205 lbs/gram = 0.882 lb/hr
0.882 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 3.86 ton/yr

VOC Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 400 bhp * 0.002205 lb/gram = 0.882 lb/hr
0.882 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 3.86 ton/yr

CO Emissions

Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: 2.00 gram/bhp-hour * 400 bhp * 0.002205 lb/gram = 1.76 lb/hr
1.76 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 7.73 ton/yr

SO₂ Emissions

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Calculations: 3.01 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.002 lb/hr
0.002 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

HCHO Emissions

Emission factor: 0.06 gram/bhp-hour (Manufacturer's Information)
Calculations: 0.06 gram/bhp-hour * 400 bhp * 0.002205 lb/gram = 0.05 lb/hr
0.05 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.23 ton/yr

400-bhp Waukesha F18 GL Compressor Engine

Brake Horsepower: 400 bhp
Hours of operation: 8,760 hr/yr
Fuel Consumption: 2.86 MMBtu/hr (Maximum Design)

PM₁₀ Emissions

Emission Factor: 7.71E-05 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 2.86 MMBtu/hr * 7.71E-05 lb/MMBtu = 0.00 lb/hr
0.00 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.001 ton/yr

NO_x Emissions

Emission factor: 1.50 gram/bhp-hour (BACT Determination)
Calculations: 1.50 gram/bhp-hour * 400 bhp * 0.002205 lbs/gram = 1.32 lb/hr
1.32 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 5.79 ton/yr

VOC Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 400 bhp * 0.002205 lb/gram = 0.44 lb/hr
0.44 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 1.93 ton/yr

CO Emissions

Emission factor: 0.50 gram/bhp-hour (BACT Determination)
Calculations: 0.50 gram/bhp-hour * 400 bhp * 0.002205 lb/gram = 0.44 lb/hr
0.44 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 1.93 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 2.86 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.00 lb/hr
0.00 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

HCHO Emissions

Emission factor: 0.05 gram/bhp-hour (Manufacturer's Information)
Calculations: $0.05 \text{ gram/bhp-hour} * 400 \text{ bhp} * 0.002205 \text{ lb/gram} = 0.04 \text{ lb/hr}$
 $0.04 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.19 \text{ ton/yr}$

633-bhp Caterpillar G3508LE Compressor Engine

Brake Horsepower: 633 bhp
Hours of operation: 8,760 hr/yr
Fuel Consumption: 4.83 MMBtu/hr (Maximum Design)

PM₁₀ Emissions

Emission Factor: 7.71E-05 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: $4.83 \text{ MMBtu/hr} * 7.71\text{E-}05 \text{ lb/MMBtu} = 0.0004 \text{ lb/hr}$
 $0.0004 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.002 \text{ ton/yr}$

NO_x Emissions

Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: $2.00 \text{ gram/bhp-hour} * 633 \text{ bhp} * 0.002205 \text{ lbs/gram} = 2.79 \text{ lb/hr}$
 $2.79 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 12.23 \text{ ton/yr}$

VOC Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hour} * 633 \text{ bhp} * 0.002205 \text{ lb/gram} = 1.40 \text{ lb/hr}$
 $1.40 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 6.11 \text{ ton/yr}$

CO Emissions

Emission factor: 0.50 gram/bhp-hour (BACT Determination)
Calculations: $0.50 \text{ gram/bhp-hour} * 633 \text{ bhp} * 0.002205 \text{ lb/gram} = 0.70 \text{ lb/hr}$
 $0.70 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.06 \text{ ton/yr}$

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: $4.83 \text{ MMBtu/hr} * 5.88\text{E-}04 \text{ lb/MMBtu} = 0.003 \text{ lb/hr}$
 $0.003 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.01 \text{ ton/yr}$

HCHO Emissions

Emission factor: 0.07 gram/bhp-hour (Manufacturer's Information)
Calculations: $0.07 \text{ gram/bhp-hour} * 633 \text{ bhp} * 0.002205 \text{ lb/gram} = 0.10 \text{ lb/hr}$
 $0.10 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.43 \text{ ton/yr}$

840-bhp Waukesha 3524GSI Compressor Engine

Brake Horsepower: 840 bhp
Hours of operation: 8,760 hr/yr
Fuel Consumption: 6.57 MMBtu/hr (Maximum Design)

PM₁₀ Emissions

Emission Factor: 9.50E-03 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Calculations: $6.57 \text{ MMBtu/hr} * 9.50\text{E-}03 \text{ lb/MMBtu} = 0.06 \text{ lb/hr}$
 $0.06 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.27 \text{ ton/yr}$

NO_x Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hour} * 840 \text{ bhp} * 0.002205 \text{ lbs/gram} = 1.85 \text{ lb/hr}$
 $1.85 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.11 \text{ ton/yr}$

VOC Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: $1.00 \text{ gram/bhp-hour} * 840 \text{ bhp} * 0.002205 \text{ lb/gram} = 1.85 \text{ lb/hr}$
 $1.85 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.11 \text{ ton/yr}$

CO Emissions

Emission factor: 2.00 gram/bhp-hour (BACT Determination)
Calculations: $2.00 \text{ gram/bhp-hour} * 840 \text{ bhp} * 0.002205 \text{ lb/gram} = 3.70 \text{ lb/hr}$
 $3.70 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 16.23 \text{ ton/yr}$

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)
Calculations: 6.57 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.004 lb/hr
0.004 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

HCHO Emissions

Emission factor: 0.05 gram/bhp-hour (Manufacturer's Information)
Calculations: 0.05 gram/bhp-hour * 840 bhp * 0.002205 lb/gram = 0.09 lb/hr
0.09 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.41 ton/yr

860-bhp Caterpillar G3512LE Compressor Engine

Brake Horsepower: 860 bhp
Hours of operation: 8,760 hr/yr
Fuel Consumption: 6.42 MMBtu/hr (Maximum Design)

PM₁₀ Emissions

Emission Factor: 7.71E-05 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 6.42 MMBtu/hr * 7.71E-05 lb/MMBtu = 0.0005 lb/hr
0.0005 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.002 ton/yr

NO_x Emissions

Emission factor: 1.50 gram/bhp-hour (BACT Determination)
Calculations: 1.50 gram/bhp-hour * 860 bhp * 0.002205 lbs/gram = 2.84 lb/hr
2.84 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 12.46 ton/yr

VOC Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)
Calculations: 1.00 gram/bhp-hour * 860 bhp * 0.002205 lb/gram = 1.90 lb/hr
1.90 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 8.31 ton/yr

CO Emissions

Emission factor: 0.50 gram/bhp-hour (BACT Determination)
Calculations: 0.50 gram/bhp-hour * 860 bhp * 0.002205 lb/gram = 0.95 lb/hr
0.95 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 4.15 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)
Calculations: 6.42 MMBtu/hr * 5.88E-04 lb/MMBtu = 0.004 lb/hr
0.004 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

HCHO Emissions

Emission factor: 0.07 gram/bhp-hour (Manufacturer's Information)
Calculations: 0.07 gram/bhp-hour * 860 bhp * 0.002205 lb/gram = 0.13 lb/hr
0.13 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 0.58 ton/yr

V. Existing Air Quality

The facility is located approximately 11 kilometers northeast of Decker, Montana, in the NW ¼ of Section 17, Township 9 South, Range 41 East, in Big Horn County, Montana. The air quality of this area is classified as unclassifiable for the National Ambient Air Quality Standards (NAAQS) for criteria pollutants.

VI. Ambient Air Impact Analysis

The current action is an administrative action, with no increase in allowable emissions. Therefore, no change to ambient air impacts from this source would be expected.

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	
XX		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	XX	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	XX	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	XX	4. Does the action deprive the owner of all economically viable uses of the property?
	XX	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?
	XX	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	XX	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?
	XX	7a. Is the impact of government action direct, peculiar, and significant?
	XX	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	XX	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?
	XX	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: Shawn Juers

Date: 1/9/2013