July 14, 2022

Marc Dempewolf, Assistant VP of Operation
WBI Energy Transmission, Inc.
Cabin Creek Compressor Station
2010 Montana Avenue
Glendive, MT 59330

Sent via email:

RE: Final Permit Issuance for MAQP #2484-08

Dear Mr. Dempewolf:

Montana Air Quality Permit (MAQP) #2484-08 is deemed final as of July 8, 2022, by DEQ. This permit is for a Natural Gas Compressor Station. All conditions of the Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For DEQ,

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

John P. Proulx
Environmental Scientist 2
Air Quality Bureau
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Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau

Montana Air Quality Permit #2484-08

WBI Energy Transmission, Inc.
Cabin Creek Compressor Station
Section 16, Township 10 North, Range 58 East
2010 Montana Avenue
Glendive, MT 59330

July 8, 2022

MONTANA AIR QUALITY PERMIT

Issued To: WBI Energy Transmission, Inc.
Cabin Creek Compressor Station
2010 Montana Avenue
Glendive, Montana 59330

MAQP: #2484-08
Application Complete: 5/10/2022
Preliminary Determination Issued: 6/2/2022
Department's Decision Issued: 6/22/2022
Permit Final: 7/8/2022

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to WBI Energy Transmission, Inc. (WBI) – Cabin Creek Compressor Station (Cabin Creek), 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:

I. Permitted Facilities

A. Plant Location

WBI operates a natural gas compressor station and associated equipment located in Section 16, Township 10 North, Range 58 East, 46.613718°N, latitude and -104.419074°W, longitude, Fallon County, Montana known as the Cabin Creek Compressor Station. The mailing address of the facility is 1661 Cabin Creek Road #1, Baker, MT 59313. A complete list of permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On May 10, 2022, DEQ received an application from WBI requesting the addition of a single compressor engine as well as removing 3 existing compressor engines. The application included an administrative request to rename an existing emitting unit to add consistency with company naming conventions.

II. Conditions and Limitations

A. Emission Limitations:

1. Emissions from the 559-hp Waukesha 3521GL engine (Gen1) shall not exceed the following (ARM 17.8.752):

Nitrogen oxides (NO_x)[1]	2.46 pounds per hour (lb/hr)
Carbon monoxide (CO)	4.06 lb/hr
Volatile organic compounds (VOC)	1.23 lb/hr

[1] NOx reported as nitrogen dioxide (NO_2).

2. Emissions from the 1149-hp Solar Saturn Mark II gas fired turbine (Unit #15) shall not exceed the following (ARM 17.8.752):

NO_X	2.0 grams per brake horsepower-hour (g/bhp-hr) or 5.07 lb/hr
CO	3.0 g/bhp-hr or 7.60 lb/hr
VOC	1.0 g/bhp-hr or 2.53 lb/hr

3. Emissions from the 1775-hp (site rating of 1714 hp) Caterpillar G3606LE (Unit #2) shall not exceed the following (ARM 17.8.752):

NO_X	0.70 g/bhp-hr and 2.74 lb/hr
CO	0.18 g/bhp-hr and 0.70 lb/hr
VOC	0.30 g/bhp-hr and 1.17 lb/hr

4. Emissions from the 3750-hp Caterpillar G3612LE (Unit #17) shall not exceed the following (ARM 17.8.752 and 40 CFR 60, Subpart JJJJ)

NO_X	1.0 g/bhp-hr and 8.27 lb/hr (40 CFR 60, Subpart JJJJ)
CO	2.0 g/bhp-hr and 16.54 lb/hr (40 CFR 60, Subpart JJJJ)
VOC	0.7 g/bhp-hr and 5.79 lb/hr (40 CFR 60, Subpart JJJJ)

5. WBI shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources or stacks installed on or before November 23, 1968, that exhibit an opacity[2] of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

6. WBI shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources or stacks installed after November 23, 1968, that exhibit an opacity[2] of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

B. Operational Limitations

1. WBI shall not burn, in the 1149-hp Solar Saturn Mark II gas turbine (Unit #15), any fuel that contains sulfur in excess of 0.8% by weight (ARM 17.8.340 and 40 CFR 60, Subpart GG).

2. WBI – Cabin Creek shall utilize lean burn engine technology and install an oxidation catalyst system on the 1775-hp Caterpillar G3606LE (Unit #2) and the 3750-hp Caterpillar G3612LE (Unit #17) (ARM 17.8.752).

3. WBI shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

[2] Opacity shall be determined according to 40 CFR Part 60, Appendix A, Method 9 Visual Determination of Opacity of Emissions from Stationary Sources.

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

5. WBI shall operate all equipment to provide the maximum air pollution control for which it was designed (ARM 17.8.752).

6. WBI shall comply with all applicable standards, limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR 60, Subpart GG, *Standards of Performance for Stationary Gas Turbines*, for any applicable turbine (ARM 17.8.340 and 40 CFR 60).

7. WBI shall comply with all applicable standards and limitations, and the reporting, recordkeeping, 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 engine (ARM 17.8.340; 40 CFR 60, Subpart JJJJ; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

C. Testing Requirements:

1. WBI shall test the 1149-hp Solar Saturn Mark II gas fired turbine (Unit #15) for NOx and CO, concurrently, and demonstrate compliance with the NOx and CO emission limits contained in Section II.A.2. The compliance source testing shall be conducted within 180 days of initial start-up of the turbine.

   After the initial source test, additional testing shall be conducted on an every-5-year basis or according to another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.105 and 17.8.749).

   The compliance source testing and monitoring for the 1149-hp Solar Saturn Mark II gas fired turbine shall be conducted as specified in 40 CFR 60.334 and 40 CFR 60.335 (40 CFR 60, Subpart GG, ARM 17.8.105, and ARM 17.8.340).

2. WBI shall test the 559-hp Waukesha 3521GL generator (Gen1) for NO_x and CO, concurrently, and demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.1. The initial compliance source test was conducted on October 26, 1993 (ARM 17.8.105 and 17.8.749).

3. WBI shall test the 1775-hp Caterpillar G3606LE (Unit #2) for NO_X and CO, concurrently, and demonstrate compliance with the NO_X and CO emission limits contained in Section II.A.3.

   The compliance source testing shall be conducted on an every-5-year basis or according to another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.105 and 17.8.749).

4. WBI shall test the 3750-hp Caterpillar G3612LE (Unit #17) for NO_X and CO, concurrently, and demonstrate compliance with the NO_X and CO emission limits contained in Section II.A.4.

   The compliance source testing shall be conducted within 180 days of initial start-up of the engine after installation of the oxidation catalyst system required in Section II.B.3. After the initial source test, additional source testing shall be conducted on an every-5-year basis or according to another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.105 and 17.8.749).

5. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

6. All source tests shall be performed above 90% of the normal operating capacity of the source (ARM 17.8.749).

7. The Department may require further testing (ARM 17.8.105).

D. Operational Reporting Requirement:

1. WBI shall supply DEQ with annual production information for all emission points, as required by DEQ 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 DEQ by the date required in the emission inventory request. Information shall be in the units required by DEQ. 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 DEQ of any construction or improvement project conducted pursuant to ARM 17.8.745(1), that would include ***the addition of a new emission 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 DEQ, 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 DEQ, and must be submitted to DEQ upon request (ARM 17.8.749).

4. WBI shall comply with all the applicable standards and limitations and the reporting, recordkeeping, and notification requirements of 40 CFR 60, Subpart GG (40 CFR 60, Subpart GG, ARM 17.8.340).

5. WBI shall comply with all the applicable standards and limitations and the reporting, recordkeeping, and notification requirements of 40 CFR 60, Subpart JJJJ and 40 CFR 63, Subpart ZZZZ (40 CFR 60, Subpart JJJJ, 40 CFR 63, Subpart ZZZZ, ARM 17.8.340, and ARM 17.8.342).

6. For reporting purposes, the equipment should be identified using the Unit #s contained in Section I.A of the permit analysis (ARM 17.8.749).

III. General Conditions

A. Inspection – WBI shall allow DEQ'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 such as continuous emission monitoring systems (CEMS) or continuous emission rate monitoring systems (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 DEQ's decision may request, within 15 days after DEQ 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 DEQ'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 DEQ'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, DEQ's decision on the application is final 16 days after DEQ's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy the air quality permit shall be made available for inspection by DEQ 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
Williston Basin Interstate Pipeline Company
Cabin Creek Compressor Station
MAQP #2484-08

I. Introduction/Process Description

A. Permitted Equipment

The following table includes a complete list of permitted equipment at the WBI Energy Transmission, Inc. (WBI) – Cabin Creek Compressor Station (Cabin Creek).

Unit #	Year Installed	Make	Model	Capacity
2	2011	Caterpillar	G3606LE	1775 hp
11	1971	Solar	Saturn Ph. IV	1100 hp
12	1971	Solar	Saturn Ph. IV	1100 hp
13	1971	Solar	Saturn Ph. IV	1100 hp
14	1975	Solar	Saturn Ph. II	1200 hp
15	2003	Solar	Saturn Mark II	1149 hp
16	1975	Solar	Centaur	3800 hp
17	2022	Caterpillar	G3612LE	3750 hp
Gen1	1992	Waukesha	3521 GL	559 hp
Dehy Heater	2019	Uniflux		8.92 MMBtu/hr
Misc 1 – Boiler	2011	Weil-Mclain	LGB-11	1.3 MMBtu/hr
Misc 2 – Boiler	2019	Weil-Mclain	LGB-9	1.04 MMBtu/hr
Misc 3 – Heater	--	Janitrol	880707	0.07MMBtu/hr
Misc 4 – Heater	--	Seigler	550 UN-24	0.07MMBtu/hr
Misc 5 – Heater	1985	Reliance	501	0.03 MMBtu/hr
Misc 6 – Storage Tanks	--	--	--	--
Fug – VOC Sources	--	--	--	--

NOTES: hp (horsepower)
MMBtu/hr (million British thermal units per hour)
-- (unknown or not applicable)

B. Source Description

The compressor station is used to compress natural gas to the required pressure for transportation within the natural gas transmission system. Compression of the gas is accomplished using the compressors described above.

A dry-bead dehydration unit is used to remove liquid water and/or water vapor from the produced natural gas stream to prevent the formation of hydrates in the transmission lines. Dehydration is also necessary in order to meet water dew point requirements of the gas sales contract.

C. Permit History

On May 31, 1988, Williston Basin Interstate Pipeline Company (WBIPC) was issued a permit for the operation of the Cabin Creek compressor station consisting of 16 natural gas compressor engines, located in the SE¼ of the SE¼ of Section 16, Township 10 North, Range 58 East, Fallon County, Montana. The application was given **Montana Air Quality Permit (MAQP) #2484**.

On July 17, 1992, WBIPC was issued a permit to replace an existing 1961 Waukesha 1197G generator engine (248 hp) with a 1992 Waukesha 3521GL generator engine (544 hp) at their Cabin Creek facility. The old engine was removed. The application was given **MAQP #2484-01**.

The Department of Environmental Quality (Department) best available control technology (BACT) determination for MAQP #2484-01 was the use of a Waukesha, Model 3521GL Lean Combustion gas engine with emission factors of 2.0, 2.0, and 1.0 grams per brake horsepower hour (g/bhp-hr) for nitrogen oxides (NO_x), carbon monoxide (CO), and volatile organic compounds (VOC), respectively.

WBIPC applied for a permit modification to increase the permitted operational horsepower and the CO emission rate for the 1992 Waukesha 3512GL generator engine (544 hp). The engine was originally permitted to operate at 1200 revolutions per minute (rpm) and the corresponding CO emission rate of 2.0 g/bhp-hr. The actual installed horsepower of the engine/generator set was site rated at 559 hp and limited to 900 rpm. This de-torquing of an engine generally increases the CO emissions; therefore, WBIPC could only achieve the manufacturer's guaranteed emissions under limited conditions. This emission rate was also due to increase as a result of site-specific fuel analysis quality. WBIPC submitted a revised manufacturer's emission guarantee for CO of 3.3 g/bhp-hr based on the results of a site-specific fuel analysis.

WBIPC also requested that the permitted emission limits be expressed in pounds per hour (lb/hr) rather than g/bhp-hr, which is consistent with DEQ's revised guidelines. The revision to the guidelines for developing an emission limitation is due to varying parameters such as engine rpm, operating load (bhp), ambient air temperature, gas temperature, site elevation, fuel gas quality, air/fuel ratio (AFR), field gas conditions, etc. Rather than limit the engine to a g/bhp-hr limit, the hourly emission limit allowed for needed operational flexibility. **MAQP #2484-02** replaced #2484-01.

On June 3, 2003, WBIPC was issued a permit for the installation and operation of an 1149-hp capacity natural gas fired turbine. Cabin Creek is a major stationary source of emissions as defined under the New Source Review Prevention of Significant Deterioration (PSD) program; however, potential emissions from the proposed turbine did not exceed any PSD significant emission thresholds and the permit action did not trigger PSD review.

Further, WBIPC submitted a modeling analysis including annual NO_x ambient air impacts as well as 1- and 8-hour CO ambient impacts from the turbine. A summary of modeled impacts is contained in Section VI of the permit analysis for the permit action. Based on the ambient air modeling results initially submitted by WBIPC, and in accordance with the Department's "Monitoring Requirements" guidance document (October 9, 1998), the Cabin Creek facility, as initially proposed, would be required to conduct ambient monitoring because the modeled nitrogen dioxide (NO_2) concentration was above 95% of the ambient standard.

Subsequently, WBIPC submitted a letter to DEQ requesting various permit changes to keep the source emission impacts below the applicable ambient standards for NO_x and to avoid the requirement for ambient NO_x monitoring. Specifically, under this permit action, WBIPC was required to install a non-selective catalytic reduction system (NSCR) on Unit #1, raise the stack heights on Unit #1 and Units #4 through #10, lower the allowable NO_x emission rates for Units #8 through #10, and limit the operating hours for Unit #4 to 3500 hours during any rolling 12-month time period. **MAQP #2484-03** includes conditional requirements for all previously cited equipment/operational modifications.

Furthermore, WBIPC requested that DEQ modify the testing schedule for the 559 hp Waukesha 3521GL (Gen1). Previously, based on Department source testing guidance, WBIPC was required to test Gen1 on an every-4-year schedule. However, the Title V operating permit for Cabin Creek requires semiannual testing for this unit. Therefore, at the request of WBIPC, the testing requirements for Gen1 have been modified to incorporate language allowing for consistency between the MAQP and the Title V operating permit source testing schedules for this unit.

Finally, DEQ updated all rule references to reflect recent rule revisions. MAQP **#**2484-03 replaced #2484-02.

On August 7, 2003, WBIPC submitted a letter of application for a modification to MAQP #2484-03. WBI requested that the stack heights for Units #1, #4, #5, #6, and #7 be lowered. Additionally, to ensure compliance with the National Ambient Air Quality Standards (NAAQS) and the Montana Ambient Air Quality Standards (MAAQS), WBI requested hours of operation restrictions on Units #4, #5, #6, and #7.

An Air Dispersion Modeling Analysis was submitted along with the modification request by Aspen Consulting Engineering Inc. (Aspen). After reviewing the permit action request and modeling analysis, the Department determined the proposed modification could be accomplished according to Administrative Rule of Montana (ARM) 17.8.764(b) while adequately protecting the ambient standards.

In addition, according to ARM 17.8.764(c), DEQ updated the emissions inventory based on emission factors, which more accurately reflect operation of the emitting units at Cabin Creek. The changes made to the emissions inventory do not affect substantive provisions of the permit. **MAQP #2484-04** replaced #2484-03.

On February 18, 2011, Department received a complete MAQP modification application for Cabin Creek. WBIPC requested that five compressor engines (Units #4 through #8) be removed from the permit and be replaced with a one Caterpillar G3606LE compressor engine. The Caterpillar G3606LE is a four-stroke lean burn engine equipped with an oxidation catalyst and with a maximum rated design capacity of 1775 hp (maximum site rating of 1714 hp). Also included in this project is an upgrade in the facility heating system involving the removal of a 0.819 MMBtu/hr, a 0.770 MMBtu/hr, and a 1.18 MMBtu/hr natural gas boiler and replacing them with two new 1.5 MMBtu/hr natural gas boilers. The 1.18 MMBtu/hr boiler was incorrectly labeled in earlier permits as a 1.47 MMBtu/hr boiler. The table of permitted equipment in Section I.A. of the permit analysis has been updated with the equipment as listed in the current permit application and to reflect the unit number designations used by WBIPC. **MAQP #2484-05** replaced #2484-04.

On December 4, 2012, the Montana Department of Environmental Quality – Air Resources Management Bureau (Department) received correspondence from WBI as notification of a change in company name from Williston Basin Interstate Pipeline Company to WBI Energy Transmission, Inc. The permit action reflected this change in company name as well as updated the MAQP to reflect current Department format and language. **MAQP #2484-06** replaced #2484-05.

On November 19, 2019, DEQ received correspondence from WBI to install a smaller dehydrator regenerator heater and to correct typographical errors in the emission inventory calculations. The smaller dehydrator replaced an existing unit which was removed from service. **MAQP #2484-07** replaced #2484-06.

D. Current Permit Action

On May 10, 2022, DEQ received an application from WBI to add one (1) 4SLB 3750 HP Caterpillar G3612LE (Unit #17) compressor engine. WBI also requested the removal of the Waukesha L7042 GSU (Unit #1), and two (2) Ingersoll-Rand 48 KVG (Unit #9 & #10) compressor engines. WBI also requested that the 4SLB 1,775 HP Caterpillar G6306LE (Unit #17) be redesignated as Unit #2 to align with current WBI naming conventions. DEQ also updated the MAQP to reflect current naming conventions and language. **MAQP #2484-08** replaces MAQP #2484-07.

E. Response to Public Comments

Person/Group Commenting	Permit Reference	Comment	Department Response
WBI Energy Transmission, Inc.	MAQP, Section II.A.4	"WBI Energy requests to change the pound per hour (lb/hr) of the Volatile Organic Compound (VOC) limit of the 3750-hp Caterpillar G3612LE (Unit #17) to 5.79 lb/hr to coincide with the 0.70 g/bhp-hr Subpart JJJJ limit."	DEQ made the requested change.
	MAQP, Section II.B.2	"WBI Energy requests the removal of this operation limit, as it is no longer relevant. Unit #15 has been operational since 2003, and Unit #1 is no longer an emissions source at the facility."	DEQ made the requested change.
	MAQP, Section II.B.4	"WBI Energy requests the removal of this operation limit, as it is no longer relevant. Unit #15 has been operational since 2003, and Units #1, #9, and #10 are no longer emissions sources at the facility."	DEQ made the requested change.
	MAQP Analysis, Section II.C.6.b	"WBI Energy requests that the 4SLB 559 Waukesha 3521 GL (Gent) be included on the list of engines that is subject to the requirements of 40 CFR 63 Subpart ZZZZ."	DEQ made the requested change.
	MAQP Analysis, Section II.G.2.d	"WBI Energy requests that the 4SLB 559 Waukesha 3521 GL (Gent) be included on the list of engines that is subject to the requirements of 40 CFR 63 Subpart ZZZZ."	DEQ made the requested change.

F. Additional Information

Additional information, such as applicable rules and regulations, 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 DEQ. Upon request, DEQ 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 DEQ, 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 DEQ.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by DEQ, 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, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from DEQ 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 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO_2)
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)

6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an Aerodynamic Diameter of 10 Microns or Less (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. 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 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 17.8.340 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). WBI is an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:

    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 GG – Standards of Performance for Stationary Gas Turbines. This subpart applies to any stationary gas turbine with a heat input at peak load equal to or greater than 10 MMBtu/hr which commenced construction, modification, or reconstruction after October 3, 1977. The 1149-hp Solar Saturn Mark II natural gas fired turbine (Unit #15) is an affected source under this subpart.

    c. 40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. This subpart applies to stationary spark ignition internal combustion engines that are constructed after June 12, 2006. Both Caterpillar engines (Unit #2 and #17) are affected sources under this subpart.

d. 40 CFR 60, Subpart OOOOa – Standards of Performance for Crude Oil and Natural Gas Facilities for which Construction, Modification, of Reconstruction Commenced After September 18, 2015. The Cabin-Creek Compressor station is considered Natural Gas Production and commenced construction, modification, or reconstruction after September 15, 2015. Therefore, this subpart applies.

6. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. WBI is considered a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts:

   a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below:

   b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Both of the Caterpillar engines (Unit #2 and #17) as well as the 4SLB 559 Waukesha 3521 GL (Gen1)are considered new sources and are required to meet the standards of this subpart by meeting the applicable standards in 40 CFR 60, Subpart ZZZZ.

   c. 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 standards and provisions of 40 CFR 63, Subpart HH. For area sources of HAP emissions, the affected source includes each triethylene glycol (TEG) dehydration unit located at the facility and all area sources with TEG units need to meet specific requirements of 40 CFR 63, Subpart HH. The Department determined that 40 CFR 63, Subpart HH does not apply to the WBI facility at this time because there are no TEG units.

   d. 40 CFR 63, Subpart HHH – National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. The Department determined that 40 CFR Part 63, Subpart HHH, does not apply to the WBI facility because it is not a major source of HAPs.

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 DEQ. WBI submitted the appropriate permit application fee for the current permit 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 DEQ by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by DEQ. 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 facility to obtain an air quality permit or permit modification if they construct, alter or use any air contaminant sources that have the potential to emit greater than 25 tons per year of any pollutant. Cabin Creek has the Potential to Emit (PTE) more than 25 tons per year of NO_X, VOC, and CO; 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 are not subject to the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source.

A permit application was submitted by WBI 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. WBI submitted an affidavit of publication of public notice in the May 13th, 2022 issue of the Fallon County Times, a newspaper of general circulation in the city of Baker, in Fallon County, Montana.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by DEQ 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 DEQ 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 DEQ'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 altered 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 DEQ.

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 listed source, but emissions are greater than or equal to 250 tons per year; therefore, the facility is major. The current permitting action is an administrative permitting action with no associated changes in potential 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 source having:

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

   b. PTE > 10 tons per year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons per year of a combination of all HAPs, or lesser quantity as DEQ may establish by rule; or

   c. PTE > 70 tons per year of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2484-08 for WBI, the following conclusions were made.

   a. The facility's PTE is greater than 100 tons per year for NO_X, and CO.

   b. The facility's PTE is less than 10 tons per year for any one HAP and less than 25 tons per year for all HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is subject to current NSPS (40 CFR 60, Subpart A, GG, JJJJ, and OOOOa).

   e. This facility is subject to current NESHAP (40 CFR 63, Subpart A & ZZZZ).

   f. This source is not a Title IV affected source.

   g. This source is not a solid waste combustion unit.

   h. This source is not an EPA designated Title V source.

Based on these facts, DEQ determined that Cabin Creek is subject to the Title V operating permit program.

III. BACT Determination

A BACT determination is required for each new or modified source. WBI shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by WBI – Cabin Creek in MAQP application #2484-08, addressing some available methods of controlling NO_X and CO emissions from the 3,750 hp Caterpillar G3612LE engine. The Department reviewed these methods, as well as previous BACT determinations.

The following control options have been reviewed by the Department to make the following BACT determination.

For control of NO_x emissions, the following technologies were considered and ranked by effectiveness:

1. Lean burn engine with oxidation catalyst, or a rich burn engine with non-selective catalytic reduction (NSCR) and air to fuel ratio (AFR) control.
2. Selective catalytic reduction with AFR control.
3. AFR control only.
4. No control.

For control of CO emissions, the following technologies were considered and ranked by effectiveness:

1. Lean burn engine with oxidation catalyst.
2. Rich burn engine with NSCR and AFR control.
3. Lean burn engine without oxidation catalyst.
4. AFR only.
5. No control.

WBI – Cabin Creek proposes to install a lean burn engine with oxidation catalyst. This is the highest level of pollution control for both NO_X and CO; therefore, no further analysis is necessary, and it is considered BACT.

Emission factors for this engine are based on 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines.

NO_X = 1.0 g/bhp-hr
CO = 2.0 g/bhp-hr
VOC = 0.7 g/bhp-hr

The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emissions standards.

IV. Emission Inventory

Emitting Unit #	Equipment Description	Emissions (tons/year)						
		PM	PM_{10}	$PM_{2.5}$	SOx	NOx	CO	VOC
EU02	4SLB 1775 HP Caterpillar G3606LE	0.53	0.53	0.53	0.03	12.00	3.09	5.14
EU11	1100 HP Solar Saturn Phase IV Turbine	0.40	0.40	0.40	0.02	17.32	25.92	0.19
EU12	1100 HP Solar Saturn Phase IV Turbine	0.40	0.40	0.40	0.02	17.32	25.92	0.19
EU13	1100 HP Solar Saturn Phase IV Turbine	0.40	0.40	0.40	0.02	17.32	25.92	0.19
EU14	1200 HP Solar Saturn Mark II Turbine	0.44	0.44	0.44	0.02	17.27	25.84	0.19
EU15	1149 HP Solar Saturn Mark II Turbine	0.34	0.34	0.34	0.38	22.19	33.29	11.10
EU16	3800 HP Solar Centaur Turbine	0.84	0.84	0.84	0.07	73.40	60.56	0.33

EU17	4SLB 3750 HP Caterpillar G3612LE	1.11	0.01	0.01	0.07	36.22	72.43	25.35
Gen1	4SLB 559 Waukesha 3521 GL	0.19	0.19	0.19	0.01	10.77	17.78	5.39
DEHY	8.92 MMBtu/hr Uniflux Dehy Regen Heater	0.29	0.29	0.29	0.02	3.83	3.22	0.21
MISC1	2.51 MMBtu/hr Miscellaneous Combined Heaters	0.10	0.02	0.02	0.01	1.26	1.06	0.07
FUG	Fugitive Component Emissions	-	-	-	-	-	-	1.48
Total Emissions		**5.04**	**3.86**	**3.86**	**.067**	**228.9**	**295.03**	**49.83**

NOTE:
For natural gas combustion, all PM is assumed to be less than one (1) micron in diameter (AP-42, Table 1.4-2 footnote *c*, Section 3.1.3.3, Table 3.2.2 footnote *i*, and Table 3.2.3 footnote *j*). Therefore, total PM = total PM_{10} = total $PM_{2.5}$. PM emissions have been recalculated below for existing natural gas combusting units prior to MAQP #2484-05 to reflect filterable and condensable fractions. The PM, PM_{10}, and $PM_{2.5}$ values in the Emission Inventory table reflect the sum of the filterable and condensable fractions.

EU11-13
1100 HP Solar Saturn Phase IV Turbine

Horsepower: 1100 HP
Hours of Operation: 8760 hr/yr
Brake Specific Fuel Consumption: 12500 Btu/bhp-hr

PM Total Emissions:
Emissions Factor: 0.0066 lb/MMBtu *AP-42 Chapter 3 Table 3.2-2 7/00*
Calculations: (0.0066 lb/MMBtu) * (12500 Btu/bhp-hr) * (1100 hp) * (10-6 MMBtu/Btu) **0.091 lb/hr**
Calculations: (0.091 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb) **0.40 ton/yr**

PM 10/2.5 (Filterable) Emissions:
Emissions Factor: 0.0019 lb/MMBtu *AP-42 Chapter 3 Table 3.2-2 7/00*
Calculations: (0.0019 lb/MMBtu) * (12500 Btu/bhp-hr) * (1100 hp) * (10-6 MMBtu/Btu) **0.026 lb/hr**
Calculations: (0.026 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb) **0.11 ton/yr**

PM Cond. Emissions:
Emissions Factor: 0.0047 lb/MMBtu *AP-42 Chapter 3 Table 3.2-2 7/00*
Calculations: (0.0047 lb/MMBtu) * (12500 Btu/bhp-hr) * (1100 hp) * (10-6 MMBtu/Btu) **0.065 lb/hr**
Calculations: (0.065 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb) **0.28 ton/yr**

SO2 Emissions:

Emissions Factor:	0.0020 g/bhp-hr	*AP-42 Chapter 3 Table 3.2-1, 9/85*		
Calculations:	(0.0020 g/bhp-hr) * (1100 hp) * (0.002205 lb/gram)		**0.005**	**lb/hr**
Calculations:	(0.005 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.021**	**ton/yr**

NOX Emissions:

Emissions Factor:	1.63 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(1.63 g/bhp-hr) * (1100 hp) * (0.002205 lb/gram)		**3.95**	**lb/hr**
Calculations:	(3.95 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**17.32**	**ton/yr**

CO Emissions:

Emissions Factor:	2.44 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(2.44 g/bhp-hr) * (1100 hp) * (0.002205 lb/gram)		**5.92**	**lb/hr**
Calculations:	(5.92 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**25.92**	**ton/yr**

VOC Emissions:

Emissions Factor:	0.018 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(0.018 g/bhp-hr) * (1100 hp) * (0.002205 lb/gram)		**0.04**	**lb/hr**
Calculations:	(0.18 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.19**	**ton/yr**

EU14

1200 HP Solar Saturn Mark II Turbine

Horsepower:	1200 HP
Hours of Operation:	8760 hr/yr
Brake Specific Fuel Consumption:	12550 Btu/bhp-hr

PM Total Emissions:

Emissions Factor:	0.0066 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0066 lb/MMBtu) * (12550 Btu/bhp-hr) * (1200 hp) * (10-6 MMBtu/Btu)		**0.099**	**lb/hr**
Calculations:	(0.099 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.44**	**ton/yr**

PM 10/2.5 (Filterable) Emissions:

Emissions Factor:	0.0019 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0019 lb/MMBtu) * (12550 Btu/bhp-hr) * (1200 hp) * (10-6 MMBtu/Btu)		**0.029**	**lb/hr**
Calculations:	(0.029 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.13**	**ton/yr**

PM Cond. Emissions:

Emissions Factor:	0.0047 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0047 lb/MMBtu) * (12550 Btu/bhp-hr) * (1200 hp) * (10-6 MMBtu/Btu)		**0.071**	**lb/hr**
Calculations:	(0.071 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.31**	**ton/yr**

SO2 Emissions:

Emissions Factor:	0.0020 g/bhp-hr	*AP-42 Chapter 3 Table 3.2-1, 9/85*		
Calculations:	(0.0020 g/bhp-hr) * (1200 hp) * (0.002205 lb/gram)		**0.005**	**lb/hr**
Calculations:	(0.005 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.021**	**ton/yr**

NOX Emissions:

Emissions Factor:	1.49 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(1.49 g/bhp-hr) * (1200 hp) * (0.002205 lb/gram)		**3.94**	**lb/hr**
Calculations:	(3.94 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**17.27**	**ton/yr**

CO Emissions:

Emissions Factor:	2.23 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(2.23 g/bhp-hr) * (1200 hp) * (0.002205 lb/gram)		**5.90**	**lb/hr**
Calculations:	(5.90 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**25.84**	**ton/yr**

VOC Emissions:

Emissions Factor:	0.016 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(0.075 g/bhp-hr) * (1200 hp) * (0.002205 lb/gram)		**0.04**	**lb/hr**
Calculations:	(0.04 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.19**	**ton/yr**

EU15

1149 HP Solar Saturn Mark II Turbine

Horsepower:	1149 HP
Hours of Operation:	8760 hr/yr
Brake Specific Fuel Consumption:	10183 Btu/bhp-hr

PM Total Emissions:

Emissions Factor:	0.0066 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0066 lb/MMBtu) * (10183 Btu/bhp-hr) * (1149 hp) * (10-6 MMBtu/Btu)		**0.077**	**lb/hr**
Calculations:	(0.077 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.34**	**ton/yr**

PM 10/2.5 (Filterable) Emissions:

Emissions Factor:	0.0019 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0019 lb/MMBtu) * (10183 Btu/bhp-hr) * (1149 hp) * (10-6 MMBtu/Btu)		**0.022**	**lb/hr**
Calculations:	(0.022 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.10**	**ton/yr**

PM Cond. Emissions:

Emissions Factor:	0.0047 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0047 lb/MMBtu) * (10183 Btu/bhp-hr) * (1149 hp) * (10-6 MMBtu/Btu)		**0.055**	**lb/hr**
Calculations:	(0.055 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.24**	**ton/yr**

SO2 Emissions:

Emissions Factor:	0.0075lb/MMBtu	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(0.0075 lb/MMBtu) * (10183 Btu/bhp-hr) * (1149 hp) * (10-6 MMBtu/Btu)		**0.088**	**lb/hr**
Calculations:	(0.088 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.38**	**ton/yr**

NOX Emissions:

Emissions Factor:	2.0 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(2.0 g/bhp-hr) * (1149 hp) * (0.002205 lb/gram)		**5.07**	**lb/hr**
Calculations:	(5.07 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**22.19**	**ton/yr**

CO Emissions:				
Emissions Factor:	3.0 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(3.0 g/bhp-hr) * (1149 hp) * (0.002205 lb/gram)		**7.60**	**lb/hr**
Calculations:	(7.60 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**33.29**	**ton/yr**
VOC Emissions:				
Emissions Factor:	1.0 g/bhp-hr	*Permit Limit (Permit No. OP2484-07)*		
Calculations:	(1.0 g/bhp-hr) * (1149 hp) * (0.002205 lb/gram)		**2.53**	**lb/hr**
Calculations:	(2.53 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**11.10**	**ton/yr**

EU16

3800 HP Solar Centaur Turbine

Horsepower:	3800 HP
Hours of Operation:	8760 hr/yr
Brake Specific Fuel Consumption:	7610 Btu/bhp-hr

PM Total Emissions:				
Emissions Factor:	0.0066 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0066 lb/MMBtu) * (7610 Btu/bhp-hr) * (3800 hp) * (10-6 MMBtu/Btu)		**0.191**	**lb/hr**
Calculations:	(0.077 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.84**	**ton/yr**
PM 10/2.5 (Filterable) Emissions:				
Emissions Factor:	0.0019 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0019 lb/MMBtu) * (7610 Btu/bhp-hr) * (3800 hp) * (10-6 MMBtu/Btu)		**0.055**	**lb/hr**
Calculations:	(0.022 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.24**	**ton/yr**
PM Cond. Emissions:				
Emissions Factor:	0.0047 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-2 7/00*		
Calculations:	(0.0047 lb/MMBtu) * (7610 Btu/bhp-hr) * (3800 hp) * (10-6 MMBtu/Btu)		**0.136**	**lb/hr**
Calculations:	(0.055 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.60**	**ton/yr**
SO2 Emissions:				
Emissions Factor:	0.002 g/bhp-hr	*Permit MAQP2484-07 Emission Factor*		
Calculations:	(0.002 g/bhp-hr) * (3800 hp) * (0.002205 lb/gram)		**0.017**	**lb/hr**
Calculations:	(0.017 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.07**	**ton/yr**
NOX Emissions:				
Emissions Factor:	2.0 g/bhp-hr	*Permit Limit (Permit No. OP2954-03)*		
Calculations:	(2.0 g/bhp-hr) * (3800 hp) * (0.002205 lb/gram)		**16.76**	**lb/hr**
Calculations:	(16.76 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**73.40**	**ton/yr**
CO Emissions:				
Emissions Factor:	1.65 g/bhp-hr	*Permit Limit (Permit No. OP2954-03)*		
Calculations:	(1.65 g/bhp-hr) * (3800 hp) * (0.002205 lb/gram)		**13.83**	**lb/hr**
Calculations:	(13.83 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**60.56**	**ton/yr**

VOC Emissions:

Emissions Factor:	1.0 g/bhp-hr	*Permit Limit (Permit No. OP2954-03)*		
Calculations:	(1.0 g/bhp-hr) * (3800 hp) * (0.002205 lb/gram)		**0.08**	**lb/hr**
Calculations:	(0.075 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.33**	**ton/yr**

EU2

4SLB 1775 HP Caterpillar G3606LE

Horsepower:	1775 HP
Hours of Operation:	8760 hr/yr
Brake Specific Fuel Consumption:	6822 Btu/bhp-hr

PM Total Emissions:

Emissions Factor:	0.009987 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*		
Calculations:	(0.009987 lb/MMBtu) * (6822 Btu/bhp-hr) * (1775 hp) * (10-6 MMBtu/Btu)		**0.121**	**lb/hr**
Calculations:	(0.121 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.53**	**ton/yr**

PM 10/2.5 (Filterable) Emissions:

Emissions Factor:	0.000077 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*		
Calculations:	(0.000077 lb/MMBtu) * (6822 Btu/bhp-hr) * (1775 hp) * (10-6 MMBtu/Btu)		**0.001**	**lb/hr**
Calculations:	(0.077 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.004**	**ton/yr**

PM Cond. Emissions:

Emissions Factor:	0.009910 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*		
Calculations:	(0.009910 lb/MMBtu) * (6822 Btu/bhp-hr) * (1775 hp) * (10-6 MMBtu/Btu)		**0.120**	**lb/hr**
Calculations:	(0.120 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.53**	**ton/yr**

SO2 Emissions:

Emissions Factor:	0.000588 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*		
Calculations:	(0.000588 lb/MMBtu) * (6822 Btu/bhp-hr) * (1775 hp) * (10-6 MMBtu/Btu)		**0.007**	**lb/hr**
Calculations:	(0.007 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.031**	**ton/yr**

NOX Emissions:

Emissions Factor:	0.7 g/bhp-hr	*Permit Limit (Permit No. OP2954-03)*		
Calculations:	0.7 g/bhp-hr) * (1775 hp) * (0.002205 lb/gram)		**2.74**	**lb/hr**
Calculations:	(2.74 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**12.0**	**ton/yr**

CO Emissions:

Emissions Factor:	0.18 g/bhp-hr	*Permit Limit (Permit No. OP2954-03)*		
Calculations:	0.18 g/bhp-hr) * (1775 hp) * (0.002205 lb/gram)		**0.70**	**lb/hr**
Calculations:	(0.70 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**3.09**	**ton/yr**

VOC Emissions:

Emissions Factor:	0.30 g/bhp-hr	*Permit Limit (Permit No. OP2954-03)*	
Calculations:	0.30 g/bhp-hr) * (1775 hp) * (0.002205 lb/gram)	**1.17**	**lb/hr**
Calculations:	(1.17 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**5.14**	**ton/yr**

Gen1

4SLB 559 Waukesha 3521 GL

Horsepower:	559 HP		
Hours of Operation:	8760 hr/yr		
Brake Specific Fuel Consumption:	7875 Btu/bhp-hr		

PM Total Emissions:			
Emissions Factor:	0.009987 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*	
Calculations:	(0.009987 lb/MMBtu) * (7875 Btu/bhp-hr) * (559 hp) * (10-6 MMBtu/Btu)	**0.044**	**lb/hr**
Calculations:	(0.121 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**0.19**	**ton/yr**

PM 10/2.5 (Filterable) Emissions:			
Emissions Factor:	0.000077 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*	
Calculations:	(0.000077 lb/MMBtu) * (7875 Btu/bhp-hr) * (559 hp) * (10-6 MMBtu/Btu)	**0.000**	**lb/hr**
Calculations:	(0.077 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**0.00**	**ton/yr**

PM Cond. Emissions:			
Emissions Factor:	0.009910 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*	
Calculations:	(0.009910 lb/MMBtu) * (7875 Btu/bhp-hr) * (559 hp) * (10-6 MMBtu/Btu)	**0.044**	**lb/hr**
Calculations:	(0.120 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**0.19**	**ton/yr**

SO2 Emissions:			
Emissions Factor:	0.000588 lb/MMBtu	*AP-42 Chapter 3 Table 3.2-1 7/00*	
Calculations:	(0.000588 lb/MMBtu) * (7875 Btu/bhp-hr) * (559 hp) * (10-6 MMBtu/Btu)	**0.00**	**lb/hr**
Calculations:	(0.007 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**0.011**	**ton/yr**

NOX Emissions:			
Emissions Factor:	2.46 lb/hr	*Permit Limit (Permit No. OP2954-03)*	
Calculations:	(2.46 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**10.77**	**ton/yr**

CO Emissions:			
Emissions Factor:	4.06 lb/hr	*Permit Limit (Permit No. OP2954-03)*	
Calculations:	(4.06 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**17.78**	**ton/yr**

VOC Emissions:			
Emissions Factor:	1.23 lb/hr	*Permit Limit (Permit No. OP2954-03)*	
Calculations:	(1.23 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)	**5.39**	**ton/yr**

DEHY

8.92 MMBtu/hr Direct-fired Dehy Regen Heater

Fuel Heat Input:	8.92 MMBtu/hr			
Hours of Operation:	8760 hr/yr			
Fuel Heating Value:	1020 Btu/Scf or 0.00098 MMscf/MMBtu			
PM Total Emissions:				
Emissions Factor:	7.6 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(7.6 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.066**	**lb/hr**
Calculations:	(0.066 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.29**	**ton/yr**
PM 10/2.5 (Filterable) Emissions:				
Emissions Factor:	1.9 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(1.9 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.017**	**lb/hr**
Calculations:	(0.017 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.07**	**ton/yr**
PM Cond. Emissions:				
Emissions Factor:	5.7 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(5.7 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.050**	**lb/hr**
Calculations:	(0.050 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.22**	**ton/yr**
SO2 Emissions:				
Emissions Factor:	0.6 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(0.6 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.005**	**lb/hr**
Calculations:	(0.005 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.02**	**ton/yr**
NOX Emissions:				
Emissions Factor:	100 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(100 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.875**	**lb/hr**
Calculations:	(0.875 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**3.83**	**ton/yr**
CO Emissions:				
Emissions Factor:	84 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(84 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.735**	**lb/hr**
Calculations:	(0.735 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**3.22**	**ton/yr**
VOC Emissions:				
Emissions Factor:	5.5 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(5.5 lb/MMScf) * (8.92 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.048**	**lb/hr**
Calculations:	(0.048 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.21**	**ton/yr**

MISC.1

2.51 MMBtu/hr Misc. Combined Heaters

Fuel Heat Input:	2.51 MMBtu/hr			
Hours of Operation:	8760 hr/yr			
Fuel Heating Value:	1020 Btu/Scf or 0.00098 MMscf/MMBtu			
PM Total Emissions:				
Emissions Factor:	7.6 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(7.6 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.022**	**lb/hr**
Calculations:	(0.022 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.10**	**ton/yr**
PM 10/2.5 (Filterable) Emissions:				
Emissions Factor:	1.9 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(1.9 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.005**	**lb/hr**
Calculations:	(0.006 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.02**	**ton/yr**
PM Cond. Emissions:				
Emissions Factor:	5.7 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(5.7 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.016**	**lb/hr**
Calculations:	(0.017 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.07**	**ton/yr**
SO2 Emissions:				
Emissions Factor:	0.6 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(0.6 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.002**	**lb/hr**
Calculations:	(0.0018 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.008**	**ton/yr**
NOX Emissions:				
Emissions Factor:	100 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(100 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.287**	**lb/hr**
Calculations:	(0.294 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**1.26**	**ton/yr**
CO Emissions:				
Emissions Factor:	84 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(84 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.241**	**lb/hr**
Calculations:	(0.25 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**1.06**	**ton/yr**
VOC Emissions:				
Emissions Factor:	5.5 lb/MMScf	*AP-42 Chapter 1 Table 1.4-2 (7/98)*		
Calculations:	(5.5 lb/MMScf) * (2.51 MMBtu/hr) * (0.00098 MMScf/MMBtu)		**0.016**	**lb/hr**
Calculations:	(0.016 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb)		**0.07**	**ton/yr**

FUG

Fugitive Component Emissions

Component Count	1263	Connector
	894	Flanges
	268	Valve
	36	Open-Ended Line
	31	Pressure Relief Valve

27 Other

Fugitive VOCs
Emissions Factor: 0.338 lb/hr
Calculations: (0.338 lb/hr) * (8760 hr/yr) * (0.0005 tons/lb) **1.48 tons/yr**

3,750 HP Caterpillar 3612LE (EU #17)

Note: Emissions are based on the power output of the engine (3750 hp).		
Operational Capacity: 1 engine	1	**engine**
Horsepower: 3,750 hp	3750	**hp**
Hours per Year: 8,760 hr/yr	8760	**hr/yr**
PM Emissions:		
Emission Factor: 0.254 lb/hr	0.254	**lb/hr**
Calculation: ((0.254 lb/hr) * (8,760 hr/yr) * (ton/2000 lb) = 1.113 ton/yr	1.11	**ton/yr**
PM10 Emissions:		
Emission Factor: 0.002 lb/hr	0.002	**lb/hr**
Calculation: ((0.002 lb/hr) * (8,760 hr/yr) * (ton/2000 lb) = 0.009 ton/yr	0.01	**ton/yr**
PM2.5 Emissions		
Emission Factor: 0.002 lb/gal	0.002	**lb/hr**
Calculation: ((0.002 lb/hr) * (8,760 hr/yr) * (ton/2000 lb) = 0.009 ton/yr	0.01	**ton/yr**
NOx Emissions:		
Emission Factor: 1.000 g/bhp-hr	1.0	**g/bhp-hr**
Calculation: ((1.0 g/bhp-hr) * (3,750 hp) * (8,760 hr/yr) * (453.65g/lb) * (ton/2000 lb) = 36.216 ton/yr	36.22	**ton/yr**
CO Emissions:		
Emission Factor: 2.000 g/bhp-hr	2.0	**g/bhp-hr**
Calculation: ((2.0 g/bhp-hr) * (3,750 hp) * (8,760 hr/yr) * (453.65g/lb) * (ton/2000 lb) = 72.432 ton/yr	72.43	**ton/yr**
VOC Emissions:		
Emission Factor: 0.700 g/bhp-h	0.7	**g/bhp-hr**
Calculation: ((0.7 g/bhp-hr) * (3,750 hp) * (8,760 hr/yr) * (453.65g/lb) * (ton/2000 lb) = 25.351 ton/yr	25.35	**ton/yr**
SO_X Emissions:		
Emission Factor: 0.015 lb/hr	0.015	**lb/hr**
Calculation: ((0.015 lb/hr) * (8,760 hr/yr) * (ton/2000 lb) = 0.066 ton/yr	0.07	**ton/yr**
HAPs Emissions		
Emission Factor: 0.975 lb/hr	0.975	**lb/hr**
Calculation: ((0.975 lb/hr) * (8,760 hr/yr) * (ton/2000 lb) = 4.271 ton/yr	4.27	**ton/yr**

V. Existing Air Quality

The existing air quality in the proposed area of operation is unclassified or attainment for all national and Montana ambient air quality standards.

VI. Air Quality Impacts

DEQ determined, based on the potential to emit and the actual operating conditions of the compressor site, the impacts from this permitting action will be minor. The newer engine being permitted and replacing three older compressor engines should result in emission reductions of approximately 189 tpy of NOx and 307 tpy of CO.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #2484-08, DEQ believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, DEQ conducted the following private property taking and damaging assessment which is discussed in the attached Environmental Assessment.

IX. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

WBI Energy Transmission, Inc.

Final Environmental Assessment for the

Department Determination Montana Air Quality Permit #2484-08

Montana Department of Environmental Quality
Air Quality Bureau
Air Permitting Services Section
ENVIRONMENTAL ASSESSMENT

APPLICANT: WBI Energy Transmission, Inc.		
SITE NAME: Cabin Creek Compressor Station		
PROPOSED PERMIT NUMBER: Montana Air Quality Permit Number 2484-08		
APPLICATION DATE: May 10, 2022		
APPLICATION COMPLETE DATE: May 10, 2022		
LOCATION: Section 16, Township 10 North, Range 58 East		**COUNTY: Fallon**
PROPERTY OWNERSHIP:	**FEDERAL ____ STATE ____ PRIVATE _X_**	
EA PREPARER:	**John P. Proulx – Environmental Scientist 2**	
EA Draft Date	**EA Final Date**	**Permit Final Date**
June 2, 2022	**June 22, 2022**	**July 8, 2022**

COMPLIANCE WITH THE MONTANA ENVIRONMENTAL POLICY ACT

The Montana Department of Environmental Quality (DEQ) prepared this Environmental Assessment (EA) in accordance with requirements of the Montana Environmental Policy Act (MEPA). An EA functions to determine the need to prepare an EIS through an initial evaluation and determination of the significance of impacts associated with the proposed action. However, an agency is required to prepare an EA whenever statutory requirements do not allow sufficient time for the agency to prepare an EIS. This document may disclose impacts over which DEQ has no regulatory authority.

COMPLIANCE WITH THE CLEAN AIR ACT OF MONTANA

The state law that regulates air quality permitting in Montana is the Clean Air Act of Montana (§ 75-2-201, et seq., Montana Code Annotated (MCA). DEQ may not approve a proposed project contained in an application for an air quality permit unless the project complies with the requirements set forth in the Clean Air Act of Montana and the administrative rules adopted thereunder. DEQ's approval of an air quality permit application does not relieve the WBI Energy Transmission, Inc. (WBI), from complying with any other applicable federal, state, or county laws, regulations, or ordinances. WBI is responsible for obtaining any other permits, licenses, approvals, that are required for any part of the proposed project. DEQ will decide whether to approve the permit in accordance with the requirements of the Clean Air Act of Montana. DEQ may not withhold, deny, or impose conditions on the permit based on the information contained in this Environmental Assessment. § 75-1-201(4), MCA.

SUMMARY OF THE PROPOSED ACTION: WBI has applied for a new Montana air quality permit under the Clean Air Act of Montana for the installation of one (1) 4SLB 3750 HP Caterpillar G3612LE compressor engine for the purpose of compressing natural gas along the transmission lines located in Fallon County. The proposed action would be located in Section 16, Township 10 North, Range 58 East, Fallon County, 46.613718°N, latitude and -104.419074°W, longitude. All information included in the EA is derived from the permit application, discussions with the applicant, analysis of aerial photography, topographic maps, and other research tools.

PURPOSE AND BENEFIT FOR PROPOSED ACTION: DEQ's purpose in conducting this environmental review is to act upon WBI's air quality permit application to authorize a new compressor engine with associated emissions while at the same time removing three other compressor engines. DEQ's action on the permit application is governed by the Clean Air Act of Montana, § 75-2-201, et seq., MCA and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*

The benefits of the proposed action include: Continued operation of a natural gas compressor station to transfer natural gas down the pipeline using a new compressor engine.

REGULATORY RESPONSIBILITIES: In accordance with ARM 17.4.609(3)(c), DEQ must list any federal, state, or local authorities that have concurrent or additional jurisdiction or environmental review responsibility for the proposed action and the permits, licenses, and other authorizations required.

WBI must conduct its operations according to the terms of its permit. WBI further agrees to be legally bound by the permit, The Clean Air Act of§ 75-2-201, et seq., MCA and ARM 17.8.740, *et seq*.

WBI must cooperate fully with, and follow the directives of any federal, state, or local entity that may have authority over WBI's generating operations. These permits, licenses, and other authorizations may include: Fallon County and DEQ AQB (air quality).

Table 1: Proposed Action Details

Summary of Proposed Action	
General Overview	WBI's air quality permit application consists of the following equipment: • One (1) 3,750 bhp compressor engine The facility would be permitted to operate until WBI requested permit revocation or until the permit were revoked by DEQ due to gross non-compliance with the permit conditions.
Proposed Action Estimated Disturbance	
Disturbance	Minimal disturbance is estimated with the current permit action.
Proposed Action	
Duration	**Construction:** Construction or commencement would start within three years of issuance of the final air quality permit. **Construction Period:** The construction period could begin as soon as the air quality permit (and any other permits identified in this EA) were in place. **Operation Life:** Until permit is either revoked at the request of the permittee or the Department has determined the need for revocation.
Construction Equipment	Cranes, delivery trucks, various other types of smaller equipment
Personnel Onsite	**Construction:** Various number of installation personnel depending on which piece of equipment is being installed. **Operations:** Current number of employees.
Location and Analysis Area	**Location**: Section 16, Township 10 North, Range 58 East, in Fallon County, MT **Analysis Area**: The area being analyzed as part of this environmental review includes the immediate project area (Figure 1), as well as neighboring lands surrounding the analysis area, as reasonably appropriate for the impacts being considered.
Air Quality	This EA will be attached to the Air Quality Permit which would include all enforceable conditions for operation of the emitting units
Conditions incorporated into the Proposed Action	The conditions developed in the Preliminary Determination of the Montana Air Quality Permit dated June 2, 2022, set forth in Sections II.A-D, and updated in the Decision Air Quality Permit if needed.

Figure 1: Map of general location of the proposed project.

EVALUATION AND SUMMARY OF POTENTIAL IMPACTS TO THE PHYSICAL AND HUMAN ENVIRONMENT IN THE AREA AFFECTED BY THE PROPOSED PROJECT:

The impact analysis will identify and evaluate direct and secondary impacts. Direct impacts are those that occur at the same time and place as the action that triggers the effect. Secondary impacts means "a further impact to the human environment that may be stimulated or induced by or otherwise result from a direct impact of the action." ARM 17.4.603(18). Where impacts are expected to occur, the impacts analysis estimates the duration and intensity of the impact.

The duration of an impact is quantified as follows:

- **Short-term**: Short-term impacts are defined as those impacts that would not last longer than the proposed operation of the site.
- **Long-term**: Long-term impacts are defined as impacts that would remain or occur following shutdown of the proposed facility.

The severity of an impact is measured using the following:

- **No impact**: There would be no change from current conditions.
- **Negligible**: An adverse or beneficial effect would occur but would be at the lowest levels of detection.
- **Minor**: The effect would be noticeable but would be relatively small and would not affect the function or integrity of the resource.
- **Moderate**: The effect would be easily identifiable and would change the function or integrity of the resource.
- **Major**: The effect would alter the resource.

1. TOPOGRAPHY, GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Direct Impacts:

Proposed Action: Negligible impacts to topography, geology, stability, and moisture would be expected because the proposed project would occur at an already existing facility with minor disturbances due to equipment installation and site preparation.

Secondary Impacts:

Proposed Action: No secondary impacts to topography, geology, stability, and moisture are anticipated with the proposed action.

2. WATER QUALITY, QUANTITY, AND DISTRIBUTION:

Direct Impacts:

Proposed Action: No primary impacts to water quality, quantity, and distribution would be expected because the proposed project would occur at an already existing facility. Water is not required for normal operation of the proposed equipment.

Secondary Impacts:

Proposed Action: No secondary impacts are anticipated with the proposed action.

3. AIR QUALITY:

Direct Impacts:

Proposed Action: Minor impacts to air quality would be expected with the proposed action due to the facility's potential to emit air pollutants with temporary air quality impacts of particulate matter due to construction activities. Emission reductions of NO_X and CO should occur as the new compressor engine will have lower emissions than the three compressor engines being replaced.

Secondary Impacts:

Proposed Action: Negligible impacts could be expected with the proposed action in the event of equipment malfunction.

4. VEGETATION COVER, QUANTITY AND QUALITY:

Direct Impacts:

Proposed Action: No impacts to vegetative cover, quantity, and quality are expected with the proposed permit action. The proposed compressor engine would be installed in an already existing facility with no proposed disturbances.

Secondary Impacts:

Proposed Action: Negligible impacts to land disturbance at the site may result in propagation of noxious weeds.

5. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Direct Impacts:

Proposed Action: No primary impacts are anticipated for terrestrial, avian, or aquatic life. The proposed compressor engine would be installed in an already existing facility with no new proposed disturbances.

Secondary Impacts:

Proposed Action: No secondary impacts to terrestrial, avian and aquatic life and habitats stimulated or induced by the direct impacts analyzed above would be anticipated for the proposed action.

6. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Impacts:

Proposed Action: No primary impacts to unique, endangered, fragile, or limited environmental resources that could be stimulated or induced by the direct impacts analyzed above would be expected because the proposed project would occur within an already existing facility and would not cause any new disturbances.

7. HISTORICAL AND ARCHAEOLOGICAL SITES:

Impacts:
Proposed Action: It is SHPO's position that any structure over fifty years of age is considered historic and is potentially eligible for listing on the National Register of Historic Places. If any structures are within the Area of Potential Effect, and are over fifty years old, we would recommend that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place. The WBI facility is less than 50 years old and there is no disturbance or alteration to structures over fifty years of age.

8. SAGE GROUSE EXECUTIVE ORDER:

The current permit action is located in the Greater Sage Grouse habitat area. However, there is no new proposed land disturbance associated with proposed action and all construction activities will take place within the boundaries of the existing facility.

9. AESTHETICS:

Direct Impacts:
Proposed Action: Negligible impacts may be associated with the current permit application due to the installation of new compressor engine in an already existing facility with temporary impacts to aesthetics due to construction activities.

Secondary Impacts:
Proposed Action: No secondary impacts to aesthetics and noise are anticipated with the proposed action.

10. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Direct Impacts:
Proposed Action: Negligible impacts to air and energy resources associated with the operational needs of the proposed equipment are anticipated. The proposed compressor engine would be installed in an already existing facility with no new proposed disturbances.

Secondary Impacts:
Proposed Action: No secondary impacts to land, water, air or energy resources are anticipated with the proposed action.

11. IMPACTS ON OTHER ENVIRONMENTAL RESOURCES:

Direct Impacts:
Proposed Actions: No primary impacts to other environmental resources are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to other environmental resources are anticipated as a result of the proposed action.

12. HUMAN HEALTH AND SAFETY:

Direct Impacts:
Proposed Action: Impacts to human health and safety are anticipated to be short-term and minor as a result of this project. The proposed equipment will be installed with Best Available Control Technology to minimize emissions from the new equipment.

Secondary Impacts:
Proposed Action: No secondary impacts to human health and safety are anticipated as a result of the proposed action.

13. INDUSTRIAL, COMMERCIAL AND AGRICULTURAL ACTIVITIES AND PRODUCTION:

Direct Impacts:
Proposed Action: Negligible industrial impacts are anticipated due to construction and installation of new equipment. No impacts to commercial and agricultural activities are anticipated.

Secondary Impacts:
Proposed Action: No secondary impacts to industrial, commercial, water conveyance structures, and agricultural activities and production are anticipated as a result of the proposed action.

14. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Direct Impacts:
Proposed Action: No impacts to quantity and distribution of employment are anticipated for the proposed action.

Secondary Impacts:
Proposed Action: Negligible increases in in distribution of employment are anticipated as a result of the proposed action.

15. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Direct Impacts:
Proposed Action: Local, state and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefitting from this operation.

Secondary Impacts:
Proposed Action: No secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed action.

16. DEMAND FOR GOVERNMENT SERVICES:

Direct Impacts:
Proposed Action: Minor impacts are anticipated for demand for government services. The air quality permit and physical site associated with the current permit action would require inspections from state government representatives to ensure the facility is operating within the limits and conditions listed in the air quality permit.

Secondary Impacts:
Proposed Action: No secondary impacts are anticipated with the proposed action.

17. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

Direct Impacts:
Proposed Action: No primary impacts to the locally adopted environmental plans and goals are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to the locally adopted environmental plans and goals are anticipated as a result of the proposed action.

18. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Direct Impacts:
Proposed Action: No primary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed action. The proposed compressor engine would be installed in an already existing facility with no new proposed disturbances or impacts on recreational or wilderness activities.

Secondary Impacts:
Proposed Action: No secondary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed action.

19. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Direct Impacts:
Proposed Action: No primary impacts to density and distribution of population and housing are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to density and distribution of population and housing are anticipated as a result of the proposed action.

20. SOCIAL STRUCTURES AND MORES:

Direct Impacts:
Proposed Action: No primary impacts anticipated to social structures and mores are anticipated as a result of the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to social structures and mores are anticipated as a result of the proposed action.

21. CULTURAL UNIQUENESS AND DIVERSITY:

Direct Impacts:
Proposed Action: No primary impacts anticipated to cultural uniqueness and diversity are anticipated from the proposed action.

Secondary Impacts:
Proposed Action: No secondary impacts to cultural uniqueness and diversity are anticipated as a result of the proposed action.

22. PRIVATE PROPERTY IMPACTS:

The proposed action would take place on privately owned property and is not expected impact other privately owned properties. The analysis below in response to the Private Property Assessment Act indicates no impact. DEQ does not plan to deny the application or impose conditions that would restrict the regulated person's use of private property. Further, if the application is complete, DEQ must take action on the permit pursuant to § 75-2-218(2), MCA. Therefore, DEQ does not have discretion to take the action in another way that would have less impact on private property—its action is bound by a statute.

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

YES	NO	
		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, DEQ determined there are no taking or damaging implications associated with this permit action.

23. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Due to the nature of the proposed action, no further direct or secondary impacts are anticipated from this project.

ADDITIONAL ALTERNATIVES CONSIDERED:

No Action Alternative: In addition to the proposed action, DEQ is considering a "no action" alternative. The "no action" alternative would deny the approval of the proposed action. The applicant would lack the authority to conduct the proposed activity. Any potential impacts that would result from the proposed action would not occur. The no action alternative forms the baseline from which the impacts of the proposed action can be measured.

If the applicant demonstrates compliance with all applicable rules and regulations as required for approval, the "no action" alternative would not be appropriate. Pursuant to, § 75-1-201(4)(a), (MCA) DEQ "may not withhold, deny, or impose conditions on any permit or other authority to act based on" an environmental assessment.

CUMULATIVE IMPACTS:

Cumulative impacts are the collective impacts on the human environment within the borders of Montana of the proposed action when considered in conjunction with other past and present actions related to the proposed action by location and generic type. Related future actions must also be considered when these actions are under concurrent consideration by any state agency through preimpact statement studies, separate impact statement evaluation, or permit processing procedures.
This environmental review analyzes the proposed action submitted by the WBI.

DEQ considered potential impacts related to this project and potential secondary impacts. Due to the limited activities in the analysis area, cumulative impacts related to this project would be minor and short-term.

PUBLIC INVOLVEMENT:

Scoping for this proposed action consisted of internal efforts to identify substantive issues and/or concerns related to the proposed operation. Internal scoping consisted of internal review of the environmental assessment document by DEQ Air Permitting staff.

Internal efforts also included queries to the following websites/ databases/ personnel:
- Montana State Historic Preservation Office
- Montana Department of Environmental Quality (DEQ)
- Montana Natural Heritage Program

OTHER GOVERNMENTAL AGENCIES WITH JURSIDICTION:

The proposed project would be fully located on privately-owned land. All applicable local, state, and federal rules must be adhered to, which, at some level, may also include other local, state, federal, or tribal agency jurisdiction. Other governmental agencies which may have overlapping or sole jurisdiction include, but may not be limited to: Fallon County, OSHA (worker safety), DEQ AQB (air quality) and Water Protection Bureau (groundwater and surface water discharge; stormwater), DNRC (water rights), and MDT (road access).

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS

Under ARM 17.4.608, DEQ is required to determine the significance of impacts associated with the proposed action. This determination is the basis for the agency's decision concerning the need to prepare an environmental impact statement and also refers to DEQ's evaluation of individual and cumulative impacts. DEQ is required to consider the following criteria in determining the significance of each impact on the quality of the human environment:

1. The severity, duration, geographic extent, and frequency of the occurrence of the impact;

   "Severity" is analyzed as the density of the potential impact while "extent" is described as the area where the impact is likely to occur. An example could be that a project may propagate ten noxious weeds on a surface area of 1 square foot. In this case, the impact may be a high severity over a low extent. If those ten noxious weeds were located over ten acres there may be a low severity over a larger extent.
   "Duration" is analyzed as the time period in which the impact may occur while "frequency" is analyzed as how often the impact may occur. For example, an operation that occurs throughout the night may have impacts associated with lighting that occur every night (frequency) over the course of the one season project (duration).

2. The probability that the impact will occur if the proposed action occurs; or conversely, reasonable assurance in keeping with the potential severity of an impact that the impact will not occur;

3. Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts;

4. The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;

5. The importance to the state and to society of each environmental resource or value that would be affected;

6. Any precedent that would be set as a result of an impact of the proposed action that would commit the department to future actions with significant impacts or a decision in principle about such future actions; and

7. Potential conflict with local, state, or federal laws, requirements, or formal plans.

The significance determination is made by giving weight to these criteria in their totality. For example, impacts with moderate or major severity may be determined to be not significant if the duration of the impacts is considered to be short-term. As another example, however, moderate or major impacts of short-term duration may be considered to be significant if the quantity and quality of the resource is limited and/or the resource is considered to be unique or fragile. As a final example, moderate or major impacts to a resource may be determined to be not significant if the quantity of that resource is high or the quality of the resource is not unique or fragile.

Pursuant to ARM 17.4.607, preparation of an environmental assessment is the appropriate level of environmental review under MEPA if statutory requirements do not allow sufficient time for an agency to prepare an environmental impact statement. An agency determines whether sufficient time is available to prepare an environmental impact statement by comparing statutory requirements that establish when the agency must make its decision on the proposed action with the time required to obtain public review of an environmental impact statement plus a reasonable period to prepare a draft environmental review and, if required, a final environmental impact statement.

SIGNIFICANCE DETERMINATION

The severity, duration, geographic extent and frequency of the occurrence of the impacts associated with the proposed action would be limited. WBI proposes to construct and operate the proposed action on private land located in Section 16, Township 10 North, Range 58 East, in Fallon County, Montana

DEQ has not identified any significant impacts associated with the proposed action for any environmental resource. Approving WBI's Air Quality Application would not set precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. If WBI submits another permit application, DEQ is not committed to approve those applications. DEQ would conduct a new environmental review for any subsequent air quality permit applications sought by WBI. DEQ would make a decision on WBI's subsequent application based on the criteria set forth in the Clean Air Act of Montana.

DEQ's issuance of an Air Quality Permit to WBI for this proposed operation does not set a precedent for DEQ's review of other applications, including the level of environmental review. The level of environmental review decision is made based on a case-specific consideration of the criteria set forth in ARM 17.4.608.

DEQ does not believe that the proposed action has any growth-inducing or growth-inhibiting aspects or that it conflicts with any local, state, or federal laws, requirements, or formal plans. Based on a consideration of the criteria set forth in ARM 17.4.608, the proposed state action is not predicted to significantly impact the quality of the human environment. Therefore, at this time, preparation of an environmental assessment is determined to be the appropriate level of environmental review under the Montana Environmental Protection Act.

Environmental Assessment and Significance Determination Prepared By:

John P. Proulx	**Environmental Scientist 2**
Name	**Title**

EA Reviewed By:

Craig Henrikson, P.E.	**Engineering Scientist**
Name	**Title**

Responses to Substantive Comments are located in the Permit Analysis Section of the Air Quality Permit.

References

Montana Air Quality Permit – 2484-07

Montana Air Quality Permit Application – 2484-08_2022_05_10_APP

https://gis.mtdeq.us, Sage Grouse habitat layer.