

June 26, 2020

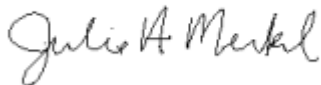
Dale Stoodley  
Battle Creek Gathering, LLC  
7061 Commercial Avenue  
Billings, MT 59101

Sent Via email: [dale.lonewolf@gmail.com](mailto:dale.lonewolf@gmail.com)

Dear Mr. Stoodley:

Montana Air Quality Permit #3336-02 is deemed final as of June 26, 2020, by the Department of Environmental Quality (Department). This permit is for a natural gas compressor station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,



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



Julie Ackerlund, MScEng  
Air Quality Engineer  
Air Quality Bureau  
(406) 444-4267

JM:JA  
Enclosures



Montana Department of Environmental Quality  
Air, Energy & Mining Division

Montana Air Quality Permit #3336-02

Battle Creek Gathering, LLC  
Battle Creek Gas Plant  
7061 Commercial Avenue  
Billings, MT 59101

June 26, 2020





## MONTANA AIR QUALITY PERMIT

Issued To: Battle Creek Gathering, LLC  
P.O. Box 80992  
Billings, MT 59108-0992

MAQP: #3336-02  
Application Complete: 05/1/2020  
Preliminary Determination Issued: 05/20/2020  
Department's Decision Issued: 06/10/2020  
Permit Final: 06/26/2020  
AFS #: 005-0014

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

### Section I: Permitted Facilities

#### A. Plant Location

Battle Creek operates a natural gas compressor station located on a 480-acre site approximately 20 miles northeast of Chinook and is known as the Battle Creek Gas Plant. The legal description of the facility is the SW<sup>1</sup>/<sub>4</sub> of the SE<sup>1</sup>/<sub>4</sub> of Section 26, Township 36 North, Range 19 East, in Blaine County, Montana. A complete list of permitted equipment is contained in Section I.A of the permit analysis.

#### B. Current Permit Action

On February 28, 2020, the Department of Environmental Quality (Department) received an application from Battle Creek with additional information submitted April 16, 2020 and May 1, 2020 to:

1. Add one 400 bhp Waukesha, lean burn, VGF-F18GL LCR single stage compressor engine with an add-on oxidation catalyst or other equivalent control, Unit #04;
2. Add one 203 bhp Caterpillar, rich burn, G3306TA two staged compressor engine with an add-on non-selective catalytic reduction (NSCR), Unit #05; and
3. Remove Unit #01, the 1600 hp White Superior compressor engine.

### Section II: Conditions and Limitations

#### A. Emission Limitations

1. Battle Creek shall operate no more than two natural gas compressor engines at any given time (ARM 17.8.749).
2. The maximum capacity of the lean burn engine (ID #04) shall not exceed 400 horsepower (hp) (ARM 17.8.749).

3. The maximum capacity of the rich burn engine (ID #05) shall not exceed 203 hp (ARM 17.8.749).
4. The emission limit for the lean burn engine (ID #04) shall be determined by using the following equation and emission factors (ARM 17.8.752):

Emission Limit (pounds per hour (lb/hr)) = Emission Factor (grams per brake horsepower-hour (g/bhp-hr)) \* maximum rated capacity of engine (bhp) \* 0.002205 pounds per gram (lb/g).

Oxides of nitrogen (NO <sub>x</sub> )	2.0 g/bhp-hr
Carbon Monoxide (CO)	0.09 g/bhp-hr
Volatile Organic Compounds (VOC)	0.01 g/bhp-hr

6. The emission limit for the rich burn engine (Unit #05) shall be determined by using the following equation and emission factors (ARM 17.8.752):

Emission Limit (pounds per hour (lb/hr)) = Emission Factor (grams per brake horsepower-hour (g/bhp-hr)) \* maximum rated capacity of engine (bhp) \* 0.002205 pounds per gram (lb/g).

NO <sub>x</sub>	0.5 g/bhp-hr
CO	1.0 g/bhp-hr
VOC	0.70 g/bhp-hr

7. Battle Creek 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).
8. Battle Creek 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).
9. Battle Creek shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.8. (ARM 17.8.749).
10. Battle Creek shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 60 Subpart JJJJ (ARM 17.8.340 and 40 CFR 60, Subpart JJJJ).
11. Battle Creek shall comply with all applicable standards and limitations, and the reporting, recordkeeping and notification requirements contained in 40 CFR 63 Subpart ZZZZ (ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Battle Creek shall conduct initial testing of Units #04 and #05 for oxides of nitrogen (NO<sub>x</sub>) and carbon monoxide (CO) within 180 days of the date this permit is issued. Testing for NO<sub>x</sub> and CO on an engine shall be conducted concurrently, to demonstrate compliance with the NO<sub>x</sub> and CO emission limits contained in Section II.A.4. Testing of each engine shall continue on an every 2-year schedule, unless both NO<sub>x</sub> and CO emissions of an engine are less than 50 percent of the limits contained in Section II.A.4., in which case the engine's testing schedule may continue on an every 5-year basis, or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

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

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date specified in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Battle Creek shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include a 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 or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change. This notice must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by Battle Creek as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

### SECTION III: General Conditions

- A. Inspection - Battle Creek shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Battle Creek fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Battle Creek 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 and/or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals - Any person or persons jointly or severally affected in an adverse manner by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Battle Creek 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  
Battle Creek Gathering, LLC.  
Battle Creek Gas Plant  
MAQP #3336-02

I. Introduction/Process Description

Battle Creek Gathering, LLC (Battle Creek) owns and operates a natural gas compressor station. The facility is located near the town of Chinook, Montana, SW<sup>1</sup>/<sub>4</sub> of the SE<sup>1</sup>/<sub>4</sub> of Section 26, Township 36 North, Range 19 East, in Blaine County.

A. Permitted Equipment

The Battle Creek facility consists of the following equipment:

- Unit #02: Weil-McLain PFG-7 Boiler #1;
- Unit #3a: Rushton Gas and Oil Equipment TEG Dehydration Unit;
- Unit #3b: Rushton Gas and Oil Equipment Still Vent;
- Unit #04: 2034 Waukesha, VGF-F18GL LCR, 400 bhp lean burn, single stage compressor engine with an oxidation catalyst or other equivalent control; and
- Unit #05: 203 Caterpillar, G3306TA, two-staged 203 hp rich burn compressor engine with an add-on non-selective catalytic reduction (NSCR) control.

B. Source Description

The facility has two primary purposes. The first purpose is to boost the field gas up to the required pressure in the natural gas transmission system.

The second purpose of the complex is to "dry" the gas as it is being processed. The gas contains some moisture, which must be removed from the system prior to being sent into the transmission system. This is accomplished with a dehydrator, also commonly called a reboiler or glycol unit. The gas is treated with a glycol solution, which absorbs the water in the gas stream. The glycol is then heated to about 300 degrees Fahrenheit (°F) in order to drive off the water and return the glycol. The water that is driven off is released to the atmosphere in the form of steam. Burning natural gas in the dehydrator reboiler generates the heat necessary for this. The compressed gas is routed to a pipeline for delivery, sale, and use.

C. Permit History

**Montana Air Quality Permit (MAQP) #3336-00** was issued by the Department of Environmental Quality (Department) on August 5, 2004, to Omimex Canada, Ltd., for the operation of the natural gas compressor station consisting of one 1,600 horsepower (hp) White Superior engine (Unit #01). Previously, the equipment was permitted in MAQP #3025-03 at the Battle Creek Gas Plant. The equipment was issued new MAQP #3336-00 when the equipment was divided between two separate entities. All the equipment remained operating in the same locations under the same operating conditions.

On January 13, 2020, the Department received an Intent to Transfer ownership from Omimex Canada, Ltd to Battle Creek Gathering, LLC. Omimex Canada, Ltd. sold the compressor station to Battle Creek Gathering, LLC on July 1, 2018. This permit action updated the rule references, standard permit language, and standard permit format. **MAQP #3336-01** was issued on March 10, 2020 and replaced MAQP #3336-00.

D. Current Permit Action

On February 28, 2020, the Department received an application from Battle Creek with additional information submitted April 16, 2020 and May 1, 2020 to permit operation of two compressor engines: a 400 hp Waukesha engine (ID #04); and a 203 hp Caterpillar engine (ID #05). Both engines were installed and began operation on September 26, 2019. The previously permitted 1,600 hp White Superior engine (Unit #01) was mothballed on September 26, 2019 and is removed from the permit. On March 4, 2020, a nonselective catalytic reduction (NSCR) system was installed on the 203 hp rich burn Caterpillar engine. Operation of the NSCR meets the requirements of BACT and reduces the engine's nitrogen oxides (NOx) and carbon monoxide (CO) emissions. Battle Creek proposed installation of oxidation catalyst technology or other equivalent technology as BACT on the 400 hp Waukesha for CO control. All other equipment at the facility remains the same. **MAQP # 3336-02** replaces MAQP #3336-01.

E. Response to Public Comments

No comments were received during the public comment period.

F. Additional Information

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

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for locations 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 is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary

equipment, (including instruments and sensing devices), and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

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

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

4. ARM 17.8.110 Malfunctions. In part (2) of the rule, the Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. In part (1) of the rule, 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. In part (2) of the rule, no equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>
11. ARM 17.8.230 Fluoride in Forage

Battle Creek must maintain compliance with the applicable ambient air quality standards.

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an 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. Part (1) of the 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. Under part (2) of this rule, Battle Creek 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. Part (4) of the rule states that commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. Battle Creek will meet this limitation by burning pipeline-quality natural gas in the compressor engine and the dehydration unit reboiler(s).
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. In part (3) of the rule, no person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such a tank is equipped with a vapor loss control device as described in part (1) of this rule, or is a pressure tank as described in part (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60.

40 CFR 60, Subpart KKK Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants. Owners or operators of onshore natural gas processing plants, as defined and applied in 40 CFR Part 60, shall comply with standards and provisions of 40 CFR Part 60, Subpart KKK. This subpart does not apply to the Battle Creek facility because the facility does not meet the definition of a natural gas processing plant as defined in 40 CFR Part 60, Subpart KKK.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:

40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR Part 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR Part 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAP) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR Part 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR Part 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HH. Because the facility is not a major source of HAPs, Battle Creek is not subject to the provisions of 40 CFR Part 63, Subpart HH.

40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. The facility must be a major source of HAP as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Second, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Third, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HHH. Because the facility is not a major source of HAPs, Battle Creek is not subject to the provisions of 40 CFR 63, Subpart HHH.

40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. The RICE equipment to be used under MAQP #3336-02 is subject to this subpart because it is an area source of HAP.

- D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Battle Creek submitted the appropriate permit application fee for the current permit action.
  2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. The air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.  
  
An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Subchapter 7 - Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. Battle Creek has the PTE greater than 25 tons per year of CO; therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permit--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. In part (1) of this rule requires that a permit application be submitted prior to installation, modification, or use of a source. Battle Creek submitted the required permit application for the current permit action. Part (7) of 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.

Battle Creek submitted an affidavit of publication of public notice for the April 8, 2020 issue of the *The Blaine County Journal News-Opinion*, a newspaper of general circulation in the town of Chinook in Blaine 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 the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Battle Creek of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

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



G. ARM 17.8, Subchapter 12 - Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. In part (23) of this rule, a major source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of particulate matter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> 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 #3336-02 for Battle Creek, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is less than 10 tons/year for any single HAP and less than 25 tons/year for all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is not subject to any current NSPS.
  - e. This facility is subject to a current NESHAP (40 CFR 63, Subpart ZZZZ).
  - f. This source is not a Title IV affected source, nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Battle Creek would be a minor source of emissions as defined under Title V.

### III. BACT Determination

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

The primary criteria pollutants from natural gas-fired reciprocating engines are NO<sub>x</sub>, CO, and volatile organic compounds (VOC). CO and VOC species are primarily the result of incomplete combustion. Particulate matter (PM) emissions include trace amounts of metals,

non-combustible inorganic material, and condensable, semi-volatile organics which result from volatilized lubricating oil, engine wear, or from products of incomplete combustion. Sulfur oxides (SO<sub>x</sub>) are very low since sulfur compounds are removed from natural gas at processing plants. However, trace amounts of sulfur containing odorant are added to natural gas for the purpose of leak detection.

Three generic control techniques have been developed for reciprocating engines: parametric controls (timing and operating at a leaner air-to-fuel ratio); combustion modifications such as advanced engine design (clean-burn cylinder head designs and pre-stratified charge combustion for rich-burn engines); and post combustion catalytic controls installed on the engine exhaust system. Post-combustion catalytic technologies include selective catalytic reduction (SCR) for lean-burn engines, non-selective catalytic reduction (NSCR) for rich-burn engines, and CO oxidation catalysts for lean-burn engines.

Rich-burn engines may be either naturally aspirated, using the suction from the piston to entrain the air charge, or turbocharged, using an exhaust-driven turbine to pressurize the charge. Rich-burn engines operate near the stoichiometric air-to-fuel ratio with exhaust excess oxygen levels less than 4 percent (typically closer to 1 percent).

A BACT analysis was submitted May 1, 2020, on behalf of Battle Creek to complete the application. The BACT analysis reviewed emissions from both the 400 hp Waukesha and 203 hp Caterpillar compressor engines. The Department reviewed the analysis as well as previous other BACT determinations.

#### **400 hp Waukesha Engine**

The 400 hp Waukesha F18GL LCR is a 4-stroke lean-burn natural gas-fired engine. Lean burn engines are characterized as clean-burn engines which refers to an engine designed to reduce NO<sub>x</sub> by operating at a high air to fuel ratio (AFR). The formation of NO<sub>x</sub> is exponentially related to combustion temperature in the engine cylinder and with higher air-to-fuel ratios, the combustion temperature is lower than in a rich-burn engine. Battle Creek proposes the addition of an oxidation catalyst to control CO emissions to a level of 0.09 g/hp-hr, a 93 percent reduction in CO from the manufacturer's 1.3 g/hp-hr. Battle Creek's economic analysis indicated that an oxidation catalyst would have a control cost effectiveness of under \$850 per ton of CO removed. The Department concurs with this 0.09 g/hp-hr as BACT for CO using either an oxidation catalyst or another equivalent control technology. The Department determined that 2.0 g/hp-hr is BACT for NO<sub>x</sub> based on other recently permitted lean-burn natural gas-fired compressor engines.

As described above, the use of pipeline quality natural gas reduces the SO<sub>2</sub> and PM emissions. The Department considers firing the engine with natural gas as BACT for SO<sub>2</sub> and PM.

The Department is not aware of any BACT determinations that have required controls for VOC emissions alone from compressor engines. The uncontrolled emissions of VOCs are relatively small and any add-on controls specifically installed for VOC emissions would be cost prohibitive.

### 203 hp Caterpillar Engine

The 203 hp Caterpillar G3306 is a 4-stroke rich-burn natural gas-fired engine. Battle Creek proposed the use of an AFR controller with NSCR to control the NOx and CO emissions to 0.5 g/hp-hr and 1.0 g/hp-hr, respectively. Battle Creek demonstrated the control cost effectiveness of AFR with NSCR as \$400 or less per ton of pollutant controlled. The Department concurs with these emission limits as BACT.

As described above, the use of pipeline quality natural gas reduces the SO2 and PM emissions. The Department considers firing the engine with natural gas as BACT for SO2 and PM.

The Department is not aware of any BACT determinations that have required controls for VOC emissions alone from compressor engines. The uncontrolled emissions of VOCs are relatively small and any add-on controls specifically installed for VOC emissions would be cost prohibitive.

### III. Emission Inventory

**Air Pollutants (tons/year)**

Emitting Unit ID	Emitting Unit	NOx	CO	VOC	SO2	PM/PM10/PM2.5
ID #04	Waukesha Engine, 400 hp	7.72	0.35	0.04	0.03	0.004
ID #05	Caterpillar Engine, 203 hp	0.98	1.96	1.37	0.03	0.004

Note: this table does not include emissions from the existing:

Unit #02: Weil-McLain PFG-7 Boiler #1

Unit #3a: Rushton Gas and Oil Equipment TEG Dehydration Unit

Unit #3b: Rushton Gas and Oil Equipment Still Vent

### **Compressor Engine, Waukesha VGF-F18GL LCR, 4-stroke lean burn, SI**

Note: Emissions are based on the power output of the engine

Operational Capacity of Engine =	400 bhp	(Applicant Info)
Hours of Operation =	8,760 hours/yr	(Applicant Info)
Heating Value =	1,000 MMBtu/MMscf	(Applicant Info)
Max Fuel Combustion Rate =	11.04 MMBtu/hr	(Applicant Info)
Grams per pound =	0.002205 lb/g	(Conversion Factor)

#### **NOx Emissions:**

NOx Emission Factor = 2 g/bhp-hr (vendor, Waukesha 400 hp, VGF-F18GL LCR)

Calculation:  $(2.0 \text{ g/bhp-hr}) \times (400 \text{ bhp}) \times (8760 \text{ hours/yr}) \times (0.002205 \text{ lb/g}) \times (\text{ton}/2030 \text{ lb}) = 7.72 \text{ tpy}$

#### **CO Emissions:**

CO Emission Factor = 0.09 g/bhp-hr (3rd Party Oxidation Catalyst Vendor)

Calculation:  $(0.09 \text{ g/bhp-hr}) \times (400 \text{ bhp}) \times (8760 \text{ hours/yr}) \times (0.002205 \text{ lb/g}) \times (\text{ton}/2030 \text{ lb}) = 0.35 \text{ tpy}$   
(Controlled PTE)

**VOC Emissions:**

VOC Emission Factor = 0.01 g/bhp-hr [vendor, Waukesha 400 hp, VGF-F18GL LCR, NM, NEHC (VOC)]

Calculation:  $(0.01 \text{ g/bhp-hr}) \times (400 \text{ bhp}) \times (8760 \text{ hours/yr}) \times (0.002205 \text{ lb/g}) \times (\text{ton}/2030 \text{ lb}) = 0.04 \text{ tpy}$

**SO2 Emissions:**

SO2 Emission Factor = 0.56 lb/MMscf (Applicant)

Calculation:  $(0.56 \text{ lb/MMscf}) / (1,000 \text{ MMBtu/MMscf}) \times (11.04 \text{ MMBtu/hr}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 0.03 \text{ tpy}$  (Calculated)

**PM/PM10/PM2.5 Emissions:**

PM/PM10/PM2.5 Emission Factor = 0.08 lb/MMscf (Applicant)

Calculation:  $(0.08 \text{ lb/MMscf}) / (1,000 \text{ MMBtu/MMscf}) \times (11.04 \text{ MMBtu/hr}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 0.004 \text{ tpy}$  (Calculated)

**Compressor Engine, Caterpillar 3306, 4-stroke rich burn, turbocharged with aftercooler**

Note: Emissions are based on the power output of the engine

Operational Capacity of Engine =	203 bhp	(Vendor)
Hours of Operation =	8,760 hours/yr	(Applicant Info)
Heating Value =	1,000 MMBtu/MMscf	(Applicant Info)
Max Fuel Combustion Rate =	11.04 MMBtu/hr	(Applicant Info)
Grams per pound =	0.002205 lb/g	

**NOx Emissions:**

NOx Emission Factor = 27.66 g/bhp-hr (Caterpillar Vendor, Uncontrolled)

Calculation:  $(0.5 \text{ g/bhp-hr}) \times (203 \text{ bhp}) \times (0.002205 \text{ lb/g}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 54.22 \text{ tpy}$  Uncontrolled PTE

NOx Emission Factor = 0.5 g/bhp-hr (NSCR of BACT)

Calculation:  $(0.5 \text{ g/bhp-hr}) \times (203 \text{ bhp}) \times (0.002205 \text{ lb/g}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 0.98 \text{ tpy}$  (Controlled PTE)

**CO Emissions:**

CO Emission Factor = 1.5 g/bhp-hr (Caterpillar Vendor, Uncontrolled)

Calculation:  $(1.5 \text{ g/bhp-hr}) \times (203 \text{ bhp}) \times (0.002205 \text{ lb/g}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 2.94 \text{ tpy}$  Uncontrolled PTE

CO Emission Factor = 1 g/bhp-hr (NSCR of BACT)

Calculation:  $(1.0 \text{ g/bhp-hr}) \times (203 \text{ bhp}) \times (0.002205 \text{ lb/g}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 1.96 \text{ tpy}$  (Controlled PTE)

**VOC Emissions:**

VOC Emission Factor = 0.11 g/bhp-hr (Caterpillar Vendor, Uncontrolled)

Calculation:  $(0.1 \text{ g/bhp-hr}) \times (203 \text{ bhp}) \times (0.002205 \text{ lb/g}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 0.22 \text{ tpy}$   
 Uncontrolled PTE

VOC Emission Factor = 0.7 g/bhp-hr (Vendor, Exact Air catalytic converter, controlled)

Calculation:  $(0.7 \text{ g/bhp-hr}) \times (203 \text{ bhp}) \times (0.002205 \text{ lb/g}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 1.37 \text{ tpy}$

**SO2 Emissions:**

SO2 Emission Factor = 0.56 lb/MMscf (Applicant)

Calculation:  $(0.56 \text{ lb/MMscf}) / (1,000 \text{ MMBtu/MMscf}) \times (11.04 \text{ MMBtu/hr}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 0.03 \text{ tpy}$  (Calculated)

**PM/PM10/PM2.5 Emissions:**

PM/PM10/PM2.5 Emission Factor = 0.08 lb/MMscf (Applicant)

Calculation:  $(0.08 \text{ lb/MMscf}) / (1,000 \text{ MMBtu/MMscf}) \times (11.04 \text{ MMBtu/hr}) \times (8760 \text{ hours/yr}) \times (\text{ton}/2030 \text{ lb}) = 0.004 \text{ tpy}$  (Calculated)

IV. Existing Air Quality

This permit is for a natural gas compressor facility located in in the SW<sup>1</sup>/<sub>4</sub> of the SE<sup>1</sup>/<sub>4</sub> of Section 26, Township 36 North, Range 19 East in Blaine County, Montana. Blaine County is unclassified/attainment for the National Ambient Air Quality Standards (NAAQS) for criteria pollutants.

V. Ambient Air Quality Impacts

The current permit action to replace one 1,600 hp compressor engine with a 400 hp compressor engine and a 203 hp compressor engine will reduce the potential emissions of this facility. The Department determined that the impacts from this permitting action will not cause or contribute to a violation of any ambient air quality standard.

VI. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?

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

VII. Environmental Assessment

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

DEPARTMENT OF ENVIRONMENTAL QUALITY  
Air, Energy & Mining Division  
Air Quality Bureau  
P.O. Box 200901, Helena, Montana 59620  
(406) 444-3490

ENVIRONMENTAL ASSESSMENT (EA)

*Issued To:* Battle Creek Gathering, LLC  
7061 Commercial Avenue  
Billings, MT 59101

*Montana Air Quality Permit number (MAQP):* #3336-02

*EA Draft:* May 20, 2020  
*EA Final:* June 10, 2020  
*Permit Final:* June 26, 2020

1. *Legal Description of Site:* Battle Creek Gathering, LLC (Battle Creek) would operate a natural gas compression facility located approximately 20 miles northeast of Chinook, Montana. The legal description of the facility is the Southwest  $\frac{1}{4}$  of the Southeast  $\frac{1}{4}$  of Section 26, Township 36 North, Range 19 East, in Blaine County, Montana.
2. *Description of Project:* Battle Creek's current permit action would add both a 400 hp Waukesha engine of 4-stroke lean-burn design and a 203 hp Caterpillar of 4-stroke rich-burn design with catalytic oxidation control, which were both installed on July 26, 2019. Battle Creek proposes in this permit action to install a non-selective catalytic reduction (NSCR) device on the lean-burn Waukesha engine. The existing 1,600 hp White Superior was mothballed on July 26, 2019 and was requested to be removed from the permit during this action. A complete list of the permitted equipment is included in Section I.A. of the permit analysis.
3. *Objectives of Project:* The intent of this project is to resize the compression capabilities of the Battle Creek Gas Plant to more efficient engines.
4. *Alternatives Considered:* In addition to the proposed action, the Department of Environmental Quality (Department) also considered the "no-action" alternative. The "no-action" alternative would deny the issuance of the Montana Air Quality Permit (MAQP) to the facility. Battle Creek would lack the ability to maintain the required natural gas pipeline pressure needed for the wells it serves. The Department does not consider the "no action" alternative to be appropriate because Battle Creek has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, are included in MAQP #3336-02. Since no additional land is being disturbed with this project and the new engines have a small combined rated capacity than the previously operated engine, no additional impact are expected to sage grouse, and possibly a reduced impact.

6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.
7. *SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:* The following comments have been prepared by the Department.

**A.** *Terrestrial and Aquatic Life and Habitats*

The proposed project would result in a decrease of potential emissions by reducing the available compressor engine capacity from 1,600 hp to 603 hp (combined). The project would not disturb any new land because the new engines have been placed within the current facility property.

Conditions requiring control mechanisms have been placed within MAQP #3336-02 to ensure that only minor air quality impacts would occur. Overall, any adverse impact on terrestrial and aquatic life and habitats is anticipated to be reduced.

No new impacts are expected on sage grouse because this project reduces the potential facility air quality impacts and does not disturb any new land.

**B.** *Water Quality, Quantity and Distribution*

There are no proposed discharges into surface water or onto the proposed project site. No other permits would be required for this project. Therefore, the project would have minor impacts to water quality, quantity or distribution in the area.

**C.** *Geology and Soil Quality, Stability and Moisture*

This permitting action would have no new effect on geology and soil properties because the project will occur within the current 18.8 acres of land disturbed by the facility. Combustion emissions from this project would have reduced impacts on the soil quality; the air quality permit associated with this project would contain limitations and conditions to minimize the effect of the emissions on the surrounding environment. The Department determined that any impacts from deposition would not change or possibly be reduced due to dispersion characteristics of pollutants, the atmosphere, and conditions that would be placed in MAQP #3336-02.



**D.** *Vegetation Cover, Quantity, and Quality*

The proposed project would have no impacts on the surrounding vegetation because all construction activities would be within the current facility site. The property and surrounding land are currently agricultural or undeveloped in nature. The combustion emissions from this project would have a no change in impact or a reduced impact on surrounding vegetation and the air quality permit associated with this project would contain limitations to minimize the effect of the emissions on the surrounding environment. Overall, this project would have reduced effects on the vegetation cover, quantity and quality.

**E.** *Aesthetics*

Construction of the compressor engines would have minor impacts on the surrounding property from both the visual perspective, as well as noise pollution. The nearest resident is 5 miles from facility. The proposed project would be constructed within the current disturbed area of the facility. The Department determined there would be no changes in the aesthetic value of the site, nor would the land use would be altered from its current use.

**F.** *Air Quality*

The air quality of the area would realize no impacts or a reduced impact from the proposed project because the facility would have a reduced potential to emit and the engines will operate more efficiently. Particulate matter from vehicle activity would remain unchanged. The project emissions would be minimized by limitations and conditions that would be included in MAQP #3336-02. While deposition of pollutants would occur as a result of operating the facility, the Department determined that the impacts from deposition of pollutants would be reduced by this project. The air concentration of pollutants would be reduced, and the corresponding deposition of those air pollutants would therefore be reduced too.

**G.** *Unique Endangered, Fragile, or Limited Environmental Resources*

This project would occur within the already developed property of the Battle Creek Gas Plant. There would be no new disturbances and a net reduction in maximum allowable facility emissions. Therefore, it is not necessary to request the Montana Natural Heritage Program, Natural Resources Information System (NRIS) to complete a review for the area since no new areas will be disturbed.

**H.** *Sage Grouse Executive Order*

**General Area Habitat**

The Department recognizes that the site location is within a General Area of habitat for the Greater Sage Grouse as defined by Executive Order No. 12-2015. The compressor station has been in operation since before the Executive Order effective date of 1/1/2016. This project replaces one large compressor engine with two compressor engines whose combined total rated capacity is less than half of the previous engine and will located on already disturbed land within the facility. There shall be no increased impact to the sage grouse and possible a reduced impact because of the reduced engine capacity associated with the proposed project.

**I.** *Demands on Environmental Resource of Water, Air and Energy*

The proposed project would have no new or increased impacts on the demands for the environmental resources of air and water because the facility would have a reduce potential to emit pollutants. No increase or possibly a reduction in deposition of pollutants would occur as a result of this project for the facility. As explained in Section 7.F of this EA, the Department determined that any impacts on air and water resources from the pollutants (including deposition) would be no greater than the current operation. The Department determined that reduction in controlled emissions from the source would not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the proposed facility would likely be less as a result of this project.

The proposed project would be expected to have reduced impacts on the demand for the environmental resource of energy because the proposed engines have a lower combined hp rating and should operate in a more efficient range appropriate for the compressor station. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be reduced.

**J.** *Historical and Archaeological Sites*

Since no new land is being disturbed for this project, there would be no new disturbances to any historical or archaeological sites.

**K.** *Cumulative and Secondary Impacts*

The proposed projects cumulative and secondary impacts would remain the same or be reduced on the physical and biological aspects of the human environment because the project would cause a slight decrease in combustion emissions in the proposed area. Conditions have been placed in MAQP #3336-02 to ensure that no increase in air quality impacts would occur. Limitations would be established in the permit to minimize air pollution. Overall, any impacts to the physical and biological environment would be less.

**8.** *SUMMARY OF COMMENTS ON POTENTIAL ECONOMIC AND SOCIAL EFFECTS:*  
The following comments have been prepared by the Department.

**A.** *Social Structures and Mores*

The proposed project would not cause disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the proposed project is being constructed in an area with existing industrial development.

**B.** *Cultural Uniqueness and Diversity*

No new impacts to the cultural uniqueness and diversity of the area would be anticipated as the location already has been development.

**C.** *Local and State Tax Base and Tax Revenue*

The proposed project would result in no anticipated change to the local and state tax base and tax revenue as a result of the proposed project.

**D.** *Agricultural or Industrial Production*

The land at the proposed location is currently developed. No new impacts on agricultural production is expected to occur and there would be no significant change to the industrial production.

**E.** *Human Health*

The proposed project would not result in any impacts to human health. As explained in Section 7.F of this EA, no additional deposition of pollutants would occur. The Department determined that the proposed project would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Overall, no impacts to public health would be anticipated.

**F.** *Access to and Quality of Recreational and Wilderness Activities*

The proposed project would not change any impacts to the access or quality for recreation and wilderness activities since the proposed project occurs within the current boundary of the facility.

**G.** *Quantity and Distribution of Employment*

Employment needs would not change as a result of this project. The facility employs 2 staff.

**H.** *Distribution of Population*

The proposed project would be expected to have no impact on employment and population in the areas.

**I.** *Demands for Government Services*

There would be minor impacts on the demands for government services because additional time would be required by government agencies to issue MAQP #3336-02 and, in the future, to assure compliance with applicable rules, standards, and conditions that would be contained in MAQP #3336-02. Overall, any demands for government services to regulate the facility or activities associated with the facility would be minor due to the relatively small size of the facility.

**J.** *Industrial and Commercial Activity*

No additional impacts would be expected in the area because the facility already has natural gas wells and pipeline distribution activity and these new engines would require no increase in activity.

**K.** *Locally Adopted Environmental Plans and Goals*

The Department is not aware of any locally adopted environmental plans and goals affected by issuing MAQP #3336-02. This permit would contain limits for protecting air quality and keeping facility emissions in compliance with any applicable ambient air quality standards. Because the project would decrease the overall engine capacity at the facility, any impacts from the facility would expect to remain unchanged or less.

**L.** *Cumulative and Secondary Impacts*

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the project, the industrial production, employment, and tax revenue (etc.) impacts resulting from the proposed project would be minor. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #3336-02.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis:

The current permitting action would be for the construction and operation of two natural gas compressor engines whose combined capacity is less than the natural gas compressor engine proposed to be removed and located within the already disturbed facility boundary. The resizing of the engines will allow the engines to operate more efficiently. MAQP #3336-02 includes conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction:

Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program – Montana Sage Grouse Conservation Program

Individuals or groups contributing to this EA:

Department of Environmental Quality – Air Quality Bureau

EA prepared by: J. Ackerlund  
Date: May 20, 2020