



Montana Department of  
**ENVIRONMENTAL QUALITY**

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October 3, 2011

Mr. Garry Visser  
Devon Energy Production Company, L.P.  
P.O. Box 2606  
Clear Creek Road  
Havre, MT 59501

Dear Mr. Visser:

Montana Air Quality Permit #3344-03 is deemed final as of October 1, 2011, 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,

Vickie Walsh  
Air Permitting Program Supervisor  
Air Resources Management Bureau  
(406) 444-9741

Deanne Fischer, P.E  
Environmental Engineer  
Air Resources Management Bureau  
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VW:DF  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Montana Air Quality Permit #3344-03

Devon Energy Production Company, L.P.  
Stirling Compressor Station  
P.O. Box 2606  
Havre, MT 59501

October 1, 2011



## MONTANA AIR QUALITY PERMIT

Issued To: Devon Energy Production Company, L.P.  
Stirling Compressor Station  
P.O. Box 2606  
Havre, MT 59501

MAQP: #3344-03  
Administrative Amendment (AA)  
Request Received: 08/19/2011  
Department's Decision on AA: 09/15/2011  
Permit Final: 10/01/2011  
AFS#: 041-0009

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Devon Energy Production Company, L.P. (Devon), 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

Devon owns and operates a natural gas compressor station located approximately 15 miles south of Havre, Montana, in the SE<sup>1</sup>/<sub>4</sub> of the SW<sup>1</sup>/<sub>4</sub> of Section 19, Township 30 North, Range 16 East of Hill County. This facility is known as the Stirling Compressor Station. A complete list of permitted equipment is contained in Section I.A. of the permit analysis.

#### B. Current Permit Action

On August 19, 2011, the Department of Environmental Quality – Air Resources Management Bureau (Department) received notice that that the existing 1,478 brake horsepower (bhp) compressor engine would be replaced with a 195 bhp compressor engine. The replacement equipment will not result in the increase of any pollutant emissions by 5 tons or greater per year. Therefore, the compressor engine is being added as a de minimis change in accordance with ARM 17.8.745. The current permit action is to make the permit de minimis friendly by allowing a compressor engine with a maximum capacity of up to 1,478 bhp. The permit action also updates the permit to reflect current permit language and rule references used by the Department.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. Devon shall not operate more than one compressor engine (Unit 1) at the Stirling Compressor Station (ARM 17.8.749).
2. The maximum rated design capacity of Unit 1 shall not exceed 1,478-horsepower (hp) (ARM 17.8.749).
3. A compressor engine, with a maximum rated design capacity of up to 1478 bhp, shall be a rich-burn engine, controlled with a non-selective catalytic reduction (NSCR) unit and an air-to-fuel (AFR) controller. The pound per hour (lb/hr) emission limits for each of the engines shall be determined using the following equation and pollutant specific grams per horsepower-hour (g/hp-hr) emission factors (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

Emission Factors

NO <sub>x</sub>	1.0 g/hp-hr
CO	1.0 g/hp-hr
VOC	1.0 g/hp-hr

4. Devon 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. Devon 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. Devon 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. Devon 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 – *Standards of Performance for Stationary Spark Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines* (ARM 17.8.340; 40 CFR 60, Subpart JJJJ; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Devon shall test the compressor engine for NO<sub>x</sub> and CO concurrently, to demonstrate compliance with the emission limits as calculated in Section II.A.3. The source testing shall be conducted on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. Devon 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 actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. Devon 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*, a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location or fuel specifications, or would result in an increase in source capacity above its permitted operation. 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(1)(d) (ARM 17.8.745).
3. All records compiled in accordance with this permit must be maintained by Devon 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 – Devon shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and the terms, conditions, and matters stated herein shall be deemed accepted if Devon fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Devon 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 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 Devon may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

Montana Air Quality Permit Analysis  
Devon Energy Production Company, L.P.  
Stirling Compressor Station  
Montana Air Quality Permit (MAQP) #3344-03

I. Introduction/Process Description

Devon Energy Production Company, L.P. (Devon) owns and operates a natural gas compressor station located approximately 15 miles south of Havre, in the SE<sup>1</sup>/<sub>4</sub> of the SW<sup>1</sup>/<sub>4</sub> of Section 19, Township 30 North, Range 16 East of Hill County, Montana. The facility is known as the Stirling Compressor Station.

A. Permitted Equipment

The Stirling Compressor Station consists of one, rich-burn compressor engine, with a maximum capacity of up to 1,478 bhp, equipped with a non-selective catalytic reduction (NSCR) unit and an air-to-fuel ratio (AFR) controller.

B. Source Description

The Stirling Compressor Station utilizes one, natural gas compressor engine with a maximum capacity of up to 1,478 bhp, to drive a gas compressor that gathers nearby field gas and transmits the natural gas through a natural gas pipeline. The compressor engine is the only emitting unit at the facility.

C. Permit History

On August 24, 2004, Havre Pipeline Company, LLC (HPC) the Montana Department of Environmental Quality – Air Resources Management Bureau (Department) issued MAQP #3344-00 for the construction and operation of the Stirling Compressor Station, which included one 1,478-hp rich-burn compressor engine equipped with a NSCR unit and an AFR controller.

On August 23, 2004, the Department received a request to change the corporate name on MAQP #3344-00 from Havre Pipeline Company, LLC (HPC) to Devon-Louisiana Corporation. The Department changed the corporate name on MAQP #3344-00 from HPC to Devon-Louisiana Corporation, as requested. MAQP #3344-01 replaced MAQP #3344-00.

On March 13, 2006, the Department received a request to change the corporate name on MAQP #3344-01 from Devon-Louisiana Corporation to Devon Energy Production Company, L.P. The Department changed the corporate name on MAQP #3344-01 from Devon-Louisiana Corporation to Devon Energy Production Company, L.P. MAQP #3344-02 replaced MAQP #3344-01.

D. Current Permit Action

On August 19, 2011, the Department received notice that that the existing 1,478 bhp compressor engine would be replaced with a 195 bhp compressor engine. The current permit action is to make the permit de minimis friendly by allowing a compressor engine with a maximum capacity of up to 1,478 bhp. The permit action also updates the permit to reflect current permit language and rule references used by the Department. MAQP #3344-03 replaces MAQP #3344-02.

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).

Devon 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 PM<sub>10</sub>

Devon 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 (PM). (2) Under this rule, Devon shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne PM.
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 PM 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 PM in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. Devon will utilize natural gas for operating its fuel burning equipment, which will meet this limitation.
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. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS), including the following subparts:
  - a. 40 CFR 60, Subpart A – General provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR 60, Subpart KKK - Standards of Performance for Equipment Leaks of VOC From Onshore Natural Gas Processing Plants does not apply to the Stirling Compressor Station because the Stirling Compressor Station only gathers and

compresses natural gas and is not a natural gas processing plant that either engages in the extraction of natural gas liquids or processes sour gas; therefore, the Stirling Compressor Station does not meet the definition of a natural gas processing plant as defined in 40 CFR 60, Subpart KKK.

- c. 40 CFR 60, Subpart LLL – Standards of Performance for Onshore Natural Gas Processing: SO<sub>2</sub> Emissions does not apply to the Stirling Compressor Station because the Stirling Compressor Station does not utilize a sweetening unit to process sour gas and is not a natural gas processing plant.
- d. 40 CFR 60, Subpart JJJJ – Standards of Performance for Stationary Spark Ignition Internal Combustion Engines contains NSPS requirements that apply to owners or operators of stationary spark ignition (SI) internal combustion engine (ICE) that commence construction, modification, or reconstruction after June 12, 2006, where the stationary ICE is manufactured after July 1, 2007, for engines greater than 500 bhp, or after January 1, 2008, for engines less than 500 bhp. This NSPS will apply if the engine remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates three months or more each year.

Because the natural gas SI ICE engine was manufactured before July 1, 2007, this NSPS does not currently apply. However, because the permit is written in a de minimis-friendly manner, the NSPS could apply to future engines.

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

- a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emission Standards for Hazardous Air Pollutants (NESHAP) Subpart as listed below:
- b. 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, a facility must either 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. Second, the facility must also contain an affected source as specified in paragraphs (b)(1) or (b)(2) of 40 CFR Part 63, Subpart HH. Finally if the 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. The facility can be either a major or area source of HAPs.

Based on previous information provided by Devon, the Stirling Compressor Station does not process, upgrade, or store natural gas, and as such, does not meet the definition of a natural gas production facility as defined in 40 CFR Part 63, nor does the compressor engine meet the definition of an affected source at an area source of HAPs as defined in paragraph (b)(2). Therefore, the facility is not subject to the provisions of 40 CFR 63, Subpart HH.

- c. Subpart HHH – National Emission Standards for Hazardous Air Pollutants from Natural Gas Transmission and Storage Facilities. This subpart applies to owners and operators of natural gas transmission and storage facilities that transport or store natural gas prior to entering the pipeline to a local distribution company or to a final end user (if there is no local distribution company), and that are major sources of hazardous air pollutants (HAP) emissions as defined in §63.1271. Because the Stirling compressor station is not a major source of HAPs, the facility is not subject to the provisions of 40 CFR 63, Subpart HHH.
- d. Subpart ZZZZ – National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. This rule establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. 40 CFR 63.6590(b)(3) specifies that existing stationary spark ignition 4 stroke rich burn (4SRB) RICE located at area sources of HAP emissions do not have to meet the requirements of this subpart. No initial notification is necessary. A stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

Since the natural gas 4SRB RICE at the Stirling compressor station was constructed before June 12, 2006, the engine is considered an existing stationary RICE, and does not have to meet the requirements under this MACT as specified by 40 CFR 63.6590(b)(3). However, since the permit is written in a de minimis-friendly manner, MACT requirements could apply to future engines.

- 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. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
  - 2. ARM 17.8.505 Air Quality Permit 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 chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify or use any air contaminant sources that have the potential to emit (PTE) greater than 25 tons per year of any pollutant. The Stirling Compressor Station has a PTE greater than 25 tons per year of nitrogen oxides (NO<sub>x</sub>) and carbon monoxide (CO); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Devon was not required to submit a permit application because the current permit action is considered an administrative amendment. (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. Devon was not required to submit a permit application because the current permit action is considered an administrative amendment. Therefore, publication was not required.
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 Devon 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 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.

12. 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).
13. 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.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

This facility is not a major stationary source since 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 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. (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 #3344-03 for Devon, the following conclusions were made:
- The facility's PTE is less than 100 tons/year for any pollutant.
  - The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year for all HAPs.
  - This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - This facility is not subject to any current NSPS.
  - This facility is not subject to any current NESHAP standards.
  - This source is not a Title IV affected source, nor a solid waste combustion unit.
  - This source is not an EPA designated Title V source.

Based on these facts, the Department determined that the Stirling Compressor Station is a minor source of emissions as defined under Title V.

### III. BACT Determination

A BACT determination is required for each new or modified source. Devon 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.

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

### IV. Emission Inventory

Source	Ton/year						
	PM	PM <sub>10</sub> =PM <sub>2.5</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>	HAP
Compressor Engine (up to 1478-bhp)	0.50	0.48	14.28	14.28	14.28	0.04	1.63
<b>Total</b>	<b>0.50</b>	<b>0.48</b>	<b>14.28</b>	<b>14.28</b>	<b>14.28</b>	<b>0.04</b>	<b>1.63</b>

\*\* CO = carbon monoxide  
 HAPs = hazardous air pollutants  
 bhp = brake-horsepower  
 lb = pound  
 N/A = not applicable  
 NO<sub>x</sub> = oxides of nitrogen  
 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>x</sub> = oxides of sulfur  
 TPH = tons per hour  
 TPY = tons per year  
 VOC = volatile organic compounds  
 yr = year  
 MMBTU=Million British Thermal Units

### 1,478-bhp Compressor Engine

Brake Horsepower: 1478 bhp  
Hours of operation: 8760 hr/yr

#### PM (condensable) Emissions

Emission Factor: 9.91E-03 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)  
Fuel Consumption: 11.53 MMBtu/hr (Maximum Design)  
Calculations:  $11.53 \text{ MMBtu/hr} * 9.910E-03 \text{ lb/MMBtu} = 0.114 \text{ lb/hr}$   
 $0.114 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.50 \text{ ton/yr}$

#### PM<sub>10</sub> = PM<sub>2.5</sub> Emissions

Emission Factor: 9.50E-03 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)  
Fuel Consumption: 11.53 MMBtu/hr (Maximum Design)  
Calculations:  $11.53 \text{ MMBtu/hr} * 9.50E-03 \text{ lb/MMBtu} = 0.11 \text{ lb/hr}$   
 $0.11 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.48 \text{ ton/yr}$

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

Emission factor: 1.00 gram/bhp-hour (BACT Determination)  
Calculations:  $1.00 \text{ gram/bhp-hour} * 1478 \text{ bhp} * 0.002205 \text{ lb/gram} = 3.26 \text{ lb/hr}$   
 $3.26 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 14.28 \text{ ton/yr}$

#### VOC Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)  
Calculations:  $1.00 \text{ gram/bhp-hour} * 1478 \text{ bhp} * 0.002205 \text{ lb/gram} = 3.26 \text{ lb/hr}$   
 $3.26 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 14.28 \text{ ton/yr}$

#### CO Emissions

Emission factor: 1.00 gram/bhp-hour (BACT Determination)  
Calculations:  $1.00 \text{ gram/bhp-hour} * 1478 \text{ bhp} * 0.002205 \text{ lb/gram} = 3.26 \text{ lb/hr}$   
 $3.26 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 14.28 \text{ ton/yr}$

#### SO<sub>2</sub> Emission

Emission factor: 5.88E-04 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)  
Fuel Consumption: 11.53 MMBtu/hr (Maximum Design)  
Calculations:  $11.53 \text{ MMBtu/hr} * 5.88E-04 \text{ lb/MMBtu} = 0.01 \text{ lb/hr}$   
 $0.01 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 0.04 \text{ ton/yr}$

#### HAP Emissions

Emission factor: 3.24E-02 lb/MMBtu (AP-42, Chapter 3, Table 3.2-3, 7/00)  
Fuel Consumption: 11.53 MMBtu/hr (Maximum Design)  
Calculations:  $11.53 \text{ MMBtu/hr} * 5.88E-04 \text{ lb/MMBtu} = 0.374 \text{ lb/hr}$   
 $0.374 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 1.63 \text{ ton/yr}$

## V. Existing Air Quality

The facility is located in the SE<sup>1</sup>/<sub>4</sub> of the SW<sup>1</sup>/<sub>4</sub> of Section 19, Township 30 North, Range 16 East in Hill County, Montana. The air quality of this area is classified as either better than National Standards or unclassifiable/attainment for the National Ambient Air Quality Standards (NAAQS) and Montana Ambient Air Quality Standards (MAAQS) for criteria pollutants.

## VI. Ambient Air Impact Analysis

The Department determined that there would be no impacts from this permitting action as it is merely administrative. The Department believes the facility 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 a private property taking and damaging assessment and determined there are no taking or damaging implications.

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)

### VIII. Environmental Assessment

The current permit action is considered an administrative action and will not result in an increase of emissions from the facility. Therefore, an Environmental Assessment is not required.

Permit Analysis Prepared By: Deanne Fischer  
Date: August 31, 2011