

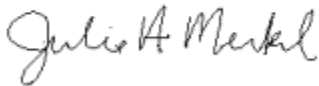
July 9, 2019

Jenny Ellette  
Environmental Specialist  
ONEOK Rockies Midstream, LLC.  
100 West Fifth St.  
P.O. Box 871  
Tulsa, OK 74103-4298

Dear Ms. Ellette:

Montana Air Quality Permit #1546-10 is deemed final as of July 2, 2019, by the Department of Environmental Quality (Department). This permit is for a Natural Gas Processing Facility. 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



John P. Proulx  
Air Quality Specialist  
Air Quality Bureau  
(406) 444-5391

JM:JPP  
Enclosure

Montana Department of Environmental Quality  
Air, Energy & Mining Division

Montana Air Quality Permit #1546-10

OKEOK Rockies Midstream, LLC  
P.O. Box 871  
Tulsa, OK 74102

July 2, 2019



## MONTANA AIR QUALITY PERMIT

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

MAQP: #1546-10  
Administrative Amendment (AA)  
Request Received: 5/10/2019  
Department's Decision on AA: 6/14/2019  
Permit Final: 7/2/2019

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 processing plant and associated equipment located in the NE<sup>1</sup>/<sub>4</sub> of the NE<sup>1</sup>/<sub>4</sub> 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 May 10, 2019, the Department received an application for modification from ORM, to increase operating hours and throughput for the emergency flare. The Department determined that the emergency flare is considered emergency equipment per Administrative Rules of Montana (ARM) 17.8.745(1)(g) – Montana Air Quality Permits General Exclusions. Upon review of the intent of the application, the Department determined that this emergency equipment should not be subject to limitations on its capacity to operate during emergency situations. Because the flare is considered emergency equipment, the Department removed the capacity-limiting conditions from Section II of the MAQP that pertain to the emergency flare. The Department 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.

### 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<sub>x</sub><sup>1</sup> 15.0 lb/hr  
CO 5.3 lb/hr  
VOC 1.3 lb/hr

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<sub>x</sub> 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. ORM shall operate all equipment to provide the maximum air pollution control for which the equipment was designed (ARM 17.8.752).
6. 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).
7. 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).
8. ORM shall install and operate a combustor to control VOC emissions from the condensate tank (ARM 17.8.752).
9. 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).
10. 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).
11. 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).

---

<sup>1</sup> NO<sub>x</sub> reported as NO<sub>2</sub>

12. 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.11 (ARM 17.8.749).

B. Testing Requirements

1. ORM shall test Source #01 and Source #02 for NO<sub>x</sub> and CO, concurrently, and demonstrate compliance with the emission limits contained in Section II.A.1 and II.A.2, respectively. Source #01 and Source #02 were last tested in March 2016. 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 the Department. Therefore, the next source testing is due in March of 2020 (ARM 17.8.105 and ARM 17.8.749).
2. During each test, 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 the Department with the source test report (ARM 17.8.105).
3. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
4. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. ORM 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 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 the Department by the date required in the emission inventory request. Information shall be in the units as required by the Department. 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 the Department 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 the Department, and must be submitted to the Department upon request (ARM 17.8.749).
3. ORM shall notify the Department 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 the Department in writing 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
4. 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<sub>x</sub> 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).

Section III: General Conditions

- A. Inspection – ORM 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 (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 the Department’s decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department’s decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department’s decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department’s decision on the application is final 16 days after the Department’s decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, 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 #1546-10

I. Introduction/Process Description

ONEOK Rockies Midstream, LLC (ORM) owns and operates a natural gas compressor station located in the NE<sup>1</sup>/<sub>4</sub> of the NE<sup>1</sup>/<sub>4</sub> 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:

- (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

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 (Department) 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, the Department received an application from Koch for **Permit #1546-02** Koch requested a reduction in the oxides of nitrogen (NO<sub>x</sub>) emission limit with an offsetting increase in the carbon monoxide (CO) emission limit for Source #01. This reduction in NO<sub>x</sub> 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 the Department 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, the Department issued Permit #1546-02 requiring Koch to permanently remove Source #02 from service by November 1, 1996.

On August 29, 1996, the Department received an application for **Permit #1546-03**. It requested that Source #02 be added back into the permit. NO<sub>x</sub> 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, the Department issued Permit #1546-03 placing Source #02 back into the permit.

On March 24, 1997, the Department 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.

The Department 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, the Department 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. The Department 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 the Department on December 30, 2014. The Department 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.

The Department 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<sub>x</sub>) 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, the Department of Environmental Quality (Department) 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.

#### D. Current Permitting Action

On May 10, 2019, the Department 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, the Department determined that this emergency equipment should not be subject to limitations on its capacity to operate during emergency situations. Because the flare is considered emergency equipment, the Department removed the capacity-limiting conditions from Section II of the MAQP that pertain to the emergency flare. The Department 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** replaces MAQP #1546-09.

E. 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 the Department. Upon request, the Department 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 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).

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 the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction 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 (SO<sub>2</sub>)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO<sub>2</sub>)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone (O<sub>3</sub>)
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide (H<sub>2</sub>S)
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>

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% H<sub>2</sub>S 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 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.

Engines E-1 and E-2 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 the Department. 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 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, as 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, 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<sub>x</sub>, and CO; therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. The current permit action is an administrative amendment and does not require submittal of an application or a publication of public notice.
  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.

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 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 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.

16. ARM 17.8.770 Additional Requirements for Incinerators. This rule specifies the additional information that must be submitted to the Department 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 the Department may establish by rule; or
- c. PTE greater than 70 tpy of particulate matter with an aerodynamic diameter 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 #1546-10, 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 PM<sub>10</sub> nonattainment area.



- d. This facility is potentially subject to a current NSPS (40 CFR 60, Subpart OOOO).
- 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, the Department 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), the Department 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 the Department 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.

The Department 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, the Department 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.

A BACT determination was not required for the current permit action because the current permit action is considered an administrative amendment.

### IV. Emission Inventory

Emission Source	NO <sub>x</sub> [tpy]	CO [tpy]	VOC [tpy]	SO <sub>2</sub> [tpy]	PM <sub>Total</sub> [tpy]
687-hp Waukesha L-7042 G Engine w/catalytic converter	65.7	23.22	5.71	0.01	0.42
687-hp Waukesha L-7042 G Engine w/catalytic converter	13.27	19.9	6.63	0.01	0.42
SCD 48 combustor	7.11E-03	6.03E-03	3.95E-04	4.31E-05	5.46E-04
Condensate Tanks (3 - 400 bbl)	-	-	7.19	-	-
Condensate Truck Loading	-	-	10.19	-	-
Methanol Tank	-	-	0.05	-	-
Emergency Flare (Pilot and Flared Gas)	0.164	0.0257	0.017	1.13	0.048
Fugitive Emissions	-	-	5.16	-	-
miscellaneous venting and blowdowns	-	-	11.21	-	-
Total Emissions	79.02	43.16	46.14	0.02	0.84

#### **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 MBtu/hp-hr \* 687 bhp = 4,906.55 MBtu/hr \* 1 MMBtu/1,000 MBtu = 4.907 MMBtu/hr

#### **CRITERIA POLLUTANT EMISSION FACTORS\***

Design Class	Fuel Input (lb/MMBtu)						
	NO <sub>x</sub>	CO	VOC	SO <sub>2</sub>	PM <sub>10/2.5</sub>	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<sub>x</sub>, 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<sub>10/2.5</sub>) and condensable PM. All PM from natural gas combustion is assumed to be less than 1.0 micrometer in diameter.

#### PM/PM<sub>10</sub>/PM<sub>2.5</sub> Emissions (Filterable & Condensable)

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

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

#### NO<sub>x</sub> 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<sub>x</sub> Emissions

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

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

#### **687 hp Waukesha 7042G Compressor Engine**

Brake Horse Power: 687 bhp @ 750 rpm

Hours of Operation: 8,760 hr/yr

Max Fuel Combustion Rate:  $7.142 \text{ MBtu/hp-hr} * 687 \text{ bhp} = 4,906.55 \text{ MBtu/hr} * 1 \text{ MMBtu/1,000 MBtu} = 4.907 \text{ MMBtu/hr}$

#### PM/PM<sub>10</sub>/PM<sub>2.5</sub> Emissions (Filterable & Condensable)

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

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

#### NO<sub>x</sub> 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<sub>x</sub> Emissions

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

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

SCD 48 Emissions

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

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

<sup>4</sup>Using 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:

- 0.6 = S (saturation factor, submerged fill method)
- 8.3896 = P (True vapor pressure of liquid loaded, average psia)
- 53.4695 = M (Molecular weight of vapor, lb/lb-mol)
- 43.97 = T (Temperature of bulk liquid loaded, average °F + 460 = °R)

### Methanol Tank

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

## Emergency Flare

### Emissions Summary

Pollutant	NO <sub>x</sub>		CO		VOC		SO <sub>2</sub>		PM <sub>Total</sub>	
	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

Component	Throughput scf/yr	Emission Factor <sup>1</sup> lb/10 <sup>6</sup> SCF	Emissions	
			lb/hr	TPY
NO <sub>x</sub>	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 <sub>2</sub>	876,000	0.6	0.000	0.000
PM Total	876,000	7.6	0.001	0.003

### Fugitives

Source Description	Number of Sources <sup>1</sup>	Service	TOC Emission Factors <sup>2</sup>	Control Efficiency	VOC wt% <sup>3</sup>	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	
<b>Total Fugitive Emissions (TPY) =</b>							<b>4.88</b>	

<sup>1</sup> Number of sources based on fugitive count for similar site with similar equipment

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

<sup>3</sup> 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 NE<sup>1</sup>/<sub>4</sub> of the NE<sup>1</sup>/<sub>4</sub> 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

The Department determined that there will be no impacts to ambient air from this permitting action because this permitting action is considered an administrative action. Therefore, the Department 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 the Department's list of pollutants for which non-inhalation impacts must be considered; therefore, the Department 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.

The Department 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 1.00E-06 and the sum of all HAPs results in a Cancer Risk of less than 1.00E-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<sup>(1)</sup></i>	Modeled <sup>1</sup> Concentration (mg/m <sup>3</sup> )	Modeled <sup>2</sup> Concentration (mg/m <sup>3</sup> )	Cancer CIRF <sup>(2)</sup> (mg/m <sup>3</sup> ) <sup>-1</sup>				CNCREL <sup>1</sup> Hazard Quotient <sup>(7)</sup>	CNCREL <sup>2</sup> Hazard Quotient <sup>(7)</sup>
				Cancer <sup>1</sup> Risk <sup>(3)</sup>	Cancer <sup>2</sup> Risk <sup>(3)</sup>	CNCREL <sup>(6)</sup> (mg/m <sup>3</sup> )		
HAP Species								
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 <sup>1</sup>	Process Gas <sup>2</sup>		<b>4.07E-14</b>	<b>1.26E-11</b>		<b>3.67E-14</b>	<b>6.87E-08</b>



- (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](http://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](http://www.epa.gov/ttn/atw/toxsource/table1.pdf), 6/12/07).

### VIII. Taking or Damaging Implication Analysis

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

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

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

IX. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared By: John P. Proulx

Date: May 24, 2019