



Montana Department of  
**E**NVIRONMENTAL **Q**UALITY

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November 25, 2013

Carlos Huertas  
Omimex Canada  
East Keith Field, Station 037  
Fort Worth, TX 76107

Dear Mr. Huertas:

Montana Air Quality Permit #2758-07 is deemed final as of November 23, 2013, by the Department of Environmental Quality (Department). This permit is for a natural gas compressor station. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie A. Merkel  
Air Permitting Supervisor  
Air Resources Management Bureau  
(406) 444-3626

Craig Henrikson P.E.  
Environmental Engineer  
Air Resources Management Bureau  
(406) 444-6711

JAM:CH  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Montana Air Quality Permit #2758-07

Omimex Canada  
East Keith Field, Station 037  
Fort Worth, TX 76107

November 23, 2013



## MONTANA AIR QUALITY PERMIT

Issued To: Omimex Canada, Ltd.  
East Keith Field, Station 037  
Fort Worth, TX 76107

MAQP: #2758-07  
Application Complete: 09/23/2013  
Preliminary Determination Issued: 10/22/2013  
Department Decision: 11/07/2013  
Permit Final: 11/23/2013  
AFS #: 051-0001

An air quality permit, with conditions, is hereby granted to Omimex Canada, Ltd. (Omimex), - East Keith Field, Station 037, 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

Omimex operates a natural gas compressor station and associated equipment located in the SE¼ of the NE¼ of Section 22, Township 36 North, Range 6 East, in Liberty County, Montana. This facility is known as the East Keith Field, Station 037. A complete list of the permitted equipment is contained in Section I.A. of the permit analysis.

#### B. Current Permit Action

On September 23, 2013, the Department of Environmental Quality (Department) received a modification request from Omimex to replace the existing compressor engine with a newer smaller compressor engine. The current permitting action provides for a flexible permit to reflect the engine change and updates the permit to reflect current permit language and rule references. **MAQP #2758-07** replaces Permit #2758-06.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. Omimex shall not operate more than two natural gas compressor engines at any given time at the facility and the total combined maximum rated capacity shall not exceed 840 brake horsepower (bhp) (ARM 17.8.749).
2. Emissions from the 400-horsepower (bhp) Waukesha compressor engine or an equivalent rated engine (if the 400 bhp engine were replaced) shall be controlled with lean burn technology. The following gram per bhp emissions limits for the 400 bhp compressor engine shall be met at all operating load conditions (ARM 17.8.752).

#### Emission Factors

|                                       |               |
|---------------------------------------|---------------|
| Oxides of Nitrogen (NO <sub>x</sub> ) | 2.0 g/bhp-hr  |
| Carbon Monoxide (CO)                  | 1.30 g/bhp-hr |
| Volatile Organic Compounds (VOC)      | 0.27 g/bhp-hr |

3. The pounds per hour (lb/hr) emission limits for the 400 bhp compressor engine shall be determined using the following equation and pollutant specific g/bhp-hr emission factors from Section II.A.2 (ARM 17.8.752).

Equation

Emission Limit (lb/hr) = Emission Factor (g/bhp-hr)\* maximum rated design capacity of engine (bhp)\* 0.002205 lb/g

Lb/hr Limits

NO<sub>x</sub> 1.76 lb/hr  
CO 1.15 lb/hr  
VOC 1.1 lb/hr

4. Omimex 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).
5. Omimex 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).
6. Omimex shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).
7. If the permitted equipment is used in conjunction with any other equipment owned or operated by Omimex, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
8. Omimex shall comply with any applicable standards, limitations, reporting, recordkeeping, and notification requirements contained in Title 40 Code of Federal Regulations (40 CFR) 63, Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (ARM 17.8.340, 40 CFR 63, Subpart ZZZZ).
9. Omimex shall comply with any applicable standards, limitations, reporting, recordkeeping, and notification requirements contained in Title 40 Code of Federal Regulations (40 CFR) 60, Subpart JJJJ – National Emission Standards for Hazardous Air Pollutants for Stationary Spark Ignition Internal Combustion Engines (ARM 17.8.340, 40 CFR 60, Subpart JJJJ).
10. Omimex shall submit to the department within 180 days of final permit issuance, a “maintenance plan” for the 400 hp compressor engine similar to the requirements as called out in 40 CFR 60 Subpart JJJJ 60. 4243 (a)(2) (iii) and keep records of maintenance conducted (ARM 17.8.749 and ARM 17.8.752).

B. Testing Requirements

1. The proposed Waukesha 400 bhp Compressor Engine shall be initially tested for nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO), concurrently, to demonstrate compliance with emissions limits in Section II.A.2. Testing shall be conducted within 180 days of the initial startup date of the unit (ARM 17.8.105 and ARM 17.8.749).
2. The Waukesha 400 bhp Compressor Engine shall be tested for NO<sub>x</sub> and CO, concurrently, on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department to demonstrate compliance with the emission limitations contained in Section II.A.1. (ARM 17.8.105 and 17.8.749).
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. Omimex 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 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 to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).
2. Omimex 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 or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by Omimex as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

### SECTION III: General Conditions

- A. Inspection – Omimex 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 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 Omimex fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Omimex 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 the air quality permit shall be made available for inspection by the Department at the location of the source.
- G. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Omimex may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Permit Fee – Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by Omimex may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- I. 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  
Omimex Canada, Ltd.  
East Keith Field, Station 037  
MAQP #2758-07

I. Introduction/Process Description

Omimex Canada, Ltd. (Omimex) operates a natural gas compressor station and associated equipment located in the SE $\frac{1}{4}$  of the NE $\frac{1}{4}$  of Section 22, Township 36 North, Range 6 East, in Liberty County. The facility is known as the East Keith Field, Station 037. The facility includes the following equipment:

A. Permitted Equipment

The facility consists of the following equipment:

- (1) 1965 440-horsepower (hp) Worthington Compressor Engine
- (1) 400 hp Waukesha Compressor Engine or equivalent engine
- (1) 300-thousand British thermal units per hour (MBtu/hr) Olman Heath Reboiler
- (2) 80-MBtu/hr Little Giant Heaters
- (1) 110-MBtu/hr Little Giant Heater
- (3) 105-MBtu/hr Modine Heaters
- (1) 120-MBtu/hr Moores Heater

B. Source Description

The Omimex facility has two primary purposes. The first purpose is to pump the field gas up to the required pressure in the natural gas transmission system. Compression of the gas is accomplished using both the 440-hp Worthington Compressor Engine and the 400-hp Waukesha Compressor Engine. Engine heaters (3), garage heaters (3), and an auxiliary building heater provide heat to the various station facilities.

The second purpose of the Omimex facility is to "dry" the gas as it is being processed. The gas contains some moisture, which must be removed from the system prior to being sent into the transmission system. This is accomplished with the dehydrator, also commonly called a reboiler or glycol unit.

The gas is treated with a glycol solution, which absorbs the water in the gas stream. The glycol solution is then heated to about 300 degrees Fahrenheit (°F) to drive off the water and return the glycol. The heat necessary for this activity is generated by burning natural gas in the dehydrator reboiler. This unit will have a heat input of approximately 300 MBtu/hr. The reboiler is small by industrial standards, having a size approximately equivalent to a typical natural gas-fired small office heating system.

C. Permit History

Montana Power Company (Montana Power) was issued **Permit #2758-00** for the operation of their compressor station and associated equipment, located in the Southeast  $\frac{1}{4}$  of the Northeast  $\frac{1}{4}$  of Section 22, Township 36 North, Range 6 East, in Liberty County near Shelby, Montana. The station was identified as the East Keith Field, Station 037. On June 7, 1993, Permit #2758-00 became final.

The first permit change revised the emission limitation units from grams per brake horsepower-hour (g/bhp-hr) to pounds per hour (lb/hr). The revision provided Montana Power with the operational flexibility to account for varying parameters such as engine revolutions per minute (rpm), operating load (bhp), ambient air temperature, gas temperature, site, elevation, fuel gas quality, air/fuel ratio (AFR), field gas conditions, etc. Also, to clarify nitrogen oxides (NO<sub>x</sub>) mass emission calculations, NO<sub>x</sub> emission limitations were identified as nitrogen dioxide (NO<sub>2</sub>). Furthermore, the White Superior Compressor Engine was removed from service and the permit. **Permit #2758-01** replaced Permit #2758-00. On March 1, 1994, Permit #2758-01 became final.

Montana Power requested a name change to Montana Power Gas Company. The appropriate references in the permit were changed to reflect the name change. Since the source was tested and demonstrated compliance on November 15, 1993, the initial source testing requirements were removed from Permit #2758-01. In addition, the rule references were updated, and the permit was updated to reflect the current format used for writing permits. **Permit #2758-02** replaced Permit #2758-01. On March 17, 1999, Permit #2758-02 became final.

**Permit #2758-03** added the 637-hp Caterpillar Compressor Engine to the permit and removed the 360-hp Ajax Compressor Engine from the permit. Permit #2758-03 replaced Permit #2758-02. On August 8, 1999, Permit #2758-03 became final.

On January 22, 2002, the Department of Environmental Quality (Department) received a notice of corporate merger and name change from PanCanadian Energy Resources, Inc. (PanCanadian). The letter notified the Department that Montana Power Gas Company, Xenon, Inc., and Entech Gas Ventures, Inc. merged into North American Resources Company (NARCO) as of January 1, 2002. The letter also stated that at the same time, NARCO changed its corporate name to PanCanadian. In addition, on April 18, 2002, the Department received a letter from PanCanadian requesting a name change from PanCanadian to EnCana Energy Resources, Inc. (EnCana). The permit action transferred the permit from Montana Power Gas Company to EnCana. In addition, the permit format and permit language were updated. **Permit #2758-04** replaced Permit #2758-03. On August 23, 2002, Permit #2758-04 became final.

On June 5, 2003, the Department received a letter from EnCana requesting that the Department change the corporate name on Permit #2758-04 from EnCana to EnCana Gathering Services (USA), Inc. (EnCana Gathering). This permitting action changed the name from EnCana to EnCana Gathering and updated the permit to reflect current permit language and rule references used by the Department. **Permit #2758-05** replaced Permit #2758-04.

On March 5, 2004, the Department received a letter from Omimex requesting that the Department change the corporate name on Permit #2758-05 from EnCana Gathering Services (USA), Inc. (EnCana Gathering) to Omimex. The permitting action changed the corporate name and updated the permit to reflect current permit language and rule references. **Permit #2758-06** replaced Permit #2758-05.

#### D. Current Permit Action

On September 23, 2013, the Department received a modification request from Omimex requesting that the existing compressor engine be replaced with a newer smaller compressor engine. The current permitting action provides for a flexible permit to reflect the engine change and updates the permit to reflect current permit language and rule references. **MAQP #2758-07** replaces Permit #2758-06.

E. Additional Information

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

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for 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).

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

4. ARM 17.8.110 Malfunctions. (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 which would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

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

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

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (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, Omimex 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 fourth 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 section.
6. ARM 17.8.340 Standards of Performance for New Stationary Sources. The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, New Source Performance Standards (NSPS), shall comply with the standards and provisions of 40 CFR Part 60. The Omimex facility, is not an NSPS affected source because it does not meet any of the definitions of a natural gas processing plant, as defined in 40 CFR Part 60, Subpart KKK. 40 CFR Part 60 Subpart JJJJ could become applicable if different engines are used under the de minimis language.

7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:
- a. 40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR Part 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR Part 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAP) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR Part 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR Part 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HH. Because the facility is not a major source of HAPs, Omimex is not subject to the provisions of 40 CFR Part 63, Subpart HH.
  - b. 40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. In addition, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Third, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Finally, if the first two criteria are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HHH. Because the facility is not a major source of HAPs, Omimex is not subject to the provisions of 40 CFR 63, Subpart HHH.
  - c. 40 CFR 63, Subpart ZZZZ. National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. Owners or operators of reciprocating internal combustion engines (RICE) at a major or area source of HAP emissions shall comply with 40 CFR 63, Subpart ZZZZ except if the stationary RICE is being tested at a stationary RICE test cell/stand.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Omimex submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this subchapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. Omimex has a PTE greater than 25 tons per year of NO<sub>x</sub> and 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. This rule requires that a permit application be submitted prior to installation, modification or use of a source. Omimex submitted an affidavit of publication of public notice for the October 9, 2013, issue of the *Liberty County Times* a newspaper of general circulation in the Town of Chester, MT in Liberty County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Omimex of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement
12. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
13. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
14. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
15. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

- F. ARM 17.8, 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 sub-chapter.
  2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification-- 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 does not have a PTE greater than 250 tons per year (excluding fugitive emissions) of any air pollutant.
- 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 stationary source having:
    - a. PTE > 100 tons/year of any pollutant;
    - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
    - c. PTE > 70 tons/year of particulate matter 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 #2758-07 for Omimex, the following conclusions were made:
    - a. The facility's PTE is less than 100 tons/year for all criteria pollutants;
    - b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs;
    - c. This source is not located in a serious PM<sub>10</sub> nonattainment area;
    - d. This source is not subject to any current NSPS standards but could become applicable to 40 CFR 60 Subpart JJJJ under the de minimis language within the permit;
    - e. This facility is not subject to any current NESHAP standards;
    - f. This source is not a Title IV affected source nor a solid waste combustion unit; and
    - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Omimex will be a minor source of emissions as define under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Omimex will be required to obtain a Title V Operating Permit.

### III. BACT Determination

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

Waukesha 4-Stroke Lean Burn Compressor Engine

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

Lean burn engines are not well suited for NO<sub>x</sub> control using Non Selective Catalytic Reduction (NSCR) technology as a rich fuel mixture is required to properly operate. Additionally, Selective Catalytic Reduction (SCR) technology is normally applied to units without significant load fluctuation. Compressor engines are required to operate over a wide range and generally are not suited for SCR technology. If load fluctuations occur, ammonia slip may occur or too little ammonia could be injected. Therefore, lean burn engine without control is considered to be BACT.

#### CO Emissions

Lean burn engines can either be operated to control CO by having no additional controls or by adding a catalytic oxidation unit to remove the CO. Excessive costs associated with the catalyst do not justify the small reduction in CO emissions versus the lean burn operation without additional controls. Therefore, lean burn engine operation without additional controls is considered to be BACT.

#### VOC Emissions

When burning pipeline natural gas, the proposed 4-stroke lean-burn engine has an emission rate of 0.27 g/bhp-hr. This emission rate is significantly below a 4-stroke rich-burn engine equipped with a NSCR unit, and below a 2-stroke lean-burn engine and therefore, BACT for the proposed 4-stroke lean-burn engine is no additional control and burning pipeline quality natural gas.

#### Proper Operation

Proper engine operation is achieved when the equipment is maintained per the manufacturer's recommended maintenance practices. Routine maintenance prevents catastrophic failures and limits the likelihood of equipment failures and emissions exceedances. BACT for the 4-stroke lean-burn engine includes following a maintenance schedule for the proposed engine and keeping records of completed maintenance.

#### IV. Emission Inventory

| Emission Source                              | Emissions Tons/Year [PTE] |                  |                   |              |                 |                 |             |
|--|---------------------------|------------------|-------------------|--------------|-----------------|-----------------|-------------|
|  | PM                        | PM <sub>10</sub> | PM <sub>2.5</sub> | CO           | NO <sub>x</sub> | SO <sub>2</sub> | VOC         |
| Natural Gas Compressor Engine (Up to 400 hp) | 0.12                      | 0.12             | 0.12              | 5.02         | 7.72            | 0.01            | 1.04        |
| Worthington Compressor Engine 440 hp         | 0.16                      | 0.16             | 0.16              | 7.65         | 63.74           | 0.01            | 0.85        |
| Olman Heath Reboiler                         | 0.01                      | 0.01             | 0.01              | 0            | 0.13            | 0               | 0.01        |
| Heaters (7) --> Sources 04-10                | 0.01                      | 0.01             | 0.01              | 0.06         | 0.31            | 0.002           | 0.02        |
| <b>TOTAL EMISSIONS &gt;</b>                  | <b>0.30</b>               | <b>0.30</b>      | <b>0.30</b>       | <b>12.73</b> | <b>71.90</b>    | <b>0.02</b>     | <b>1.92</b> |

a. Emission Inventory reflects enforceable limits on hours of operation

CO, carbon monoxide  
 PM, particulate matter  
 PM<sub>10</sub>, particulate matter with an aerodynamic diameter of 10 microns or less  
 PM<sub>2.5</sub>, particulate matter with an aerodynamic diameter of 2.5 microns or less  
 SO<sub>2</sub>, oxides of sulfur  
 VOC, volatile organic compounds  
 NO<sub>x</sub>, Oxides of nitrogen

#### Natural Gas Compressor Engine (Up to 400 hp)

Engine Rating: 400 hp Compressor Engine  
 Operating Hours: 8760 hrs/yr

##### Particulate Emissions:

PM Emissions: 0.00007 AP-42, 3.2-2, 7/00

Emission Factor 0.00007 lb/hp-hr  
 Calculations (0.00006993 lb/hp-hr) \* (400 hp) = 0.03 lbs/hr  
 (0.03 lbs/hr) \* (8760 hrs/yr) \* (0.0005 tons/lb) = 0.12 TPY

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

Emission Factor 0.00007 lb/hp-hr AP-42, 3.2-2, 7/00  
 Calculations (0.00006993 lb/hp-hr) \* (400 hp) = 0.03 lbs/hr  
 (0.03 lbs/hr) \* (8760 hrs/yr) \* (0.0005 tons/lb) = 0.12 TPY

##### PM<sub>2.5</sub> Emissions:

Emission Factor 0.00007 lb/hp-hr AP-42, 3.2-2, 7/00  
 Calculations (0.00006993 lb/hp-hr) \* (400 hp) = 0.03 lbs/hr  
 (0.03 lbs/hr) \* (8760 hrs/yr) \* (0.0005 tons/lb) = 0.12 TPY

CO Emissions:

|                 |  |              |             |
|-----------------|--|--------------|-------------|
| Emission Factor | 0.00286 lb/hp-hr   | Manufacturer |             |
| Calculations    | $(0.00286343612334802 \text{ lb/hp-hr}) * (400 \text{ hp}) =$                |              | 1.15 lbs/hr |
|                 | $(1.15 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$ |              | 5.02 TPY    |

NO<sub>x</sub> Emissions:

|                 |  |              |             |
|-----------------|--|--------------|-------------|
| Emission Factor | 0.004 lb/hp-hr   | Manufacturer |             |
| Calculations    | $(0.00440528634361234 \text{ lb/hp-hr}) * (400 \text{ hp}) =$                |              | 1.76 lbs/hr |
|                 | $(1.76 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$ |              | 7.72 TPY    |

SO<sub>2</sub> Emissions:

|                 |  |                      |              |
|-----------------|--|----------------------|--------------|
| Emission Factor | 0.0000041 lb/hp-hr   | [AP-42, 3.3-2, 6/06] |              |
| Calculations    | $(0.0000 \text{ lb/hp-hr}) * (400 \text{ hp}) =$                             |                      | 0.002 lbs/hr |
|                 | $(0.00 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$ |                      | 0.01 TPY     |

VOC Emissions:

|                 |  |                    |             |
|-----------------|--|--------------------|-------------|
| Emission Factor | 0.00059 lb/hp-hr   | AP-42, 3.2-2, 7/00 |             |
| Calculations    | $(0.0006 \text{ lb/hp-hr}) * (400 \text{ hp}) =$                             |                    | 0.24 lbs/hr |
|                 | $(0.24 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$ |                    | 1.04 TPY    |

**Worthington Compressor Engine 440 hp**

Hours of operation: 8760 hr/yr

PM Emissions

|                     |   |
|---------------------|---|
| Emission Factor:    | 10.00 lb/10 <sup>6</sup> ft <sup>3</sup> {2 02 002 02, AFSSCC page 32}  |
| Control Efficiency: | 0.00%   |
| Fuel Consumption:   | 8500.00 Btu/Hp hr {Maximum Design}  |
| Calculations:       | $8500.00 \text{ Btu/Hp hr} * 0.001 \text{ ft}^3/\text{Btu} * 440\text{-hp} * 8760 \text{ hrs/yr} = 32762400 \text{ ft}^3/\text{yr}$ |
|                     | $32762400 \text{ ft}^3/\text{yr} * 10 \text{ lb}/10^6 \text{ ft}^3 \text{ gas} * 0.0005 \text{ ton/lb} = 0.16 \text{ ton/yr}$       |

PM<sub>10</sub> Emissions

|                     |  |
|---------------------|--|
| Emission Factor:    | 10.00 lb/10 <sup>6</sup> ft <sup>3</sup> {2 02 002 02, AFSSCC page 32}   |
| Control Efficiency: | 0.00%  |
| Fuel Consumption:   | 8500.00 Btu/Hp hr {Maximum Design}   |
| Calculations:       | $8500.00 \text{ Btu/Hp hr} * 0.001 \text{ ft}^3/\text{Btu} * 440\text{-hp} * 8760 \text{ hr/yr} = 32762400 \text{ ft}^3/\text{yr}$ |
|                     | $32762400 \text{ ft}^3/\text{yr} * 10 \text{ lb}/10^6 \text{ ft}^3 \text{ gas} * 0.0005 \text{ ton/lb} = 0.16 \text{ ton/yr}$      |

PM<sub>2.5</sub> Emissions:

|                     |  |
|---------------------|--|
| Emission Factor:    | 10.00 lb/10 <sup>6</sup> ft <sup>3</sup> {2 02 002 02, AFSSCC page 32}   |
| Control Efficiency: | 0.00%  |
| Fuel Consumption:   | 8500.00 Btu/Hp hr {Maximum Design}   |
| Calculations:       | $8500.00 \text{ Btu/Hp hr} * 0.001 \text{ ft}^3/\text{Btu} * 440\text{-hp} * 8760 \text{ hr/yr} = 32762400 \text{ ft}^3/\text{yr}$ |
|                     | $32762400 \text{ ft}^3/\text{yr} * 10 \text{ lb}/10^6 \text{ ft}^3 \text{ gas} * 0.0005 \text{ ton/lb} = 0.16 \text{ ton/yr}$      |

NO<sub>x</sub> Emissions:

|                  |   |
|------------------|---|
| Emission factor: | 15.00 gram/Hp hr {Based on manufacturer's data}   |
| Calculations:    | $15.00 \text{ gram/Hp hr} * 440\text{-hp} * 0.002205 \text{ lb/gram} = 14.55 \text{ lb/hr}$     |
|                  | $14.55 \text{ lb/hr} * 8760 \text{ hr/yr} * 1 \text{ ton}/2000\text{lb} = 63.74 \text{ ton/yr}$ |

### VOC Emissions

Emission factor: 0.2000 gram/Hp hr {Based on manufacturer's data}  
Calculations: 0.2000 gram/Hp hr \* 440-hp \* 0.002205 lb/gram = 0.1940 lb/hr  
0.1940 lb/hr \* 8760 hr/yr \* 1 ton/2000 lb = 0.85 ton/yr

### CO Emissions

Emission factor: 1.80 gram/Hp hr {Based on manufacturer's data}  
Calculations: 1.80 gram/Hp hr \* 440-hp \* 0.002205 lb/gram = 1.75 lb/hr  
1.75 lb/hr \* 8760 hr/yr \* 1 ton/2000 lb = 7.65 ton/yr

### SO<sub>2</sub> Emissions:

Emission factor: 0.0020 gram/Hp hr {AP 42, Table 3.2 1,9/85}  
Calculations: 0.0020 gram/Hp hr \* 440-hp \* 0.002205 lb/gram = 0.0019 lb/hr  
0.0019 lb/hr \* 8760 hr/yr \* 1 ton/2000 lb = 0.01 ton/yr

## Olman Heath Reboiler

### PM Emissions

Emission Factor: 5.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6MMft<sup>3</sup>/yr  
2628000 ft<sup>3</sup>/yr \* 5 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

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

Emission Factor: 5.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6 MMft<sup>3</sup>/yr  
2,628,000 ft<sup>3</sup>/yr \* 5 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

### PM<sub>2.5</sub> Emissions:

Emission Factor: 5.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6 MMft<sup>3</sup>/yr  
2,628,000 ft<sup>3</sup>/yr \* 5 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

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

Emission Factor: 100.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6 MMft<sup>3</sup>/yr  
2,628,000 ft<sup>3</sup>/yr \* 100 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.13 ton/yr

### VOC Emissions

Emission Factor: 8.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6 MMft<sup>3</sup>/yr  
2,628,000 ft<sup>3</sup>/yr \* 8 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

CO Emissions

Emission Factor: 20.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6 MMft<sup>3</sup>/yr  
2,628,000 ft<sup>3</sup>/yr \* 20 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.03 ton/yr

SO<sub>2</sub> Emissions:

Emission Factor: 0.60 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 300.00 MBtu/hr {Information from company}  
Calculations: 300.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 2.6 MMft<sup>3</sup>/yr  
2,628,000 ft<sup>3</sup>/yr \* 0.6 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.00 ton/yr

Heaters (7) --> Sources 04-10

PM Emissions

Emission Factor: 5.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 5 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 5.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 5 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

PM<sub>2.5</sub> Emissions:

Emission Factor: 5.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 5 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.01 ton/yr

NO<sub>x</sub> Emissions:

Emission Factor: 100.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 100 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.31 ton/yr

VOC Emissions

Emission Factor: 8.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 8 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb = 0.02 ton/yr

CO Emissions

Emission Factor: 20.00 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 20 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb=0.06 ton/yr

SO<sub>2</sub> Emissions:

Emission Factor: 0.60 lb/10<sup>6</sup> ft<sup>3</sup> {AP 42, 1.4 1}  
Control Efficiency: 0.00%  
Fuel Consumption: 705.00 MBtu/hr {Information from company}  
Calculations: 705.00 MBtu/hr \* 1000 Btu/MBtu \* 0.001 ft<sup>3</sup> gas/Btu \* 8760 hr/yr = 6.2 MMft<sup>3</sup>/yr  
6,175,000 ft<sup>3</sup>/yr \* 0.6 lb/10<sup>6</sup> ft<sup>3</sup> \* 0.0005 ton/lb=0.002 ton/yr

V. Existing Air Quality

Under this proposed permit action, the emissions will decrease for the existing facility. The area has been designated unclassified/attainment with all ambient air quality standards. In the view of the Department, Omimex will continue to operate in compliance with all applicable rules and regulations that apply to the facility.

VI. Air Quality Impacts

This permit contains conditions and limitations that would protect air quality for the site and surrounding area. Furthermore, under this proposed action, the emissions will decrease, so any effects to air quality will be minor.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #2758-07, the Department determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, 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.

## VII. Environmental Assessment

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

**DEPARTMENT OF ENVIRONMENTAL QUALITY**  
**Permitting and Compliance Division**  
**Air Resources Management Bureau**  
**1520 East Sixth Avenue**  
**P.O. Box 200901, Helena, Montana 59620-0901**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

Issued to: Omimex Canada, Ltd.  
7950 John T. White Road  
Forth Worth, Texas 76120

Montana Air Quality Permit Number (MAQP): 2758-07

*Preliminary Determination Issued:* October 22, 2013

*Department Decision Issued:* November 7, 2013

*Permit Final:* November 23, 2013

1. *Legal Description of Site:* The facility is located in the SE<sup>1</sup>/<sub>4</sub> of the NE<sup>1</sup>/<sub>4</sub> of Section 22, Township 36 North, Range 6 East, in Liberty County, Montana
2. *Description of Project:* Omimex owns and operates a natural gas compressor station and associated dryer at the facility. This project would replace the larger 657 horsepower (hp) compressor engine with a 400 hp compressor engine.
3. *Objectives of Project:* The project would allow Omimex to operate the existing facility with a smaller compressor engine while still maintain the same capacity but with fewer emissions.
4. *Alternatives Considered:* In addition to the proposed action, the Montana Department of Environmental Quality (Department) also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Omimex 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 Best Available Control Technology (BACT) analysis, would be included in MAQP #2758-07.
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.

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

Emissions from the proposed project would affect terrestrial and aquatic life and habitats in the proposed project area. However, as detailed in Section VI, VII, and VIII of the permit analysis, any emissions and resulting impacts from the project would be minor due to the low concentration of the pollutants emitted and decrease in emissions associated with the smaller engine.

The new engine would operate at the existing facility and no new disturbance outside the existing footprint of the facility would be expected. Overall, any impact to the terrestrial and aquatic life and habitats of the proposed project area would be minor.

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

The proposed project would not affect water quantity or distribution in the proposed project area. The new engine would operate within a building and would not discharge or use water as part of the project.

Emissions from the proposed project would affect water quality in the proposed project area. However, as detailed in Sections VI, VII, and VIII of the permit analysis any emissions and resulting deposition impacts from the project would be minor due to the low concentration of the pollutants emitted and dispersion characteristics of pollutants and the atmosphere.

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

The proposed project would affect the geology, soil quality, stability, and moisture of the proposed project area. However, the new engine would operate at the existing facility and no new ground disturbance to the area would be required.

Further, as described in Sections VI, VII and VIII of the permit analysis, the new engine would result in minor air pollution emissions to the ambient environment but less than the unit being replaced. These pollutants would deposit on the soils in the surrounding area. Any impact from deposition of these pollutants would be minor due to dispersion characteristics of pollutants and the atmosphere and the low concentration of the pollutants emitted.

D. Vegetation Cover, Quantity, and Quality:

Emissions from the proposed project would affect vegetation cover, quantity, and quality in the proposed project area. However, as detailed in Sections VI, VII, and VIII of the permit analysis, any emissions and resulting impacts from the project would be minor.

Further, the new engine would operate within the existing facility and only a limited amount of new construction or ground disturbance to the area would be required. Therefore, any impact to vegetation cover, quantity, and quality from facility construction would be minor. Overall, any impact to the vegetation cover, quantity, and quality of the proposed project area would be minor.

E. Aesthetics:

The proposed project would not be expected to have any impact on the aesthetics of the area, as the facility already exists.

F. Air Quality:

The proposed project would result in lower emissions than the current engine but small amounts of various criteria pollutants and HAPs would be emitted to the ambient air in the proposed project area. However, as detailed in Sections VI, VII, and VIII of the permit analysis, the Department demonstrated that any air quality impacts from the proposed project would be minor.

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

Due to the minor amounts of construction that would be required, the low levels of pollutants that would be emitted by the proposed project, and since the modification results in a decrease in emissions, dispersion characteristics of pollutants and the atmosphere, and conditions that would be placed in MAQP #2758-07, the Department determined that the chance of the project impacting any species of special concern would be minor.

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

The proposed project would result in minor demands on environmental resources of water and air as discussed in Sections 7.B and 7.F of this EA. In addition, as summarized in Section 7.F of this EA and detailed in Sections VI, VII, and VIII of the permit analysis, the project's impacts on air resources in the proposed project area would be minor due to dispersion characteristics of pollutants and the atmosphere and the low concentration of pollutants emitted. Finally, because the project is small by industrial standards, little energy would be required for operation, and the resulting impact on energy resources would be minor. Overall, the demands on the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites:

Since the facility already exists and no work is planned outside the facility footprint, no impact on historical and archaeological sites would occur.

J. Cumulative and Secondary Impacts:

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment in the immediate area would be minor due to the relatively small size of the operation. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #2758-07.

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.

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

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

A. Social Structures and Mores:

The proposed project would not have any effect on any native or traditional lifestyles or communities (social structures or mores) of the proposed area of operation because the project is small by industrial standards. The predominant use of the surrounding area would not change as a result of the proposed project.

B. Cultural Uniqueness and Diversity:

The proposed project would not have any effect on cultural uniqueness and diversity of the proposed area of operation because the project is small by industrial standards. The predominant use of the surrounding area would not change as a result of the proposed project.

C. Local and State Tax Base and Tax Revenue:

The proposed project would have a minor impact on the local and state tax base and tax revenue. The project is small by industrial standards; thus, any economic impact to the area would be minor. Further, the project would require only minor, if any, amounts of construction and a limited amount of employees/operators for normal operations.

D. Agricultural or Industrial Production:

Because the proposed project would operate within an existing facility, the project would not displace any land used for agricultural production and would require only limited, if any, amounts of additional industrial construction. Further, the nature of the project would dictate that no additional industrial production would result from the proposed project.

E. Human Health:

MAQP #2758-07 would incorporate conditions to ensure that the facility would operate in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F of this EA, the Department determined that any impacts from deposition of pollutants would be minor due to dispersion characteristics and conditions placed in MAQP #2758-07. The air emissions from this facility would be minimized by opacity limitations on the facility.

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

Because the proposed project would operate within an existing facility, the project would not affect any access to or quality of any recreation or wilderness activities in the area.

G. Quantity and Distribution of Employment:

The proposed project would not require new employment in the area.

H. Distribution of Population:

The proposed project would not likely require any new employment in the area. Therefore, the proposed project would not be expected to have any impact on the distribution of population in the proposed project area.

I. Demands for Government Services:

Government services would be required for acquiring the appropriate permits from government agencies. In addition, the permitted source of emissions would be subject to periodic inspections by government personnel. Demands for government services would be minor.

J. Industrial and Commercial Activity:

The proposed project would result in only a minor impact on local industrial and commercial activity because the proposed project would operate in an existing building, would require only limited, if any, amounts of additional industrial construction, and would not result in additional industrial production.

K. Locally Adopted Environmental Plans and Goals:

The Department is not aware of any locally adopted environmental plans or goals in the immediate area affected by the proposed project. The state standards would be protective of the proposed project area.

L. Cumulative and Secondary Impacts:

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social aspects of the human environment in the immediate area due to the relatively small size of the operation. Due to the relatively small size of the project, the industrial production, employment, and tax revenue (etc.) would not be significantly impacted by the proposed project. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #2758-07.

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 construction and operation of a smaller compressor engine. MAQP #2758-07 includes conditions and limitations to ensure that the facility would operate in compliance with all applicable rules and regulations. In addition, as detailed in the above EA there are no significant impacts associated with this proposal.

Individuals or groups contributing to this EA: *Department of Environmental Quality – Air Resources Management Bureau.*

EA prepared by: Craig Henrikson  
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