



Montana Department of
ENVIRONMENTAL QUALITY

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December 29, 2011

Jill Linn – Environmental Affairs
Williston Basin Interstate Pipeline Company – Willow Creek Compressor Station
2010 Montana Avenue
Glendive, Montana 59330

Dear Ms. Linn:

Montana Air Quality Permit #4282-01 is deemed final as of December 29, 2011, by the Department of Environmental Quality (Department). This permit is for a 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,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Ed Warner
Environmental Engineer
Air Resources Management Bureau
(406) 444-2467

VW:EW
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4282-01

Williston Basin Interstate Pipeline Company – Willow Creek Compressor Station
2010 Montana Avenue
Glendive, Montana 59330

December 29, 2011



MONTANA AIR QUALITY PERMIT

Issued To: Williston Basin Interstate Pipeline Company MAQP: #4282-01
Willow Creek Compressor Station Administrative Amendment (AA) Request
2010 Montana Avenue Received: 11/14/11
Glendive, Montana 59330 Department's Decision on AA: 12/13/11
Permit Final: 12/29/11
AFS: #011-0002

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Williston Basin Interstate Pipeline Company – Willow Creek Compressor Station (WBIP), 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

WBIP owns and operates a natural gas compressor station known as the Willow Creek Compressor Station. The facility is located approximately 14 miles northwest of Alzada, Montana. The legal description of the facility is the SW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of Section 11, Township 8 South, Range 57 East, Carter County, Montana.

B. Current Permit Action

On September 29, 2009, the Montana Department of Environmental Quality – Air Resources Management Bureau (Department) sent a letter to WBIP approving the installation of a Wiel-McLain natural gas boiler with a design capacity of 1.69 million British thermal units per hour (MMBtu/hr) for purposes of heating all the buildings on site. This unit has potential emissions that fall below the de minimis threshold as specified in ARM 17.8.745(1)(a); therefore, a permit modification was not required to install the unit.

The Department received a correspondence from WBIP on November 14, 2011 requesting that the MAQP be amended to allow for the two 3,550 horsepower (hp) lean-burn compressor engines to be started quarterly and operated for four to five hours so that WBIP personnel can conduct maintenance activities without triggering the required initial emissions performance testing. The letter described that these engines are currently not operating due to low volumes of natural gas in the pipeline system; however, WBIP's contractual obligations require that these engines be available to operate. Therefore, WBIP is not able to place these units into long term storage according to manufacturer's guidelines. This quarterly operation, referred to as quarterly exercising, would allow the WBIP staff to ensure that the engines are working properly so that they are available for operation on short demand. The letter included proposed management practices, recordkeeping, and notification policies for conducting the engine exercising.

The current permitting action grants the request to allow for engine exercising, incorporates the recordkeeping and notification policies as proposed by WBIP, and updates the equipment list and emission inventory to include the 1.69 MMBtu/hr natural gas-fired boiler.

SECTION II: Conditions and Limitations

A. Emission and Operational Limitations

1. WBIP shall not operate more than two lean-burn compressor engines at any given time and the engines shall each have a maximum rated design capacity equal to, or less than, 3,550 hp (ARM 17.8.749).
2. Emissions from each of the lean-burn engines shall be controlled with an oxidation catalyst. 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

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

Emission Factors

| | |
|--|---------------|
| Oxides of Nitrogen (NO _x): | 0.7 g/bhp-hr |
| Carbon Monoxide (CO): | 0.2 g/bhp-hr |
| Volatile Organic Compounds (VOC): | 0.22 g/bhp-hr |

3. WBIP shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).
4. During any quarterly exercising of the two 3,550 hp lean-burn compressor engines, WBIP shall recirculate gas through the station piping and not use the engines to compress any gas through the downstream pipeline (ARM 17.8.749).
5. WBIP 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).
6. WBIP 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).
7. WBIP 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).
8. WBIP shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR 60, Subpart JJJJ, *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable natural gas engine (ARM 17.8.340 and 40 CFR 60, Subpart JJJJ and ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Recordkeeping Requirements

1. During any instance of quarterly exercising, WBIP shall maintain records of the operating hours of each unit including the time the engine was started and time it was shut down (ARM 17.8.749).
2. WBIP shall maintain records of any maintenance performed on each unit during quarterly exercising (ARM 17.8.749).
3. WBIP shall maintain records to verify that natural gas was not compressed through the downstream pipeline by the two 3,550 hp lean-burn compressor engines during any quarterly exercising (ARM 17.8.749).

C. Testing Requirements

1. The lean-burn compressor engines shall be initially tested for NO_x, VOC and CO, concurrently, to demonstrate compliance with the emission limits in Section II.A.4, within 60 days of an initial startup date for purposes other than quarterly exercising of the compressor engines. Further testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department or as required by 40 CFR 60, Subpart JJJJ or 40 CFR 63, Subpart ZZZZ (ARM 17.8.105 and ARM 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).

D. Operational Reporting Requirements

1. WBIP 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. WBIP shall supply the Department with copies of the records compiled in accordance with Section II.B above for any engine exercising performed on the two 3,550 hp lean-burn compressor engines during the previous year. These records shall be submitted along with the annual production information referenced in Section II.D.1 above (ARM 17.8.749).
3. WBIP shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the

proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

4. All records compiled in accordance with this permit must be maintained by WBIP 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).

E. Notification

1. WBIP shall provide the Department with written notification of the actual start-up date(s) of the compressor engine(s) within 15 days after the actual start-up date(s) for purposes other than quarterly exercising (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – WBIP 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 (CEMS, 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 WBIP fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving WBIP of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.* (ARM 17.8.756).
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement action as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department’s decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by WBIP 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
Williston Basin Interstate Pipeline Company
Willow Creek Compressor Station
MAQP #4282-01

I. Introduction/Process Description

Williston Basin Interstate Pipeline Company (WBIP) is permitted for the construction and operation of the Willow Creek Compressor Station. The facility is a natural gas compressor station located approximately 14 miles northwest of Alzada, Montana. The legal description of the facility is the SW ¼ of the NW ¼ of Section 11, Township 8 South, Range 57 East, Carter County, Montana.

A. Permitted Equipment

WBIP is permitted to operate no more than two lean-burn natural gas compressor engines having a maximum rated design capacity equal to, or less than 3,550 horsepower (hp) with an oxidation catalyst. A 1.69 million British thermal unit per hour (MMBtu/hr) natural gas-fired boiler provides heat for all the buildings on site.

B. Source Description

The natural gas compressor engines at the Willow Creek Compressor Station would be used to compress and transmit natural gas from local field wells.

C. Permit History

On December 15, 2008, The Montana Department of Environmental Quality – Air Resources Management Bureau (Department) deemed WBIP's application for the construction of the Willow Creek Compressor Station complete. **MAQP #4282-00** was issued final on March 12, 2009.

D. Current Permit Action

On September 14, 2009, the Department received a de minimis notification for the installation of a Wiel-McLain natural gas boiler with a design capacity of 1.69 MMBtu/hr at the Willow Creek Compressor Station. Potential emissions from this boiler fall below the de minimis thresholds in accordance with Administrative Rules of Montana (ARM) 17.8.745(1)(a); therefore, the Department determined that a modification to the MAQP was not required. The Department approved this de minimis request in a letter dated September 24, 2009.

The Department received a correspondence from WBIP on December 4, 2009 that provided notice of the official startup of the two 3,550 hp lean-burn compressor engines. One engine had startup on December 1, 2009 and the other on December 2, 2009. The MAQP requires that the units undergo initial emissions testing within 180 days of startup and 40 Code of Federal Regulations (CFR) 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines requires that the units undergo initial testing within 1 year of startup. Aspen Consulting & Testing, Incorporated (Aspen) submitted a Source Test Protocol dated April 26, 2010 on behalf of WBIP for conducting the initial emissions testing.

On May 27, 2010, WBIP sent a letter to the Department describing that there is currently not enough natural gas available in the system to sustain the operation of these engines; therefore, the engines have been non-operational since their initial startup and WBIP has no current plans to operate the facility. WBIP requested a postponement of the required initial emissions testing until the engines became operational again. If and when that occurs, WBIP would notify the

Department of this date and conduct initial emissions testing within 60 days of startup. The Department granted this request in a letter dated June 3, 2010.

The Department received a correspondence from WBIP on November 14, 2011 requesting that the MAQP be amended to allow for the two 3,550 hp lean-burn compressor engines to be started quarterly and operated for four to five hours so that WBIP personnel can conduct maintenance activities without triggering the required initial emissions performance testing. The letter described that these engines are currently not operating due to low volumes of natural gas in the pipeline system; however, WBIP's contractual obligations require that these engines be available to operate. Therefore, WBIP is not able to place these units into long term storage according to manufacturer's guidelines. This quarterly operation, referred to as quarterly exercising, would allow the WBIP staff to ensure that the engines are working properly so that they are available for operation on short demand. The letter included proposed management practices, recordkeeping, and notification policies for conducting the engine exercising.

The current permitting action grants the request to allow for engine exercising, incorporates the recordkeeping and notification policies as proposed by WBIP in the November 14, 2011 and May 27, 2010 letters, and updates the equipment list and emission inventory to include the 1.69 MMBtu/hr natural gas-fired boiler. **MAQP #4282-01** replaces MAQP #4282-00.

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 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).

WBIP 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

WBIP 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 six consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, WBIP 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. WBIP 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 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS).
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The Willow Creek Compressor Station is subject to 40 CFR 60, Subpart JJJJ, which applies to any stationary spark ignition (SI) internal combustion engine (ICE) that commence construction, modification, or reconstruction after June 12, 2006, where the stationary ICE is manufactured after July 1, 2007, for engines greater than 500 hp, or after January 1, 2008, for engines less than 500 hp.
 8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
 - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an NESHAP Subpart as listed below:
 - b. 40 CFR 63, Subpart HH — National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with standards and provisions of 40 CFR 63, Subpart HH. The Willow Creek Compressor Station is not a NESHAP-affected source under this Subpart because the facility does not include an affected emission point as defined in 63.760(b)(1) or 63.760(b)(2).
 - c. 40 CFR Part 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. In order for a natural gas transmission and storage facility to be subject to 40 CFR 63, Subpart HHH requirements, the facility must be a major source of Hazardous Air Pollutants (HAPs) as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR 63, Subpart HHH. The Willow Creek Compressor Station is not subject to the provisions of 40 CFR 63, Subpart HHH, because the facility is not a major source of HAPs.
 - d. 40 CFR 63, Subpart ZZZZ — National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. As an area source, the two lean burn Reciprocating Internal Combustion Engines (RICE) at the Willow Creek Compressor Station will be subject to the area source provisions of this rule since two engines were manufactured after June 12, 2006.
- 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. WBIP must demonstrate compliance with the ambient air quality standards with a stack height that does not exceed Good Engineering Practices (GEP). The proposed height of the new or modified stack for WBIP 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. The current permitting action is an administrative permit action with no increase in emissions; therefore, no fee was required.
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. WBIP has the PTE greater than 25 tons per year of nitrogen oxides (NO_x); therefore, a 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. WBIP submitted the required permit application for the current permit action. (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. The current permitting action is an administrative permit action with no increase in emissions; therefore, no public notice was required.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this

subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. 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 WBIP 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 source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 require that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #4282-00 for WBIP, 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 and 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 subject to a current NSPS (40 CFR 60, Subpart JJJJ).
 - e. This facility is subject to area source provisions of a current NESHAP standards (40 CFR 63, Subpart ZZZZ).
 - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that WBIP would be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, WBIP will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. WBIP 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

| Source | Ton/year | | | | | |
|----------------------|------------------|-------------------|-----------------|---------------|---------------|-----------------|
| | PM ₁₀ | PM _{2.5} | NO _x | VOC | CO | SO ₂ |
| 3,550-hp Engine | 8.11E-03 | 8.11E-03 | 24.00 | 7.543 | 6.857 | 6.18E-02 |
| 3,550-hp Engine | 8.11E-03 | 8.11E-03 | 24.00 | 7.543 | 6.857 | 6.18E-02 |
| 1.69 MMBtu/hr boiler | 5.52E-02 | 5.52E-02 | 0.86 | 1.073 | 0.023 | 4.35E-03 |
| Total | 0.071 | 0.071 | 48.86 | 16.159 | 13.737 | 0.130 |

NOTES:

All particulate emissions from natural gas combustion is assumed to be less than 1 micron in diameter and includes filterable and condensable fractions.

PM₁₀ Particulate matter with an aerodynamic diameter of 10 microns or less

PM_{2.5} Particulate matter with an aerodynamic diameter of 2.5 microns or less

NO_x Nitrogen oxides

VOC Volatile organic compounds

CO Carbon monoxide

SO₂ Sulfur dioxide

3,550-hp Lean-Burn Compressor Engines (2 Engines)

Brake Horsepower: 3,550 bhp

Hours of operation: 8,760 hr/yr

PM₁₀ Emissions

Emission Factor: 7.71E-05 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)

Fuel Consumption: 24.0 MMBtu/hr (Maximum Design)

Calculations: 24.0 MMBtu/hr * 7.71E-05 lb/MMBtu = 1.85E-03 lb/hr
 1.85E-03 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 8.11E-03 ton/yr
 8.11E-03 ton/yr * 2 engines = 0.016 ton/yr

SO₂ Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-2, 7/00)

Fuel Consumption: 24.0 MMBtu/hr (Maximum Design)

Calculations: 24.0 MMBtu/hr * 5.88E-04 lb/MMBtu = 1.41E-02 lb/hr
 1.41E-02 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 6.18E-02 ton/yr
 6.18E-02 ton/yr * 2 engines = 0.124 ton/yr

NO_x Emissions

Emission factor: 0.7 gram/bhp-hour (BACT Determination)

Calculations: 0.7 gram/bhp-hour * 3,550 bhp * 0.002205 lb/gram = 5.479 lb/hr
 5.479 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 24.00 ton/yr
 24.00 ton/yr * 2 engines = 48.00 ton/yr

VOC Emissions

Emission factor: 0.22 gram/bhp-hour (BACT Determination)

Calculations: 0.22 gram/bhp-hour * 3,550 bhp * 0.002205 lb/gram = 1.722 lb/hr
 1.722 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 7.543 ton/yr
 7.543 ton/yr * 2 engines = 15.09 ton/yr

CO Emissions

Emission factor: 0.2 gram/bhp-hour (BACT Determination)

Calculations: 0.2 gram/bhp-hour * 3,550 bhp * 0.002205 lb/gram = 1.566 lb/hr
1.566 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 6.857 ton/yr
6.857 ton/yr * 2 engines = 13.71 ton/yr

HCOH Emissions

Emission factor: 0.1 gram/bhp-hour
Calculations: 0.1 gram/bhp-hour * 3,550 bhp * 0.002205 lb/gram = 0.783 lb/hr
0.783 lb/hr * 8,760 hr/yr * 0.0005 ton/lb = 3.429 ton/yr
3.429 ton/yr * 2 engines = 6.860 ton/yr

1.69 MMBtu/hr Natural gas-fired boiler

Maximum Process Rate = 1.69 MMBtu/hr (Supplied information)
Maximum Process Rate = 0.00166 10⁶ cf/hr (Natural Gas = 1020 Btu/scf)
Maximum Hours of Operation = 8,760 hrs/yr

Filterable PM Emissions:

Emission Factor = 1.9 lb/10⁶ cf (AP 42, Table 1.4-2, all PM<1um, 7/98)
Calculation: (0.00166 10⁶ cf/hr) * (8760 hrs/yr) * (1.9 lb/10⁶ cf) * (ton/2000 lb) = 0.0138 ton/yr

Filterable PM₁₀ Emissions:

Emission Factor = 1.9 lb/10⁶ cf (AP 42, Table 1.4-2, all PM<1um, 7/98)
Calculation: (0.00166 10⁶ cf/hr) * (8760 hrs/yr) * (1.9 lb/10⁶ cf) * (ton/2000 lb) = 0.01379 ton/yr

Filterable PM_{2.5} Emissions:

Emission Factor = 1.9 lb/10⁶ cf (AP 42, Table 1.4-2, all PM<1um, 7/98)
Calculation: (0.00166 10⁶ cf/hr) * (8760 hrs/yr) * (1.9 lb/10⁶ cf) * (ton/2000 lb) = 0.01379 ton/yr

Condensable PM_{2.5} Emissions:

Emission Factor = 5.7 lb/10⁶ cf (AP 42, Table 1.4-2, 7/98)
Calculation: (0.00166 10⁶ cf/hr) * (8760 hrs/yr) * (5.7 lb/10⁶ cf) * (ton/2000 lb) = 0.04137 ton/yr

CO Emissions:

Emission Factor = 0.0307 lb/MMBtu (Supplied Information (GRI-Calc))
Calculation: (1.69 MMBtu/hr) * (8760 hrs/yr) * (0.0307 lb/MMBtu) * (ton/2000 lb) = 0.22725 ton/yr

NO_x Emissions:

Emission Factor = 0.1162 lb/MMBtu (Supplied Information (GRI-Calc))
Calculation: (1.69 MMBtu/hr) * (8760 hrs/yr) * (0.1162 lb/MMBtu) * (ton/2000 lb) = 0.86014 ton/yr

SO₂ Emissions:

Emission Factor = 0.6 lb/10⁶ cf (AP 42, Table 1.4-2, 7/98)
Calculation: (0.00166 10⁶ cf/hr) * (8760 hrs/yr) * (0.6 lb/10⁶ cf) * (ton/2000 lb) = 0.00435 ton/yr

VOC Emissions:

Emission Factor = 0.145 lb/MMBtu (Supplied Information (GRI-Calc as NMHC))
Calculation: (1.69 MMBtu/hr) * (8760 hrs/yr) * (0.145 lb/MMBtu) * (ton/2000 lb) = 1.07332 ton/yr

V. Existing Air Quality

The WBIP Willow Creek Compressor Station is located 14 miles northwest of Alzada, Montana, in the SW ¼ of the NW ¼ of Section 11, Township 8 South, Range 57 East, Carter County, Montana. Carter County is unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

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

VII. Taking or Damaging Implication Analysis

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

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

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

VIII. Environmental Assessment

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

Analysis Prepared By: Ed Warner
 Date: November 30, 2011