Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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May 20, 2009

Mr. Brian Midboe
Bay Materials, LLC
Box 1077
Shelby, MT 59474

Dear Mr. Midboe:

Air Quality Permit #4361-00 is deemed final as of May 20, 2009, by the Department of Environmental Quality (Department). This permit is for a portable crushing 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,

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

Paul Skubinna
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

VW:PS
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

# Air Quality Permit #4361-00

Bay Material, LLC
Box 1077
Shelby, MT 59474

May 20, 2009

MONTANA AIR QUALITY PERMIT

Issued To: Bay Materials, LLC
Box 1077
Shelby, MT 59474

Permit: #4361-00
Application Complete: 2/18/09
Preliminary Determination Issued: 3/25/09
Department's Decision Issued: 5/4/09
Permit Final: 5/20/09
AFS #: 777-4361

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Bay Materials, LLC (BML) 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. Permitted Equipment

BML operates a portable crushing and screening operation. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Plant Location

BML operates a portable crushing/screening operation, which will initially be located approximately 2 miles north northwest of Kevin within Section 22, Township 35 North, Range 3 West, Toole County, Montana. However, MAQP #4361-00 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 ($PM_{10}$) 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 $PM_{10}$ nonattainment areas.

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 of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

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).

5. BML 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. BML 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).

7. BML shall not operate more than two crushers at any given time and the maximum combined throughput including both crushers shall not exceed 500 tons per hour (TPH) (ARM 17.8.749).

8. Crushing production is limited to 4,380,000 tons of total throughput during any rolling 12-month time period (ARM 17.8.749).

9. BML shall not operate more than four screens at any given time, and maximum combined throughput including all four screens shall not exceed 1300 TPH (ARM 17.8.749).

10. Screening production is limited to 11,388,000 tons of total throughput during any rolling 12-month time period (ARM 17.8.749).

11. BML shall not operate more than three diesel-powered engines/generators at any given time. The total combined maximum rated design capacity of the engines/generators shall not exceed 1100 horsepower (hp) (ARM 17.8.749).

12. Operation of each of the three diesel engines/generators shall not exceed 4650 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

13. If the permitted equipment is used in conjunction with any other equipment owned or operated by BML, 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 of Environmental Quality (Department) (ARM 17.8.749).

14. BML shall comply with all applicable standards and limitations, and the 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).

15. BML 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).

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. BML 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, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505). BML shall submit the following information annually to the Department by March 1 of each year, and may be submitted with the annual emission inventory (ARM 17.8.505):

3. BML 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. BML 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 BML 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. BML shall document, by month, the crushing production from the facility. By the 25th day of each month, BML shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month 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. BML shall document, by month, the screening production from the facility. By the 25th day of each month, BML shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month 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).

7. BML shall document, by month, the hours of operation of the each diesel engine/generator. By the 25th day of each month, BML shall calculate the hours of operation for the diesel engine/generator for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.12. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

8. BML shall annually certify that its emissions are less than those that would require the facility 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 along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

1. Within 30 days of commencement of construction of any NSPS-affected equipment, BML shall notify the Department of the date of commencement of construction of the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).

2. Within 15 days of the actual start-up date of any NSPS-affected equipment, BML shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).

3. Within 15 days of the actual start-up date of any non-NSPS-affected equipment, BML shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – BML 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 BML fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving BML 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. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by BML 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. BML 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.

Permit Analysis
Bay Materials, LLC
MAQP #4361-00

I. Introduction/Process Description

BML operates a portable crushing and screening plant.

A. Permitted Equipment

Permitted equipment at the facility consists of the following:

- One 12 X 48 Jaw Crusher (200 TPH),
- One 4030 Roller Crusher (300 TPH),
- One 4 X 16 Double Deck Screen (300 TPH),
- Two 4 X 12 Single Deck Screens (300 TPH each),
- One 5 X 16 Double Deck Screen (400 TPH),
- One 200 horsepower (hp) Diesel Engine,
- One 300 hp Diesel Engine,
- One 600 hp Diesel Engine, and
- Associated conveyors, and material transfers, loading and pile-forming equipment and operations.

B. Source Description

BML owns and operates a crushing and screening plant that uses the equipment described above, initially to produce aggregate sub-base and pit-run construction materials in support of county road maintenance efforts and other construction activities in Toole County, Montana. The aggregate processing equipment consists of two self-contained plants, a Hewitt-Robins Crusher and Screen and a Nordberg Powerscreen, which can be set up in parallel or series to provide a wide array of processed aggregate products. The Nordberg Powerscreen assembly consists of feed hopper, a 5 X 16 Double Deck Screen, Conveyors and a direct drive 200 hp diesel engine. The Hewitt-Robins plant consists of one 12 X 48 Jaw Crusher, one 4030 Roller Crusher, one 4 X 16 Double Deck Screen, and two 4 X 12 Single Deck Screens and a 300 hp and 600 hp diesel engine for direct-drive and hydraulic power. For a typical operational setup, unprocessed material is loaded into the Nordberg Powerscreen where it is separated into to product piles by the double deck screen while the throughput proceeds in series to the Hewitt-Robins apparatus for further screening, crushing and blending processes. In this arrangement the set-up will contain 4 pile-forming and 10 material transfer emission points.

The rate limiting implement for the Norberg apparatus is the 5 X 16 Double Deck Screen, which has a max design throughput of 400 TPH and the rate limiting implement for the Hewitt-Robins apparatus is the 4 X 16 Double Deck Screen, which has a maximum design capacity of 300 TPH. The permittee will utilize three diesel engines to power the plant. The 600 hp engine will provide direct power to the roller crusher, the 300 hp engine provides direct drive power to the jaw crusher and drives hydraulic motors to power the rest of the Hewitt-Robins plant. The 200 hp diesel engine powers hydraulic and direct drives for the Nordberg Powerscreen plant.

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 of Environmental Quality (Department). Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

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

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

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

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

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 Matter
6. ARM 17.8.223 Ambient Air Quality Standard for $PM_{10}$

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, BML 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 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. ARM 17.8.310 Particulate Matter, Industrial Process. 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. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

6. ARM 17.8.324 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 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility has NSPS-affected equipment that is subject to the requirements of 40 CFR 60, Subpart A and Subpart OOO as described below.

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. 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. NSPS-affected equipment at the BML facility would include any combination of the following: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station, which were constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by BML, the 4030 Roller Crusher, the 5 X 16 Double Deck Screen, and Truss Conveyor(s) to be used under Montana Air Quality Permit (MAQP) #4361-00 are subject to this subpart because they are listed affected facilities and were constructed or reconstructed after August 31, 1983.

c. 40 CFR 60, Subpart IIII Standards of Performance for Compression Ignition Internal Combustion Engines. NSPS-affected engines at the BML facility include any new or reconstructed stationary compression ignition (CI) internal combustion engines (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 stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005 (40 CFR 60, Subpart IIII). None of the currently proposed engines are subject to 40 CFR 60, Subpart IIII because they have not been manufactured or reconstructed after April 1, 2006, or July 11, 2005, respectively. However, because this permit is written in a de minimis-friendly manner, this regulation may apply to future engines at the facility.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP). The affected sources, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as described below.

a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAP Subpart as listed below:

b. 40 CFR 63, Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants From Reciprocating Internal Combustion Engines. The proposed facility contains engines which are affected sources under 40 CFR 63 Subpart ZZZZ; however, because the engines are existing compression ignition engines at an area source of HAPs they qualify for an exemption within Subpart ZZZZ that excludes them from the maximum achievable control technology standards and reporting requirements in 40 CFR Part 63. No initial notification is required. However, because this permit is written in a de minimis-friendly manner, substantive portions of this regulation may apply to future engines at the facility.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. BML submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality 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 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. BML has a PTE greater than 15 tons per year of particulate matter with aerodynamic equal to or smaller than 10 microns ($PM_{10}$), 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. BML submitted the required permit application for the current permit 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. BML submitted an affidavit of publication of public notice for the January 21, 2009, issue of the *Great Falls Tribune*, a newspaper of general circulation in the Kevin and Shelby in Toole County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving BML of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an 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 Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not 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. 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 lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less ($PM_{10}$) in a serious $PM_{10}$ 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 MAQP #4361-00 for BML, the following conclusions were made.

   a. The facility's PTE is less than 100 tons/year for any 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 (40 CFR 60, Subpart OOO).

   e. This facility is subject to current NESHAP standards (40 CFR 63, Subpart ZZZZ).

   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.

   BML has taken federally enforceable permit limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and, thus a Title V operating permit is not required. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, BML will be required to obtain a Title V Operating Permit.

   h. ARM 17.8.1204(3). 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 PTE.

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

      iii. Any source that obtains a federally enforceable limit on PTE 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 by ARM 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 each new or modified source. BML 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.

BML has proposed and is required to use water spray bars, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. The Department has reviewed these methods, as well as recent BACT determinations for these types of facilities and has determined that the proposed water spray bars constitutes BACT for these sources.

The diesel engines to be used to power the production equipment are all existing engines that include applicable control equipment mechanisms for their manufacture dates. Addition of after market controls to these engines would be cost prohibitive. Thus, after review of recent BACT determination for these types of facilities the Department has determined that no additional control constitutes BACT for the three diesel engines.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

| Emitting Unit | PM | $PM_{10}$ | $NO_x$ | VOC | CO | $SO_2$ |
|---|---|---|---|---|---|---|
| 12 X 28 Jaw Crusher (200 TPH) | 1.05 | 0.47 | | | | |
| 4030 Roller Crusher | 1.05 | 0.47 | | | | |
| 4 X 16 Double Deck Screen (300 TPH) | 2.89 | 0.97 | | | | |
| 5 X 16 Double Deck Screen (400 TPH) | 3.85 | 1.30 | | | | |
| Two 4 X 12 Single Deck Screens (300 TPH) | 5.78 | 1.94 | | | | |
| Bulk Loading | 0.26 | 0.26 | | | | |
| Material Transfer (1-7) | 1.29 | 0.42 | | | | |
| Pile Forming (1-3) | 12.69 | 6.03 | | | | |
| Haul Roads | 5.01 | 1.28 | | | | |
| 200 hp Diesel Engine | 1.02 | 1.02 | 14.42 | 1.17 | 3.11 | 0.95 |
| 300 hp Diesel Engine | 1.53 | 1.53 | 21.62 | 1.75 | 4.66 | 1.43 |
| 600 hp Diesel Engine | 3.07 | 3.07 | 43.25 | 3.50 | 9.32 | 2.86 |
| **Total** | **39.51** | **18.78** | **79.28** | **6.42** | **17.08** | **5.24** |

| | | | | | |
|---|---|---|---|---|---|
| **12 X 28 Jaw Crusher (200 TPH)** | | | | | |
| Process Rate: | 200 | tons/hr | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 0.0012 | lbs/ton | (AP-42 Table 11.19.2-2 8/2004) | | |
| Calculations: | 0.0012 lbs/ton * 200 tons/hr = | | | **0.24** | **lbs/hr** |
| | 0.24 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **1.05** | **tons/yr** |
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 0.00054 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.00054 lbs/ton * 200 tons/hr = | | | **0.11** | **lbs/hr** |
| | 0.108 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **0.47** | **tons/yr** |
| **4030 Roller Crusher (300 TPH)** | | | | | |
| Process Rate: | 300 | tons/hr | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 0.0012 | lbs/ton | (AP-42 Table 11.19.2-2 8/2004) | | |
| Calculations: | 0.0012 lbs/ton * 300 tons/hr = | | | **0.24** | **lbs/hr** |
| | 0.24 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **1.05** | **tons/yr** |
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 0.00054 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.00054 lbs/ton * 300 tons/hr = | | | **0.11** | **lbs/hr** |
| | 0.108 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **0.47** | **tons/yr** |
| **4 X 16 Double Deck Screen (300 TPH)** | | | | | |
| Process Rate: | 300 | tons/hr | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 0.0022 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.0022 lbs/ton * 300 tons/hr = | | | **0.66** | **lbs/hr** |
| | 0.66 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **2.89** | **tons/yr** |
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 0.00074 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.00074 lbs/ton * 300 tons/hr = | | | **0.22** | **lbs/hr** |
| | 0.222 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **0.97** | **tons/yr** |
| **5 X 16 Double Deck Screen (400 TPH)** | | | | | |
| Process Rate: | 400 | tons/hr | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 0.0022 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.0022 lbs/ton * 400 tons/hr = | | | **0.88** | **lbs/hr** |
| | 0.88 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **3.85** | **tons/yr** |

| | | | | | |
|---|---|---|---|---|---|
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 0.00074 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.00074 lbs/ton * 400 tons/hr = | | | **0.30** | **lbs/hr** |
| | 0.296 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **1.30** | **tons/yr** |

| | | | | | |
|---|---|---|---|---|---|
| **Two 4 X 12 Single Deck Screens (300 TPH)** | | | | | |
| Process Rate: | 300 | tons/hr | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 0.0022 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.0022 lbs/ton * 300 tons/hr * Three Screens = | | | **1.32** | **lbs/hr** |
| | 1.32 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **5.78** | **tons/yr** |
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 0.00074 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.00074 lbs/ton * 300 tons/hr * Two Screens = | | | **0.44** | **lbs/hr** |
| | 0.444 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **1.94** | **tons/yr** |

| | | | | | |
|---|---|---|---|---|---|
| **Bulk Loading** | | | | | |
| Process Rate: | 300 | tons/load | | | |
| Number of Loads | 2 | load/hr | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 1.00E-04 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.0001 lbs/ton * 300 tons/load * 2 load/hr = | | | **0.06** | **lbs/hr** |
| | 0.06 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = | | | **0.26** | **tons/yr** |
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 1.00E-04 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.0001 lbs/ton * 300 tons/load * 2 load/hr = | | | **0.06** | **lbs/hr** |
| | 0.06 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = | | | **0.26** | **tons/yr** |

| | | | | | |
|---|---|---|---|---|---|
| **Material Transfer (1-7)** | | | | | |
| Process Rate: | 300 | tons/hr | | | |
| Number of Transfers | 7 | Transfers | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |
| PM Emissions (controlled): | | | | | |
| Emission Factor: | 0.00014 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.00014 lbs/ton * 300 tons/hr * 7 Transfers = | | | **0.29** | **lbs/hr** |
| | 0.294 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **1.29** | **tons/yr** |
| PM-10 Emissions (controlled): | | | | | |
| Emission Factor: | 4.60E-05 | lbs/ton | (AP-42 Table 11.19.2-2, 8/2004) | | |
| Calculations: | 0.000046 lbs/ton * 300 tons/hr * 7 Transfers = | | | **0.10** | **lbs/hr** |
| | 0.0966 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = | | | **0.42** | **tons/yr** |

**Pile Forming (1-3)**

| | | | | | |
|---|---|---|---|---|---|
| Process Rate: | 300 | tons/hr | | | |
| Number of Piles | 3 | Piles | | | |
| Hours of operation: | 8760 | hr/yr | or | 24 | hr/day |

PM Emissions (controlled):

| | | | | |
|---|---|---|---|---|
| Emission Factor: | 3.22E-03 | lbs/ton | (AP-42 Section 13.2.4.3, 11/2006) | |
| Calculations: | 0.00322 lbs/ton * 300 tons/hr * 3 Piles = | | **2.90** | **lbs/hr** |
| | 2.898 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = | | **12.69** | **tons/yr** |

PM-10 Emissions (controlled):

| | | | | |
|---|---|---|---|---|
| Emission Factor: | 1.53E-03 | lbs/ton | (AP-42 Section 13.2.4.3, 11/2006) | |
| Calculations: | 0.00153 lbs/ton * 300 tons/hr * 3 Piles = | | **1.38** | **lbs/hr** |
| | 1.377 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = | | **6.03** | **tons/yr** |

**Haul Roads**

Vehicle miles traveled (estimate): 3 VMT/day

Control Efficiency is included in Emission Factor

PM Emissions (controlled): (AP-42 Chapter 13.2.2, 11/2006)

| | | | | |
|---|---|---|---|---|
| Emission Factor (Rated Load Capacity <50 tons): | 9.15 | Lbs/VMT | | |
| Calculations: | 3 VMT/day * 9.15 Lbs/VMT = | | **27.45** | **lb/day** |
| | 27.45 lb/day * 365 days/yr * 0.0005 tons/lb = | | **5.01** | **tons/yr** |

PM-10 Emissions (controlled): (AP-42 Chapter 13.2.2, 11/2006)

| | | | | |
|---|---|---|---|---|
| Emission Factor (Rated Load Capacity <50 tons): | 2.33 | Lbs/VMT | | |
| Calculations: | 3 VMT/day * 2.33 Lbs/VMT = | | **6.99** | **lb/day** |
| | 6.99 lb/day * 365 days/yr * 0.0005 tons/lb = | | **1.28** | **tons/yr** |

**Diesel Direct Power for Incline 5X16 (200 hp)**

| | | | | |
|---|---|---|---|---|
| Rating = | 200 | hp | | |
| Operating Hours= | 4650 | hr/yr | | |

NOx

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 0.031 | lb/hp-hr | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.031 lb/hp-hr * 200 hp = | | **6.20** | **lb/hr** |
| | 6.2 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | | **14.42** | **tons/yr** |

CO

| | | | | |
|---|---|---|---|---|
| Emission Factor= | 6.68E-03 | lb/hp-hr | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.00668 lb/hp-hr * 200 hp = | | **1.34** | **lb/hr** |
| | 1.336 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | | **3.11** | **tons/yr** |

SOx

| | | | | |
|---|---|---|---|---|
| Emission Factor= | 2.05E-03 | lb/hp-hr | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.00205 lb/hp-hr * 200 hp = | | **0.41** | **lb/hr** |
| | 0.41 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | | **0.95** | **tons/yr** |

PM10

| | | | |
|---|---|---|---|
| Emission Factor= | 2.20E-03 | lb/hp-hr | (AP 42, Table 3.3-1, 10/96) |

| | | | | |
|---|---|---|---|---|
| Calculations: | 0.0022 lb/hp-hr * 200 hp = | **0.44** | **lb/hr** | |
| | 0.44 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **1.02** | **tons/yr** | |

VOC

| | | | | |
|---|---|---|---|---|
| Emission Factor= | 2.51E-03 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations = | 0.00251 lb/hp-hr * 200 hp = | **0.50** | **lb/hr** | |
| | 0.502 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **1.17** | **tons/yr** | |

**Direct-drive Diesel Engine for 12X48 Jaw Crusher (300 hp)**

| | | |
|---|---|---|
| Rating = | 300 | hp |
| Operating Hours= | 4650 | hr/yr |

NOx

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 0.031 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.031 lb/hp-hr * 300 hp = | **9.30** | **lb/hr** | |
| | 9.3 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **21.62** | **tons/yr** | |

CO

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 6.68E-03 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.00668 lb/hp-hr * 300 hp = | **2.00** | **lb/hr** | |
| | 2.004 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **4.66** | **tons/yr** | |

SOx

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 2.05E-03 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.00205 lb/hp-hr * 300 hp = | **0.62** | **lb/hr** | |
| | 0.615 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **1.43** | **tons/yr** | |

PM10

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 2.20E-03 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.0022 lb/hp-hr * 300 hp = | **0.66** | **lb/hr** | |
| | 0.66 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **1.53** | **tons/yr** | |

VOC

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 2.51E-03 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.00251 lb/hp-hr * 300 hp = | **0.75** | **lb/hr** | |
| | 0.753 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **1.75** | **tons/yr** | |

**Diesel Engine (600 hp)**

| | | |
|---|---|---|
| Rating = | 600 | hp |
| Operating Hours= | 4650 | hr/yr |

NOx

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 0.031 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |
| Calculations: | 0.031 lb/hp-hr * 600 hp = | **18.60** | **lb/hr** | |
| | 18.6 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **43.25** | **tons/yr** | |

CO

| | | | | |
|---|---|---|---|---|
| Emission Factor = | 6.68E-03 lb/hp-hr | | | (AP 42, Table 3.3-1, 10/96) |

| | | | | |
|---|---|---|---|---|
| | Calculations: | 0.00668 lb/hp-hr * 600 hp = | **4.01** | **lb/hr** |
| | | 4.008 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **9.32** | **tons/yr** |
| SOx | | | | |
| | Emission Factor = | 2.05E-03 lb/hp-hr | | (AP 42, Table 3.3-1, 10/96) |
| | Calculations: | 0.00205 lb/hp-hr * 600 hp = | **1.23** | **lb/hr** |
| | | 1.23 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **2.86** | **tons/yr** |
| PM10 | | | | |
| | Emission Factor = | 2.20E-03 lb/hp-hr | | (AP 42, Table 3.3-1, 10/96) |
| | Calculations: | 0.0022 lb/hp-hr * 600 hp = | **1.32** | **lb/hr** |
| | | 1.32 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **3.07** | **tons/yr** |
| VOC | | | | |
| | Emission Factor = | 2.51E-03 lb/hp-hr | | (AP 42, Table 3.3-1, 10/96) |
| | Calculations: | 0.00251 lb/hp-hr * 600 hp = | **1.51** | **lb/hr** |
| | | 1.506 lb/hr * 4650 hr/yr * 0.0005 tons/lb = | **3.50** | **tons/yr** |

V. Air Quality Impacts

MAQP #4361-00 is issued for the operation of a portable crushing and screening plant to be initially located in the SE ¼ of Section 22, Township 35 North, and Range 3 West, in Toole County, Montana. MAQP #4361-00 will also cover the plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain $PM_{10}$ nonattainment areas. An Addendum to MAQP #4361-00, including more stringent requirements to protect the non-attainment area, will be required for operating at locations in or within 10 km of certain $PM_{10}$ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana*.

VI. Ambient Air Impact Analysis

The Department determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

| YES | NO | |
|---|---|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property) |
| | X | 4. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)]. |

| | | |
|---|---|---|
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action) |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? |
| | X | 7a. Is the impact of government action direct, peculiar, and significant? |
| | X | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded? |
| | X | 7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |
| | X | Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas) |

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

VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act (MEPA), was completed for this project. A copy is attached.

**DEPARTMENT OF ENVIRONMENTAL QUALITY**
**Permitting and Compliance Division**
**Air Resources Management Bureau**
**P.O. Box 200901, Helena, MT 59620**
**(406) 444-3490**

## ENVIRONMENTAL ASSESSMENT (EA)

*Issued To*: Bay Materials, LLC

*Air Quality Permit number:* 4361-00

*Preliminary Determination Issued:* March 25, 2009
*Department Decision Issued:* May 4, 2009
*Permit Final:* May 20, 2009

1. *Legal Description of Site*: Two miles north northwest of Kevin within Section 22, Township 35 North, Range 3 West, Toole County, Montana.

2. *Description of Project*: BML proposes to operate a crushing and screening plant to produce aggregate sub-base and pit run construction materials. The aggregate processing equipment consists of two self-contained plants, a Hewitt-Robins Crusher and Screen and a Nordberg Powerscreen, which can be set up in parallel or series to provide a wide array of processed aggregate products. For a typical operational setup, unprocessed material is loaded into the Nordberg Powerscreen where it is separated into to product piles by the double deck screen while the throughput proceeds in series to the Hewitt-Robins apparatus for further screening, crushing and blending processes.

3. *Objectives of Project*: At its initial location the project objective is to produce aggregate sub-base and pit-run construction materials in support of county road maintenance efforts and other construction activities in Toole County, Montana.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because BML has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #4361-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

*7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

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

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

A. Terrestrial and Aquatic Life and Habitats:

No additional disturbance to the area permitted for construction of the gravel pit is proposed; therefore, potential impacts to terrestrial and aquatic life and habitats would be minor due increased noise in the area and deposition of relatively minor amounts of air pollutants emitted from the portable crushing and screening plant.

B. Water Quality, Quantity and Distribution:

Water would be used for dust suppression on the surrounding roadways and areas of operation and for emission pollution control during operations. Water use would be relatively minor, therefore impacts on water quantity are expected to be minor. No impacts to ground water quality from pollutant infiltration are expected because PM suppression would be on an as-needed basis, saturated conditions would not be maintained within material or along haul roads. The facility has not proposed to discharge industrial waste water to state surface water, furthermore storm water run-off from the facility would be subject to control and permitting under the Montana Pollutant Discharge Elimination System as applicable. Therefore, potential impacts to state water quality, quantity and distribution would be minor.

C. Geology and Soil Quality, Stability and Moisture:

The crushing and screening operation is proposed to initially be located within an existing gravel pit and disturbed areas. No additional disturbance would be anticipated by the proposed action; therefore, no impacts are expected.

D. Vegetation Cover, Quantity, and Quality:

Since no additional land disturbance beyond that for the gravel pit is included in this proposed action, potential impacts to these species habitats or quantity would be minor due to potential deposition of relatively minor amounts of air pollutions emitted from this facility.

E. Aesthetics:

The proposed facility may be visible from County and/or local roads. However, visible portions of the plant would be difficult to discern from other construction equipment and implements associated with existing gravel pit and local disturbance at large. Furthermore, MAQP #4361-00 contains provisions that control visible emissions from the facility. Therefore potential visual impacts to aesthetics would be minor.

The proposed action contains equipment which would create noise pollution during operation. Sounds studies of similar aggregate processing plants revealed average sound level of 93 decibels at 100 feet (ft) from the respective equipment (Application Materials). The nearest inhabited structure is located 1.5 miles south of the proposed crushing and screening operations. Therefore, potential impacts to aesthetics due to noise would be minor.

F. Air Quality:

The air quality impacts from the crushing and screening plant operations would be minor because MAQP #4361-00 would include conditions limiting the opacity from the plant, as well as requiring, water spray as necessary, and other reasonable precautions to control air pollution. Further, MAQP #4361-00 would limit total emissions from the crushing and screening plant operation and any additional equipment owned and operated by BML up to 250 tons per year or less at any given operating site, excluding fugitive emissions.

Air pollutant deposition caused by the crushing and screening plant operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Similarly air pollutant deposition and impacts due to emissions from the crushing and screening plant would likely be temporary because these types of facility generally do not remain in one location more than 12 months. Overall, any air quality impacts resulting from the proposed crushing and screening plant operation would be minor.

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

The area for the proposed project is in or within 1 mile of the potential species hunting, foraging and occurrence range associated with observed nesting sites of the Ferruginous Hawk (*Buteo regalis*), the McCown's Longspur (*Calcarius mccownii)*, and/or the Chestnut-collared Longspur (*Calcarius ornatus*). This means the proposed crushing and screening operation would be in or within a pre-designated buffer distance from observed nests or nesting sites, given the uncertainty associated with the reported nesting site location.

The Ferruginous Hawk has a State rank of S3B indicating that the breeding population of the species is potentially at risk because of limited and/or declining numbers, rang, habitat, even though it may be abundant in some areas. The hawk has a Global rank of G4 meaning it is uncommon but not rare, and usually widespread; apparently not vulnerable in most of its range, but possibly cause for long-term concern. The U.S. Bureau of Land Management (BLM) status of the hawk is Sensitive, meaning it has been defined by the BLM 6840 Manual as those that

normally occur on BLM administered lands for which BLM has the capability to significantly affect the conservation status of the species through management. The State Director may designate additional categories of special status species as appropriate and applicable to the state's needs. The sensitive species designation, for species other than federally listed, proposed, or candidate species, may include such native species as those that:

1. could become endangered in or extirpated from a state, or within a significant portion of its distribution in the foreseeable future,
2. are under status review by FWS and/or NMFS,
3. are undergoing significant current or predicted downward trends in habitat capability that would reduce a species' existing distribution,
4. are undergoing significant current or predicted downward trends in population or density such that federally listed, proposed, candidate, or State listed status may become necessary,
5. have typically small and widely dispersed populations,
6. are inhabiting ecological refugia, specialized or unique habitats, or
7. are State listed but which may be better conserved through application of BLM sensitive species status.

It is recommended that such species should be managed to the level of protection required by State laws or under the BLM policy for candidate species, whichever would provide better opportunity for its conservation.

The McCown's Longspur has a State rank of S2B indicating that the breeding population of the species is at risk because of very limited and potentially declining numbers and/or making it vulnerable to extirpation in the state. The McCown's Longspur has a Global rank of G4 meaning it is uncommon but not rare, and usually widespread; apparently not vulnerable in most of its range, but a possible cause for long-term concern. The U.S. Bureau of Land Management (BLM) status of this species is Sensitive.

The Chestnut-collared Longspur has a State ranking of S3B indicating that the breeding population of the species is potentially at risk because of limited and/or declining numbers, rang, habitat, even though it may be abundant in some areas. This species has a global ranking of G5 indicating it is common, widespread, and abundant. Not vulnerable in most of its range. The Chestnut-collared Longspur has also been given a status of Sensitive by BLM.

Direct impacts to species of concern are expected to be minor as the current land use at the proposed project location is disturbed and an existing gravel pit that does not provide suitable hunting or foraging habitat for the individual organisms. Furthermore, the proposed project site is not near the center of species range polygons presented (MT National Heritage Program, February 9, 2009) indicating that direct or secondary impacts to nesting sites from dust, noise or other environmental disruptions will be minor. Minor impacts to habitat and/or organisms foraging or hunting within habitat adjacent the gravel pit would be expected as noise or dust may disrupt use of these areas or cause avoidance.

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

Due to the relatively small size of the facility and relatively low potential to emit regulated air pollutants, the crushing and screening plant operation would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Small quantities of water would be used for dust suppression and would control particulate emissions generated through equipment operations and vehicle traffic at the site. Energy requirements would be

accommodated through the use three compression ignition engines that supply power to drive hydraulic engines and mechanical direct-drive systems. In addition, the crushing and screening plant operation would be temporary as it is not permitted to remain at this location for more than twelve months. Further, impacts to air resources would be minor because the source would be small by industrial standards, and would generate relatively minor amounts of regulated pollutants through normal operations.

Overall, any impacts to the above-cited physical and biological resource of the human environment of the project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

I. Historical and Archaeological Sites:

At this time no previously recorded sites are within the designated project area and the likelihood cultural properties would be impacted by this project is low. Therefore, a recommendation for a cultural resource inventory would be unwarranted at this time. However, should cultural materials be inadvertently discovered during this project the State Historic Preservation Offices should be contacted and the site investigated.

J. Cumulative and Secondary Impacts:

The proposed facility would be expected to move from place to place operating as a stand-alone operation or in support of other similar types of operations both in its initially proposed location and in locations throughout the state. The crushing and screening plant operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment of a given area of operation because the facility would emit regulated air pollutants, have some visible profile and noise would be generated from equipment operations. Emissions and noise would cause minor disturbance to a given area because the equipment is relatively small by industrial standards and the facility would initially and typically operate in areas designated and used for such industrial operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

*8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.*

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

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

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity:

The crushing and screening plant operation would cause no disruption to the above-cited social structure or cultural uniqueness and diversity of the human environment in any given area of operation because the source would be a minor industrial source of emissions, would initially and typically operate in an existing industrial site used for such purposes, and would operate on a temporary basis. The predominant use of the surrounding area would not change as a result of the proposed project.

C. Local and State Tax Base and Tax Revenue:

The crushing and screening plant operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source and would conduct only seasonal and intermittent operations. The facility would require the use of approximately 8 employees. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would be portable and the money generated for taxes would be widespread.

Overall, any impacts to the above-cited economic and social resource of the human environment of any given project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall local and state tax base and tax revenue of any given area would not change as a result of the proposed project and any associated impacts would be minor.

D. Agricultural or Industrial Production:

As no additional land disturbance is proposed by this action no additional impacts to agricultural production would be expected. Minor impacts to industrial production would be expected as the facility described in the proposed action produces a construction material. However, the proposed operation remains relatively small by industrial standards. Overall, potential impacts to agricultural and industrial production are expected to be minor.

E. Human Health:

MAQP #4361-00 includes limits and conditions to ensure that the crushing and screening plant facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities:
The western half of the section the facility would be located within is public land administered by the BLM. Some impact to recreation experience on these public lands may occur due to noise; however, impacts would be minor because the crushing and screening plant operation is small by industrial standards and would initially operate in an area of an existing gravel operation. Furthermore, upon moving the operation can be expected to always operate within areas of existing gravel mining or processing facilities. Therefore, overall potential impacts to access to and quality of recreational and wilderness activities are expected to be minor.

G. Quantity and Distribution of Employment:
H. Distribution of Population:

The proposed crushing and screening plant operation would require approximately 8 employees to operate thereby resulting in little, if any, permanent immigration into or emigration out of a given area. Therefore, the proposed project would not impact the above-cited economic and social resources of the human environment at the initially proposed or any other given operating site.

I. Demands for Government Services:

Minor increases in traffic may be experienced seen on existing roadways in the area while the crushing and screening plant operation is in progress. As the plant initially would operate in support of county road maintenance efforts, its products would enable government entities to meet its demands for road maintenance. Government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, any demands for government services would be minor.

J. Industrial and Commercial Activity:

The crushing and screening plant operation would represent only a minor increase in the industrial activity in the proposed initial or any future area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. No significant additional industrial or commercial activity would be expected as a result of the proposed operation crushing and screening operation.

Overall, any impacts to industrial and commercial activity of the human environment from the project area would be minor because the proposed crushing and screening plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

K. Locally Adopted Environmental Plans and Goals:

The Department is not aware of any locally adopted environmental plans or goals in the proposed initial area of operation or any future operating site since MAQP #4361-00 would allow for operations at various locations throughout the state (and unknown at this time). However, if the plant moved to an area classified as non-attainment for $PM_{10}$, the operation would be required to apply for and receive an addendum to MAQP #4361-00 prior to operation at the site. The addendum would include more restrictive requirements to protect the non-attainment area from further degradation. The state standards would be protective of any proposed area of operation.

L. Cumulative and Secondary Impacts:

The crushing and screening plant operations as proposed at its initial location would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation.

The source would be a portable and temporary source. Few, if any, other industrial operations would be expected to result from the permitting and operation of this facility. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility.

Overall, the proposed crushing and screening plant operation would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the initially proposed and any future operating site.

*Recommendation:* No EIS is required. MAQP #4361-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable air quality rules and regulations. In addition, all impacts associated with the proposed action are expected to be insignificant or minor.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

*Individuals or groups contributing to this EA:* Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

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