Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

June 23, 2008

Mr. Bruce McKinley
NorthWestern Energy
North Moulton Field Station
40 East Broadway
Butte, MT 59701

Dear Mr. McKinley:

Air Quality Permit #2767-05 is deemed final as of June 23, 2008, 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) 444-3490

Julie Merkel
Air Quality Specialist
Air Resources Management Bureau
(406) 444-3626

VW:JM
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Air Quality Permit #2767-05

NorthWestern Energy
North Moulton Field Station
40 East Broadway
Butte, MT 59701

July 23, 2008

Air Quality Permit

Issued To: NorthWestern Energy
40 East Broadway
Butte, MT 59701

Permit #2767-05
Administrative Amendment (AA)
Request Received: 02/07/08
Department Decision on AA: 07/07/08
Permit Final: 07/23/08
AFS# 101-0010

An air quality permit, with conditions, is hereby granted to the NorthWestern Energy (NWE) 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

NWE operates a natural gas compressor station and associated equipment located in the SE¼, of the SE¼, of Section 8, Township 37 North, Range 4 West, in Toole County. This facility is known as the North Moulton Field, Station 020-1 through 5. A list of permitted equipment is included in Section I.A of the Permit Analysis.

B. Current Permit Action

On February 7, 2008, the Department of Environmental Quality (Department) received an administrative amendment request from NWE for Permit #2767-04. NWE requested a name change from NorthWestern Corporation (NorthWestern) to NWE.

The current permit action is an administrative amendment pursuant to ARM 17.8.764 and changes the permittee name from NorthWestern to NWE. In addition, rule references were updated to reflect current rule references.

Section II: Limitations and Conditions

A. Emission Limitations:

1. Emissions from the 600 hp White Superior compressor engine with a Non-Selective Catalytic Reduction (NSCR) unit shall not exceed the following (ARM 17.8.752):

Oxides of Nitrogen (NO_x[1])	2.65 pounds per hour (lb/hr)
Carbon Monoxide (CO)	3.97 lb/hr
Volatile Organic Compounds (VOC)	1.32 lb/hr

2. NWE shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources or stacks installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

1 NO_x reported as NO_2.

3. NWE shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources or stacks installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

4. NWE shall not cause or authorize emissions to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

5. NWE shall treat all unpaved portions of the access roads, parking lots, and general plant area with fresh water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.4 (ARM 17.8.749).

6. NWE shall operate all equipment as designed to provide the maximum control of air pollutants (ARM 17.8.749).

7. The combined total hours of operation of the three 240-hp Ingersoll Rand compressor engines shall be limited to a maximum of 11,100 hours during any rolling 12-month time period (ARM 17.8.749 and 17.8.1204).

B. Testing Requirements:

1. NWE tested the 600-hp White Superior compressor engine for NO_x and CO, concurrently, and demonstrated compliance with the emission limits contained in Section II.A.1 in April of 1994. Further testing shall occur 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 17.8.749).

2. All compliance source tests shall be conducted in accordance with 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 Requirement:

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

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

2. NWE shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions 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 NWE as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

4. NWE shall document, by month, the combined total hours of operation of the three 240 hp Ingersoll Rand compressor engines. By the 25th day of each month, NWE shall total the combined hours of operation for the three 240 hp Ingersoll Rand compressor engines for the previous month. The monthly information shall be used to verify compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

5. NWE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emission inventory information.

Section III: General Conditions

A. Inspection – NWE shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections, surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if NWE fails to appeal as indicated below.

C. Compliance with Statutes and Regulations - Nothing in this subchapter shall be construed as relieving NWE 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 as specified in Section 75-2-401 *et seq.*, MCA.

E. Appeals - Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, the continuing validity of this permit is conditional upon the payment by NWE of an annual operation fee, as required by that section and rules adopted thereunder by the Board.

Permit Analysis
NorthWestern Energy
North Moulton Field Station
Permit #2767-05

I. Introduction/Process Description

A. Permitted Equipment

NorthWestern Energy (NWE) owns and operates a natural gas compressor station and associated equipment located in the SE¼, of the SE¼, of Section 8, Township 37 North, Range 4 West, in Toole County, Montana. The facility is known as the North Moulton Field Station and includes, but is not limited to, the following equipment:

1. (3) 240-horsepower (hp) Ingersoll-Rand compressor engines;
2. (1) 200-hp Cooper/Bessemer compressor engine;
3. (1) 600-hp Superior compressor engine;
4. (1) 750 thousand British thermal unit per hour (MBtu/hr) Dehydrator;
5. (1) 120 MBtu/hr heater; and
6. (1) 125 MBtu/hr heater.

B. Source Description

The complex has two primary purposes. The first is to pump the field gas up to the required pressure in the natural gas transmission system. Compression of the gas is accomplished using the compressors described above. Two heaters provide heat to the various station facilities.

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

The gas is treated with a glycol solution that absorbs the water in the gas stream. The glycol solution is then heated to about 300° 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 750-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

On June 22, 1993, Montana Power - North Moulton Station (Montana Power - North Moulton) was issued **Permit #2767-00** for the operation of their compressor station and associated equipment, located in the SE¼, of the SE¼, of Section 8, Township 37 North, Range 4 West, in Toole County near Cut Bank, Montana. The station is identified as the North Moulton Field, Station 020-1 through 5.

A Best Available Control Technology (BACT) determination is required for each new or altered source. Since the three 240 hp Ingersoll Rand 8-JVG compressor engines and the one 220-hp Cooper/Bessemer GMX-4 compressor engine at the North Moulton Field, Station 020-1 through 5 are existing sources (they were operating at the same location prior to March 16, 1979), a BACT determination was not required for these engines.

However, a BACT determination was required for the 600-hp White Superior 6G825/W62 compressor engine since it was not operating at the same location prior to March 16, 1979.

Based on the BACT analysis for the 600-hp White Superior 6G825/W62 compressor engine, the Department determined BACT to be the installation of a Non-Selective Catalytic Reduction (NSCR) unit capable of meeting the limitations in Section II.A.1 of the permit.

The BS & B 750-MBtu/hr dehydrator (reboiler), the 120-MBtu/hr Hotomatic Heater, and the 125 MBtu/hr Janitrol Heater are minor sources. Based on previous determinations, BACT for these sources was determined to be no control.

On March 15, 1994, **Permit #2767-01** was issued to Montana Power - North Moulton. The permit modification revised the emission limitation units from grams per horsepower-hour (g/hp-hr) to pound per hour (lb/hr). The hourly emission limit provided operational flexibility to account for varying parameters such as engine revolutions per minute (RPM), operating load (hp), ambient air temperature, gas temperature, site, elevation, fuel gas quality, air/fuel ratio (AFR), field gas conditions, etc. Also, to clarify oxides of nitrogen (NO_x) mass emission calculations, NO_x emission limitations were identified as nitrogen dioxide (NO_2).

On August 31, 1997, **Permit #2767-02** was issued to Montana Power - North Moulton. Montana Power - North Moulton requested an hourly operational limit to allow the facility to stay below the Title V Operating Permit threshold. The permit alteration included establishing an hourly operational limit and updating the rule references in the permit.

On July 23, 1999, **Permit #2767-03** was issued to Montana Power – North Moulton. Montana Power - North Moulton requested that the hourly limitation in Permit #2767-02 be changed to allow more operational flexibility, while still allowing the facility to stay below the Title V Operating Permit threshold. The modification established a combined hourly operational limit for the three 240 hp Ingersoll-Rand 8-JVG compressor engines. The previous facility-wide limit of 5,450 hours per year was removed from the permit.

On March 5, 2002, the Montana Power Company (MPC) notified the Montana Department of Environmental Quality (Department) of a pending merger of MPC with and into Montana Power, L.C.C. (MPC LCC). Due to questions regarding the length of time the new company name would be valid, the Department decided to wait on the name change for the permit. On October 18, 2002, the Department received a request to change the permit from MPC LLC to NorthWestern Corporation (NorthWestern). The current permit action changes the name on this permit from Montana Power Company to NorthWestern. **Permit #2767-04** replaced Permit #2767-03.

D. Current Permit Action

On February 7, 2008, the Department received an administrative amendment request from NWE for Permit #2767-04. NWE requested a name change from NorthWestern to NWE.

The current permit action is an administrative amendment pursuant to the Administrative Rules of Montana (ARM) 17.8.764 and changes the permittee name from NorthWestern to NWE. In addition, rule references were updated to reflect current rule references. **Permit #2767-05** replaces Permit #2767-04.

E. Additional Information

Additional information, such as applicable rules and regulations, BACT 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 ARM and are available upon request from the Department. Upon request, the Department will provide references for the location of any applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.105 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.

2. 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).

   NWE 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 required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

3. ARM 17.8.110 Malfunctions. 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.

4. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

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

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate
6. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

NWE 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. (1) This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed on or before November 23, 1968, that exhibit an opacity of 40% or greater averaged over 6 consecutive minutes. (2) This rule requires that no person may cause or authorize emissions to be discharged to 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. Under this rule, NWE shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere, particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.

5. ARM 17.8.322 Sulfur Oxide Emissions – Sulfur in Fuel. Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. NWE will consume pipeline quality natural gas in the compressor engines and the reboiler, which will meet this limitation.

6. ARM 17.8.324(3) Hydrocarbon Emissions – Petroleum Products. No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such a tank is equipped with a vapor loss control device as described in (1) of this rule, or is a pressure tank 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 CFR Part 60, Standards of Performance for New Stationary Sopurces (NSPS). The NWE-North Moulton compressor station is not an NSPS affected source because it does not meet the definition of a natural gas processing plant as defined in 40 CFR 60, Subpart KKK.

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

   - Subpart HH – National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities.

   - Subpart HHH – national Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities.

Based on the information submitted by NWE, the North Moulton facility is not subject to the provisions of 40 CFR 63, Subpart HHH, because the facility is not a major source of Hazardous Air Pollutants (HAPs). However, the North Moulton facility has a glycol dehydration unit which is considered an affected area source of HAPs. Therefore, the North Moulton facility is subject to the area source provisions 40 CFR 63, Subpart HH, as applicable.

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. NWE shall 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 application was not required for the current permit action because the action is considered an administrative 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. This operation fee is based on the actual or estimated amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, as described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions which 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 alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year (TPY) of any pollutant. NWE has the PTE more than 25 TPY of NO_x and Carbon Monoxide (CO); therefore, a 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. NWE was not required to submit a permit application for the current permit action because this permit action is 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. NWE was not required to notify the public of the current permit action because this permit action is an administrative amendment.

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 NWE of the responsibility for complying with any applicable federal or Montana statue, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. 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 altered 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.

11. 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 requirements 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).

12. 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 minmis 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.

13. 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. 17.8, Sub-Chapter 8, Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major 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 Federal Clean Air Act (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 the potential to emit (PTE) more 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, or PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule.

c. PTE > 70 tons/year of PM_{10} in a serious PM_{10} 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 Air Quality Permit #2767-05 for NWE, 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_{10} nonattainment area.

d. This facility is not subject to any current NSPS.

e. This facility is subject to the area source provisions of 40 CFR 63, Subpart HH.

f. This source is not a Title IV affected source or a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

The NWE's Permit #2767-05 includes a federally enforceable limit that allows the facility to stay below the Title V Operating Permit threshold. Therefore, the facility is not required to obtain a Title V Operating Permit.

h. The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations, which limit that source's potential to emit.

i. In applying for an exemption under this section the owner or operator of the source shall certify to the Department that the source's potential to emit, does not require the source to obtain an air quality operating permit.

ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

The Department determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required by 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for any new or altered source. Because this action was administrative and did not involve a new or altered source, no BACT was required.

IV. Emission Inventory

This emission inventory reflects the combined operational limit of 11,100 hours per year for the three 240-hp Ingersoll Rand compressor engines. NWE requested the limit for operational flexibility reasons.

		Tons/Year					
Source		PM	PM-10	NOx	CO	VOC	SOx
#01	240 hp Ingersoll Rand 8-JVG Engine	0.04	0.04	14.69	1.76	0.20	0.01
#02	240 hp Ingersoll Rand 8-JVG Engine	0.04	0.04	14.69	1.76	0.20	0.01
#03	240 hp Ingersoll Rand 8-JVG Engine	0.04	0.04	14.69	1.76	0.20	0.01
#04	220 hp Cooper/Bessemer GMX-4 Engine	0.09	0.09	42.49	3.20	10.64	0.02
#05	600 hp White Superior 6G825/W62 Engine	0.22	0.22	11.61	17.39	5.78	0.02
#06	BS & B Reboiler	0.02	0.02	0.33	0.07	0.02	0.00
#07	Heaters (2)	0.01	0.01	0.22	0.04	0.01	0.00
Total		0.46	0.46	98.72	25.98	17.05	0.07

Altitude Deration

Altitude of the engines:	3740	ft
Percent Deration:	91 %	(from manufacturer curve SC-8)
Calculation:	0.905 *	240 hp = 217 hp

(SOURCE #01)
240 hp Ingersoll Rand 8-JVG Compressor Engine

Brake Horsepower:	240	hp @ 900 rpm
Hours of Operation:	3700	hr/yr
Max Fuel Combustion Rate:	8.50	MBtu/hp-hr *217 hp = 2,040 MBtu/hr
	2,040	MBtu/hr * 1MMBtu/1,000MBtu = 2.04 MMBtu/hr
Fuel Heating Value:	1,000	Btu/SCF or 0.0010 MMSCF/MMBtu

PM Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

PM-10 Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

NOx Emissions

Emission Factor:	15.00	gram/hp-hr {Manufacturer's Data}
Calculations:	15.00	gram/hp-hr * 240 hp * 0.002205 lb/gram = 7.94 lb/hr
	7.94	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 14.69 ton/yr

CO Emissions

Emission Factor:	1.80	gram/hp-hr {Manufacturer's Data}
Calculations:	1.80	gram/hp-hr * 240 hp * 0.002205 lb/gram = 0.95 lb/hr
	0.95	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 1.76 ton/yr

VOC Emissions

Emission Factor:	0.20	gram/hp-hr {Manufacturer's Data}
Calculations:	0.20	gram/hp-hr * 240 hp * 0.002205 lb/gram = 0.11 lb/hr
	0.11	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.20 ton/yr

SOx Emissions

Emission Factor:	0.60	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	0.60	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.0051 lb/hr
	0.0051	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

(SOURCE #02)
240 hp Ingersoll Rand 8-JVG Compressor Engine

Brake Horsepower:	240	hp @ 900 rpm
Hours of Operation:	3700	hrs/yr
Max Fuel Combustion Rate:	8.50	MBtu/hp-hr * 217 hp = 2,040 MBtu/hr
	2,040	MBtu/hr * 1MMBtu/1,000MBtu =2.04 MMBtu/hr
Fuel Heating Value:	1,000	Btu/SCF or 0.0010 MMSCF/MMBtu

PM Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

PM-10 Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

NOx Emissions

Emission Factor:	15.00	gram/hp-hr {Manufacturer's Data}
Calculations:	15.00	gram/hp-hr * 240 hp * 0.002205 lb/gram = 7.94 lb/hr
	7.94	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 14.69 ton/yr

CO Emissions

Emission Factor:	1.80	gram/hp-hr {Manufacturer's Data}
Calculations:	1.80	gram/hp-hr * 240 hp * 0.002205 lb/gram = 0.95 lb/hr
	0.95	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 1.76 ton/yr

VOC Emissions

Emission Factor:	0.20	gram/hp-hr {Manufacturer's Data}
Calculations:	0.20	gram/hp-hr * 240 hp * 0.002205 lb/gram = 0.11 lb/hr
	0.11	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.20 ton/yr

SOx Emissions

Emission Factor:	0.60	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	0.60	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.0051 lb/hr
	0.0051	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

(SOURCE #03)

240 hp Ingersoll Rand 8-JVG Compressor Engine

Brake Horsepower:	240	hp @ 900 rpm
Hours of Operation:	3700	hrs/yr
Max Fuel Combustion Rate:	8.50	MBtu/hp-hr * 217 hp = 2,040 MBtu/hr
	2,040	MBtu/hr *1 MMBtu/1,000 MBtu = 2.04 MMBtu/hr
Fuel Heating Value:	1,000	Btu/SCF or 0.0010 MMSCF/MMBtu

PM Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

PM-10 Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

NOx Emissions

Emission Factor:	15.00	gram/hp-hr {Manufacturer's Data}
Calculations:	15.00	gram/hp-hr * 240 hp * 0.002205 lb/gram = 7.94 lb/hr
	7.94	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 14.69 ton/yr

CO Emissions

Emission Factor:	1.80	gram/hp-hr {Manufacturer's Data}
Calculations:	1.80	gram/hp-hr * 240 hp * 0.002205 lb/gram = 0.95 lb/hr
	0.95	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 1.76 ton/yr

VOC Emissions

Emission Factor:	0.20	gram/hp-hr {Manufacturer's Data}
Calculations:	0.20	gram/hp-hr * 240 hp * 0.002205 lb/gram = 0.11 lb/hr
	0.11	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.20 ton/yr

SOx Emissions

Emission Factor:	0.60	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	0.60	lb/MMSCF * 0.001 MMSCF/MMBtu * 2.04 MMBtu/hr = 0.0051 lb/hr
	0.0051	lb/hr * 3700 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

(SOURCE #04)

220 hp Cooper/Bessemer GMX-4 Compressor Engine

Brake Horsepower: 220		hp @ 900 rpm
Hours of Operation:	8760	hrs/yr
Max Fuel Combustion Rate:	8.50	MBtu/hp-hr * 217 hp = 1,870 MBtu/hr
	1,870	MMBtu/hr * 1 MMBtu/1,000 MBtu = 1.87 MMBtu/hr
Fuel Heating Value:	1,000	Btu/SCF or 0.0010 MMSCF/MMBtu

PM Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 1.87 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.09 ton/yr

PM-10 Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 1.87 MMBtu/hr = 0.02 lb/hr
	0.02	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.09 ton/yr

NOx Emissions

Emission Factor:	20.00	gram/hp-hr {Manufacturer's Data}
Calculations:	20.00	gram/hp-hr * 220 hp * 0.002205 lb/gram = 9.70 lb/hr
	9.70	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 42.49 ton/yr

CO Emissions

Emission Factor:	1.50	gram/hp-hr {Manufacturer's Data}
Calculations:	1.50	gram/hp-hr * 220 hp * 0.002205 lb/gram = 0.73 lb/hr
	0.73	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 3.20 ton/yr

VOC Emissions

Emission Factor:	5.00	grams/hp-hr {Manufacturer's Data}
Calculations:	5.00	grams/hp-hr * 220 hp * 0.002205 lbs/gram = 2.43 lbs/hr
	2.43	lbs/hr * 8760 hrs/yr * 0.0005 tons/lb = 10.64 tons/yr

SOx Emissions

Emission Factor:	0.60	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	0.60	lb/MMSCF * 0.001 MMSCF/MMBtu * 1.87 MMBtu/hr = 0.0051 lb/hr
	0.0051	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

(SOURCE #05)

600 hp White Superior 6G825/W62 Compressor Engine

Brake Horsepower:	600	hp @ 900 rpm
Hours of Operation:	8760	hrs/yr
Max Fuel Combustion Rate:	8.50	MBtu/hp-hr * 217 hp = 5,100 MBtu/hr
	5,100	MBtu/hr *1 MMBtu/1,000 MBtu = 5.10 MMBtu/hr
Fuel Heating Value:	1,000	Btu/SCF or 0.0010 MMSCF/MMBtu

PM Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 5.10 MMBtu/hr = 0.05 lb/hr
	0.05	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.22 ton/yr

PM-10 Emissions

Emission Factor:	10.0	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	10.0	lb/MMSCF * 0.001 MMSCF/MMBtu * 5.10 MMBtu/hr = 0.05 lb/hr
	0.05	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.22 ton/yr

NOx Emissions

Emission Factor:	2.00	gram/hp-hr {Manufacturer's Data}
Calculations:	2.00	gram/hp-hr * 600 hp * 0.002205 lb/gram = 2.65 lb/hr
	2.65	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 11.61 ton/yr

CO Emissions

Emission Factor:	3.00	gram/hp-hr {Manufacturer's Data}
Calculations:	3.00	gram/hp-hr * 600 hp * 0.002205 lb/gram = 3.97 lb/hr
	3.97	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 17.39 ton/yr

VOC Emissions

Emission Factor:	1.00	gram/hp-hr {Manufacturer's Data}
Calculations:	1.00	gram/hp-hr * 600 hp * 0.002205 lb/gram = 1.32 lb/hr
	1.32	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 5.78 ton/yr

SOx Emissions

Emission Factor:	0.60	lb/MMSCF {FIRE, PC Version, 1/95, 2-02-002-02}
Calculations:	0.60	lb/MMSCF * 0.001 MMSCF/MMBtu * 5.10 MMBtu/hr = 0.0051 lb/hr
	0.0051	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

(SOURCE #06)
BS & B Reboiler

Hours of Operation: 8760 hrs/yr
Max Fuel Combustion Rate: 0.75 MMBtu/hr {Information from company}
Fuel Heating Value: 1,000 Btu/SCF or 0.0010 MMSCF/MMBtu
0.00075 MMSCF/hr

PM Emissions
Emission Factor: 5.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 5.0 lb/MMSCF * 0.00075 MMSCF/hr = 0.0038 lb/hr
0.004 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

PM-10 Emissions
Emission Factor: 5.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 5.0 lb/MMSCF * 0.00075 MMSCF/hr = 0.0038 lb/hr
0.004 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

NOx Emissions
Emission Factor: 100.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 100.0 lb/MMSCF * 0.00075 MMSCF/hr = 0.0750 lb/hr
0.075 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.33 ton/yr

CO Emissions
Emission Factor: 20.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 20.0 lb/MMSCF * 0.00075 MMSCF/hr = 0.0150 lb/hr
0.015 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.07 ton/yr

VOC Emissions
Emission Factor: 5.3 lb/MMSCF {AP-42, 1.4-1}
Calculations: 5 lb/MMSCF * 0.00075 MMSCF/hr = 0.0040 lb/hr
0.004 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.02 ton/yr

SOx Emissions
Emission Factor: 0.6 lb/MMSCF {AP-42, 1.4-1}
Calculations: 0.6 lb/MMSCF * 0.00075 MMSCF/hr = 0.0005 lb/hr
0.0005 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.00 ton/yr

(SOURCE #07)
Heaters (2)

Hours of Operation: 8760 hr/yr
Max Fuel Combustion Rate: 0.25 MMBtu/hr {Information from company}
Number of heaters: 2
Fuel Heating Value: 1,000 Btu/SCF or 0.0010 MMSCF/MMBtu
0.00025 MMSCF/hr

PM Emissions
Emission Factor: 5.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 5.0 lb/MMSCF * 0.00025 MMSCF/hr * 2 heaters = 0.0025 lb/hr
0.0025 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

PM-10 Emissions
Emission Factor: 5.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 5.0 lb/MMSCF * 0.00025 MMSCF/hr * 2 heaters = 0.0025 lb/hr
0.0025 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

NOx Emissions
Emission Factor: 100.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 100.0 lb/MMSCF * 0.00025 MMSCF/hr * 2 heaters = 0.050 lb/hr
0.050 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.22 ton/yr

CO Emissions
Emission Factor: 20.0 lb/MMSCF {AP-42, 1.4-1}
Calculations: 20.0 lb/MMSCF * 0.00025 MMSCF/hr * 2 heaters = 0.0049 lb/hr
0.010 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.04 ton/yr

VOC Emissions

Emission Factor:	5.3	lb/MMSCF {AP-42, 1.4-1}
Calculations:	5.3	lb/MMSCF * 0.00025 MMSCF/hr * 2 heaters = 0.0027 lb/hr
	0.0027	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.01 ton/yr

SOx Emissions

Emission Factor:	0.6	lb/MMSCF {AP-42, 1.4-1}
Calculations:	0.6	lb/MMSCF * 0.00025 MMSCF/hr * 2 heaters = 0.0003 lb/hr
	0.0003	lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.00 ton/yr

V. Existing Air Quality and Monitoring Requirements

The existing air quality of the area is expected to be in compliance with all state and federal requirements. NWE previously conducted ambient air quality modeling for all compressor stations in and near Glacier, Toole, Liberty, and Pondera Counties using two EPA guideline models, ISC2 and COMPLEX. The meteorological data used was taken from the Great Falls Airport National Weather Service station. The modeling submitted assumed approximately 237.9 tons per year of NOx and 237.9 tons per year of CO. This modeling did not show violations of the annual or hourly ambient standards. The modeling analysis demonstrates that this facility will not cause a violation or exceedance of any state or federal ambient standard and controls at this station will further reduce the impacts of this facility.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VII. Environmental Assessment

An environmental assessment is not required for the current permitting action because it is considered to be an administrative action.

Permit Analysis Prepared By: Julie Merkel
Date: April 23, 2005