



Montana Department of  
**ENVIRONMENTAL QUALITY**

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July 8, 2013

Deborah Perry  
ONEOK Rockies Midstream, LLC  
P.O. Box 871  
Tulsa, OK 74102-0871

Dear Ms. Perry:

Montana Air Quality Permit #4631-02 is deemed final as of July 6, 2013, by the Department of Environmental Quality (Department). This permit is for a natural gas liquids (NGL) storage and transfer facility and associated equipment. 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 Merkel  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-3626

Doug Kuenzli  
Environmental Science Specialist  
Air Resources Management Bureau  
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JM:DCK  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Montana Air Quality Permit #4631-02

ONEOK Rockies Midstream, LLC  
P.O. Box 871  
Tulsa, OK 74102-0871

July 6, 2013



## MONTANA AIR QUALITY PERMIT

Issued To: ONEOK Rockies Midstream, LLC  
P.O. Box 871  
Tulsa, OK 74102-0871

MAQP: # 4631-02  
Application Complete: 05/14/2013  
Preliminary Determination Issued: 06/03/2013  
Department Decision Issued: 06/19/2013  
Permit Final: 07/06/2013  
AFS #: 083-0815

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 Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I: Permitted Facilities

#### A. Plant Location

This facility is located in the East ½ of the Northwest ¼ of Section 17 and the Southeast ¼ of the Southwest ¼ of Section 8, Township 22 North, Range 59 East, in Richland County. The physical address of the facility is 34958 County Road 122, Sidney, MT 59270.

#### B. Current Permit Action

On March 5, 2013, the Department received a permit application to modify ORM's MAQP to include equipment from the adjacent Riverview Booster Station. Current permit action incorporates multiple electric booster pumps, a single air-assisted flare, and associated fugitive emissions. The current permit action also updates rule reference and language used by the Department, as well as updates the emission inventory.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. ORM shall limit the loading of Spec-grade Natural Gas Liquid (NGL) into railcar tanks to 153,300,000 gallons per rolling 12-month period (ARM 17.8.749).
2. ORM shall limit the loading of Y-grade NGL into railcar tanks to 689,860,000 gallons per rolling 12-month period (ARM 17.8.749).
3. ORM shall limit the transfer of isobutane from tank trucks into railcar tanks to 16,425,000 gallons per rolling 12-month period (ARM 17.8.749).
4. ORM shall maintain and operate a closed system during all loading, transfer, and storage operations. Loading lines shall be equipped and maintained with vapor tight valves. Each transfer line shall be equipped and operated so as to utilize a pump to pull vapors from cargo tanks back into the storage tank system (ARM 17.8.752).
5. All loading of Spec-grade NGL, Y-Grade NGL, and isobutane into cargo tanks shall be accomplished utilizing submerged fill methods. Cargo tanks loaded shall be specifically designed for the transportation of natural gas liquids/liquefied petroleum gases (ARM 17.8.752).

6. ORM shall maintain all equipment and operations, including loading pipe connections and loading operations, in dimensions, design parameters, and loading methods as presented in MAQP application #4631-00 (ARM 17.8.749 and ARM 17.8.752).
7. 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).
8. ORM shall route emissions from booster station scheduled maintenance blow-downs to the air-assisted flare for control (ARM 17.8.749 and ARM 17.8.752).
9. Operation of the air-assisted flare shall be limited to 500 total hours during any rolling 12-month period (ARM 17.8.749).
10. ORM shall not operate the emergency generator for more than 100 hours per year for the purposes of maintenance checks and readiness testing per 40 CFR part 60 subpart JJJJ (ARM 17.8.749).
11. ORM shall have a non-resettable hour meter on the emergency generator to record hours of operation (ARM 17.8.749).
12. ORM shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart JJJ, *Standards of Performance for Stationary Spark Ignition Internal Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable propane-fired engine (ARM 17.8.340; 40 CFR 60, Subpart JJJJ; ARM 17.8.342; and 40 CFR 63, Subpart ZZZZ).

B. Inspection and Maintenance Requirements

1. Once within every calendar month, all tanks, valves, flanges, connectors, compressor/booster seals, relief valves, pump seals, loading lines, loading valves, and open-ended lines capable of inspection, shall be inspected for wear and/or excessive leaks. For purposes of this requirement, leak detection methods incorporating sight, sound, or smell are acceptable (ARM 17.8.105 and ARM 17.8.752).
2. ORM shall (ARM 17.8.105 and ARM 17.8.752):
  - a. Take reasonable actions to mitigate any leaks found during the inspection as soon as possible.
  - b. Make a first attempt at repair of the cause of any leak or any defective parts found as soon as possible, but no later than 5 calendar days after the leak or defective part is detected, except as provided in Section II.B.3; and
  - c. Completely repair any source of leaks or defective parts found as soon as possible, but no later than 15 calendar days after the leak or defective part is detected, except as provided in Section II.B.3.
3. Delay of repair of equipment would be allowed if repair as required by Section II.B.2 is deemed infeasible for technical or safety related reasons. ORM shall limit, to the extent possible, emissions from any such equipment, and such equipment shall be repaired as soon as reasonably possible (ARM 17.8.752).

C. Recordkeeping Requirements

1. ORM shall document the monthly inspections, indicating the date and time of the inspection, the results, and the method(s), date, and completion time for any mitigation efforts and repairs made (ARM 17.8.749).
2. For any repair delayed under the exception of II.B.3 above, the duration of any leak, a general description of the repair required, and the reasons justifying the delay, shall be recorded and maintained with the records required in Section II.C.1 (ARM 17.8.749).
3. ORM shall record the hours of emergency generator operation and the purpose for which the generator was operated (ARM 17.8.749).

D. Testing Requirements

1. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. The Department may require testing (ARM 17.8.105).

E. 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 emission inventory contained in the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used to calculate operating fees, based on estimated actual emissions from the facility, and/or to verify compliance with permit limitations. ORM shall include a brief summary of the log required by Section II.C. if any inspections for the reporting period note leaks (ARM 17.8.505).

2. ORM shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include the **addition of a new emissions unit**, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup 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(l)(d) (ARM 17.8.745).
3. 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).
4. ORM shall document, by month, the gallons of Spec-grade NGL product loaded to cargo tanks. By the 25th day of each month, ORM shall total the gallons of product loading for the previous month, and calculate and record the rolling 12-month sum. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.1. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. ORM shall document, by month, the gallons of Y-grade NGL loaded to cargo tanks. By the 25th day of each month, ORM shall total the gallons of Y-grade NGL loading for the previous month, and calculate and record the rolling 12-month sum. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.2. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. ORM shall document, by month, the gallons of isobutane loaded between cargo tanks. By the 25th day of each month, ORM shall total the gallons of isobutane loading for the previous month, and calculate and record the rolling 12-month sum. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.3. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. ORM shall submit with the annual emission inventory the number of hours that the emergency generator was operated, including those hours operated for the purpose of maintenance and readiness checks (ARM 17.8.749).

### 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 (continuous emissions monitoring system (CEMS), continuous emissions 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 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 MAQP 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 (MAQP) Analysis  
ONEOK Rockies Midstream, LLC – Riverview Facility  
MAQP #4631-02

I. Introduction/Process Description

ONEOK Rockies Midstream, LLC (ORM) owns and operates the Riverview Terminal and Booster which serves as a natural gas liquids (NGL) storage and transfer facility. This facility is located in the East ½, Northwest ¼, Section 17 and Southeast ¼, Southwest ¼, Section 8, Township 22 North, Range 59 East, in Richland County and is known as the Riverview Terminal.

A. Permitted Equipment

The facility consists of, but is not limited to, the following equipment:

- Six (6) 90,000 gallon (gal) pressurized mix of primarily propane, butane, and natural gasoline (Y-Grade) storage tanks
- Four (4) 30,000 gal pressurized propane or butane product tanks
- Two (2) 60,000 gal pressurized propane or butane product tanks
- One (1) 30,000 gal methanol tank
- Isobutane loading from tank trucks directly to railcar tanks
- Fifteen (15) station loading rack for Spec-grade NGL product from storage tanks to cargo tanks
- Fifteen (15) station loading rack for Y-grade NGL from storage tanks to railcar tanks
- One (1) 107 brake-horsepower propane-fired emergency generator
- Three (3) electric booster pumps
- One (1) Zeeco air-assisted smokeless flare
- Associated equipment (valves, flanges, piping network, connectors, pig launcher, etc.)

B. Source Description

The facility receives NGL's from surrounding gas plants by way of pipeline and truck and stores product for eventual transfer via railcar or pipeline. Spec-grade liquid product (propane and butane) is piped into horizontal pressure tanks which are stored for loading into railcar cargo tanks. Isobutane is transferred on-site from tank trucks directly to railcars. Y-grade product, consisting primarily of unseparated propane, butane, and natural gasoline, is also received and stored on-site for loading to railcar cargo tanks or introduced into a pipeline for transportation via ONEOK's Bakken pipeline. Methanol is stored on-site for freeze protection.

All transfer, storage, and loading operations are maintained under pressure. Transfers and loading are maintained as a pressurized, submerged fill, closed vapor collection system. The pressurized tank loading lines have a vapor tight valve at the ends so any vapors are contained within a closed system. Vapor displacement resulting from load-out operations is located at the end of each transfer line and a pump is used to pull vapors in the system back into the product tank(s). Submerged fill loading minimizes the creation of vapors during the loading process.

Truck unloading of isobutane to railcars is accomplished with a similar system, utilizing submerged fill and a closed vapor collection system. A vapor return line is used to return any vapors in the connecting lines back to the truck vessel. Only vapors contained in the two hoses between the connections would escape to atmosphere.

Pipeline transfer to downstream facilities is accomplished through electric booster pumps which route gathered NGL's directly to a pipeline for distribution. Fugitive emissions from leaks of components in both liquid and gas service are minimized through inspection, leak detection, and proper operations and maintenance, to minimize emissions and fire and/or explosion hazards. A single air-assisted flare is installed at the booster station to control emissions during scheduled blow-down or venting events.

### C. Permit History

Bear Paw Energy proposed to construct and operate an expansion of the Riverview Terminal. The facility has been operating since 1982 storing and loading natural gas liquids transported from surrounding gas plants via pipeline and truck. Relatively pure propane or butane (product) is piped into horizontal pressurized tanks where they are stored for loading. Bear Paw Energy proposed an expansion that would increase the facility's potential volatile organic compound (VOC) emissions to more than the permitting threshold of 25 tons per year; therefore, an MAQP was required. **MAQP #4631-00** was issued final on May 5, 2011.

The Department of Environmental Quality (Department) received notification on June 18, 2012, from Bear Paw Energy, LLC which requested an administrative amendment (AA) to change the facility name to ONEOK Rockies Midstream, LLC (ORM). A second request was received by the Department on July 2, 2012, to remove a propane blanket as an emission source and to add an emergency generator as an insignificant source. The two permit actions were combined into a single administrative permit revision. All permit references with the exception of the permit history were changed throughout the MAQP. **MAQP #4631-01** replaced MAQP #4631-00.

### D. Current Permit Action

On March 5, 2013, the Department received a permit application to modify ORM's MAQP to include equipment from the adjacent Riverview Booster Station. Current permit action incorporates the electric booster pumps, a single air-assisted flare, and associated fugitive emissions. **MAQP #4631-02** replaces MAQP #4631-01.

## 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 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 of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>)

ORM must maintain compliance with the applicable ambient air quality standards.

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions are 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. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank is equipped with a vapor loss control device as described in (1) of this rule.
  7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulation (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Applicability to NSPS standards (40 CFR 60) are as follows:
    - a. 40 CFR, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
    - b. 40 CFR 60, Subpart JJJJ - Standards of Performance for Stationary Spark Ignition Internal Combustion Engines. The provisions of this subpart are applicable to owners and operators of stationary spark ignition internal combustion emergency generator engines with a maximum engine power greater than 25 horsepower that commence construction after June 12, 2006 and were manufactured on or after January 1, 2009. The propane-fired emergency generator owned and operated under MAQP 4631-02 is subject to this subpart.
  8. 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. ORM shall comply with the requirements of 40 CFR Part 63, as applicable, including the following subparts:
    - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to an NESHAP Subpart as listed below:
    - b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary RICE at a major or area source of HAP emissions is subject to this subpart, except if the stationary RICE is being tested at a stationary RICE test cell/stand. Therefore, ORM is subject to this subpart.
- 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 MAQP application fee concurrent with the submittal of an MAQP application. A permit application is incomplete until the proper application fee is paid to the Department. ORM 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 MAQP (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 MAQP application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that prorate the required fee amount.

- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an MAQP 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. ORM has a PTE greater than 25 tons per year of Volatile Organic Compounds (VOC); therefore, an MAQP is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the MAQP 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 MAQP Program.
  5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. ORM submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. ORM submitted an affidavit of publication of public notice for the April 17, 2013, issue of the *Sidney Herald*, a newspaper of general circulation in the Town of Sidney in Richland 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 MAQPs 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 17.8.762 Duration of Permit. An MAQP 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.
12. ARM 17.8.763 Revocation of Permit. An MAQP may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An MAQP may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. This rule states that an MAQP 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 this facility is not a listed source and the facility's PTE is below 250 tons per year of any pollutant (excluding fugitive emissions).

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any source having:
  - a. PTE > 100 tpy of any pollutant;
  - b. PTE > 10 tons/year of any single hazardous air pollutant (HAP), PTE > 25 tpy of total combined HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tpy of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (1) Title V of the FCAA amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4631-01 for ORM, 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 for any one HAP and less than 25 tpy for all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is subject to NSPS 40 CFR 60 subpart JJJJ.
- e. This facility is subject to 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 ORM will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, ORM will be required to obtain a Title V Operating Permit.

### III. BACT Determination

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

ORM currently operates the Riverview Terminal in the storage and transfer of NGL products. Under the current permit action ORM proposes the installation and operation of a NGL booster station. The Riverview Booster Station will employ three electric powered booster pumps to facilitate pipeline transfer of NGL to downstream sources. In addition ORM is proposing the installation and operation of an air-assisted flare for the control of NGL product released during scheduled and unscheduled venting and blow-down episodes from the booster station. The following BACT analysis addresses available and proposed methods for controlling emissions of fugitive VOC's and emissions of NO<sub>x</sub>, CO, SO<sub>2</sub>, and PM/PM<sub>10</sub>/PM<sub>2.5</sub> from flaring. The Department presents the following BACT determinations.

#### A. NGL Blow-down and Venting – VOC BACT

##### 1. No Control Option

While technically and economically feasible, this option will not protect air quality in the area. Further the uncontrolled venting of NGL presents a safety hazard due to the presence of flammable vapors.

## 2. NGL Product Flaring

Flares can be used to control almost any hydrocarbon laden streams and can handle fluctuations in hydrocarbon concentrations, flow rate, heat content, and inert content, provided the gas to be flared has a heating value greater than 300 Btu/scf. Flaring is appropriate for continuous, batch and variable flow vent stream applications. A flare normally provides a VOC destruction efficiency of greater than 98% and is considered technically feasible for this application.

Emissions from flaring primarily include carbon particles (soot), unburned hydrocarbons, CO, NO<sub>x</sub> and SO<sub>2</sub>. The quantities of hydrocarbon emissions generated relate to the degree of combustion. The degree of combustion depends largely on the rate and extent of fuel-air mixing and on the flame temperatures achieved and maintained. The tendency of a fuel to smoke or make soot is influenced by fuel characteristics and by the amount and distribution of oxygen in the combustion zone. For complete combustion and inhibition of soot formation combustion must occur at stoichiometric conditions with respect to oxygen. Complete combustion to reduce soot requires sufficient combustion air and proper mixing of air and waste gas. The device proposed is designed as a smokeless flare.

Because flares are primarily safety devices and normally address flows of short durations versus a control device which treats a continuous waste stream, it is not entirely appropriate to compare the cost effectiveness of flares to other control devices. Cost per ton of pollutant controlled largely depends upon the annual hours of operation. Therefore, other control technologies were eliminated due to economic infeasibility. Additionally, smokeless combustion devices such as flares have been determined to provide appropriate control for other recently permitted similar sources. Therefore, the Department has determined that operation of a smokeless flare for control of VOC's from NGL venting and blow-downs constitute BACT.

### B. Fugitive Emission – VOC BACT

Fugitive emissions occur from vapor losses from valves, pump seals, flanges, connectors or other VOC piping components. The Department is not aware of any method of controlling these emissions other than through routine inspection and maintenance of the components. Therefore, the Department has determined that routine inspections and appropriate maintenance of these components constitutes BACT.

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

## IV. Emission Inventory

The Department compared various methods for calculating the potential emissions from pressurized, closed vapor recovery natural gas liquids storage and loading operations. No appropriate correlations are available to estimate vapor losses from pressure tanks, as confirmed by AP-42 documentation, 7.1-3 (11/2006); therefore, the Department calculated fugitive emission leaks from equipment components as appropriate. The Department also considered AP-42 Section 5.2 for losses associated with loading of the natural gas liquids into cargo tanks. However, limited information is available as to the applicability of this method to this scenario. At ORM's request, loading loss calculations were made assuming vapor losses associated with the volume of loading lines and the number of railcars loaded. This calculation method was determined more conservative (higher calculated emissions) than the AP-42 Section 5.2 approach. For more details on the design of the system, see Section I.B. of the Permit Analysis.

**Fugitive Emissions Potential To Emit [TPY]**

Emission Source	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NOx	SO <sub>2</sub>	VOC
Riverview Terminal - Equipment Leaks (Liquid Service)	--	--	--	--	--	--	27.38
Riverview Terminal - Equipment Leaks (Gas Service)	--	--	--	--	--	--	14.94
Spec-grade Product Loading	--	--	--	--	--	--	7.27
Y-grade Product Loading	--	--	--	--	--	--	27.98
Isobutane Truck Unloading	--	--	--	--	--	--	1.17
Isobutane Product Loading	--	--	--	--	--	--	0.75
Riverview Booster Station - Equipment Leaks	--	--	--	--	--	--	5.27
Riverview Booster Station - Unscheduled Venting & Blow-downs	--	--	--	--	--	--	9.45
<b>Total Fugitive Emissions ▶</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>0.00</b>	<b>94.21</b>

**Non-Fugitive Emissions Potential To Emit [TPY]**

Emission Source	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	CO	NOx	SO <sub>2</sub>	VOC
Emergency Generator	0.01	0.01	0.04	8.20	0.13	0.02	0.05
Air-Assisted Flare - Pilot Gas	--	--	--	0.32	0.06	0.01	0.12
Air-Assisted Flare - Process Gas	--	--	--	7.51	1.38	0.008	2.84
<b>Total Non-Fugitive Emissions ▶</b>	<b>0.01</b>	<b>0.01</b>	<b>0.04</b>	<b>16.03</b>	<b>1.57</b>	<b>0.04</b>	<b>3.02</b>

BACT, Best Available Control Technology  
 bbl, barrel  
 bhp, brake-horsepower  
 Btu, British Thermal Units  
 CO, carbon monoxide  
 Ft<sup>3</sup>, cubic feet  
 g, gram  
 gal, gallon  
 HHV, high-heating value  
 lb, pound  
 kg, kilogram  
 MMBtu, million British Thermal Units  
 MMscf, million standard cubic feet

NGL, natural gas liquids  
 NO<sub>x</sub>, oxides of nitrogen  
 PM, particulate matter  
 PM<sub>COND</sub>, condensable particulate matter  
 PM<sub>10</sub>, particulate matter with an aerodynamic diameter of ≤10 microns  
 PM<sub>2.5</sub>, particulate matter with an aerodynamic diameter of ≤2.5 microns [Sum of condensable and filterable]  
 ppmw, parts per million by weight  
 PTE, Potential To Emit  
 SO<sub>2</sub>, oxides of sulfur  
 SP, specific gravity  
 TPH, tons per hour  
 TPY, tons per year  
 VOC, volatile organic compounds

**Riverview Terminal Emission Inventory**

**Fugitive Emissions - Equipment Leaks [SCC 3-10-002-05]**

Light Liquid Service: Natural Gas Liquids

Equipment Configuration		Emission Factor		VOC Emissions	
Component(s)	Number of Components	kg/hr-source	lbs/hr-source	lbs/hr	TPY
Valves	580	0.0025	0.0055	3.20	14.00
Pump Seals	40	0.013	0.0287	1.15	5.02
Other [Relief Valves]	80	0.0075	0.0165	1.32	5.79
Connectors	308	0.00021	0.0005	0.14	0.62
Flanges	340	0.00011	0.0002	0.08	0.36
Open-end Lines	116	0.0014	0.0031	0.36	1.57
<b>Total VOC ▶</b>				<b>6.250</b>	<b>27.375</b>

*Basis: Protocol for Equipment Leak Emission Estimates Table 2-4 Light-Oil Service [EPA-453/R-95-017, 11/1995]*

Gas Service: Isobutane

Equipment Configuration		Emission Factor		VOC Emissions	
Component(s)	Number of Components	kg/hr-source	lbs/hr-source	lbs/hr	TPY
Valves	156	0.0045	0.0099	1.55	6.78
Pump Seals	0	0.0024	0.0053	0.0	0.0
Other [Relief Valves]	54	0.0088	0.0194	1.05	4.59
Connectors	264	0.0002	0.0004	0.12	0.51
Flanges	340	0.00039	0.0009	0.29	1.28
Open-end Lines	92	0.002	0.0044	0.41	1.78
Total VOC ▶				3.410	14.937

Basis: Protocol for Equipment Leak Emission Estimates Table 2-4 Gas Service [EPA-453/R-95-017, 11/1995]

### Fugitive Emissions - Liquid Product Loading Losses [SCC 4-04-002-50]

#### Pipe Connection Specifications:

Pipe Diameter: 2 Inches  
 Segment Length: 20 Inches  
 Volume of Segment: 62.83 cu. Inches [per segment or connection]  
 0.0364 cu. feet [per segment or connection]  
 Total Loss Volume: 0.0728 cu. feet per tank loading [two segments per tank connection]

#### Product Data:

Spec-grade 36.52 lbs/ft<sup>3</sup>  
 Y-grade 31.22 lbs/ft<sup>3</sup>  
 Isobutane 35.15 lbs/ft<sup>3</sup>

#### Liquid Loading Calculations

Product	Loading Throughput		Loadings/Disconnections			Loading Emissions		
	[gal/day]	[gal/yr]	Source	Daily	Annually	[lbs/load]	[lbs/day]	[tpy]
Spec-grade	420,000	153,300,000	Railcar Load <sup>2</sup>	15	5,475	2.66	39.86	7.27
Y-grade	1,890,027	689,860,000	Railcar Load <sup>2</sup>	68	24,638	2.27	153.33	27.98
Isobutane	45,000	16,425,000	Truck Unload <sup>1</sup>	5	1,825	1.28	6.39	1.17
			Railcar Load <sup>2</sup>	2	587	2.56	4.11	0.75

<sup>1</sup> Railcar loading frequency based on 28,000 gallon tank capacity

<sup>2</sup> Truck unloading frequency is based on 9,000 gallon tank capacity

### Propane-Fired Generator Engine [SCC 2-02-010-07]

Engine Rating: 107 bhp [Design Maximum Output; Generac Engine specification]  
 Fuel Input: 1.01 mmbtu/hr [Calculated @ 90,500 btu/gal; AP-42, Appendix A-6]  
 11.14 gal/hour [Calculated @ 4.24 lbs/gal; AP-42, Appendix A-6]  
 47.24 lbs/hour [Generac Engine Specification]  
 Hours of Operation: 500 hours/year

#### Particulate Emissions (uncontrolled):

##### PM Emissions:

Emission Factor 0.0384 lb/mmbtu [AP-42 Table 3.2-1, 07/00]  
 Calculations (0.0384 lb/mmbtu) \* (1.01 mmbtu/hr) = 0.04 lbs/hr  
 (0.04 lbs/hr) \* (500 hrs/yr) \* (0.0005 tons/lb) = 0.01 TPY

##### PM<sub>10</sub> Emissions:

Emission Factor 0.0384 lb/mmbtu [AP-42 Table 3.2-1, 07/00]  
 Calculations (0.0384 lb/mmbtu) \* (1.01 mmbtu/hr) = 0.04 lbs/hr

$$(0.04 \text{ lbs/hr}) * (500 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 0.01 \text{ TPY}$$

PM<sub>2.5</sub> Emissions (filterable):

Emission Factor	0.0384 lb/mmbtu	[AP-42 Table 3.2-1, 07/00]	
Calculations	(0.0384 lb/mmbtu) * (1.01 mmbtu/hr) =		0.04 lbs/hr
	(0.04 lbs/hr) * (500 hrs/yr) * (0.0005 tons/lb) =		0.01 TPY

PM<sub>2.5</sub> Emissions (condensable):

Emission Factor	0.0099 lb/mmbtu	[AP-42 Table 3.2-1, 07/00]	
Calculations	(0.00991 lb/mmbtu) * (1.01 mmbtu/hr) =		0.01 lbs/hr
	(0.01 lbs/hr) * (500 hrs/yr) * (0.0005 tons/lb) =		0.002 TPY

CO Emissions (uncontrolled):

Emission Factor	138.95 g/bhp-hr	[Generac Engine Specification]	
Calculations	(138.95 g/hp-hr) * (107 bhp) * (0.002205 lb/gram) =		32.78 lbs/hr
	(32.78 lbs/hr) * (500 hrs/yr) * (0.0005 tons/lb) =		8.20 TPY

NO<sub>x</sub> Emissions (uncontrolled):

Emission Factor	2.17 g/bhp-hr	[Generac Engine Specification]	
Calculations	(2.17 g/hp-hr) * (107 bhp) * (0.002205 lb/gram) =		0.51 lbs/hr
	(0.51 lbs/hr) * (500 hrs/yr) * (0.0005 tons/lb) =		0.13 TPY

SO<sub>2</sub> Emissions (uncontrolled):

Emission Factor	0.00059 lb/mmbtu	[AP-42 Table 3.2-1, 07/00]	
Calculations	(0.000588 lb/hp-hr) * ( bhp) =		0.06 lbs/hr
	(0.06 lbs/hr) * (500 hrs/yr) * (0.0005 tons/lb) =		0.02 TPY

VOC Emissions (uncontrolled):

Emission Factor	0.920 g/bhp-hr*	[Generac Engine Specification]	
Calculations	(0.92 g/hp-hr) * (107 bhp) * (0.002205 lb/gram) =		0.22 lbs/hr
	(0.22 lbs/hr) * (500 hrs/yr) * (0.0005 tons/lb) =		0.05 TPY

\* As total hydrocarbons (THC)

**Riverview Booster Station Emission Inventory**

**Fugitive Emissions - Equipment Leaks [SCC 3-10-002-05]**

Light Liquid Service: Natural Gas Liquids

Equipment Configuration		Emission Factor		VOC Emissions	
Component(s)	Number of Components	kg/hr-source	lbs/hr-source	lbs/hr	TPY
Valves	150	0.0025	0.0055	0.83	3.62
Pump Seals	3	0.013	0.0287	0.09	0.38
Other	1	0.0075	0.0165	0.02	0.07
Connectors	451	0.00021	0.0005	0.21	0.91
Flanges	76	0.00011	0.0002	0.02	0.08
Open-end Lines	15	0.0014	0.0031	0.05	0.20
Total VOC ►				1.203	5.269

Basis: Protocol for Equipment Leak Emission Estimates Table 2-4 Light-Oil Service [EPA-453/R-95-017, 11/1995]

### Fugitive Emissions - Unscheduled Venting & Blow-down [SCC 3-06-004-02]

NGL Properties: 4.50 lbs/gal  
Annual Volume 100.00 bbl/year [Application - Expected Volume]  
18901.51 lbs/year  
9.45 TPY

### Flare Emissions - Pilot Gas [SCC 3-06-009-05]

Fuel Type: Propane

Gas Properties:

Gas Density→ 4.24 lbs/gal liquid [AP-42 Appendix A, 1/95]

Gas HHV→ 90,500 btu/gallon [AP-42 Appendix A, 1/95]

Sulfur Content→ 15 gr/100 ft<sup>3</sup> [Industry standard]

Pilot Gas Flow Rate: 0.2 mmbtu/hr [Application]

2.21 gal/hr

Hours of Operation: 8760 hours/year

PM Emissions:

Emission Factor: Smokeless Flare Assumed EF = 0 lbs/106 btu

NO<sub>x</sub> Emissions:

Emission Factor 0.068 lbs/10<sup>6</sup> Btu [AP-42 Table 13.5-1, 1/95]

Calculations (0.068 lbs/mmbtu) \* (0.2 mmbtu/hr) = 0.01 lbs/hr

(0.014 lbs/hr) \* (8760 hours/year) = 0.06 TPY

VOC Emissions:

Emission Factor 0.14 lbs/10<sup>6</sup> Btu\* [AP-42 Table 13.5-1, 1/95]

Calculations (0.14 lbs/mmbtu) \* (0.2 mmbtu/hr) = 0.03 lbs/hr

(0.028 lbs/hr) \* (8760 hours/year) = 0.12 TPY

\*As total hydrocarbons (THC)

CO Emissions:

Emission Factor 0.37 lbs/10<sup>6</sup> Btu [AP-42 Table 13.5-1, 1/95]

Calculations (0.37 lbs/mmbtu) \* (0.2 mmbtu/hr) = 0.07 lbs/hr

(0.074 lbs/hr) \* (8760 hours/year) = 0.32 TPY

SO<sub>2</sub> Emissions:

Emission Factor 0.1 x S (gr/100 ft<sup>3</sup>) lbs/10<sup>3</sup> gal [AP-42 Table 1.5-1, 7/08]

Calculations (0.1 lbs/1000 gal) \* (15 gr/100 ft<sup>3</sup> S) \* (2.21 gal/hr) = 0.003 lbs/hr

(0.0033 lbs/hr) \* (8760 hours/year) = 0.01 TPY

### Flare Emissions - Scheduled NGL Venting & Blow-down Gas [SCC 3-06-004-01]

Fuel Type: Natural Gas Liquids

NGL Properties:

SP→ 0.54 [Application]

Density→ 4.50 lbs/gal liquid [Calculated]

HHV→ 0.1068 mmbtu/gal [Application: Back calculated from ONEOK lb/bbl Emission Factor]

0.024 mmbtu/lb [Liquid-Calculated]

2486.63 btu/ft<sup>3</sup> @ STD (60F) [Gas - Calculated]

H2S Content 4.58 ppmw as sulfur [Application - Back calculated from ONEOK lb/bbl emission factor]  
 Flare Flow Rate: 3424 lbs/hr [Flare Manufacture - Process Conditions]  
 Total Heat Input: 81.2 mmbtu/hr [Flare Data and Gas Characteristics-Application]  
 Hours of Operation: 500 hours/year

PM Emissions:

Emission Factor: Smokeless Flare Assumed EF = 0 lbs/10<sup>6</sup> btu

NO<sub>x</sub> Emissions:

Emission Factor 0.068 lbs/10<sup>6</sup> Btu [AP-42 Table 13.5-1, 1/95]  
 Calculations (0.068 lbs/mmbtu) \* (81.22 mmbtu/hr) = 5.52 lbs/hr  
 (5.52 lbs/hr) \* (500 hours/year) = 1.38 TPY

VOC Emissions:

Emission Factor 0.14 lbs/10<sup>6</sup> Btu\* [AP-42 Table 13.5-1, 1/95]  
 Calculations (0.14 lbs/mmbtu) \* (81.22 mmbtu/hr) = 11.37 lbs/hr  
 (11.37 lbs/hr) \* (500 hours/year) = 2.84 TPY  
 \*As total hydrocarbons

CO Emissions:

Emission Factor 0.37 lbs/10<sup>6</sup> Btu [AP-42 Table 13.5-1, 1/95]  
 Calculations (0.37 lbs/mmbtu) \* (81.22 mmbtu/hr) = 30.05 lbs/hr  
 (30.05 lbs/hr) \* (500 hours/year) = 7.51 TPY

SO<sub>2</sub> Emissions:

Emission Factor 4.58 ppmw (Sulfur Concentration)  
 Calculations (4.58 ppmw)\*(1/1000000)\*(3424 lbs/hr)\*(1 lb mol S/32.07 lb S)\*(64.1 lb lb SO<sub>2</sub>/1 lb mol) = 0.031 lbs/hr  
 (0.03 lbs/hr) \* (500 hours/year) = 0.008 TPY

V. Existing Air Quality

The Riverview Terminal is located approximately 1.75 miles south of Sidney, Montana, in the East ½ of the Northwest ¼ of Section 17 and the Southeast ¼ of the Southwest ¼ of Section 8, Township 22 North, Range 59 East, in Richland County. Richland County is considered unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants.

VI. Ambient Air Impact Analysis

The potential allowable emissions increase resulting from this permit modification does not exceed any ambient air quality modeling thresholds; therefore, the Department did not conduct ambient air quality modeling for the proposed project. The Department believes this permit action will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

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

YES	NO	
✓		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?

	✓	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	✓	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	✓	4. Does the action deprive the owner of all economically viable uses of the property?
	✓	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?
	✓	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	✓	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?
	✓	7a. Is the impact of government action direct, peculiar, and significant?
	✓	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	✓	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?
	✓	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

#### VIII. Environmental Assessment

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

Analysis Prepared by: D. Kuenzli  
Date: May 17, 2013

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**P.O. Box 200901, Helena, Montana 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* ONEOK Rockies Midstream, LLC. (ORM)- Riverview Terminal

*Montana Air Quality Permit Number:* 4631-02

*Preliminary Determination Issued:* 06/03/2013

*Department Decision Issued:* 06/19/2013

*Permit Final:* 07/06/2013

1. *Legal Description of Site:* East ½, Northwest ¼, Section 17 and Southeast ¼, Southwest ¼, Section 8, Township 22 North, Range 59 East, in Richland County.
2. *Description of Project:* ORM proposed the installation and operation of natural gas liquids (NGL) booster pumps to facilitate pipeline transfer of NGL to downstream sources. Equipment includes three electric powered booster pumps and associated piping components, as well as, a single air-assisted flare to control volatile organic compounds released during scheduled and unscheduled blown-downs and venting from the booster station.
3. *Objectives of Project:* Ability to transfer NGL to downstream source via the Bakken Pipeline.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit at the facility. However, the Department does not consider the “no-action” alternative to be appropriate because ORM 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, would be included in MAQP #4631-02.
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. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

	Potential Physical and Biological Effects	Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats				✓		Yes
B	Water Quality, Quantity, and Distribution				✓		Yes
C	Geology and Soil Quality, Stability and Moisture				✓		Yes
D	Vegetation Cover, Quantity, and Quality				✓		Yes
E	Aesthetics				✓		Yes
F	Air Quality			✓			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			✓			Yes
H	Demands on Environmental Resource of Water, Air and Energy			✓			Yes
I	Historical and Archaeological Sites				✓		Yes
J	Cumulative and Secondary Impacts			✓			Yes

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

Terrestrials may be present in the surrounding area. Issuance of MAQP #4631-02 would permit a minor increase in VOC from the addition of the booster station. Conditions and limitations in the permit would limit the allowable emissions. With the minor increase in emissions no effects to terrestrial and aquatic life and habitats would be expected.

B. Water Quality, Quantity and Distribution

The proposed project would not result in a direct discharge to surface waters. No change in water usage at the facility would occur as a result of the proposed change. The Department would not expect any impacts to water quality, quantity and distribution as a result of the small emission increase.

C. Geology and Soil Quality, Stability and Moisture

No impacts to geology, and soil quality, stability and moisture would be expected to occur as the proposed modification would occur as equipment would be located within the facility footprint.

D. Vegetation Cover, Quantity, and Quality

No impacts to vegetation cover, quantity and quality would be expected to occur as the proposed modification would occur within the existing facility footprint.

E. Aesthetics

The proposed project would not be expected to cause any change in aesthetics, as the addition of the booster station would be within the existing facility boundary and the nature of site activities would remain unchanged.

F. Air Quality

Issuance of MAQP #4631-02 would permit an increase in emissions at the facility. The application, and conditions and limitations which would be placed in the permit, would require the facility to be constructed and operated in a manner which would minimize these emissions. The facility would remain a minor source of emissions. Minor effects to air quality would be expected as a result of issuing MAQP #4631-02.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department reviewed the previous information prepared by the Montana Natural Heritage Program utilizing the Natural Resources Information System to identify any species of special concern in the general area in which the facility operates. Fifteen animal species of concern and a single plant species of concern were identified. The proposed project will not likely impact any of the identified species of concern, as the new equipment will be installed within the existing footprint of the facility. Furthermore, the allowable emissions increases resulting from this permit action are considered minor. Therefore only minor impact to the identified species of concern would be expected.

H. Demands on Environmental Resource of Water, Air and Energy

Only minor demands on water, air and energy are expected due to the minor increase in emissions from the proposed project.

I. Historical and Archaeological Sites

Construction activities would occur within the previous facility boundary that is owned and/or leased by ORM at the facility. Previous evaluations indicated that no sites were believed to be impacted by the facility and as the addition of booster station will occur within the facility footprint no impacts on historical or archaeological resources would be expected.

J. Cumulative and Secondary Impacts

The Department has determined there to be minor impacts to the individual physical and biological considerations above. The project takes place on land already owned by ORM, and impacts directly associated with issuance of MAQP #4631-02 are primarily air emissions outside the property boundaries but are expected to be minor. Cumulatively, the Department would expect minor impacts to physical and biological considerations. In turn, secondary impacts would be expected to be minor.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

	Potential Economic and Social Effect	Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				✓		Yes
B	Cultural Uniqueness and Diversity				✓		Yes
C	Local and State Tax Base and Tax Revenue				✓		Yes
D	Agricultural or Industrial Production				✓		Yes
E	Human Health			✓			Yes
F	Access to and Quality of Recreational and Wilderness Activities				✓		Yes
G	Quantity and Distribution of Employment				✓		Yes
H	Distribution of Population				✓		Yes
I	Demands for Government Services				✓		Yes
J	Industrial and Commercial Activity			✓			Yes
K	Locally Adopted Environmental Plans and Goals				✓		Yes
L	Cumulative and Secondary Impacts			✓			Yes

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

A. Social Structures and Mores

MAQP #4631-02 would permit a minor increase in VOC, CO, and NO<sub>x</sub> emissions and small increase in SO<sub>2</sub> emissions with the addition of the booster equipment. No impacts would be expected to Social Structures and Mores.

B. Cultural Uniqueness and Diversity

MAQP #4631-02 would permit a small increase in emissions including NO<sub>x</sub>, CO, and VOC with negligible increase in SO<sub>2</sub>. An increase in the number of employees at the site would not be expected to occur. No impacts would be expected to Cultural Uniqueness and Diversity.

C. Local and State Tax Base and Tax Revenue

Only minor impacts to local and state tax base and tax revenue would be expected with the small scale of the proposed project.

D. Agricultural or Industrial Production

MAQP #4631-02 would permit a minor modification at the existing facility. The proposed project would take place within the existing facility footprint. No impacts to agricultural or industrial production would be expected as a result of issuance of MAQP #4631-02.

E. Human Health

MAQP #4631-02 would contain limitations and conditions derived from rules designed to protect human health. Given the minor increase in emissions that would occur under the proposed modification, only a minor impact to human health would be expected.

F. Access to and Quality of Recreational and Wilderness Activities

The project would take place within the existing facility footprint. No impacts to access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

The proposed project would not add permanent employees to the facility and therefore no impacts to the quantity and distribution of employment would be expected.

H. Distribution of Population

The proposed project would not result in any increase in permanent employees. A temporary increase in population in the area may result from construction related activities. The Department would not expect any impacts to the distribution of population.

I. Demands for Government Services

Additional demands for government services would not be expected to occur as a result of the proposed facility changes.

J. Industrial and Commercial Activity

A temporary increase in industrial and commercial activity would be expected during the construction phase of the project given the scope of the proposed project. Any impacts would be expected to be relatively minor and short-lived. A minor increase in general industrial activity as a result of increased capacity of the facility would occur. Therefore, minor impact to industrial and commercial activity is expected to occur.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals for which issuance of MAQP #4631-02 would affect. The permit conditions and limitations would be derived from rules designed to protect public health.

L. Cumulative and Secondary Impacts

The Department would expect only minor cumulative impacts to the individual economic and social considerations above. Secondary impacts would not be expected to occur.

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 is for the addition of NGL booster station at an existing natural gas liquids storage, transfer, and loading facility. MAQP #4631-02 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 who provided information used in this analysis or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: D. Kuenzli

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