

AIR QUALITY PERMIT

Issued To: MRTE, Inc.
P.O. Box 538
Black Eagle, Montana 59414

Permit #3277-01
Administrative Amendment (AA)
Request Received: 06/22/07
Department Decision on AA: 08/29/07
Permit Final: 09/14/07
AFS #777-3277

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Missouri River Trucking and Excavating, Inc. (MRTE), pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

MRTE operates a portable crushing/screening facility that initially located in the SE ¼ of Section 22, Township 6 North, Range 10 East, in Meagher County, Montana. Permit #3277-01 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. An addendum to this air quality permit will be required if MRTE intends to locate in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

B. Current Permit Action

The Department received a request from MRTE for an administrative amendment to Permit #3277-00. The request included the addition of a 400 tons per hour (TPH) screen to MRTE's crushing/ screening facility. In addition, the facility has undergone a name change, which was incorporated into the current permit action. The Department updated the permit to be de minimis friendly and to reflect current permit language and emission factors.

Section II: Conditions and Limitations

A. Emission Limitations

1. MRTE shall not cause or authorize to be discharged into the atmosphere from any Standards of Performance for New Stationary Sources (NSPS) affected crusher, any visible emissions that exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).
2. MRTE shall not cause or authorize to be discharged into the atmosphere from any other NSPS-affected equipment, such as screens or conveyor transfers, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO).

3. MRTE shall not cause or authorize to be discharged into the atmosphere, from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
4. Water and water spray bars shall be available on site at all times and used, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
5. MRTE 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 and ARM 17.8.752).
6. MRTE 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 17.8.752).
7. MRTE shall not operate more than two crushers at any given time and the combined maximum-rated design capacity shall not exceed 209 TPH (ARM 17.8.749).
8. Crusher production from the facility shall be limited to 1,830,840 tons during any rolling 12-month time period (ARM 17.8.749).
9. MRTE shall not operate more than four screens at any given time and the combined maximum-rated design capacity shall not exceed 909 TPH (ARM 17.8.749).
10. Screen production from the facility shall be limited to 4,458,840 tons during any rolling 12-month time period (ARM 17.8.749).
11. MRTE shall not operate more than two diesel generators/engines at any given time and the combined maximum-rated design capacity shall not exceed 300 kilowatts (kW) (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by MRTE 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 time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
13. MRTE shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
14. MRTE shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR Part 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines, for any applicable diesel engines (ARM 17.8.340, 40 CFR 60, Subpart IIII).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures, as specified in 40 CFR Part 60.675, must be performed on any NSPS affected equipment to demonstrate compliance with the emissions limitations contained in Sections II.A.1 and II.A.2 (ARM 17.8.340, 40 CFR Part 60, Subpart A and 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 portable 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. MRTE shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by MRTE as a permanent business record for at least 5 years following the date of the measurement, shall be available at the plant site for inspection by the Department, and shall be submitted to the Department upon request (ARM 17.8.749).
3. MRTE 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 Section I.A of 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 units, as 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).

4. MRTE shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include the addition of a new emissions unit, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

5. MRTE shall document, by month, the total crushing production for the facility. By the 25th day of each month, MRTE shall calculate the crushing production for the previous month. The monthly information will be used to verify compliance with the limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. MRTE shall document, by month, the total screening production for the facility. By the 25th day of each month, MRTE shall calculate the screening production for the previous month. The monthly information will be used to verify compliance with the limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – MRTE shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if MRTE fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving MRTE 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. Construction Commencement - Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked.

- H. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay of an annual operation fee by MRTE may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- 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. MRTE shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas having a Department-approved permitting program.

PERMIT ANALYSIS
Missouri River Trucking and Excavating, Inc.
Permit Number 3277-01

I. Introduction/Process Description

A. Permitted Equipment

Missouri River Trucking and Excavating, Inc. (MRTE) owns and operates a portable crushing/screening facility consisting of up to two crushers (up to 209 tons per hour (TPH) combined capacity), up to four screens (up to 909 TPH combined capacity), up to two diesel motors (up to 300 kilowatts (kW)), and associated equipment. The facility originally located in the SE ¼ of Section 22, Township 6 North, Range 10 East, in Meagher County, Montana. Permit #3277-01 will apply to the source while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department) approved permitting program, tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. An addendum to this air quality permit will be required if MRTE intends to locate in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

B. Process Description

MRTE proposes to use this crushing/screening plant to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant via a hopper and transferred by conveyor to the crushers, where the material is crushed. Materials are then sent to the screens, where they are separated and conveyed to stockpile.

C. Permit History

Missouri River Tree Farms (Missouri River) was issued **Permit #3277-00** on September 10, 2003, for the operation of a crushing/screening facility. The facility initially located in the SE ¼ of Section 22, Township 6 North, Range 10 East, in Meagher County, Montana.

D. Current Permit Action

The Department received a request from MRTE for an administrative amendment to Permit #3277-00. The request included the addition of a 400 tons per hour (TPH) screen to MRTE's crushing/ screening facility. In addition, the facility has undergone a name change from Missouri River to MRTE, which was incorporated into the current permit action. The Department updated the permit to be de minimis friendly, and to reflect current permit language and emission factors. **Permit #3277-01** replaces Permit #3277-00.

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, are 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, which 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 locations of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. ARM 17.8.101 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary, using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

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

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

MRTE must comply with the applicable ambient air quality standards.

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, MRTE 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 (PM).
3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. 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 rule.
4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this rule.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.

MRTE is considered an NSPS-affected facility under 40 CFR 60 and is subject to the requirements of Subpart OOO and Subpart IIII.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that MRTE 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. MRTE was not required to submit an application fee for the current permit action because it 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 actual 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, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

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

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration 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. MRTE has the potential to emit more than 15 tons per year of total PM, PM₁₀, and oxides of nitrogen (NO_x); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.
4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. MRTE was not required to submit a permit application for the current permit action because it is considered an administrative action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. MRTE was not required to submit a public notice for the current permit action because it is considered 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 IV 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 MRTE of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or 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.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond those found in its permit, unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the

transferor and the transferee, is sent to the Department.

- F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications-- Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source since it is not a listed source and the facility's PTE is less 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 Hazardous Air Pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ nonattainment area.
 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (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 Air Quality Permit #3277-01 for the MRTE facility, the following conclusions were made:
 - a. The facility's permitted PTE is less than 100 tons/year for any pollutant.
 - 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 PM₁₀ nonattainment area.
 - d. This facility is not subject to any current National Emissions Standards for Hazardous Air Pollutants (NESHAP) standards.
 - e. This facility is subject to current NSPS standards (40 CFR 60, Subpart A General Provisions, and Subpart OOO, Non-Metallic Mineral Processing Plants OOO).
 - 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.

Based on these facts, the Department determined that MRTE is 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, MRTE will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for any new or modified source. MRTE shall install on the new or modified source the maximum air pollution control capability that 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.

IV. Emission Inventory

Source	Tons/Year					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Up to two crushers (up to 209 TPH)	1.10	0.49				
Up to four screens (up to 909 TPH)	8.76	2.93				
Material Transfer	25.63	12.37				
Pile Forming	24.74	11.78				
Bulk Loading	4.95	2.36				
Up to 3 Diesel Generators (up to 300 KW)	3.90	3.90	54.62	4.34	17.66	3.59
Haul Roads	2.74	1.23				
Total	71.82	35.06	54.62	4.34	17.66	3.59

Up to 2 Crushers (up to 209 TPH)

Maximum Process Rate: 209 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0012 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.0012 lb/ton * 209 ton/hr = 0.25 lb/hr
Daily Calculations: 0.25 lb/hr * 24 hr/day = 6.02 lb/day
Annual Calculations: 0.25 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 1.10 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00054 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00054 lb/ton * 209 ton/hr = 0.113 lb/hr
Daily Calculations: 0.113 lb/hr * 24 hr/day = 2.71 lb/day
Annual Calculations: 0.113 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.49 ton/yr

Up to 4 Screens (up to 909 TPH)

Process Rate: 909 ton/hr
Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.0022 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.0022 lb/ton * 909 ton/hr = 2.00 lb/hr
Daily Calculations: 2.00 lb/hr * 24 hr/day = 47.99 lb/day
Annual Calculations: 2.00 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 8.76 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.00074 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
Hourly Calculations: 0.00074 lb/ton * 909 ton/hr = 0.67 lb/hr
Daily Calculations: 0.67 lb/hr * 24 hr/day = 16.14 lb/day
Annual Calculations: 0.67 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.93 ton/yr

Diesel Generator (up to 300 kW)

Generator Size = up to 300 kW
 1kW = 1.341 hp
 300 kW * 1.341 = 402.30 hp

Hours of operation: 8760 hr/yr

PM Emissions

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 402.30 hp * 0.0022 lb/hp-hr = 0.89 lb/hr
 Daily Calculations: 402.30 hp * 0.0022 lb/hp-hr * 24 hr/day = 21.24 lb/day
 Annual Calculation: 402.30 hp * 0.0022 * 8760 hr/yr * 0.0005 lb/ton = 3.90 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 402.30 hp * 0.0022 lb/hp-hr = 0.89 lb/hr
 Daily Calculations: 402.30 hp * 0.0022 lb/hp-hr * 24 hr/day = 21.24 lb/day
 Annual Calculation: 402.30 hp * 0.0022 * 8760 hr/yr * 0.0005 lb/ton = 3.90 ton/yr

NOx Emissions:

Emission Factor: 0.031 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 402.30 hp * 0.031 lb/hp-hr = 12.47 lb/hr
 Daily Calculations: 402.30 hp * 0.031 lb/hp-hr * 24 hr/day = 299.31 lb/day
 Annual Calculation: 402.30 hp * 0.031 * 8760 hr/yr * 0.0005 lb/ton = 54.62 ton/yr

VOC Emissions:

Emission Factor: 0.00247 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 402.30 hp * 0.00247 lb/hp-hr = 0.99 lb/hr
 Daily Calculations: 402.30 hp * 0.00247 lb/hp-hr * 24 hr/day = 23.85 lb/day
 Annual Calculation: 402.30 hp * 0.00247 * 8760 hr/yr * 0.0005 lb/ton = 4.34 ton/yr

CO Emissions:

Emission Factor: 0.00668 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 402.30 hp * 0.00668 lb/hp-hr = 4.03 lb/hr
 Daily Calculations: 402.30 hp * 0.00668 lb/hp-hr * 24 hr/day = 96.75 lb/day
 Annual Calculation: 402.30 hp * 0.00668 * 8760 hr/yr * 0.0005 lb/ton = 17.66 ton/yr

SOx Emissions:

Emission Factor: 0.00205 lb/hp-hr (AP-42, Table 3.3-1, 10/96)
 Hourly Calculations: 402.30 hp * 0.00205 lb/hp-hr = 0.82 lb/hr
 Daily Calculations: 402.30 hp * 0.00205 lb/hp-hr * 24 hr/day = 19.79 lb/day
 Annual Calculation: 402.30 hp * 0.00205 * 8760 hr/yr * 0.0005 lb/ton = 3.59 ton/yr

Material Transfer

Process Rate: 250 ton/hr
 Number of Transfers: 15 transfers
 Hours of operation: 8760 hr/yr

PM Emissions:

Emission Factor: 0.00014 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
 Hourly Calculations: 0.00014 lb/ton * 250 ton/hr * 15 transfers = 0.53 lb/hr
 Daily Calculations: 0.53 lb/hr * 24 hr/day = 12.72 lb/day
 Annual Calculations: 0.53 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.32 ton/yr

PM₁₀ Emissions:

Emission Factor: 0.000046 lb/ton (controlled) (AP-42, Table 11.19.2-2, 8/04)
 Hourly Calculations: 0.000046 lb/ton * 250 tons/hr * 15 transfers = 0.17 lb/hr
 Daily Calculations: 0.17 lb/hr * 24 hr/day = 4.08 lb/day
 Annual Calculations: 0.17 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 0.74 ton/yr

Pile Forming

Process Rate: 250 ton/hr

Number of Piles	5 piles	
Hours of operation:	8760 hr/yr	
PM Emissions:		
Emission Factor:	0.0032 lb/ton (controlled) (AP-42, Section 13.2.4, 1/95)	
Hourly Calculations:	0.0032 lb/ton * 250 ton/hr * 5 piles =	4.00 lb/hr
Daily Calculations:	4.00 lb/hr * 24 hr/day =	96.00 lb/day
Annual Calculations:	4.00 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	17.52 ton/yr

PM ₁₀ Emissions:		
Emission Factor:	0.0015 lb/ton (AP-42, Section 13.2.4, 1/95)	
Hourly Calculations:	0.0015 lb/ton * 250 ton/hr * 5 piles =	1.88 lb/hr
Daily Calculations:	1.88 lb/hr * 24 hr/day =	45.12 lb/day
Annual Calculations:	1.88 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	8.23 ton/yr

Bulk Loading

Process Rate:	250 ton/hr
Number of Loads	1 load
Hours of operation:	8760 hr/yr

PM Emissions:		
Emission Factor:	0.0022 lb/ton (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.0022 lb/ton * 250 ton/hr =	0.55 lb/hr
Daily Calculations:	0.55 lb/hr * 24 hr/day =	13.20 lb/day
Annual Calculations:	0.55 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	2.41 ton/yr

PM ₁₀ Emissions:		
Emission Factor:	0.00074 lb/ton (AP-42, Table 11.19.2-2, 8/04)	
Hourly Calculations:	0.00074 lb/ton * 250 ton/hr =	0.185 lb/hr
Daily Calculations:	0.185 lb/hr * 24 hr/day =	4.44 lb/day
Annual Calculations:	0.185 lb/hr * 8760 hr/yr * 0.0005 ton/lb =	0.81 ton/yr

Haul Roads

Vehicle miles traveled:	5 VMT/day {Estimated}
Assumption:	Rated Load Capacity < 50 tons
Hours of Operation:	8760 hr/yr
	24 hr/day
	365 day/yr

TSP Emissions:		
Emission Factor:	13.90 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)	
Calculations:	5.0 VMT/day * 13.90 lb/VMT =	69.50 lb/day
	69.50 lb/day * 365 day/yr * 0.0005 ton/lb =	12.68 ton/yr

PM ₁₀ Emissions:		
Emission Factor:	3.95 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)	
Calculations:	5.0 VMT/day * 3.95 lb/VMT =	19.75 lb/day
	19.75 lb/day * 365 day/yr * 0.0005 ton/lb =	3.60 ton/yr

V. Existing Air Quality

Permit #3277-01 is issued for the operation of a portable crushing/screening plant. The facility was originally located in the SE ¼ of Section 22, Township 6 North, Range 10 East, in Meagher County, Montana. This site is designated as an attainment/unclassified area for the National Ambient Air Quality Standards (NAAQS).

VI. Air Quality Impacts

Permit #3277-01 will cover the operation while operating at any location within Montana, excluding those counties that have a Department approved permitting program, tribal lands, or those areas in or within 10 km of certain PM₁₀ nonattainment areas. The Department believes the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minor and short-

lived.

VII. Taking or Damaging Implication Analysis

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

VIII. Environmental Assessment

An environmental assessment was not required for the current permit action because the permit change is considered an administrative amendment.

Permit Analysis Prepared By: Julie Merkel

Date: August 23, 2007