

Steve Bullock, Governor Tracy Stone-Manning, Director

February 4, 2014

Gerard Hamblin Waste Management of North Dakota, Incorporated W132 N10487 Grant Drive Germantown, WI 53022

Dear Mr. Hamblin:

Montana Air Quality Permit #4667-02 is deemed final as of February 4, 2014, by the Department of Environmental Quality (Department). This permit is for a portable gravel crushing/screening facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julis A Merkel

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

JM:EW Enclosure

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Ed Warner Lead Engineer – Air Permitting Section Air Resources Management Bureau (406) 444-2467

Montana Department of Environmental Quality Permitting and Compliance Division

Montana Air Quality Permit #4667-02

Waste Management of North Dakota, Incorporated Plant #1 W132 N10487 Grant Drive Germantown, WI 53022

February 4, 2014



## MONTANA AIR QUALITY PERMIT

Issued To: Waste Management of North Dakota, MAQ Incorporated Admi Plant #1 Re W132 N10487 Grant Drive Depar Germantown, WI 53022 Permi

MAQP: #4667-02 Administrative Amendment (AA) Request Received: 11/12/2013 Department's Decision on AA: 01/17/2014 Permit Final: 2/4/2014 AFS #: 777-4667

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Waste Management of North Dakota, Incorporated (Waste Management) 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

Waste Management owns and operates a portable nonmetallic mineral processing operation which was at an initial home pit location in Section 15, Township 27 North, Range 56 East within Richland County, Montana. Waste Management will continue to utilize this location as the home pit. However, MAQP #4667-02 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

B. Current Permit Action

On November 12, 2013, the Department received a request from Waste Management, Incorporated and Concord Field Services, LLC to transfer ownership of MAQP #4667 to Waste Management, Incorporated. On January 17, 2014, the Department received a request from Waste Management, Incorporated to issue the permit to Waste Management of North Dakota, Incorporated. The current permit action is an administrative action in accordance with ARM 17.8.764 and ARM 17.8.765 which changes the name and address associated with the permit, and updates permittee references throughout the permit as necessary.

## SECTION II: Conditions and Limitations

- A. Emission Limitations
  - 1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):
    - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity.

- For crushers that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 15% opacity.
- 2. All visible emissions from any other NSPS-affected equipment (such as screens and conveyors) shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):
  - For equipment that commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity.
  - For equipment that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 10% opacity.
- 3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- 4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
- 5. Waste Management 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. Waste Management shall treat all unpaved portions of the haul roads, access roads, parking lots, or the 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 and ARM 17.8.752).
- 7. Waste Management shall not operate more than one crusher at any given time and the maximum rated design capacity of the crusher shall not exceed 500 tons per hour (TPH) (ARM 17.8.749).
- 8. Waste Management shall not operate more than one screen at any given time and the maximum rated design capacity of the screen shall not exceed 500 TPH (ARM 17.8.749).
- 9. Waste Management shall not operate or have on-site more than two non-road or stationary diesel-fired engines.
  - a. The diesel engine providing direct power shall not exceed 160-horsepower (hp) (ARM 17.8.749).
  - b. The diesel generator engine shall not exceed 225-hp and shall not exceed 4,000 hours of operation during any rolling 12-month time period (ARM 17.8.749).
- 10. If the permitted equipment is used in conjunction with any other equipment owned or operated by Waste Management, 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).

- 11. Waste Management shall comply with all applicable standards and limitations, monitoring, reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 12. Waste Management shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).
- B. Testing Requirements
  - 1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). Additional testing may be required by 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
  - 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. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
  - 2. Waste Management 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 not be 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 for calculating operating fees, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Waste Management shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in

an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).

- 4. Waste Management shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Waste Management 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).
- 5. Waste Management shall document, by month, the hours of operation of the diesel engine. By the 25<sup>th</sup> day of each month, Waste Management shall calculate the hours of operation for the diesel generator engine for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.9.b. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- D. Notification

Waste Management shall provide the Department with written notification of the actual start-up date of any new equipment postmarked within 15 days after the actual start-up date (ARM 17.8.749).

## SECTION III: General Conditions

- A. Inspection Waste Management shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emissions Monitoring System (CEMS), Continuous Emissions Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Waste Management fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Waste Management of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for 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. Air Quality Operation Fees Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Waste Management 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).
- I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.
- J. Waste Management shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

# Montana Air Quality Permit (MAQP) Analysis Waste Management of North Dakota, Incorporated MAQP #4667-02

I. Introduction/Process Description

Waste Management of North Dakota, Incorporated (Waste Management) owns and operates a portable nonmetallic mineral crushing and screening plant with maximum rated design capacity of 500 tons per hour (TPH) crushing production and 500 TPH screening production. Associated diesel-fired engines include a 225 horsepower (hp) engine powering a generator and a 160 hp diesel engine providing power for the plant.

A. Permitted Equipment

Equipment permitted under this action consists of the following;

2007 Terex Metrotrak Jaw Crusher - 500 TPH 2008 Power Screen Warrior 1800 Screen Deck - 500 TPH 2007 CAT Diesel-Fired Generator Engine - 225 hp 2002 Multiquip Diesel Engine - 160 hp Associated material handling equipment

B. Source Description

Waste Management will utilize this crushing/screening operation to crush and sort scoria/gravel material for use in various construction projects. For a typical operational setup, unprocessed materials are loaded into the primary jaw crusher, transferred to the primary screen where the material is separated and stockpiled.

The initial location for this mineral processing operation was in Section 15, Township 27 North, Range 56 East within Richland County, Montana. Waste Management intends to continue to use this location as the home pit.

C. Permit History

On May 23, 2011 Seifert Enterprises, LLC submitted a complete application for a Montana Air Quality Permit to operate a portable nonmetallic mineral crushing and screening operation. **MAQP#4667-00** was issued final on August 4, 2011, to Seifert Enterprises, LLC.

On July 26, 2011, the Montana Department of Environmental Quality (Department) received a request to change the permittee name from Seifert Enterprises, LLC to Concord Field Services, LLC. **MAQP #4667-01** replaced MAQP #4667-00.

D. Current Permit Action

On November 12, 2013, the Department received a request from Waste Management, Incorporated and Concord Field Services, LLC to transfer ownership of MAQP #4667 to Waste Management, Incorporated. On January 17, 2014, the Department received a request from Waste Management, Incorporated to issue the permit to Waste Management of North Dakota, Incorporated. The current permit action is an administrative action in accordance with ARM 17.8.764 and ARM 17.8.765 which changes the name and address associated with the permit, and updates permittee references throughout the permit as necessary. **MAOP #4667-02** replaces MAOP #4667-01.

# 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. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. 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. <u>ARM 17.8.106 Source Testing Protocol</u>. 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).

Waste Management 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. <u>ARM 17.8.110 Malfunctions</u>. (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. <u>ARM 17.8.111 Circumvention</u>. (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:
  - 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 (CO)
  - 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 (PM)
  - 8. <u>ARM 17.8.221 Ambient Air Quality Standard for Visibility</u>
  - 9. ARM 17.8.222 Ambient Air Quality Standard for Lead
  - 10. <u>ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an</u> aerodynamic diameter of 10 microns of less (PM<sub>10</sub>)
  - 11. ARM 17.8.230 Fluoride in Forage

Waste Management must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. 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. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (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, Waste Management 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. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
  - 4. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
  - 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
  - 6. <u>ARM 17.8.340 Standard of Performance for New Stationary Sources</u>. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Waste Management is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
    - a. <u>40 CFR 60, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NSPS Subpart as listed below:

- b. <u>40 CFR 60, Subpart OOO Standards of Performance for Nonmetallic</u> <u>Mineral Processing Plants</u>. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Waste Management, the portable crushing equipment to be used under MAQP #4667-02 is subject to this subpart as it meets the definition of an affected facility constructed after August 31, 1983.
- c. <u>40 CFR 60, Subpart IIII Standards of Performance for Stationary Compression</u> <u>Ignition Internal Combustion Engines (CI ICE)</u>. Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. This permit is written in a de minimis friendly manner; therefore, this NSPS may be applicable to the diesel generator engine.
- <u>ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source</u> <u>Categories</u>. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories. Waste Management is considered an NESHAP-affected facility under 40 CFR Part 63 and is potentially subject to the requirements of the following subparts.
  - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.
  - b. <u>40 CFR 63, Subpart ZZZZ National Emissions Standards for Hazardous Air</u> <u>Pollutants (HAP) for Stationary Reciprocating Internal Combustion Engines</u> <u>(RICE)</u>. An owner or operator of a stationary RICE at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Based on the information submitted in the permit applications, the RICE equipment to be used under MAQP #4667-02 is potentially subject to this subpart because it may meet the definition of a stationary RICE operating at an area source of HAPs while within their home pit.
- D. ARM 17.8, Subchapter 5 Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
  - 1. <u>ARM 17.8.504 Air Quality Permit Application Fees</u>. 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. <u>ARM 17.8.505 Air Quality Operation Fees</u>. 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. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Waste Management has a PTE greater than 15 tons per year of PM, PM<sub>10</sub>, oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO); therefore, an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  - 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes</u>. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  - 5. <u>ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements</u>. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit distribution.
  - 6. <u>ARM 17.8.749 Conditions for Issuance or Denial of Permit</u>. 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. <u>ARM 17.8.752 Emission Control Requirements</u>. 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. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

- 9. <u>ARM 17.8.756 Compliance with Other Requirements</u>. This rule states that nothing in the permit shall be construed as relieving Waste Management 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. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that do not require the preparation of an environmental impact statement.
- 11. <u>ARM 17.8.762 Duration of Permit</u>. 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. <u>ARM 17.8.763 Revocation of Permit</u>. 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. <u>ARM 17.8.764 Administrative Amendment to Permit</u>. 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. <u>ARM 17.8.765 Transfer of Permit</u>. (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. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
  - 2. <u>ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source</u> <u>Applicability and Exemptions</u>. 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 a listed source and the facility's PTE is less than 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. <u>ARM 17.8.1201 Definitions</u>. (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 hazardous air pollutant (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  $PM_{10}$  in a serious  $PM_{10}$  nonattainment area.
  - <u>ARM 17.8.1204 Air Quality Operating Permit Program Applicability</u>. (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 #4667-02 for Waste Management, the following conclusions were made:
    - a. The facility's PTE is less than 100 tons/year for any pollutant. PM is not a Title V pollutant.
    - b. The facility's PTE is less than 10 tons/year for 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 subject to current NSPS standards (40 CFR 60, Subparts A and OOO and potentially Subpart IIII).
    - e. This facility is potentially subject to the area source provisions of a current NESHAP standard (40 CFR 63, Subparts A and ZZZZ).
    - f. This source is not a Title IV affected source.
    - g. This source is not a solid waste combustion unit.
    - h. This source is not an EPA designated Title V source.

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

## III. BACT Determination

A BACT determination is required for each new or modified source. Waste Management 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 determination was not required for the current permit action because the permit change is considered an administrative permit change.

	ТРҮ						
Emission Source	PM	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	СО	VOC	$SO_2$
Cold Aggregate Storage Piles	3.62	1.71	0.26				
Cold Aggregate Handling/Conveyors	3.29	1.20	0.03				
Cold Aggregate Screens	27.38	9.53	0.11				
Crushers	5.91	2.63	0.22				
Haul Roads / Vehicle Traffic	5.68	1.57	0.16				
Diesel Engine(s): 225 hp @ 4000 hrs	0.99	0.99	0.99	13.95	3.01	1.13	0.92
Diesel Engine(s): 160 hp @ 8760 hrs	1.54	1.54	1.54	21.72	4.68	1.76	1.44
Total Emissions	48.41	19.17	3.30	35.67	7.69	2.89	2.36

## IV. Emission Inventory

#### Notes:

Limited to 4,000 hrs/yr for the generator engine based on 225 hp capacity.

Emission Inventory reflects enforceable limits on hours of operation of the diesel generator engine to avoid dispersion modeling. CO - carbon monoxide

PM2.5 - particulate matter with an aerodynamic diameter of 2.5 microns or less

TPY - tons per year

VOC - volatile organic compounds

#### **Aggregate Storage Piles**

Maximum Process Rate = 500 ton/hr (Maximum plant process rate) Maximum Hours of Operation = 8,760 hrs/yr Number of Piles = 1 piles

## Filterable PM Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06. Emission Factor = k (0.0032) \* (U/5)^1.3 \* (M / 2)^-1.4 = 0.00331 lb/ton Where: k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06) U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06) M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06) Control Efficiency = 50% (Water or chemical spray) Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.00331 lb/ton) \* (ton/2000 lb) \* (1 piles) = 7.24 ton/yr Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.00331 lb/ton) \* (ton/2000 lb) \* (1 piles) \* (1 - 50/100) = 3.62 ton/yr

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

 $\begin{array}{ll} \mbox{Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.} \\ \mbox{Emission Factor} = k \ (0.0032) \ * \ (U/5)^{1.3} \ * \ (M \ 2)^{-1.4} = 0.00156 \ lb/ton \\ \mbox{Where:} & k = particle size multiplier = 0.35 \ (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06) \\ & U = mean wind speed = 10 mph \ (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06) \\ & M = material moisture content = 3\% \ (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06) \\ \mbox{Control Efficiency} = 50\% \ (Water or chemical spray) \\ \mbox{Calculation:} \ (500 \ ton/hr) \ * \ (8760 \ hrs/yr) \ * \ (0.00156 \ lb/ton) \ * \ (ton/2000 \ lb) \ * \ (1 \ piles) = 3.42 \ ton/yr \\ \mbox{Calculation:} \ (500 \ ton/hr) \ * \ (8760 \ hrs/yr) \ * \ (0.00156 \ lb/ton) \ * \ (ton/2000 \ lb) \ * \ (1 \ piles) \ * \ (1 \ - 50/100) = 1.71 \ ton/yr \\ \mbox{Calculation:} \ (500 \ ton/hr) \ * \ (8760 \ hrs/yr) \ * \ (0.00156 \ lb/ton) \ * \ (ton/2000 \ lb) \ * \ (1 \ piles) \ * \ (1 \ - 50/100) = 1.71 \ ton/yr \\ \end{tabular}$ 

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

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06. Emission Factor = k (0.0032) \*  $(U/5)^{1.3}$  \*  $(M / 2)^{-1.4}$  = 0.00024 lb/ton Where: k = particle size multiplier = 0.053 (Value for PM < 2.5 microns per AP 42, Sec. 13.2.4.3, 11/06) U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06) M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency = 50% (Water or chemical spray)
Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.00024 lb/ton) \* (ton/2000 lb) \* (1 piles) = 0.52 ton/yr
Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.00024 lb/ton) \* (ton/2000 lb) \* (1 piles) \* (1 - 50/100) = 0.26 ton/yr

#### Conveyor Transfer Point (SCC 3-05-02006)

Maximum Process Rate = 500 ton/hr (Maximum single screen process rate estimate) Maximum Hours of Operation = 8,760 hrs/yr Number of Transfers = 1 transfer

#### Filterable PM Emissions:

Emission Factor = 0.003 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 50% Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.003 lb/ton) \* (ton/2000 lb) \* (1 transfer) = 6.57 ton/yr Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.003 lb/ton) \* (ton/2000 lb) \* (1 transfer) \* (1 - 50/100) = 3.29 ton/yr

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

Emission Factor = 0.0011 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 50% Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0011 lb/ton) \* (ton/2000 lb) \* (1 transfer) = 2.41 ton/yr Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0011 lb/ton) \* (ton/2000 lb) \* (1 transfer) \* (1 - 50/100) = 1.20 ton/yr

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

Emission Factor = 0.000013 lb/ton (0.000013 controlled, AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 0% (built into emission factor) Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.000013 lb/ton) \* (ton/2000 lb) \* (1 transfer) = 0.03 ton/yr

#### **Fines Screening**

Maximum Process Rate = 500 ton/hr (Maximum plant process rate) Maximum Hours of Operation = 8,760 hrs/yr Number of Screens = 1 screen(s) (using max plant rate with 3 screens in operation)

#### **Total PM Emissions:**

Emission Factor = 0.025 lb/ton (0.025 uncontrolled, 0.0022 controlled, AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 50% Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.025 lb/ton) \* (ton/2000 lb) \* (1 screen(s)) = 54.75 ton/yr Calculation: (500 ton/hr)\*(8760 hrs/yr) \* (0.025 lb/ton) \* (ton/2000 lb) \* (1 screen(s)) \* (1 - 50/100) = 27.38 ton/yr

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

Emission Factor = 0.0087 lb/ton (0.0087 uncontrolled, 0.00074 controlled, AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 50% Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0087 lb/ton) \* (ton/2000 lb) \* (1 screen(s)) = 19.05 ton/yr Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0087 lb/ton) \* (ton/2000 lb) \* (1 screen(s)) \* (1 - 50/100) = 9.53 ton/yr

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

Emission Factor = 0.00005 lb/ton (0.000050 controlled, AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 0% (built into emission factor) Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.00005 lb/ton) \* (ton/2000 lb) \* (1 screen(s)) = 0.11 ton/yr

#### Crushing [Jaw Crusher] (SCC 3-05-020-05)

Maximum Process Rate = 500 ton/hr (Application information, max plant rate with 3 crushers) Maximum Hours of Operation = 8,760 hrs/yr

#### **PM Emissions:**

Emission Factor = 0.0054 lb/ton (tertiary crushing (uncontrolled), AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 50% Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0054 lb/ton) \* (ton/2000 lb) = 11.83 ton/yr Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0054 lb/ton) \* (ton/2000 lb) \* (1 - 50/100) = 5.91 ton/yr

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

Based on AP-42 Emission Factor = 0.0024 lb/ton (tertiary crushing (uncontrolled), AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 50% Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0024 lb/ton) \* (ton/2000 lb) = 5.26 ton/yr Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0024 lb/ton) \* (ton/2000 lb) \* (1 - 50/100) = 2.63 ton/yr

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

Emission Factor = 0.0001 lb/ton (tertiary crushing (controlled), AP 42, Table 11.19.2-2, 8/04) Control Efficiency = 0% (built into emission factor) Calculation: (500 ton/hr) \* (8760 hrs/yr) \* (0.0001 lb/ton) \* (ton/2000 lb) = 0.22 ton/yr

#### **Diesel Generator Engine: 225 hp**

Operational Capacity of Engine = 225 hp Hours of Operation = 4,000.00 hours

## Total PM/PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emission Factor = 0.0022 lbs/hp-hr (All PM < 1 µm, AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (4,000 hours) \* (225 hp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = 0.99 ton/yr Calculation: (4,000 hours) \* (225 hp) \* (0.0022 lbs/hp-hr) = 1,980.00 lbs/yr

#### **NOx Emissions:**

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (4,000 hours) \* (225 hp) \* (0.031 lbs/hp-hr) \* (ton/2000 lb) = 13.95 ton/yr Calculation: (4,000 hours) \* (225 hp) \* (0.031 lbs/hp-hr) = 27,900.00 lbs/yr

#### **CO Emissions:**

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (4,000 hours) \* (225 hp) \* (0.00668 lbs/hp-hr) \* (ton/2000 lb) = 3.01 ton/yr Calculation: (4,000 hours) \* (225 hp) \* (0.00668 lbs/hp-hr) = 6,012.00 lbs/yr

#### **VOC Emissions:**

Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96) Calculation: (4,000 hours) \* (225 hp) \* (0.0025141 lbs/hp-hr) \* (ton/2000 lb) = 1.13 ton/yr Calculation: (4,000 hours) \* (225 hp) \* (0.0025141 lbs/hp-hr) = 2,262.69 lbs/yr

#### **SOx Emissions:**

 $\begin{array}{l} \mbox{Emission Factor} = 0.00205 \mbox{ lbs/hp-hr} \ (AP-42, \mbox{Sec. 3.3, Table 3.3-1, 10/96}) \\ \mbox{Calculation:} \ (4,000 \mbox{ hours}) * (225 \mbox{ hp}) * (0.00205 \mbox{ lbs/hp-hr}) * (ton/2000 \mbox{ lb}) = 0.923 \mbox{ ton/yr} \\ \mbox{Calculation:} \ (4,000 \mbox{ hours}) * (225 \mbox{ hp}) * (0.00205 \mbox{ lbs/hp-hr}) = 1,845.00 \mbox{ lbs/yr} \\ \end{array}$ 

## Diesel Engine(s): 160 hp

Operational Capacity of Engine = 160 hp Hours of Operation = 8,760.00 hours

## Total PM/PM<sub>10</sub>/PM<sub>2.5</sub> Emissions:

Emission Factor = 0.0022 lbs/hp-hr (All PM < 1 µm, AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (8,760 hours) \* (160 hp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = 1.54 ton/yr Calculation: (8,760 hours) \* (160 hp) \* (0.0022 lbs/hp-hr) = 3,083.52 lbs/yr

## **NOx Emissions:**

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (8,760 hours) \* (160 hp) \* (0.031 lbs/hp-hr) \* (ton/2000 lb) = 21.72 ton/yr Calculation: (8,760 hours) \* (160 hp) \* (0.031 lbs/hp-hr) = 43,449.60 lbs/yr

## **CO Emissions:**

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (8,760 hours) \* (160 hp) \* (0.00668 lbs/hp-hr) \* (ton/2000 lb) = 4.68 ton/yr Calculation: (8,760 hours) \* (160 hp) \* (0.00668 lbs/hp-hr) = 9,362.69 lbs/yr

## **VOC Emissions:**

Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96) Calculation: (8,760 hours) \* (160 hp) \* (0.0025141 lbs/hp-hr) \* (ton/2000 lb) = 1.76 ton/yr Calculation: (8,760 hours) \* (160 hp) \* (0.0025141 lbs/hp-hr) = 3,523.76 lbs/yr

## **SOx Emissions:**

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96) Calculation: (8,760 hours) \* (160 hp) \* (0.00205 lbs/hp-hr) \* (ton/2000 lb) = 1.44 ton/yr Calculation: (8,760 hours) \* (160 hp) \* (0.00205 lbs/hp-hr) = 2,873.28 lbs/yr

## Haul Roads

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate) VMT per hour = (5 VMT/day) \* (day/24 hrs) = 0.21 VMT/hr Hours of Operation = 8,760 hrs/yr

## **PM Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06. Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 12.46 \text{ lb/VMT}$ 

Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06) s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)

a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 50% (Water spray or chemical dust suppressant)

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (12.46 lb/VMT) \* (ton/2000 lb) = 11.37 tons/yr (Uncontrolled Emissions)

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (12.46 lb/VMT) \* (ton/2000 lb) \* (1-50/100) = 5.68 tons/yr (Apply 50% control efficiency)

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

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06. Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 3.43 \text{ lb/VMT}$ 

Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)

s= surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)

a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)Control Efficiency = 50% (Water spray or chemical dust suppressant) Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (3.43 lb/VMT) \* (ton/2000 lb) = 3.13 tons/yr (Uncontrolled Emissions) Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (3.43 lb/VMT) \* (ton/2000 lb) \* (1-50/100) = 1.57 tons/yr (Apply 50% control efficiency)

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

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06. Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 0.34 \text{ lb/VMT}$ 

Where: k = constant = 0.15 lbs/VMT (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)

W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)

a = constant = 0.9 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

b = constant = 0.45 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)

Control Efficiency = 50% (Water spray or chemical dust suppressant)

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (0.34 lb/VMT) \* (ton/2000 lb) = 0.31 tons/yr (Uncontrolled Emissions)

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (0.34 lb/VMT) \* (ton/2000 lb) \* (1-50/100) = 0.16 tons/yr (Apply 50% control efficiency)

# V. Existing Air Quality

MAQP #4667-02 is for a portable nonmetallic mineral crushing and screening operation initially located in Section 15, Township 27 North, Range 56 East within Richland County, Montana. This facility would be allowed to operate at this proposed site, and any other areas designated as attainment or unclassified for all ambient air quality standards, except areas with a Department-approved permitting program or areas considered tribal lands.

# VI. Air Quality Impacts

MAQP #4667-02 applies while operating at any location within Montana, excluding those areas having a Department approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain  $PM_{10}$  nonattainment areas.

Emissions generated from the operation of this source are well controlled and limited, furthermore, the portable unit would be expected to be operated on an intermittent and seasonal basis and any air quality impacts would be expected to be minimal and temporary. The permit contains an operational limitation of 4,000 hours during any rolling 12-month time period for the 225 hp generator engine to avoid dispersion modeling. Currently, the facility includes a 2007 CAT diesel generator engine that is EPA Tier 2 certified and a 2002 Multiquip direct drive diesel engine that is EPA Tier 3 certified.

The Department determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the Department believes this action will not cause or contribute to a violation of any ambient air quality standard.

# VII. Ambient Air Impact Analysis

The Department determined that there will be no impacts from this permitting action because it is an administrative permit action with no increases in facility emissions. 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			
v		1. Does the action pertain to land or water management or environmental regulation		
X		affecting private real property or water rights?		
	X	2. Does the action result in either a permanent or indefinite physical occupation of private		
	Λ	property?		
	Х	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude		
Λ	Λ	others, disposal of property)		
	X	4. Does the action deprive the owner of all economically viable uses of the property?		
	Х	5. Does the action require a property owner to dedicate a portion of property or to gran		
	Λ	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?		
	х	6. Does the action have a severe impact on the value of the property? (consider economic		
		impact, investment-backed expectations, character of government action)		
	Х	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?		
	Х	7b. Has government action resulted in the property becoming practically inaccessible,		
		waterlogged or flooded?		
		7c. Has government action lowered property values by more than 30% and necessitated		
	X	the physical taking of adjacent property or property across a public way from the property		
		in question?		
	Х	Takings or damaging implications? (Taking or damaging implications exist if YES is		
		checked in response to question 1 and also to any one or more of the following questions:		
		2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded		
		areas)		

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

# IX. Environmental Assessment

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

Analysis prepared by: Ed Warner Date: January 17, 2014