

Date of Posting: June 27, 2025

Joshua Hills
Oneok Rockies Midstream, LLC
Bainville Station
P.O. Box 871
Tulsa, OK 74102

RE: Final and Effective Montana Air Quality Permit #1546-11

Sent via email: joshua.hills@oneok.com

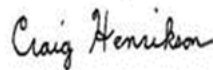
Dear Mr. Hills,

Montana Air Quality Permit (MAQP) #1546-11 for the above-named permittee is deemed final and effective as of June 27, 2025, by the Montana Department of Environmental Quality (DEQ). All conditions of the Decision remain the same. A copy of final MAQP #1546-11 is enclosed.

For DEQ,



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**Montana Department of Environmental Quality
Air, Energy & Mining Division
Air Quality Bureau**

Montana Air Quality Permit #1546-11

Bainville Station
P.O. Box 871
Tulsa, OK 74102

Final and Effective Date:
June 27, 2025



MONTANA AIR QUALITY PERMIT

Issued To: ONEOK Rockies Midstream, LLC
P.O. Box 871
Tulsa, OK 74102

MAQP: #1546-11
Application Received: 03/10/2025
Preliminary Decision Issued: 05/22/2025
DEQ's Decision: 06/11/2025
Permit Final: 06/27/2025

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to ONEOK Rockies Midstream, LLC (ORM) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740 *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

ORM operates a natural gas compressor station and associated equipment located in the NE $\frac{1}{4}$ of the NE $\frac{1}{4}$ of Section 20, Township 28 North, Range 58 East, in Roosevelt County, Montana. This facility is known as the Bainville Compressor Station. A complete list of the facility's permitted equipment can be found in Section I.A. of the Permit Analysis.

B. Current Permit Action

On March 10, 2025, the Montana Department of Environmental Quality (DEQ) received an air quality permit application from ORM for modification of permitted operations. More specifically, under the current permit action ORM would add up to a 1,680-horsepower natural gas compressor engine with associated compressor. The new compressor engine uses on-site field gas for fuel and is characterized as a "rich-burn" engine. It will be identified as Compressor Engine #3 and Emitting Unit #11. DEQ incorporated the new compressor engine into the permit, updated the permit analysis, and included a revised environmental assessment. DEQ also updated the emission inventory and references.

Section II: Conditions and Limitations

A. Emission Limitations

1. Source #01, a 687 hp Waukesha 7042G natural gas compressor engine shall be operated with a non-selective catalytic reduction (NSCR) unit and an air/fuel ratio (AFR) controller. The engine speed shall not exceed 750 rpm of continuous duty operation. Emissions from this compressor engine shall not exceed the following limits (ARM 17.8.1204(3)(d)):

NO _x ¹	15.0 lb/hr
CO	5.3 lb/hr
VOC	1.3 lb/hr

¹ NO_x reported as NO₂

2. Source #02, a 687 hp Waukesha 7042G natural gas compressor engine, shall be operated with an NSCR unit and an AFR controller. The engine speed shall not exceed 750 rpm of continuous duty operation. Emissions from this compressor engine shall not exceed the following limits (ARM 17.8.752):

NO_x 3.03 lb/hr
CO 4.54 lb/hr
VOC 1.51 lb/hr

3. ORM shall operate and maintain an NSCR unit and an AFR controller on Source #01 and Source #02 within the parameters recommended by the equipment manufacturer (ARM 17.8.752).
4. ORM shall not operate more than two 687 hp Waukesha 7042G natural gas compressor engines at any given time (ARM 17.8.749).
5. The Waukesha 7044GSI (or equivalent engine)- Compressor Engine #3 shall be limited to a maximum rating of 1,680 horsepower and shall be operated with an NSCR and AFR controller (ARM 17.8.749 and ARM 17.8.752).
6. The Waukesha 7044GSI (or equivalent engine) shall not exceed the following emission limits (ARM 17.8.749 and ARM 17.8.752).

NO_x 0.15 g/hp-hr (0.56 lbs/hr at full 1,680 horsepower load)
CO 0.30 g/hp-hr (1.12 lbs/hr at full 1,680 horsepower load)
VOC 0.05 g/hp-hr (0.19 lbs/hr at full 1,680 horsepower load)

7. The Waukesha 7044GSI (or equivalent engine) shall combust only low ash natural gas (or an equivalent) to minimize the formation of PM/PM₁₀/PM_{2.5} and sulfur dioxide (SO₂) (ARM 17.8.749 and 17.8.752).
8. ORM shall operate all equipment to provide the maximum air pollution control for which the equipment was designed (ARM 17.8.752).
9. ORM shall operate the emergency flare stack only for equipment blowdown when shutdown is required for repair or for emergency use. This flare is not permitted to continuously flare sour gases (ARM 17.8.749).
10. The combined maximum throughput of the condensate storage tanks shall not exceed 2,940,000 gallons per rolling 12-month period (ARM 17.8.749).
11. ORM shall install and operate a combustor to control VOC emissions from the condensate tank (ARM 17.8.752).
12. ORM shall continuously operate a thermocouple and an associated recorder or any other equivalent device on the combustor to detect the presence of a flame (ARM 17.8.749).
13. ORM shall not cause or authorize emissions to be discharged into the

outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

14. ORM 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).
15. ORM 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.A.14 (ARM 17.8.749).
16. ORM shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in Title 40 Code of Federal Regulations (CFR) 60, Subparts A and JJJJ (ARM 17.8.340, ARM 17.8.749 and 40 CFR 60, Subpart(s) A and JJJJ).
17. ORM shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 63, Subpart A, Subpart ZZZZ (ARM 17.8.342, ARM 17.8.749 and 40 CFR 63, Subpart(s) A and ZZZZ).

B. Testing Requirements

1. ORM shall test Source #01 and Source #02 for NO_x and CO, concurrently, and demonstrate compliance with the emission limits contained in Section II.A.1 and II.A.2, respectively. Further testing for Source #01 and Source #02 shall occur on an every 4-year basis from the date the engines were last tested, or according to another testing/monitoring schedule as may be approved by DEQ (ARM 17.8.105 and ARM 17.8.749).
2. During each test for the Source #1 and Source #2 engines, ORM shall monitor the compressor engine intake manifold temperature and pressure, exhaust temperature, revolutions per minute (rpm), and all parameters necessary to calculate horsepower. This data shall be submitted to DEQ with the source test report (ARM 17.8.105).
3. ORM shall demonstrate compliance with the NO_x, CO, and VOC limits in Section II.A.6 via source testing within 180 days after equipment commencement. Source testing shall be conducted for NO_x, CO, and VOCs simultaneously. Compliance test results are determined by the average of three 1-hour or longer runs. Results shall be submitted to the DEQ to demonstrate compliance with the emission limitations in Section II.A.6 (ARM 17.8.105 and ARM 17.8.749).
4. Following the calendar date of the initial compliance demonstration for Section II.A.6, compliance with the applicable emission limits shall be demonstrated via source testing for NO_x, CO, and VOCs simultaneously within 8,760 operating hours or 3 years, whichever comes first. Source

testing shall follow the applicable methods defined in 40 CFR 60 Subpart JJJJ, or equivalent methods as approved in writing by the DEQ.

Future compliance demonstrations shall be required at the same frequency for Compressor Engine #3 from the date of the last compliance demonstration (ARM 17.8.105, ARM 17.8.749, ARM 17.8.340, and 40 CFR 60 Subpart JJJJ).

5. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
6. DEQ may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. ORM 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 most recent emission inventory report and sources identified 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 as required by DEQ. This information may be used for calculating operation fees based on actual emissions from the facility, and/or to verify compliance with permit limitations. ORM shall submit the following information annually to DEQ by March 1 of each year; the information may be submitted along with the annual emission inventory (ARM 17.8.505).

- a. Combined annual throughput of the condensate storage tanks (ARM 17.8.749).
2. All records compiled in accordance with this permit must be maintained by ORM 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).
3. ORM shall notify DEQ of any construction or improvement projects conducted pursuant to ARM 17.8.745 that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to 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).
4. ORM shall annually certify, as required by ARM 17.8.1204(3)(b), that its

actual emissions are less than those that would require the source to obtain an air quality Title V Operating Permit. The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emission inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Monitoring and Record Keeping

1. ORM shall, at a minimum, inspect the following on Source #01 and Source #02 once every 6 months, as well as after every upset condition that could have caused damage to the equipment:

- the AFR controller,
- the NSCR unit, and
- the catalyst

ORM shall conduct any subsequent maintenance to ensure that the control equipment and the catalyst will continue to perform as designed. If the catalyst fails to promote the chemical reactions required to reduce NO_x and CO emissions to a level at or below the limits stated in Section II.A.1 and Section II.A.2, respectively, ORM shall replace it with a new catalyst capable of achieving these limits (ARM 17.8.752).

2. ORM shall keep a record of any and all inspections and maintenance conducted on the NSCR unit and the AFR controller on each compressor engine (ARM 17.8.752).

E. Notification

ORM shall notify DEQ of the start-up of Compressor Engine #3 within 15-days of commencement of operation (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – ORM 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 (e.g., Continuous Emission Monitoring System (CEMS)/Compliance Emission Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if ORM fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving ORM 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 therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay 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 of 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 ORM 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 Analysis
ONEOK Rockies Midstream, LLC
Bainville Compressor Station
MAQP #1546-11

I. Introduction/Process Description

ONEOK Rockies Midstream, LLC (ORM) owns and operates a natural gas compressor station located in the NE¹/₄ of the NE¹/₄ of Section 20, Township 28 North, Range 58 East in Roosevelt County.

A. Permitted Equipment:

The ORM Bainville Compressor Station includes, but is not limited to, the following emitting units:

- (2) 687 horsepower (hp) Waukesha 7042G natural gas compressor engines (Source #01 and Source #02)
- (1) 2.5 million (MM) Btu/hr emergency flare
- (1) fixed roof 200-barrel (bbl) methanol tank
- (3) fixed roof 400 bbl condensate storage tanks
- (1) Superior Combustion Device SCD 48
- (1) 1,680 hp Waukesha natural gas compressor engine (Compressor Engine #3) (or equivalent engine)

B. Source Description

The facility boosts sour field gas through the gas transmission system to a gas plant for processing. Because the pipeline natural gas is too sour to use as a fuel gas, both compressor engines and the glycol heater are fired on propane.

C. Permit History

On December 8, 1980, the Department of Environmental Quality (DEQ) received a permit application from Phillips Petroleum to construct a gas compressor station near Bainville, Montana. The permit action permitted Source #01, a glycol line heater, a crude/water tank, a methanol tank, and an emergency flare. The permit was approved on February 23, 1981, and given **Permit #1546-00**. A Best Available Control Technology (BACT) analysis in Permit #1546-00 limited the emissions from Source #01. The Bainville Compressor Station was constructed by Phillips in 1981.

On January 2, 1986, Koch Hydrocarbon acquired several compressor stations from Phillips Petroleum, including the Bainville Compressor Station.

Prior to 1991, Koch had installed a 600 hp Caterpillar 398 compressor engine. However, this engine has subsequently been removed.

In May of 1991, Koch Hydrocarbon installed a 547 hp Waukesha compressor engine at the Bainville Compressor Station. This engine was relocated from the Charlie Creek Station. This engine has been removed from the Bainville site.

In October of 1991, Source #02 was relocated from Koch's Medicine Lake Compressor Station to the Bainville Compressor Station.

On August 19, 1992, **Permit #1546-00** for the Bainville Compressor Station was revoked due to lack of payment of the annual operating fees.

On December 28, 1992, **Permit #1546-00** for the Bainville Compressor Station was reinstated upon receipt of payment for the annual operating fees.

On February 29, 1996, **Permit #1546-01** was issued to include Source #02 that was relocated from the Medicine Lake Compressor Station to the Bainville Compressor Station. Koch was required to install BACT devices on this engine.

On March 11, 1996, DEQ received an application from Koch for **Permit #1546-02**. Koch requested a reduction in the oxides of nitrogen (NO_x) emission limit with an offsetting increase in the carbon monoxide (CO) emission limit for Source #01. This reduction in NO_x emissions was achieved by installing and operating a Non-Selective Catalytic Reduction (NSCR) unit and an air/fuel ratio (AFR) controller on the compressor engine. This action rendered the facility a synthetic minor source as defined under the Title V permitting program. Prior to issuing DEQ Decision on this permit, Koch requested that Source #02 be removed from the permit. Operational changes in the area required less horsepower to be generated at the facility; therefore, this second engine was no longer needed at the site. On July 25, 1996, DEQ issued Permit #1546-02 requiring Koch to permanently remove Source #02 from service by November 1, 1996.

On August 29, 1996, DEQ received an application for **Permit #1546-03**. It requested that Source #02 be added back into the permit. NO_x and CO emissions from this source are controlled by an NSCR unit and an AFR controller. This facility is a synthetic minor source and will be subject to the "Monitoring and Record Keeping" requirements in Section II.D of this permit. On October 19, 1996, DEQ issued Permit #1546-03 placing Source #02 back into the permit.

On March 24, 1997, DEQ received a request to modify Permit #1546-03. The modification reflected the fact that the Bainville Compressor Station had changed ownership. This modification transferred ownership of Permit #1546-03 from Koch Hydrocarbon Co. to Bear Paw Energy, Inc. **Permit #1546-04** replaced Permit #1546-03.

On July 30, 2001, Bear Paw submitted a request to modify Permit #1546-04. Bear Paw requested that the permit be written in a *de minimis* friendly manner by removing all equipment serial numbers. The permit action removed the equipment serial

numbers and updated the permit format. In addition, a condition was added to specify that only two compressor engines may be operated at any given time. **Permit #1546-05** replaced Permit #1546-04.

DEQ received notification on June 18, 2012, from Bear Paw Energy, LLC requesting an amendment to MAQP #1546-05 to change ownership name to ONEOK Rockies Midstream, LLC. All permit references to the facility's name with the exception of the permit history were changed throughout this document. In addition, rule references and permit language were updated. The mailing address for ONEOK was also updated under this action. **MAQP #1546-06** replaced MAQP#1546-05.

On October 20, 2014, DEQ received an application to modify the Bainville Compressor Station air quality permit to include the replacement of the flare unit and two condensate storage tanks. Additionally, ORM requested federally enforceable limits on the condensate storage tanks to reduce potential emissions below the applicability thresholds of 40 Code of Federal Regulations (CFR) 60, Subpart OOOO. DEQ issued an incompleteness letter on November 18, 2014. ORM submitted additional information to complete the permit application on December 11, 2014 (via email). Incompleteness notices were issued via email by DEQ on December 30, 2014. DEQ received the final component necessary for a complete permit application, the affidavit of publication of public notice, on May 21, 2015. **MAQP #1546-07** replaced MAQP #1546-06.

DEQ received notification on August 25, 2015, from ORM requesting an amendment to MAQP #1546-07 to reduce the allowable emissions of oxides of nitrogen (NO_x) from Source #01 from 19.0 pounds per hour (lb/hr) to 15.0 lb/hr. Doing so provided a total permit allowable emissions rate of less than 80 tons per year for all pollutants. **MAQP #1546-08** replaced MAQP #1546-07.

On December 11, 2017, DEQ of Environmental Quality (DEQ) received an application to modify MAQP #1546 from ORM. ORM requested that the potential emissions from the process tanks be updated to reflect site specific condensate samples, increase throughput, add an additional condensate tank that was inadvertently omitted, remove the glycol line heater, and add a combustor for control of volatile organic compounds from the condensate tanks. **MAQP #1546-09** replaced MAQP #1546-08.

On May 10, 2019, DEQ received an application for modification from ORM, to increase operating hours and throughput for the emergency flare. Upon review of the intent of the application, DEQ determined that this emergency equipment would not be subject to limitations on its capacity to operate during emergency situations. Because the flare is considered emergency equipment, DEQ removed the capacity-limiting conditions from Section II of the MAQP that pertain to the emergency flare. DEQ also identified the flare as an emergency flare in Section I.A of the MAQP Analysis and updated the emission inventory in Section IV of the MAQP Analysis. **MAQP #1546-10** replaced MAQP #1546-09.

D. Current Permitting Action

On March 10, 2025, DEQ received an air quality permit application from ORM for modification of permitted operations. More specifically, under the current permit action ORM would add up to a 1,680 horsepower natural gas compressor engine with associated compressor. The new compressor engine uses on-site field gas for fuel and operates as a “rich-burn” engine. It will be identified as Compressor Engine #3 and Emitting Unit #11. DEQ incorporated the new compressor engine into the permit, updated the permit analysis, and included a revised environmental assessment. DEQ also updated the emission inventory and references. **MAQP #1546-11** replaces MAQP #1546-10.

E. Response to Public Comments (None received)

F. Additional Information

Additional information, such as applicable rules and regulations, BACT determinations, air quality impacts, and environmental assessments are 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 the 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).

ORM shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the

Montana Source Test Protocol and Procedures Manual is available from DEQ upon request.

4. ARM 17.8.110 Malfunctions. (2) DEQ 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 in 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, Sub-Chapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO₂)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone (O₃)
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide (H₂S)
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

C. ARM 17.8, Sub-Chapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, ORM shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions - Sulfur in Fuel. Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. To comply with this requirement, ORM will fire each compressor engine and the line heater on propane because the pipeline natural gas contains 7% H₂S and is too sour to use as fuel.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulation (CFR) 60, Standards of Performance for New Stationary Sources (NSPS). The owner and operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the NSPS.
 - a. 40 CFR Part 60, Subpart A – General Provisions. Apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart JJJJ Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The 1,680 horsepower engine is subject to this subpart.
 - c. 40 CFR 60, Subpart OOOO – Crude Oil and Natural Gas Production, Transmission and Distribution. This subpart established emission standards for equipment that commences construction, is modified, or reconstructed on or after August 23, 2011, at crude oil and natural gas production, transmission and distribution facilities. Potentially affected facilities at the Bainville Station included condensate tanks, pneumatic controllers, and the reciprocating compressors. ORM requested federally enforceable limits to restrict potential emissions from the condensate tanks to below the 6 tons per year (tpy) applicability threshold.
7. 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. Century 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 of facilities subject to a NESHAP 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 existing stationary RICE is existing if construction or reconstruction of the stationary RICE commenced before June 12, 2006.

The two affected 687 horsepower engines were constructed prior to June 12, 2006, therefore, ORM is subject to the work practice standards under this subpart.

D. ARM 17.8, Sub-Chapter 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. ORM submitted the appropriate 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, as described above, shall take place on a calendar-year basis. DEQ 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, Sub-Chapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year (tpy) of any pollutant.

ORM has a PTE greater than 25 tpy of NO_x, CO and VOCs; therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. ORM submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. ORM submitted an affidavit of publication of public notice for the March 6, 2025, issue of the *Community News*, a newspaper of general circulation in the Town of Culbertson in Roosevelt County, as proof of compliance with the public notice requirements.
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.
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 ORM 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 17.8.760 Additional Review of Permit Applications. This rule describes DEQ's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to DEQ.
 16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to DEQ for incineration facilities subject to 75-2-215 Montana Code Annotated (MCA).
- F. ARM 17.8, Sub-Chapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.
- This facility is not a major stationary source because it is not listed and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).
- G. ARM 17.8, Sub-Chapter 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 greater than 100 tpy of any pollutant;
 - b. PTE greater than 10 tpy of any one hazardous air pollutant (HAP), PTE greater than 25 tpy of a combination of all HAPs, or lesser quantity as DEQ may establish by rule; or
 - c. PTE greater than 70 tpy of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. 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 #1546-11, the following conclusions were made:
- a. The facility's PTE is less than 100 tpy for any pollutant.
 - b. The facility's PTE is less than 10 tpy of any single HAP and less than 25 tpy of combined HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is potentially subject to a current NSPS (40 CFR 60, Subpart OOOO, 40 CFR 60, Subpart, OOOOb and is subject to 40 CFR 60, Subpart JJJJ).
 - e. This facility is subject to a current NESHAP (40 CFR 63, Subpart 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 the Bainville Compressor Station is a synthetic minor source of emissions as defined under Title V. Therefore, this facility is not required to obtain a Title V Operating Permit because federally enforceable limitations have been established that limit this source's potential to emit below the major source threshold.

- i. As allowed by ARM 17.8.1204(3), DEQ may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations that limit the source's potential to emit (ARM 17.8.1203(3)).
 - i. In applying for an exemption under this section the owner or operator of the source shall certify to DEQ that the source's potential to emit does not require the source to obtain an air quality operating permit.

- ii. Any source that obtains a federally enforceable limit on the potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

ORM has taken federally enforceable permit limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and, thus a Title V operating permit is not required.

DEQ determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

- 3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. ORM shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b).

The annual certification shall comply with requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information.

Based on these facts, DEQ determined that ORM will be a minor source of emissions as defined under Title V based on a requested federally enforceable permit limit.

III. BACT Determination

A BACT determination is required for any new or modified source. ORM shall install on the new or modified source the maximum air pollution control capability that is technologically practicable and economically feasible, except that BACT shall be utilized.

ORM provided a BACT analysis for the permitting action because the current permit action adds a new compressor engine to the existing permit. DEQ also reviewed the most recent BACT determinations for similar rich-burn engines also operating on field gas for fuel. The BACT analysis follows the traditional 1990 draft New Source Review (NSR) five step BACT methodology. The analysis will be presented using the following steps for each pollutant and emitting unit.

- Step 1: Identify All Available Control Technologies
- Step 2: Eliminate Technically Infeasible Control Options
- Step 3: Rank Remaining Control Technologies by Control Effectiveness
- Step 4: Evaluate Most Effective Controls and Document Results
- Step 5: Select BACT

Waukesha 1,680 Four-Stroke Rich Burn Engine

NO_x Evaluation

Step 1: Identify All Available Control Technologies

NO_x reduction in natural gas-fired engines can be accomplished by combustion control techniques and post-combustion control methods. The following options were identified as available strategies for NO_x control:

- Water/steam injection
- Dry low NO_x combustion
- Selective catalytic reduction (SCR)
- Selective non-catalytic reduction (SNCR)
- Non-selective catalytic reduction (NSCR) with an air to fuel ratio controller (AFR controller)
- Oxidation catalyst
- EMx catalyst system

Step 2: Eliminate Technically Infeasible Control Options

Water/Steam Injection and Dry Low NO_x Combustion

Both the water/steam injection and the dry low NO_x combustion are technologies that would require modifications to the existing engines and are considered technically infeasible for the proposed engines.

SCR and SNCR

SCR and SNCR require specific exhaust temperatures for optimal destruction and the exhaust temperatures for the proposed engine is not within the required range for either SCR or SNCR. They are deemed technically infeasible since the exhaust temperature from the proposed engine would be below the recommended ranges for both SCR and SNCR. Incorporating SCR and SNCR would also require a supply of hazardous ammonia to be stored onsite to control NO_x.

Oxidation Catalyst

Oxidation catalyst is best suited for lean burn engines and therefore is also eliminated from consideration due to the proposed Waukesha engine being a four-stroke rich-burn (4SRB).

The remaining technologies carried forward for consideration are NSCR and EMx catalyst.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

EMx and NSCR both use a catalyst to provide post combustion control for NO_x. Control efficiencies for NSCR and EMx are comparable with efficiencies expected to be approximately 90 percent for each control option. ORM estimated NSCR capable of 92 percent NO_x reduction. The control efficiencies are close enough to consider them equivalent.

Step 4: Evaluate Most Effective Controls and Document Results

EMx is able to operate at the exhaust temperature from the proposed engines, but the costs associated with EMx catalyst are higher than the costs associated with a non-selective catalyst. The NSCR is estimated to provide up to 92 percent emission reduction with an AFR controller and replacement elements are readily available and cost effective to replace when catalyst degradation begins to occur. Technical review by ORM with catalyst vendors confirms a post catalyst emission rate of 0.15 grams per horsepower hour (0.15 g/hp-hr) is achievable.

Step 5: Select BACT

The NSCR is estimated to provide up to 92 percent emission reduction and is more cost effective than the EMx catalyst system. A post control emission limit of 0.15 grams per horsepower-hour (g/hp-hr) is achievable and selected as BACT. Therefore, NSCR with an AFR controller and an emission rate of 0.15 g/hp-hr is selected as BACT for NO_x for the Waukesha rich-burn engine.

CO Evaluation

Step 1: Identify All Available Control Technologies

The formation of CO is primarily the result of incomplete combustion and the following options are available for CO control. Similar to NO_x control, catalysts that react with CO can be used to convert these pollutants to CO₂. Therefore, EMx and NSCR constitute available control technologies for the proposed engine.

- NSCR with an AFR Controller
- EMx

Step 2: Eliminate Technically Infeasible Control Options

Both EMx and NSCR with an AFR controller are technically feasible for the control of CO emissions from the proposed engine. Because these technologies are the same control technology analyzed for the control of NO_x, these control technologies are applied for the control of CO from the proposed engine.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

Since NSCR with an AFR controller is deemed BACT for NO_x, and this technology is also capable of co-benefit control of CO emissions, EMx will not be considered further.

Step 4: Evaluate Most Effective Controls and Document Results

Finding the optimum point in a slightly rich environment can produce very high destruction efficiencies for both CO and NO_x at the same time. Just as for NO_x, the use of an AFR is necessary to control the concentration in a slightly rich environment.

Step 5: Select BACT

The NSCR with AFR controller is able to provide significant CO reduction. A post control emission limit of 0.30 g/hp-hr is achievable and selected as BACT. Therefore, NSCR with an AFR controller and an emission rate of 0.30 g/hp-hr is selected as BACT for CO for the Waukesha rich-burn engine.

VOC Evaluation

Step 1: Identify All Available Control Technologies

The remaining VOCs are primarily the result of incomplete combustion, and the following options are available for VOC control. Similar to NO_x control, catalysts that react with VOCs can be used to oxidize VOCs into CO₂ and water. Therefore, EMx and NSCR constitute available control technologies for the proposed engine.

- NSCR with an AFR Controller
- EMx

Step 2: Eliminate Technically Infeasible Control Options

Both EMx and NSCR with an AFR controller are technically feasible for the control of residual VOC emissions from the proposed engine. Since these technologies are the same control technology analyzed for the control of NO_x, these control technologies are applied for the control of VOCs from the proposed engine.

Step 3: Rank Remaining Control Technologies by Control Effectiveness

Since NSCR with an AFR controller is deemed BACT for NO_x and CO, and this technology is also capable of co-benefit control of VOC emissions, EMx will not be considered further.

Step 4: Evaluate Most Effective Controls and Document Results

Finding the optimum point in a slightly rich environment can produce very high destruction efficiencies for CO, VOCs and NO_x, all at the same time. Just as for NO_x and CO, the use of an AFR is necessary to control the concentration in a slightly rich environment. The quality of the fuel gas combusted is a factor influencing the ability of the catalysts to effectively reduce VOC emissions and can cause variability in the emission rates resulting in slightly higher emissions compared to other recently permitted VOC limits applicable to 4-stroke, rich-burn engines.

Step 5: Select BACT

The NSCR with an AFR controller is capable of significant VOC reductions. A post control emission limit of 0.05 g/hp-hr is deemed achievable and selected as BACT. Therefore, NSCR with an AFR controller and an emission rate of 0.05 g/hp-hr is selected as BACT for VOCs from the Waukesha rich-burn engine. The quality of the fuel gas combusted is a factor influencing the ability of the catalysts to effectively reduce VOC emissions and can cause variability in the emission rates resulting in slightly higher emissions compared to other recently permitted VOC limits applicable to 4-stroke, rich-burn engines.

SO₂ and Particulate Matter Evaluation

Because of the nature and composition of the field gas, annual SO₂ emissions from the proposed operations are estimated at 0.04 tons per year; therefore, any add-on SO₂ control would be cost-prohibitive and deemed economically infeasible for the proposed project on a cost per ton of SO₂ removed basis. Therefore, a top-down BACT analysis is not presented. The proposed SO₂ BACT is the combustion of low sulfur field gas with no add-on controls. The proposed SO₂ BACT conforms to previous BACT determinations made by DEQ for similar engines.

ARM 17.8.752 requires a BACT analysis for PM, PM₁₀, and PM_{2.5} emissions. Because of the nature and composition of field gas, nearly all particulate matter emissions would be PM₁₀ or smaller and annual uncontrolled PM emissions are predicted at 1.19 tpy for both PM_{10/2.5} (see provided emissions estimates). Further, any available add-on particulate matter controls would not be compatible with the controls deemed BACT for CO, VOC, and NO_x, and any add-on controls would be cost-prohibitive and deemed economically infeasible for the proposed project on a cost per ton of PM_{10/2.5} removed basis. Therefore, a top-down BACT analysis for PM emissions is not presented. ORM proposes BACT as combustion of low-ash natural gas with no add-on controls. The proposed PM BACT conforms to previous BACT determinations made by DEQ for similar engines.

Pollutant-specific BACT limits for the proposed engines are as follows:

NO_x – 0.15 g/bhp-hr

CO – 0.30 g/bhp-hr

VOC – 0.05 g/bhp-hr

BACT conclusions prescribed under MAQP #1546-11 provide comparable controls and control cost to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

Unit ID	Description	NOx	CO	VOC	SO ₂	PM	HCHO	HAP
		TPY	TPY	TPY	TPY	TPY	TPY	TPY
E-1.2	687-hp Waukesha L-7042 G Engine	65.67	23.22	5.71	0.01	0.42	0.44	0.70
E-2	687-hp Waukesha L-7042 G Engine	13.24	19.86	6.62	0.01	0.42	0.44	0.70
E-3	1,680-hp Waukesha	2.43	4.86	0.81	0.04	1.19	0.49	1.21
TK-1.2	400-bbl Condensate Tank	--	--	1.09	--	--	--	0.11
TK-2.2	400-bbl Condensate Tank	--	--	0.15	--	--	--	0.06
TK-4	400-bbl Condensate Tank	--	--	0.15	--	--	--	0.06
COMBUST	Combustor for Tank Emissions	0.11	0.49	1.21	0.00	--	--	0.10
TL-1	Condensate Truck Loading	--	--	10.19	--	--	--	0.54
FL-1	Emergency Flare - Revise	0.12	0.22	0.16	<0.01	0.01	<0.01	<0.01
TK-3	200-bbl Methanol Tank	--	--	0.13	--	--	--	0.13
FUG	Fugitive Emissions	--	--	5.24	--	--	--	0.43
BD	Miscellaneous Venting and Blowdowns	--	--	12.02	--	--	--	0.05
Total =		81.57	48.65	43.48	0.06	2.03	1.37	4.07

687 hp Waukesha 7042G Compressor Engine

Brake Horsepower: 687 bhp @ 750 rpm

Hours of Operation: 8,760 hr/yr

Max Fuel Combustion Rate: $7.142 \text{ MBtu/hp-hr} * 687 \text{ bhp} = 4,906.55 \text{ MBtu/hr} * 1 \text{ MMBtu}/1,000$

MBtu = 4.907 MMBtu/hr

CRITERIA POLLUTANT EMISSION FACTORS*

Design Class	Fuel Input (lb/MMBtu)						
	NO _x	CO	VOC	SO ₂	PM _{10/2.5}	PM Cond	PM Total
4S-RB	2.21E+00	3.72E+00	2.96E-02	5.88E-04	9.50E-03	9.91E-03	1.94E-02

*AP-42 Tables 3.2-3 (7/00)

*NO_x, CO, and VOC emissions based on manufacturer data and/or permit limit; all others based on AP-42.

Note: Total particulate matter (PM) is the sum of filterable PM (PM_{10/2.5}) and condensable PM. All PM from natural gas combustion is assumed to be less than 1.0 micrometer in diameter.

PM/PM₁₀/PM_{2.5} Emissions (Filterable & Condensable)

Emission Factor: $1.941\text{E-}02 \text{ lb/MMBtu}$ (filterable + condensable; AP-42, Chapter 3, Table 3.2-3, 7/00)

Calculations: $1.941\text{E-}02 \text{ lb/MMBtu} * 4.907 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.42 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 15.0 lb/hr (permit limit)

Calculations: $15.0 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 65.70 \text{ ton/yr}$

CO Emissions

Emission Factor: 5.03 lb/hr (permit limit)

Calculations: $5.03 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 23.22 \text{ ton/yr}$

VOC Emissions

Emission Factor: 1.3 lb/hr (permit limit)

Calculations: $1.3 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 5.71 \text{ ton/yr}$

SO_x Emissions

Emission Factor: $5.88\text{E-}04 \text{ lb/MMBtu}$ (AP-42, Chapter 3, Table 3.2-3, 7/00)

Calculations: $5.88\text{E-}04 \text{ lb/MMBtu} * 4.907 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.012 \text{ ton/yr}$

687 hp Waukesha 7042G Compressor Engine

Brake Horse Power: 687 bhp @ 750 rpm

Hours of Operation: 8,760 hr/yr

Max Fuel Combustion Rate: $7.142 \text{ MBtu/hp-hr} * 687 \text{ bhp} = 4,906.55 \text{ MBtu/hr} * 1 \text{ MMBtu}/1,000$

MBtu = 4.907 MMBtu/hr

PM/PM₁₀/PM_{2.5} Emissions (Filterable & Condensable)

Emission Factor: $1.941\text{E-}02 \text{ lb/MMBtu}$ (filterable + condensable; AP-42, Chapter 3, Table 3.2-3, 7/00)

Calculations: $1.941\text{E-}02 \text{ lb/MMBtu} * 4.907 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.42 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 3.03 lb/hr (permit limit)

Calculations: $3.03 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 13.27 \text{ ton/yr}$

CO Emissions

Emission Factor: 4.54 lb/hr (permit limit)

Calculations: $4.54 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 19.90 \text{ ton/yr}$

VOC Emissions

Emission Factor: 1.51 lb/hr (permit limit)

Calculations: $1.51 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 6.63 \text{ ton/yr}$

SO_x Emissions

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

Calculations: $5.88\text{E-}04 \text{ lb/MMBtu} * 4.907 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.012 \text{ ton/yr}$

1,680 hp Waukesha 7044GSI Compressor Engine

Hours of Operation: 8,760 hr/yr

Max Fuel Combustion= 13.96 MMBtu/hr

PM₁₀/PM_{2.5} Emissions (Filterable)

Emission Factor: 9.5E-03 lb/MMBtu (filterable)

Calculations: $9.5\text{E-}03 \text{ lb/MMBtu} * 13.96 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.58 \text{ ton/yr}$

PM Condensable

Emission Factor: 9.91E-03 lb/MMBtu (filterable + condensable; AP-42, Chapter 3, Table 3.2-3, 7/00)

Calculations: $9.92\text{E-}03 \text{ lb/MMBtu} * 13.96 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.61 \text{ ton/yr}$

PM 10/2.5 Total (Filterable & Condensable)

Emission Factor: 1.941E-02 lb/MMBtu (filterable + condensable; AP-42, Chapter 3, Table 3.2-3, 7/00)

Calculations: $1.941\text{E-}02 \text{ lb/MMBtu} * 13.96 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.19 \text{ ton/yr}$

NO_x Emissions

Emission Factor: 0.55 lb/hr (permit limit)

Calculations: $0.55 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 2.43 \text{ ton/yr}$

CO Emissions

Emission Factor: 1.11 lb/hr (permit limit)

Calculations: $1.11 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 4.86 \text{ ton/yr}$

VOC Emissions

Emission Factor: 0.18 lb/hr (permit limit)

Calculations: $0.18 \text{ lb/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.81 \text{ ton/yr}$

SO_x Emissions

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

Calculations: $5.88\text{E-}04 \text{ lb/MMBtu} * 13.96 \text{ MMBtu/hr} * 8,760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.04 \text{ ton/yr}$

SCD 48 Emissions

<i>Natural Gas Emissions Calculations based on AP 42, 1.4-1, Small boiler</i>									
1.0×10^{-4}	$\frac{\text{lb}}{\text{scf NOx}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 7.11\text{E-}03 \frac{\text{ton}}{\text{year}}$ of NOx
8.4×10^{-5}	$\frac{\text{lb}}{\text{scf CO}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 6.03\text{E-}03 \frac{\text{ton}}{\text{year}}$ of CO
7.6×10^{-6}	$\frac{\text{lb}}{\text{scf PM T}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 5.46\text{E-}04 \frac{\text{ton}}{\text{year}}$ of PM T
5.7×10^{-6}	$\frac{\text{lb}}{\text{scf PM C}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 4.09\text{E-}04 \frac{\text{ton}}{\text{year}}$ of PT C
1.9×10^{-6}	$\frac{\text{lb}}{\text{scf PM F}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 1.36\text{E-}04 \frac{\text{ton}}{\text{year}}$ of PM F
$.6 \times 10^{-6}$	$\frac{\text{lb}}{\text{scf SO2}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 4.31\text{E-}05 \frac{\text{ton}}{\text{year}}$ of SO2
1.1×10^{-5}	$\frac{\text{lb}}{\text{scf TOC}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 7.90\text{E-}04 \frac{\text{ton}}{\text{year}}$ of TOC
5.5×10^{-6}	$\frac{\text{lb}}{\text{scf VOC}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 3.95\text{E-}04 \frac{\text{ton}}{\text{year}}$ of VOC
1.2×10^{-1}	$\frac{\text{lb}}{\text{scf CO2}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 8.62\text{E+}00 \frac{\text{ton}}{\text{year}}$ of CO2
$9.68\text{E-}06$	$\frac{\text{lb}}{\text{scf CO2}}$	X	16	$\frac{\text{scf}}{\text{hour}}$	X	8760	$\frac{\text{hours}}{\text{year}}$	X	$\frac{\text{ton}}{2000 \text{ lbs}} = 6.95\text{E-}07 \frac{\text{ton}}{\text{year}}$ of HAPs

400 BBL Condensate Tank (3)

400 bbl Condensate Tanks (TANKS 4.0.9d)	Losses (lbs)		
Components	Working Loss	Breathing Loss	Total Emissions
ONEOKE Condensate ND	11,047.48	3782.58	14380.06
Isobutane	1482.37	507.55	1989.92

Isopentane	1030.11	352.7	1382.81
Nonane (-n)	6.63	2.27	8.9
Octane (-n)	57.3	19.62	76.92
Pentane (-n)	738.29	252.79	991.08
Propane	4793.71	1641.33	6435.04
Toluene	12.09	4.14	16.23
Xylene (-m)	1.73	0.59	2.32
Benzene	7.85	2.69	10.54
Butane (n-)	2334	799.15	3133.15
Cyclohexane	186.03	63.69	249.72
Decane (-n)	0.67	0.23	0.9
Ethylbenzene	0.24	0.08	0.32
Heptane (-n)	194.13	66.47	260.6
Hexane (-n)	202.33	69.28	271.61

Loading Losses ⁴

Source	Unit ID	Throughput	Emission Factor	Emissions Control	Control Efficiency %	VOC Emissions
		mgal/yr	lb/mgal loaded			TPY
Truck Loading	LOAD-1	225	6.65	No	0%	0.75

⁴Using AP-42 (1/95) Section 5.2-4 Equation (1) for condensate loading emissions.

Loading loss [lb/1,000 gallon loaded] = $12.46 \cdot S \cdot P \cdot M / T$,
where:

$$\begin{aligned}
 0.6 &= S \text{ (saturation factor, submerged fill method)} \\
 8.3896 &= P \text{ (True vapor pressure of liquid loaded, average psia)} \\
 53.4695 &= M \text{ (Molecular weight of vapor, lb/lb-mol)} \\
 43.97 &= T \text{ (Temperature of bulk liquid loaded, average } ^\circ\text{F} + 460 = ^\circ\text{R)}
 \end{aligned}$$

Methanol Tank

Material	Unit ID	Tank Capacity	Throughput	VOC Emissions ¹			
		gal	gal/yr	Working	Breathing	Total	
				lb/yr	lb/yr	lb/yr	TPY
Methanol	TK-3	8,400	42,000	28.95	62.50	91.45	0.05
TOTAL (TPY) =							0.05

Emergency Flare

Emissions Summary

Pollutant	NO _x		CO		VOC		SO ₂		PM _{Total}	
	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY	lb/hr	TPY
Pilot light	0.010	0.044	0.008	0.037	0.001	0.002	0.000	0.000	0.011	0.048
Flare Emissions	0.18	0.12	0.74	0.22	0.71	.015	5.63	1.13	---	---

Pilot Gas Combustion

Operating Hours = 8,760 hr/yr
Pilot Rating = 876,000 scf/yr

	Throughput	Emission Factor ¹	Emissions	
Component	scf/yr	lb/10 ⁶ SCF	lb/hr	TPY
NO _x	876,000	100	0.010	0.044
CO	876,000	84	0.008	0.037
VOC	876,000	5.5	0.001	0.002
SO ₂	876,000	0.6	0.000	0.000
PM Total	876,000	7.6	0.001	0.003

Fugitives

Source Description	Number of Sources ¹	Service	TOC Emission Factors ²	Control Efficiency	VOC wt% ³	VOC Emissions	
			lb/hr/source			lb/hr	TPY
Compressor Seals	4	Gas	0.01940	0%	29%	0.02	0.10
Connectors	400	Gas	0.00044	0%	29%	0.05	0.22
Flanges	250	Gas	0.00086	0%	29%	0.06	0.27
Valves	200	Gas	0.00992	0%	29%	0.58	2.53
Connectors	100	Light Liquid	0.00046	0%	100%	0.05	0.20
Flanges	65	Light Liquid	0.00024	0%	100%	0.02	0.07
Open Ended Lines	2	Light Liquid	0.00309	0%	100%	0.01	0.03
Pump Seals	2	Light Liquid	0.02867	0%	100%	0.06	0.25
Valves	50	Light Liquid	0.00551	0%	100%	0.28	1.21
Total Fugitive Emissions (TPY) =							4.88

¹ Number of sources based on fugitive count for similar site with similar equipment

² Source: *Protocol for Equipment Leak Emissions Estimates*, EPA Document 453/R-95-017, Table 2-4 (11/95)

³ Gas VOC weight % based on gas analysis dated 8/5/2008. Liquid VOC weight % assumed to be 100%.

V. Existing Air Quality

The facility is located in the NE¼ of the NE¼ of Section 20, Township 28 North, Range 58 East, in Roosevelt County, Montana. The air quality of this area is classified as unclassifiable/attainment for all the National Ambient Air Quality Standards (NAAQS) criteria pollutants.

VI. Ambient Air Impact Analysis

DEQ determined that there would be minor impacts to ambient air from this permitting action because the potential to emit emission increases remain below major permit thresholds. DEQ believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Health Risk Assessment

At the time it was permitted, a health risk assessment was conducted to determine if the combustor would comply with the negligible risk requirement of MCA 75-2-215. The emission inventory did not contain sufficient quantities of any pollutant on DEQ's list of pollutants for which non-inhalation impacts must be considered; therefore, DEQ determined that inhalation risk was the only necessary pathway to consider. Only those hazardous air pollutants for which there were established emission factors were considered in the emission inventory.

DEQ determined that the risks estimated in the risk assessment for the combustor is in compliance with the requirement to demonstrate negligible risk to human health and the environment. As documented in the table below and in accordance with the negligible risk requirement, no single HAP concentration results in Cancer Risk greater than $1.00\text{E-}06$ and the sum of all HAPs results in a Cancer Risk of less than $1.00\text{E-}05$. Further, the sum of Chronic Noncancer Reference Exposure Level (CNCREL) hazard quotient is less than 1.0 as required to demonstrate compliance with the negligible risk requirement.

<i>Negligible Risk Assessment for HAPs⁽¹⁾</i>	Modeled ¹ Concentration	Modeled ² Concentration	Cancer CIRF ⁽²⁾				CNCREL ¹ Hazard Quotient ⁽⁷⁾	CNCREL ² Hazard Quotient ⁽⁷⁾
HAP Species	(mg/m ³)	(mg/m ³)	(mg/m ³) ⁻¹	Cancer ¹ Risk ⁽³⁾	Cancer ² Risk ⁽³⁾	CNCREL ⁽⁶⁾ (mg/m ³)		
2-Methylnaphthalene	4.90241E-15		ND	ND	ND	ND	ND	
3-Methylchloranthrene	3.67681E-16		6.30E-03	2.32E-18		ND	ND	
7,12-Dimethylbenz(a)anthracene	3.26827E-15		7.10E-02	2.32E-16		ND	ND	
Acenaphthene	3.67681E-16		ND	ND		ND	ND	
Acenaphthylene	3.67681E-16		ND	ND		ND	ND	
Anthracene	4.90241E-16		ND	ND		ND	ND	
Benz(a)anthracene	3.67681E-16		1.10E-04	4.04E-20		ND	ND	
Benzene	4.28961E-13	1.61E-06	7.80E-06	3.35E-18	1.26E-11	3.00E+01	1.43E-14	5.38E-08
Benzo(a)pyrene	2.45121E-16		1.10E-03	2.70E-19		ND	ND	
Benzo(b)fluoranthene	3.67681E-16		1.10E-04	4.04E-20		ND	ND	
Benzo(g,h,i)perylene	2.45121E-16		ND	ND		ND	ND	
Benzo(k)fluoranthene	3.67681E-16		1.10E-04	4.04E-20		ND	ND	
Chrysene	3.67681E-16		1.10E-05	4.04E-21		ND	ND	
Dibenzo(a,h)anthracene	2.45121E-16		1.20E-03	2.94E-19		ND	ND	
Dichlorobenzene	2.45121E-13		1.10E-05	2.70E-18		8.00E+02	3.06E-16	
Fluoranthene	6.33228E-10		ND	ND		ND	ND	
Fluorene	6.12801E-16		ND	ND		ND	ND	
Formaldehyde	5.71948E-16		5.50E-09	3.15E-24		9.80E+00	5.84E-17	
Hexane	1.532E-11	1.05E-05	ND	ND	ND	7.00E+02	2.19E-14	1.50E-08
Indeno(1,2,3,c,d)pyrene	3.67681E-10		1.10E-04	4.04E-14		ND	ND	
Naphthalene	3.67681E-16		3.40E-05	1.25E-20		3.00E+00	1.23E-16	
Phenanthrene	3.47254E-15		ND	ND		ND	ND	
Propane	N/A	4.42E-08	ND	N/A	ND	ND	N/A	ND
Pyrene	N/A		ND	N/A		ND	N/A	
Toluene	N/A	0.00E+00	ND	N/A	ND	5.00E+03	N/A	0.00E+00
Natural Gas ¹ Process Gas ²				4.07E-14	1.26E-11		3.67E-14	6.87E-08

- (1) Source of chronic dose-response values is from Table 1: Prioritized Chronic Dose Response Values for Screening Risk Assessments (www.epa.gov/ttn/atw/toxsource/table1.pdf, 6/12/07).
- (2) Cancer Chronic Inhalation Risk Factor (1/mg/m³).
- (3) Cancer Risk is unitless and is calculated by multiplying the predicted concentration by the CIRF.
- (4) AKA Propylene dichloride.
- (5) AKA Tetrachloroethene, Perchloroethylene.
- (6) Chronic Noncancer Reference Exposure Level.
- (7) The CNCREL hazard quotient is determined by calculating the modeled HAP concentration by the CNCREL.

ND Not Determined because no value is provided in Table 1: Prioritized Chronic Dose Response Values for Screening Risk Assessments (www.epa.gov/ttn/atw/toxsource/table1.pdf, 6/12/07).

VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, DEQ conducted a private property taking and damaging assessment. See Environmental Assessment below.

IX. Environmental Assessment

An Environmental Assessment was completed for this modification, located below.

Analysis Prepared By: Craig Henrikson

Date: May 8, 2025



FINAL ENVIRONMENTAL ASSESSMENT

JUNE 11, 2025

**Air Quality Permitting Services Section
Air Quality Bureau
Air, Energy and Mining Division
Montana Department of Environmental Quality**

PROJECT/SITE NAME: Bainville Compressor Station

APPLICANT/COMPANY NAME: ONEOK Rockies Midstream, LLC

MAQP #1546-11

LOCATION: The facility location is 48.16895°N, latitude and - 104.24769°W, longitude.
NE 1/4, NE 1/4, Section 20, Township 28N, Range 58E

COUNTY: Roosevelt

PROPERTY OWNERSHIP: FEDERAL STATE PRIVATE X

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Overview of Proposed Action

Authorizing Action

Under the Montana Environmental Policy Act (MEPA), Montana agencies are required to prepare an environmental review for state actions that may have an impact on the Montana environment. The Proposed Action is a state action that may have an impact on the Montana environment; therefore, the Montana Department of Environmental Quality (DEQ) must prepare an environmental review. This EA will examine the proposed action and alternatives to the proposed action and disclose potential and proximate impacts that may result from the proposed and alternative actions. DEQ will determine the need for additional environmental review based on consideration of the criteria set forth in Administrative Rules of Montana (ARM) 17.4.608.

Description of DEQ Regulatory Oversight

DEQ implements the Clean Air Act of Montana, §§ 75-2-101, et seq., (CAA) Montana Code Annotated (MCA), overseeing the development of sources of regulated pollutants and associated facilities. DEQ has authority to analyze proposed emitting units subject to rule established in ARM 17.8.743.

Proposed Action

ONEOK Rockies Midstream (ORM) has applied for a Montana Air Quality Permit (MAQP) under the CCA. The MAQP regulates a natural gas compressor station, and this action would add an additional compressor engine to the existing MAQP. 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 CAA of Montana and the administrative rules adopted thereunder, ARMs 17.8.101 et. seq. The proposed action would be located on privately owned land, in Roosevelt County, Montana. All information included in this EA is derived from the permit application, discussions with the applicant, analysis of aerial photography, topographic maps, and other research tools.

Table 1. Summary of Proposed Action

General Overview	This permitting action would approve a new natural gas compressor engine up to 1,680 horsepower to the existing permit. The engine would use field gas for fuel.
Duration & Hours of Operation	Construction: Approximately one month Operation: Continuous operation depending upon compressor station throughput.
Estimated Disturbance	A new building structure would be required with approximate dimensions of 22 feet by 36 feet to house the new compressor engine and compressor. The disturbance to accommodate this building would occur within the current graded facility pad area. The aerial view of this compressor station pad shows a previously disturbed area of approximately 300 feet by 300 feet.

Construction Equipment	The following equipment would be utilized: Small cranes and other industrial vehicles used to lift and locate the compressor engine and related infrastructure.
Personnel Onsite	Construction: A small number of construction personnel would be required to complete the construction project. Operation: No new permanent employees would be anticipated as the facility is normally unstaffed.
Location and Analysis Area	Location: The facility location is for 48.16895°N, latitude and - 104.24769°W, longitude. Section 20, Township 28N, Range 58E 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.

Table 2. The applicant is required to comply with all applicable local, county, state, and federal requirements pertaining to the following resource areas.

Air Quality	The applicant proposes to add a new compressor engine to the existing Bainville Compressor Station.
Water Quality	This permitting action would not affect water quality. ORM is required to comply with the applicable local, county, state and federal requirements pertaining to water quality.
Erosion Control and Sediment Transport	This permitting action would not affect erosion control and sediment transport. ORM is required to comply with the applicable local, county, state and federal requirements pertaining to erosion control and sediment transport.
Solid Waste	This permitting action would not affect solid waste in the area. ORM is required to comply with the applicable local, county, state and federal requirements pertaining to solid waste.
Cultural Resources	This permitting action would not affect cultural resources. ORM is required to comply with the applicable local, county, state and federal requirements pertaining to cultural resources.
Hazardous Substances	This permitting action would not contribute to any hazardous substances. ORM is required to comply with the applicable local, county, state and federal requirements pertaining to hazardous substances.
Reclamation	This permitting action would not require any reclamation.

Table 3. Cumulative Impacts

Past Actions	There are no recent similar permitting actions at this site. The last air quality permitting action (2019) removed an hourly limitation on the emergency flare which was determined to be inappropriate for a flare operating for emergency conditions.
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Present Actions	This permitting action regulates a new compressor engine to an existing permitted facility. The new compressor engine is subject to a regulatory review as well as a Best Available Control Technology (BACT) review.
Related Future Actions	DEQ is not currently aware of any future projects from ORM for this facility. Any future projects would be subject to a new permit application.

Purpose, Need, and Benefits

DEQ's purpose in conducting this environmental review is to act upon ORM's application for a MAQP to compress natural gas for further processing. DEQ's action on the permit application is governed by § 75-2-201, et seq., Montana Code Annotated (MCA) and the Administrative Rules of Montana (ARM) 17.8.740, et seq.

See Figures 1 and 2 below for the project location of the Bainville Compressor site.

Figure 1: Site Location Map.



Figure 2. Parcel Boundaries



Other Governmental Agencies and Programs with Jurisdiction

The proposed action would be located on private land leased by the applicant. All applicable local, state, and federal rules must be adhered to, which may include other local, state, federal, or tribal agency jurisdiction. Other governmental agencies which may have overlapped, or additional jurisdiction include but may not be limited to: Montana Board of Oil and Gas, and Montana Public Service Commissions.

EVALUATION OF AFFECTED ENVIRONMENT AND IMPACT BY RESOURCE:

The impact analysis will identify and evaluate the proximate direct and secondary impacts TO THE PHYSICAL ENVIRONMENT AND POPULATION IN THE AREA TO BE AFFECTED BY THE PROPOSED PROJECT. *Direct impacts* occur at the same time and place as the action that causes the impact. *Secondary impacts* are a further impact to Montana's environment that may be stimulated, induced by, or otherwise result from a direct impact of the action (ARM 17.4.603(18)). Where impacts would occur, the impacts will be described in this analysis. When the analysis discloses environmental impacts, these are proximate impacts pursuant to 75-1-201(1)(b)(iv)(A), MCA.

Cumulative impacts are the collective impacts on Montana's 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 pre-impact statement studies, separate impact statement evaluation, or permit processing procedures (ARM 17.4.603(7)). The project identified in Table 1 was analyzed as part of the cumulative impacts assessment for each resource subject to review, pursuant to MEPA (75-1-101, et. seq).

The duration of the proposed action is quantified as follows:

- **Construction Impacts (short-term):** These are impacts to the environment that would occur during the construction period, including the specific range of time.
- **Operation Impacts (long-term):** These are impacts to the environment during the operational period of the proposed action, including the anticipated range of operational time.

The intensity of the impacts 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. Geology and Soil Quality, Stability, and Moisture

The ORM parcel area soil survey is characterized as Tally-Lihen sandy loams with 1 to 8 percent slopes. The compressor station is not first-time disturbance for the ground surface. The new compressor and prefabricated building would be located on the existing graded pad but would be prepared for supporting the building and piping with concrete peers. The area surrounding the ORM parcel primarily includes pasture, agricultural crops, intermittent oil and gas wells and residential. The compressor station is located on property currently owned by Bears Coulee Ranch, LLC., which is part of a 123.8-acre parcel. The closest industrial operations include numerous registered oil and gas wells which are located in all directions from the compressor station. This closest oil and gas site is operated by Oasis Petroleum North American LLC, located approximately 1.3 miles northwest of the compressor station. The nearest perennial stream is Shotgun Creek which flows to the south and east of the compressor station facility. The closest approach is approximately 0.5 miles from the compressor station site.

Direct Impacts:

This permitting action would not be considered a new disturbance, as the land was previously graded as a facility/site pad. The aerial view of this pad shows a disturbed area of approximately 300 feet by 300 feet which appears as dirt/gravel. A new prefabricated building 22 feet by 36 feet would house the new compressor, and concrete peers would support external piping. Therefore, minor direct impacts to geology, soil quality, stability and moisture would be expected because of the proposed project due to the existing industrial nature of the area. Road access to the compressor station appears to originate from Road 1009 which runs north-south along the eastern boundary of the Bainville Station site pad and joins U.S. Highway 2 further to the south.

Secondary Impacts:

No secondary impacts to geology, stability, and moisture would be expected because this action is occurring within the previously disturbed site pad, and first-time disturbance is not occurring.

Cumulative Impacts:

No cumulative impacts to geology, stability, and moisture would be expected because of this permitting action, as it would take place within an already disturbed site pad.

2. Water Quality, Quantity, and Distribution

The ORM facility is located approximately 2 miles northwest of the Town of Bainville and directly north by approximately 0.6 miles from U.S. Highway 2. The nearest perennial stream is Shotgun Creek which flows south and east of the compressor station facility. The Missouri

River is south of the compressor station by approximately 7 to 9 miles as the river turns south and heads easterly.

Direct Impacts:

ORM has not submitted any other permit applications that DEQ is aware of related to this new compressor engine that would include water sources or waste discharges

No fragile or unique water resources or values are present in the immediate area affected by the proposed project. Shotgun Creek is located approximately 0.6 miles south and is the nearest perennial stream. Further, no water uses or any form of discharge to surface or groundwater would occur because of the proposed project. Therefore, no direct impacts to water quality, quantity or distribution would be expected because of the proposed project.

Secondary Impacts:

During operations, discharges would not be released to ground or surface water because of the proposed project. Further, as permitted, the proposed project would not be expected to cause or contribute to a violation of the applicable primary or secondary NAAQS. See permit analysis for more detailed information regarding air quality impacts. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings. Therefore, no secondary impacts to water quality would be expected because of the proposed project. No secondary impacts to water quality, quantity, and distribution would be expected from this permitting action.

Cumulative Impacts:

No cumulative impacts to water quality, quantity, and distribution are anticipated from this permitting action as ORM would not have normal discharges for this site.

3. Air Quality

For details about the existing air quality, see Section V of the Permit Analysis. This facility is located in an Unclassifiable/Attainment category. The compressor station location is approximately 0.23 miles from a $\frac{3}{4}$ section parcel (477 acres) owned by the State of Montana as State Trust Land. This parcel would be the closest location that the public would be able to recreate from the compressor station site.

Direct Impacts:

Expected emissions from the construction and operation of this permitting action are shown in the Permit Analysis Section within the Emission Inventory. An assessment of greenhouse gases (GHGs) is described in Section 23 of this draft EA.

Air quality standards, set by the federal government and DEQ are enforced by DEQ's Air Quality Bureau (AQB) and allow for air pollution at the levels permitted by the MAQP. The ORM facility has emissions including particulate matter (PM) species, oxides of nitrogen

(NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), volatile organic compounds (VOCs), Hazardous Air Pollutants (HAPs), and GHG emissions. The largest criteria pollutant emissions from the new engine include CO and NO_x, with emissions estimated at approximately 5 tons per year (tpy) for CO, and 2.5 tpy for NO_x. The primary function of the new compressor engine is to compress natural gas in the pipeline by burning field gas.

Air pollution control equipment must be operated at the maximum design for which it is intended. ARM 17.8.752(2). Limitations would be placed on the allowable emissions for the new emission sources. DEQ conducted a Best Available Control Technology (BACT) analysis and made a BACT determination for the new compressor engine. The proposed emission limits were reviewed by DEQ and incorporated into MAQP #1546-11, if necessary, as federally enforceable conditions.

Air quality standards are regulated by the federal Clean Air Act, 42 U.S.C. 7401 *et seq.* and the Montana CAA, § 50-40-101 *et seq.*, MCA, and are implemented and enforced by DEQ's AQB. As stated above, ORM is required to comply with all applicable state and federal laws. Minor air quality impacts would be anticipated from the proposed action.

Secondary Impacts:

Impacts to air quality from the operation of the ORM facility are to be restricted by an MAQP and therefore should have minor secondary air quality impacts.

Cumulative Impacts:

Cumulative impacts to air quality from the operation of the ORM facility are to be restricted by an MAQP and therefore should have minor air quality impacts. Minor impacts are anticipated from this permitting action. The nearby area also has one other registered oil and gas sites, that contribute to the air quality in the area. There are approximately nine registered oil and gas sites within a 4-mile radius of the compressor station (Montana DEQ GIS Oil and Gas Registration GIS layer).

4. Vegetation Cover, Quantity, and Quality

DEQ conducted research using the Montana Natural Heritage Program (MTNHP) website and ran a query titled "Environmental Summary Report" dated May 5, 2025. The Montana State Library Natural Heritage Program area resulted in a 1,918-acre area, as the compressor station site falls between three default polygons. Land cover is characterized as 38 percent cultivated crops, 21 percent Great Plains Sand Prairie, 15 percent Great Plains Mixedgrass Prairie, 12 percent pasture/hay, 5 percent Great Plains Saline Depression Wetland and 2 percent Great Plains Riparian. The remaining portions include roads, residential and open water etc. There are 454 acres within the selected area comprised of Montana State Trust Lands. The closest cover to the compressor station appears to be crop/hayfields/prairie and residential lots. No fragile or unique resources or resources of statewide or societal importance, are present in the affected area.

The proposed action would be located within the boundary currently operating as a compressor station.

The polygon area analyzed using the MTNHP website produces an area inherently larger than the specific disturbance area, so some additional species may be reported that are not necessarily present in the affected area, but nearby.

Direct Impacts:

The information provided above is based on the information that DEQ had available at the time of draft EA preparation and information provided by the applicant. The permit application provided an analysis of aerial photography, proposed site map, and nearby site details to support the EA development. Since the proposed action would occur within the compressor station pad area, negligible impacts to vegetation cover are anticipated, as this permitting action is not considered first time disturbance on the property.

Secondary Impacts:

Negligible secondary impacts to vegetation cover, quantity, and quality are expected since no new land disturbance would occur because of this permitting action and the previously disturbed pad measures approximately 300 feet by 300 feet.

Cumulative Impacts:

Negligible cumulative impacts to vegetation cover, quantity, and quality are expected from this permitting action as it does not reduce the amount of vegetation cover as the site was previously cleared to approximately 300 feet by 300 feet.

5. Terrestrial, Avian, and Aquatic Life and Habitats

As described in Section 4., Vegetation Cover, the affected area is represented by pasture, agricultural crops, intermittent oil and gas wells and residential. DEQ conducted research using the MTNHP website and ran the query titled “Environmental Summary Report” dated May 5, 2025, which identified the following animal Species of Concern (SOC) with observations: Eastern Red Bat, Whooping Crane, Long-eared Myotis, Northern Hoary Bat, Brook Stickleback, Sharp-tailed Grouse, American White pelican, Ferruginous Hawk, Northern Leopard Frog, Great Blue Heron, Golden Eagle, Horned Grebe, Least Tern, and Solitary Sandpiper.

The polygon area analyzed using the MTNHP website produces an area inherently larger than the specific disturbance area, so some additional species may be reported that are not necessarily present within the compressor station property, but nearby.

Direct Impacts:

The potential impact to terrestrial, avian and aquatic life and habitats would be negligible to minor, due to the existing use of the site as a compressor station.

Secondary Impacts:

Because the proposed action would occur within the existing compressor station pad, no secondary impacts to terrestrial, avian and aquatic life and habitats would be stimulated or induced by the direct impacts analyzed above as all actions are occurring within boundary roughly 300 feet by 300 feet, and this is not considered first time disturbance

Cumulative Impacts:

No cumulative impacts to terrestrial, avian and aquatic life and habitats would be stimulated or induced by the direct impacts analyzed above. The new compressor is located on land that has already been disturbed by human activities and this is not considered first-time disturbance.

6. Unique, Endangered, Fragile, or Limited Environmental Resources

As described in Section(s) 4 and 5 above, DEQ conducted a search using the MTNHP webpage. The search used a polygon that overlapped the site and produced the list of species of concern identified in Section 5. The project would not be in core, general, or connectivity sage grouse habitat, as designated by the Sage Grouse Habitat Conservation Program (Program) at: <http://sagegrouse.mt.gov>.

Direct Impacts:

Among the SOC identified by the MTNHP, these species would not be expected to be displaced by the proposed action as the land where the permitting action would occur is an existing compressor station and was previously disturbed. Therefore, any potential direct impacts would be short-term and negligible.

Secondary Impacts:

The proposed action would have no secondary impacts to the identified species of concern because the permit conditions are protective of human and animal health and welfare, and the surrounding area is currently in use for a compressor station. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Cumulative Impacts:

The proposed action would have negligible cumulative impacts to environmental resources because the permit conditions are protective of human and animal health and all lands involved in the proposed action have already been disturbed by human activities.

7. Historical and Archaeological Sites

The Montana State Historic Preservation Office (SHPO) was contacted to conduct a file search for historical and archaeological sites within Section 20, Township 28 North, Range 58 East which includes the area affected by the proposed project. SHPO provided a letter dated

May 6, 2025, stating there have been three previously recorded sites within the designated search location. Two of the sites were deemed eligible for registry status and the other was ineligible. The sites are characterized by the following descriptions:

Site 24RV0132	Historic Railroad	Eligible
Site 24RV0153	Historic Road	Eligible
Site 24RV0698	Historic Transmission Line	Ineligible

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, SHPO recommends that they be recorded, and a determination of their eligibility be made prior to any disturbance taking place.

However, should structures need to be altered, or if cultural materials are inadvertently discovered during this proposed action, SHPO requests their office be contacted for further investigation.

Direct Impacts:

The search conducted by SHPO identified three sites in the search area located near the compressor site, however none of these sites are located within the compressor pad parcel. Therefore, no impacts to the identified sites would be expected because of the proposed project. Therefore, no direct impacts to historical and archaeological sites would be expected because of the proposed project.

Secondary Impacts:

No secondary impacts to historical and archaeological sites are anticipated since the proposed action would not impact any existing historical sites.

Cumulative Impacts:

No cumulative impacts to historical and archaeological sites are anticipated since the proposed action would not impact any existing historical sites.

8. Aesthetics

The proposed action would occur on private land owned by Bears Coulee Ranch LLC., (and leased by ORM) and in an area mostly surrounded by pasture, agricultural crops, industrial as well as residential. The closest residence building is located approximately 600 feet south from the compressor station site. There are slightly closer subdivision lots that do not yet appear as if any buildings have yet been constructed (NAIP 2023 imagery). The compressor station sits on the southeast portion of a 123.8 acre parcel.

Direct Impacts:

The addition of the new building that would contain the new compressor engine would change the visual appearance of the site itself but there are already existing buildings, tanks, and other equipment on site. There would be negligible to minor increases in noise levels from construction and operation of the unit. The new compressor engine would be housed in the building and negligible to minor noise increases would be expected beyond the compressor site. The new building would be visible to those nearby the site, but the additional building inside lighting and any external lighting would not be expected to change the overall area lighting.

Secondary Impacts:

There would be minor secondary impacts on the aesthetics due to the addition of the new building housing the new compressor engine. Impacts would be long-term and minor.

Cumulative Impacts:

Long-term impacts would occur with the addition of the new building house the compressor engine, which creates a minor change in the appearance of the property. This is not considered first time disturbance as the property has already been disturbed by human activities since the site is an existing compressor station.

9. Demands on Environmental Resources of Land, Water, Air, or Energy

The site is located on private land. See Sections 2, 3, and 4 of this EA for details regarding land, water, and air impacts.

Direct Impacts:

There would be a minor increase in demand for the environmental resources of land, air, and energy for these actions. There would be minor impacts on air and energy as the emissions would be increased with the construction and operation of the new compressor engine. Any direct impacts would be long-term and minor.

Secondary Impacts:

No secondary impacts to demands on land, water, air, and energy are anticipated as a result of this permitting action due to this site already being disturbed by human activities.

Cumulative Impacts:

Minor cumulative impacts to demands on land, water, air, and energy are anticipated as a result of this permitting action. Minor cumulative impacts are anticipated with the addition of the new compressor engine in terms of land, air, and energy, as this causes an increase demand on all of those areas.

10. Impacts on Other Environmental Resources

The site is currently an existing compressor station site with sporadic other oil and gas wells in the area.

Direct Impacts:

No other environmental resources are known to have been identified in the area beyond those discussed above. Hence, there is no impact to other environmental resources.

Secondary Impacts:

No secondary impacts to other environmental resources are anticipated as a result of the proposed permitting action. No secondary impacts to human health and safety are anticipated as a result of the proposed permitting action due to the current industrial nature of the facility. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Cumulative Impacts:

No cumulative impacts to other environmental resources are anticipated as a result of the proposed permitting action.

11. Human Health and Safety

The applicant would be required to adhere to all applicable state and federal safety laws. The Occupational Safety and Health Administration (OSHA) has developed rules and guidelines to reduce the risks associated with this type of labor. Members of the public would not be allowed in the immediate proximity to the project during construction or operations and access to the public would continue to be restricted to this property.

Direct Impacts:

Negligible changes in impacts to human health and safety are anticipated as a result of this project action due to the industrial nature of the facility.

Secondary Impacts:

No secondary impacts to human health and safety are anticipated as a result of the proposed permitting action due to the nature of the facility. Secondary NAAQS provide public welfare protection, including protection against decreased visibility and damage to animals, crops, vegetation, and buildings.

Cumulative Impacts:

No cumulative impacts to human health and safety are anticipated as a result of the proposed permitting action due to the nature of the facility.

12. Industrial, Commercial, and Agricultural Activities and Production

This site is privately owned land leased by ORM, and the property has had previous disturbance from human activities.

Direct Impacts:

Any impacts on industrial, commercial, and agricultural activities and production in the area would be long-term and major due to the addition of the compressor engine which would increase industrial throughput of the facility.

Secondary Impacts:

Minor secondary impacts to industrial, commercial, and agricultural activities and production are anticipated as a result of the proposed permitting action as this property would have additional equipment which would require maintenance, safety checks, and rely upon these maintenance resources. The increased compressor station throughput would increase the likelihood of more gas production at area oil and gas wells.

Cumulative Impacts:

The cumulative impacts would be minor as the property has been previously disturbed for the current compressor station operation but would continue to operate as a compressor station with the addition of the new engine.

13. Quantity and Distribution of Employment

With the approval of this permit, no new permanent employees would be expected as the site normally is unstaffed. Construction of the site would require a number of contract employees which is expected to last one to two months.

Direct Impacts:

The proposed action would be expected to have a negligible impact on the overall distribution of employment as the facility would remain unstaffed for normal operation. Temporary construction employees would be required for site preparation and construction. Therefore, there would be negligible minor direct impacts.

Secondary Impacts:

The proposed action would be expected to have a negligible secondary impact on the overall distribution of employment as the facility would remain unstaffed for normal operation. Therefore, there would be negligible to minor secondary impacts.

Cumulative Impacts:

The proposed action would be expected to have a negligible cumulative impact on the overall distribution of employment as the facility would remain unstaffed for normal operation. Therefore, there would be negligible cumulative impacts

14. Local and State Tax Base and Tax Revenues

Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefiting from this operation.

Direct Impacts:

The proposed action would be expected to have long-term, major impacts on the local and state tax base and tax revenues due to the addition of the new compressor station.

Secondary Impacts:

ORM would be responsible for accommodation of taxes associated with the operation of the modified facility. Minor secondary impacts to local and state tax base and tax revenues are anticipated as a result of the proposed permitting action.

Cumulative Impacts:

Minor impacts to local and state tax base and tax revenues are anticipated with the construction and operation of the new compressor engine. ORM would be responsible for accommodation of any taxes associated with the operation of the facility operation. Local, state, and federal governments would be responsible for appraising the property, setting tax rates, collecting taxes, from the companies, employees, or landowners benefiting from this operation. Therefore, any cumulative impacts would be minor and long-term, consistent with existing impacts in the affected area.

15. Demand for Government Services

The area surrounding the ORM site consists of pasture, agricultural crops, and oil and gas sites as well as residential lots.

Direct Impacts:

The air quality permit has been prepared by DEQ air quality permitting staff as part of their day-to-day, regular responsibilities. Therefore, any direct impacts to demands for government services would be short-term, consistent with existing impacts, and minor. Compliance review and assistance oversight by DEQ AQB would be conducted in concert with other area activities when in the vicinity of the proposed project. Therefore, any direct impacts would be long-term and negligible to minor, mainly through increased regulatory oversight by DEQ.

Secondary Impacts:

Initial and ongoing compliance inspections of facility operations would be accomplished by DEQ Air Quality Staff as part of their typical, regular duties and required to ensure the facility is operating within the limits and conditions listed in the air quality permit. Therefore, any secondary impacts to demands for government services would be long-term, consistent with

existing impacts, and minor.

Cumulative Impacts:

The air quality permit has been prepared by DEQ air quality permitting staff as part of their day-to-day, regular responsibilities. Following construction of the proposed facility, initial and ongoing compliance inspections of facility operations would be accomplished by state government employees as part of their typical, regular duties and required to ensure the facility is operating within the limits and conditions listed in the air quality permit. Therefore, any cumulative impacts to demands for government services would be long-term, consistent with existing impacts, and negligible. Minor cumulative impacts are anticipated on government services with the proposed action and a minimal increase in impact would occur from the permitting and compliance needs associated with this permitted facility.

16. Locally Adopted Environmental Plans and Goals

A review was conducted on May 8, 2025, to identify any locally adopted environmental plans or goals. No documents were found on the Roosevelt County public website at <https://www.rooseveltcountymt.gov/>. This infrastructure at the Bainville compressor station is consistent with other oil and gas infrastructure in the area, and does not indicate a shift in the types of industrial type activities in Roosevelt County.

Direct Impacts:

This facility is located on private property, and cadastral layers still reflect ownership under Bears Coulee Ranch as the current owner. Since no planning documents were located for Roosevelt County, DEQ relied on the SHPO search which does not indicate the activity would create any conflicts with inventoried resources.

Secondary Impacts:

Since no plans were identified for Roosevelt County, it is expected that the further development of the Bainville compressor station site is consistent with growth policy planning goals. Therefore, negligible to minor secondary impacts would be expected because of the proposed project.

Cumulative Impacts:

Since no plans were identified for Roosevelt County, it is expected that the further development of the Bainville compressor station site is consistent with growth policy planning goals. Therefore, negligible to minor cumulative impacts would be expected because of the proposed project.

17. Access to and Quality of Recreational and Wilderness Activities

The Bainville compressor station site is located approximately 2 miles northwest of the Town of Bainville and directly north by approximately 0.6 miles from U.S. Highway 2. The Missouri

River is south of the compressor station by approximately 7 to 9 miles as the river turns north and south and heads easterly. The compressor station location is approximately 0.23 miles from a $\frac{3}{4}$ section parcel (477 acres) owned by the State of Montana as State Trust Land. This parcel would be the closest location that the public would be able to recreate to the compressor station site. The Medicine Lakes Class I Wilderness Area is located approximately 18 miles directly north of the site, and the Fort Peck Reservation is located approximately 17 miles directly west of the site.

Direct Impacts:

There would be no impacts to the access to wilderness activities as the compressor station site is not close enough to limit impacts to either the Medicine Lakes Wilderness area or the Fort Peck Reservation. The State of Montana Trust land is the closest expected public access in the area, but as the Bainville compressor station is already existing, the additional compressor engine would not be expected to impact recreational activities at the State Trust land. Therefore, no direct impacts to access to and quality of wilderness and recreational activities would be expected because of the proposed project.

Secondary Impacts:

No wilderness areas are located nearby or accessed through this land. The nearest designated wilderness area is the Medicine Lakes Wilderness area located approximately 18 miles north. Therefore, no secondary impacts to access to and quality of wilderness activities would be expected because of the proposed project. No secondary impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed permitting action which is wholly contained within the boundary of the parcel.

Cumulative Impacts:

No wilderness areas are located nearby or accessed through this land owned by ORM. Therefore, no cumulative impacts to access to and quality of wilderness activities would be expected because of the proposed project. No cumulative impacts to access and quality of recreational and wilderness activities are anticipated as a result of the proposed permitting action which is wholly contained within the boundary of the Pump property.

18. Density and Distribution of Population and Housing

Direct Impacts:

ORM would not need to hire additional employees to operate the existing Bainville compressor station. This permitting action would be expected to have a minor increase in temporary construction-related employment in the area due to the pad preparation, building erection and compressor engine installation. No impacts for additional housing would be expected. Therefore, negligible to minor direct impacts to density and distribution of population and housing are anticipated because of the proposed action.

Secondary Impacts:

ORM would not need to hire additional employees to operate the existing Bainville compressor station. This permitting action would be expected to have a minor increase in temporary construction-related employment in the area due to the pad preparation, building erection and compressor engine installation. No secondary impacts for additional housing would be expected. Therefore, negligible to minor secondary impacts to density and distribution of population and housing are anticipated because of the proposed action.

Cumulative Impacts:

ORM would not need to hire additional employees to operate the existing Bainville compressor station. This permitting action would be expected to have a minor increase in temporary construction-related employment in the area due to the pad preparation, building erection and compressor engine installation. No cumulative impacts for additional housing would be expected. Therefore, negligible cumulative impacts to density and distribution of population and housing are anticipated because of the proposed action.

19. Social Structures and Mores

Based on the required information provided by ORM, DEQ is not aware of any native cultural concerns that would be affected by the proposed action on this existing facility. This facility is located approximately 17 miles east of the Fort Peck Reservation.

Direct Impacts:

The proposed action is located on the existing Bainville compressor site, and no changes to or disruption of native or traditional lifestyles would be expected because of the proposed project. Therefore, no impacts to social structure and mores are anticipated.

Secondary Impacts:

No secondary impacts to social structures and mores are anticipated as a result of the proposed actions due to the existing operations of the Bainville compressor station site.

Cumulative Impacts:

No cumulative impacts to social structures and mores are anticipated as a result of the proposed actions. Cumulative impacts are anticipated to be negligible as the location was already developed to serve as a compressor station site, and this is not considered first-time disturbance.

20. Cultural Uniqueness and Diversity

Based on the required information provided by ORM, DEQ is not aware of any unique qualities of the area that would be affected by the proposed action at this existing facility.

Direct Impacts:

ORM would not employ new permanent employees to accommodate the proposed action. The proposed project would not be expected to result in an increase or decrease in the local population as the construction would be short term and temporary. Therefore, no direct impacts to the existing cultural uniqueness and diversity of the affected population would be expected because of the proposed project.

Secondary Impacts:

ORM would not employ new staff to accommodate the proposed action, and the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no secondary impacts to the existing cultural uniqueness and diversity of the affected population are anticipated as a result of the proposed action.

Cumulative Impacts:

ORM would not employ new staff to accommodate operation for the proposed action, and the proposed project would not be expected to result in an increase or decrease in the local population. Therefore, no cumulative impacts to the existing cultural uniqueness and diversity of the affected population are anticipated as a result of the proposed action.

21. Private Property Impacts

The proposed action would take place on privately-owned land. 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 so as to constitute a taking. 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.

There are private residences in the nearby area of the proposed action. The closest occupied residence is located approximately 600 feet from the project site.

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?

YES	NO	
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

22. Other Appropriate Social and Economic Circumstances

Direct Impacts:

DEQ is unaware of any other appropriate short-term social and economic circumstances in the affected area that may be directly affected by the proposed project. Therefore, no further direct impacts would be anticipated.

Secondary Impacts:

The proposed project would allow for the construction and operation of a new compressor engine at the existing Bainville station. Any impacts to air quality would be long-term and minor.

DEQ is unaware of any other appropriate short-term social and economic circumstances in the affected area that may be directly affected by the proposed project. Therefore, no further secondary impacts would be anticipated.

Cumulative Impacts:

DEQ is unaware of any other appropriate short-term social and economic circumstances in the affected area that may be directly affected by the proposed project. Therefore, no further cumulative impacts would be anticipated.

23. Greenhouse Gas Assessment

Issuance of this permit would authorize ORM to operate a new compressor engine which would combust field gases and would also emit greenhouse gases. Estimates are based on the maximum rated combustion of field gas fuel in the new compressor engine.

The analysis area for this resource is limited to the activities regulated by the issuance of MAQP #1546-11, which is to permit a new natural gas-fired rich burn compressor engine. The amount of natural gas fuel utilized at this site may be impacted by a number of factors including product fuel demand, seasonal weather impediments and equipment malfunctions. To account for these factors DEQ has calculated the maximum amount of emissions using 8,760 hours per year of operation.

For the purpose of this analysis, DEQ has defined greenhouse gas (GHG) emissions as the following gas species: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), and many species of fluorinated compounds. The range of fluorinated compounds includes numerous chemicals which are used in many household and industrial products. Other pollutants can have some properties that also are similar to those mentioned above, but the Environmental Protection Agency (EPA) has clearly identified the species above as the primary GHGs. Water vapor is also technically a greenhouse gas, but its properties are controlled by the temperature and pressure within the atmosphere, and it is not considered an anthropogenic species.

DEQ has calculated GHG emissions using the EPA Simplified GHG Calculator version May 2023, for the purpose of totaling GHG emissions. This tool totals CO₂, N₂O, and CH₄ and reports the total as CO₂ equivalent (CO₂e) in metric tons CO₂e. The calculations in this tool are widely accepted to represent reliable calculation approaches for developing a GHG inventory.

Direct Impacts:

Operation of the natural gas-fired compressor engine at the ORM facility would produce exhaust fumes containing GHGs.

DEQ estimates that approximately 6,474 metric tons of CO₂e would be produced per year. To account for variability due to the factors described above, DEQ has calculated the maximum amount of emissions using a factor of 8760 hours per year for operation and the maximum firing rate of the new compressor engine.

Using the EPA simplified GHG Emissions Calculator for mobile sources, approximately 97 metric tons of CO₂e would be produced during construction. The construction estimate is based on the expected gallons of diesel and gasoline estimated by ORM for various construction vehicles.

Secondary Impacts:

GHG emissions contribute to changes in atmospheric radiative forcing, resulting in climate change impacts. GHGs act to contain solar energy loss by trapping longer wave radiation emitted from the Earth's surface and act as a positive radiative forcing component (BLM 2021). If a reader would like further details, please see the latest BLM report at reference BLM 2022 Annual GHG Report (Reference BLM 2022).

Per EPA's website "Climate Change Indicators", the lifetime of CO₂ cannot be represented with a single value because the gas is not destroyed over time. The gas instead moves between air, ocean, and land mediums with atmospheric carbon dioxide remaining in the atmosphere for thousands of years, due in part to the very slow process by which carbon is transferred to ocean sediments. CH₄ remains in the atmosphere for approximately 12 years. N₂O has the potential to remain in the atmosphere for about 109 years (EPA, Climate Change Indicators). The impacts of climate change throughout the southeastern area of Montana include changes in flooding and drought, rising temperatures, and the spread of invasive species (BLM 2021).

Cumulative Impacts:

Montana recently used the EPA State Inventory Tool (SIT) to develop a GHG inventory in conjunction with preparation of a possible grant application for the Community Planning Reduction Grant (CPRG) program. This tool was developed by EPA to help states develop their own greenhouse gas inventories, and this relies upon data already collected by the federal government through various agencies. The inventory specifically deals with CO₂, CH₄, and N₂O and reports the total as CO₂e. The SIT consists of eleven Excel based modules with pre-populated data that can be used with default settings or in some cases, allows states to input their own data when the state believes their own data provides a higher level of quality and accuracy. Once each of the eleven modules is filled out, the data from each module is exported into a final "synthesis" module which summarizes all of the data into a single file. Within the synthesis file, several worksheets display the output data in a number of formats such as GHG emissions by sector and GHG emissions by type of GHG.

DEQ has determined the use of the default data provides a reasonable representation of the GHG inventory for the various sectors of the state, and the estimated total annual GHG inventory by year. The SIT data from EPA is currently only updated through the year 2021, as it takes several years to validate and make new data available within revised modules. DEQ maintains a copy of the output results of the SIT. EPA has released a new version of the SIT tool which is now updated through 2022, but DEQ has not yet validated a new Montana inventory for the year 2022 data.

DEQ has determined that the use of the default data provides a reasonable representation of the GHG inventory for all of the state sectors, and an estimated total annual GHG inventory by year. At present, Montana accounts for 47.77 million metric tons of CO₂e based on the EPA SIT for the year 2021. This project may contribute up to 6,493 metric tons per year of CO₂e. The construction phase of this project would contribute less than 97 metric tons of

CO₂e. The estimated annual emission of 6,474 metric tons of CO₂e from this project would contribute 0.014% of Montana's annual CO₂e emissions.

GHG emissions that would be emitted as a result of the proposed activities would add to GHG emissions from other sources. The No Action Alternative would not contribute approximately any GHG emissions, as the proposed No Action Alternative would be to deny the permit and not allow the operation of the new compressor engine. The current land use of the area is represented by pasture, agricultural crops, intermittent oil and gas wells and residential.

PROPOSED ACTION ALTERNATIVES:

No Action Alternative:

In addition to the analysis above for the proposed action, DEQ is considering a "no action" alternative. The "no action" alternative would deny the approval of the proposed permitting 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.

Other Ways to Accomplish the Action:

In order to meet the project objective to permit the new compressor engine, the project has limited means to expand the compressor station site without adding an additional engine. There currently are two smaller compressor engines on site and it may theoretically be possible to modify those engines for increased capacity but by selecting the proposed engine, the latest technologies are incorporated into the new engine allowing for lower emission factors. Therefore, the selection of the new engine over attempting to modify older existing engines would result in lower overall emission rates.

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.

CONSULTATION:

DEQ engaged in internal and external efforts to identify substantive issues and/or concerns related to the proposed project. Internal scoping consisted of internal review of the environmental assessment document by DEQ staff. External scoping efforts also included queries to the following websites/databases/personnel:

Application for MAQP #1546-11, EPA State Inventory Tool, the EPA GHG Calculator Tool, the Montana Natural Heritage Program Website, the State of Montana GIS Mapping Program, the Roosevelt County website, and the State Historical Preservation Office.

PUBLIC INVOLVEMENT:

The public comment period for this permit action occurred from May 22, 2025, through June 6, 2025.

OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION:

The proposed project would be located on private land. All applicable state and federal rules must be adhered to, which, at some level, may also include other state, or federal agency jurisdiction.

This environmental review analyzes the proposed project submitted by the Applicant. The project would be negligible to minor at the conclusion of the project and thus would not contribute to the long-term cumulative effects of air quality in the area.

NEED FOR FURTHER ANALYSIS AND SIGNIFICANCE OF POTENTIAL IMPACTS:

When determining whether the preparation of an environmental impact statement is needed, DEQ is required to consider the seven significance criteria set forth in ARM 17.4.608, which are as follows:

- The severity, duration, geographic extent, and frequency of the occurrence of the impact;
- 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;
- Growth-inducing or growth-inhibiting aspects of the impact, including the relationship or contribution of the impact to cumulative impacts – identify the parameters of the proposed action;
- The quantity and quality of each environmental resource or value that would be affected, including the uniqueness and fragility of those resources and values;
- The importance to the state and to society of each environmental resource or value that would be affected.
- 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
- Potential conflict with local, state, or federal laws, requirements, or formal plans.

CONCLUSIONS AND FINDINGS:

DEQ finds that this action results in minor impacts to air quality and GHG emissions in Roosevelt County, Montana.

The severity, duration, geographic extent and frequency of the occurrence of the impacts associated with the proposed air quality project would be limited. The proposed action would not result in first time disturbance at the Bainville compressor station.

As discussed in this EA, DEQ has not identified any significant impacts associated with the proposed actions for any environmental resource. DEQ does not believe that the proposed

activities by the Applicant would have any growth-inducing or growth-inhibiting aspects, or contribution to cumulative impacts. The proposed site does not appear to contain known unique or fragile resources.

There are no unique or known endangered fragile resources in the project area. Underground disturbance for this project would primarily occur for creation of containment pits for spill control purposes.

There would be negligible to minor impacts to view-shed aesthetics as the site is currently operating as a compressor station site. However, because the infrastructure would be installed within the footprint of the existing Bainville compressor station site, any impacts would be consistent with existing impacts.

Demands on the environmental resources of land, water, air, or energy would not be significant.

Impacts to human health and safety would not be significant as access roads would be closed to the public and because the site is on Privately Owned Land. The public would not be allowed on the Bainville compressor station site.

As discussed in this EA, DEQ has not identified any significant adverse impacts on any environmental resource associated with the proposed activities.

Issuance of a Montana Air Quality Permit to the Applicant does not set any precedent that commits DEQ to future actions with significant impacts or a decision in principle about such future actions. If the Applicant submits another modification or amendment, DEQ is not committed to issuing those revisions. DEQ would conduct an environmental review for any subsequent permit modifications sought by the Applicant that require environmental review. DEQ would make permitting decisions based on the criteria set forth in the Clean Air Act of Montana.

Issuance of the Permit to the Applicant does not set a precedent for DEQ's review of other applications for Permits, including the level of environmental review. The level of environmental review decision is made based on case-specific consideration of the criteria set forth in ARM 17.4.608.

Finally, DEQ does not believe that the proposed air quality permitting action would have any growth-inducing or growth inhibiting impacts that would conflict 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 project is not predicted to significantly impact the quality of the human environment. Therefore, preparation of an EA is the appropriate level of environmental review pursuant to MEPA.

Environmental Assessment and Significance Determination Prepared By:

Craig Henrikson, P.E.
Air Quality Engineer

Environmental Assessment Reviewed By:

Emily Hultin
Air Permitting Section

Approved By:

Eric Merchant
Air Quality Permitting Section Supervisor

Date: May 21, 2025

REFERENCES

1. Bainville Compressor station application for new permit MAQP#1546-11 received March 10, 2025.
2. EPA GHG Calculator Tool <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>
3. EPA State Inventory Tool, <https://www.epa.gov/statelocalenergy/state-inventory-and-projection-tool>
4. 2021 BLM Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends, <https://www.blm.gov/>
5. Bureau of Land Management (BLM) 2021. Specialist Report on Annual Greenhouse Gas Emissions and Climate Trends from Coal, Oil, and Gas Exploration and Development on the Federal Mineral Estate. Available at: <https://www.blm.gov/content/ghg/2021/>.
6. 2022 BLM <https://www.blm.gov/content/ghg/?year=2022>
7. SHPO – State Historical Preservation Office Investigation
8. Resource Information System Endangered Species Investigation, <https://mtnhp.org>
9. Roosevelt County Website, <https://www.rooseveltycountymt.gov/>

ABBREVIATIONS and ACRONYMS

AQB – Air Quality Bureau
ARM - Administrative Rules of Montana
BACT – Best Available Control Technology
BMP - Best Management Practices
CAA – Clean Air Act of Montana
CFR - Code of Federal Regulations
CO - Carbon Monoxide
DEQ – Department of Environmental Quality
DNRC – Department of Natural Resources and Conservation
EA – Environmental Assessment
EIS – Environmental Impact Statement
EPA - U.S. Environmental Protection Agency
FCAA- Federal Clean Air Act
MAQP – Montana Air Quality Permit
MCA – Montana Code Annotated
MEPA – Montana Environmental Policy Act
MTNHP - Montana Natural Heritage Program
NO_x - Oxides of Nitrogen
PM - Particulate Matter
PM₁₀ - Particulate Matter with an Aerodynamic Diameter of 10 Microns and Less
PM_{2.5} - Particulate Matter with an Aerodynamic Diameter of 2.5 Microns and Less
PPAA - Private Property Assessment Act
Program - Sage Grouse Habitat Conservation Program
PSD - Prevention of Significant Deterioration
SHPO - Montana State Historic Preservation Office
SOC - Species of Concern
SO₂ - Sulfur Dioxide
TPY – Tons Per Year
U.S.C. - United States Code
VOC - Volatile Organic Compound