



Montana Department of
ENVIRONMENTAL **Q**UALITY

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February 25, 2014

Andy Strattman
Blue Mountain Crushing
P.O. Box 526423
Salt Lake City, UT 84152

Dear Mr. Strattman:

Montana Air Quality Permit #5005-00 is deemed final as of February 25, 2014, by the Department of Environmental Quality (Department). This permit is for a non-metallic mineral/crushing operation. 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,

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

Craig Henrikson, P.E.
Environmental Engineer
Air Resources Management Bureau
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JM:CPH
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #5005-00

Andy Stratman
Blue Mountain Crushing
P.O. Box 526423
Salt Lake City, UT 84152

February 25, 2014



MONTANA AIR QUALITY PERMIT

Issued To: Blue Mountain Crushing
P.O. Box 526423
Salt Lake City, UT 84152

Montana Air Quality Permit #5005-00
Application Complete: January 13, 2014
Preliminary Decision: January 22, 2014
Department Decision Issued: February 7, 2014
Permit Final: February 25, 2014
AFS #: 777-5005

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Blue Mountain Crushing. (BMC) 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

BMC proposes to operate a portable non-metallic mineral crushing/screening operation. BMC's operation includes a jaw crushing plant with feeder and cone crusher, two independent screens, associated conveyors and stackers and diesel-fired engines up to a total of 1,150 total brake horsepower (bhp). Each of the two screens is a vibrating screen. A summary of permitted equipment is contained in Section I.A. of the Permit Analysis.

B. Plant Location

BMC operates a portable gravel crushing and screening facility, which will be initially located in Township 4 South, Range 18 East, in Section 24 in Stillwater County, Montana. MAQP #5005-00 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality – Air Resources Management Bureau (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 (PM₁₀) 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 PM₁₀ nonattainment areas.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Sources (NSPS)-affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
 - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity
 - For crushers that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 15% opacity

2. All visible emissions from any other NSPS-affected equipment, other than a crusher (such as screens or conveyor transfers), shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
 - For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity
 - For equipment that commences construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 10% opacity
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
4. Water and spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
5. BMC shall not cause or authorize to be discharged into the atmosphere from any street, road, or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
6. BMC 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. BMC shall not operate more than two crushers at any given time and the total combined maximum rated design capacity for the crushers shall not exceed 1000 tons per hour (TPH) (ARM 17.8.749).
8. BMC shall not operate more than two screens at any given time and the total combined maximum rated design capacity for the screens shall not exceed 1000 TPH (ARM 17.8.749).
9. The combined rating of the diesel-fired engines (directly driving crushers, screens, conveyors, etc.) shall not exceed 1,150 hp at any time and shall be certified as United States Environmental Protection Agency (EPA) Tier II or equivalent (ARM 17.8.749).
10. The total hours of each diesel-fired engine that may be used under this permit shall be limited to 5,000 hours of operation during any rolling 12-month time period (ARM 17.8.749).
11. If the permitted equipment is used in conjunction with any other equipment owned or operated by BMC, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
12. BMC shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, 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 III; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

13. BMC 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).

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 Sections 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. BMC 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).

3. BMC 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 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).

4. BMC 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 BMC as a permanent business record for at least 5 years following the date of the measurement, must be available for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
5. BMC shall document, by month, the hours of operation of each diesel engine/generator. By the 25th of each month, BMC shall calculate the hours of operation of each diesel engine/generator. The monthly information will be used to demonstrate 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).

D. Notification

BMC shall provide the Department with written notification of the actual start-up date of the facility postmarked within 15 days after the actual start-up date (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – BMC shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (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 BMC fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving BMC 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 the Department at the location of the permitted source.
- G. Air Quality Operation Fees - Pursuant to Section 75-2-220, MCA, failure to pay of the annual operation fee by BMC 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. BMC shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

MONTANA AIR QUALITY PERMIT (MAQP) ANALYSIS
Blue Mountain Crushing
MAQP #5005-00

I. Introduction/Process Description

Blue Mountain Crushing (BMC) owns and operates a portable non-metallic mineral processing plant.

A. Permitted Equipment

MAQP #5005-00 allows the operation of a jaw crushing plant with feeder and cone crusher, two independent screens, associated conveyors and up to 1,150 total brake horsepower (bhp) as determined by all diesel-fired engines on site. A limit was taken on total facility operating hours to keep the total oxides of nitrogen (NO_x) emissions below the modeling threshold. The main permitted equipment is listed below: This permit is written de minimis friendly to allow BMC to use alternate diesel-fired engines as long as the total hp rating of the units does not exceed that noted below.

- Feed Hopper
- Jaw Crusher with associated integral vibrating screen rated up to 500 tons per hour (tph)
- Cone Crusher rated up to 500 tph
- Two Screens each rated up to 500 tph
- Up to 1,150 bhp as rated by all diesel-fired engines certified EPA Tier II or equivalent
- Up to a total of 9 conveyors and stackers

B. Source Description

Blue Mountain Crushing (BMC) proposes to use this crushing/screening plant and associated equipment to crush and screen rock material for use as a raw material. For a typical operational setup, materials are first loaded into the feed hopper, screened at the inlet to the crusher, with larger material recycled for additional crushing with product transferred to storage piles. Diesel-fired engines provide the on-site power for all permitted equipment.

BMC's initial location is the home pit and is located at 45.474 latitude and 109.456 West longitude. The township, range, section description is Township 4 South, Range 18 East in Section 24 in Stillwater County, Montana.

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 locations of complete copies of all applicable rules and regulations 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).

BMC 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 17.8.204 Ambient Air Quality Monitoring
2. ARM 17.8.210 Ambient Air Quality Standard for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standard for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standard for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

BMC 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, BMC 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 Processes. 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 Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by BMC, the portable crushing/screening operation is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
 - a. 40 CFR 60, Subpart A. – General Provisions apply to all equipment of 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. Based on the information submitted by BMC, the portable crushing equipment to be used under MAQP #5005-00 is subject to this subpart because the facility is beginning operation after August 31, 1983.
 - c. 40 CFR 60, Subpart III – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary compression ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. As the permit is written in a de minimis-friendly manner, the CI ICE equipment

to be used by BMC under MAQP #5005-00 is potentially subject to this Subpart if it stays in a location for twelve consecutive months. Engines that are added in the future may also be subject to this subpart.

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 (NESHAPs) for Source Categories. Based on the information submitted by BMC, the associated diesel-fired engine(s) are applicable to 40 CFR Part 63, as follows:
 - a. 40 CFR 63, Subpart A – General Provisions apply to all equipment of facilities subject to a NESHAP Subpart(s) as listed below:
 - b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. A RICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Based on the information submitted by BMC, the RICE equipment to be used under this permit may be subject to this subpart because they are an area source of HAP emissions and the engine may remain at the same home pit location for more than 12 consecutive months.

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. BMC submitted the appropriate 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 concrete plant, mineral crusher, or mineral screen that has the potential to emit (PTE) greater than 15 tons per year (TPY) of any pollutant. BMC has a PTE greater than 15 TPY of 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. BMC 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. BMC submitted an affidavit of publication of public notice for the January 16, 2014, issue of the *Stillwater County News* a newspaper of general circulation in Bozeman in Gallatin 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 BMC 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 MAQP 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 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 TPY of any pollutant;
 - b. PTE > 10 TPY 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 TPY 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 MAQP #5005-00 for BMC, the following conclusions were made:
 - a. The facility's PTE is less than 100 TPY for any pollutant.
 - b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is potentially subject to area source provisions of a current National Emissions Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart ZZZZ).
 - e. This facility is subject to current NSPS standards (40 CFR 60, Subpart OOO and potentially subject to Subpart IIII).
 - f. This source is not a Title IV affected source.
 - g. This source is not a solid waste combustion unit.
 - h. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that BMC will be a minor source of emissions as defined under Title V. While BMC has accepted federally-enforceable limits on annual hours of operation which result in reduced potential emissions, the primary function of these limits is to reduce potential emissions to a level that eliminates the need for the facility to quantitatively demonstrate compliance with ambient air quality standards based on Department policy. By taking these federally-enforceable conditions into account when analyzing the PTE, BMC is a true minor source with regards to Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, BMC will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. BMC 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. All visible emissions from the facility are limited to opacity as referenced in Sections II.A.1 and II.A.2 (ARM 17.8.752). In addition, all visible emissions from any other associated equipment are limited to 20% opacity. Also, BMC must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking areas, and general plant property (ARM 17.8.752).

A. Diesel-Fired Engine(s)

Due to the limited amount of emissions produced by the proposed diesel-fired engines used in association with MAQP #5005-00 and the lack of cost effective add-on controls, add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no add-on controls would constitute BACT for the diesel-fired engine(s).

In addition, any new diesel-fired engine would likely be required to comply with the federal engine emission limitations including, for example, EPA Tier emission standards for non-road engines (40 CFR Part 1039), NSPS emission limitations for stationary compression ignition engines (40 CFR 60, Subpart IIII), or National Emissions Standards for Hazardous Air Pollutant Sources for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). Therefore, the Department has determined that compliance with applicable federal standards and proper operation and maintenance of the engine constitutes BACT for this engine. BACT for SO₂ emissions shall be satisfied by burning only ultra-low sulfur diesel (15 ppm) as referenced in 40 CFR 89. Appropriately rated EPA Tier emission standards rated models also have low particulate, PM₁₀, CO, and VOCs emitted, and it is economically infeasible to require pollution controls on the diesel-fired engine(s) for these additional pollutants. The control options selected have controls and control costs similar to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The current proposed diesel-fired engine(s) are certified as EPA Tier II.

B. Process and Fugitive Particulate Emissions

BMC must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking lots, and the general plant area. Reasonable precautions include treating 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. Using water and/or chemical dust suppressant to comply with the reasonable precautions limitation will be considered BACT. BMC shall also use water spray bars as necessary to maintain compliance with the opacity and reasonable precaution limitations as referenced in Section II.A.5

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

Emission Source	Emissions Tons/Year [PTE]							
	PM	PM ₁₀	PM _{2.5}	PM _{Cond.}	CO	NO _x	SO _x	VOC
Two Crushers	3.00	1.35	0.25					
Truck Unloading (Assume all material is unloaded that can be processed in crusher)	0.04	0.04	--					
Screens (Two Vibrating)	5.50	1.85	0.13					
Transfer Points (Assume 7 Transfer Points)	1.27	0.42	0.12					
Pile Formation	8.08	3.82	0.58					
Truck Loading (Assume all material is eventually loaded)	0.35	0.12	0.12					
Diesel Generators (Total 1150 hp)	0.47	0.47	0.63	0.15	0.69	16.47	5.89	7.22
Unpaved Roadways (Haul Roads)	5.39	1.49	0.15					
EMISSIONS (Excluding Haul Roads)	18.72	8.07	1.82	0.15	0.69	16.47	5.89	7.22

<i>a. Emission Inventory reflects enforceable limits on hours of operation</i>							
CO, carbon monoxide							
NO _x , oxides of nitrogen							
PM, particulate matter							
PM ₁₀ , particulate matter with an aerodynamic diameter of 10 microns or less							
PM _{2.5} , particulate matter with an aerodynamic diameter of 2.5 microns or less							
PM _{Cond.} , Condensable particulate matter							
SO ₂ , oxides of sulfur							
TPY, tons per year							
VOC, volatile organic compounds							

Crusher Capacity

Process Rate: 1000 ton/hr (Two Crushers)
 Operating Hours: 5000 hours/year

PM Emissions:

Emission Factor: 0.0012 lbs/ton [AP-42 Table 11.19.2-2 8/04]

Calculations: (0.0012 lbs/ton) * (1,000.00 ton/hour) = 1.20 lbs/hr
 (1.20 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) = 3.00 TPY

PM₁₀
Emissions:

Emission Factor 0.00054 lbs/ton [AP-42 Table 11.19.2-2 8/04]
Calculations (0.00054 lbs/ton) * (1,000.00 ton/hour) = 0.54 lbs/hr
(0.54 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) = 1.35 TPY

PM_{2.5}
Emissions:

Emission Factor 0.0001 lbs/ton [AP-42 Table 11.19.2-2 8/04]
Calculations (0.0001 lbs/ton) * (1,000.00 ton/hour) = 0.10 lbs/hr
(0.10 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) = 0.25 TPY

Truck Unloading (Assume all material is unloaded that can be processed in the crusher)

Process Rate: 1000.0 ton/hr (Assumes each crusher operates independently)
Operating Hours 5000 hours/year

PM₁₀
Emissions:

Emission Factor 0.000016 lbs/ton [AP-42 Table 11.19.2-2 8/04]
Calculations (0.000016 lbs/ton) * (1,000.00 ton/hour) = 0.02 lbs/hr
(0.02 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) = 0.04 TPY

Screening

Process Rate: 1000 ton/hr (Two Screens)
Operating Hours 5000 hours/year

PM Emissions: (Screening controlled)

Emission Factor 0.00220 lbs/ton [AP-42 Table 11.19.2-2 8/04]
Calculations (0.0022 lbs/ton) * (1,000.00 ton/hour) = 2.20 lbs/hr
(2.20 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) = 5.50 TPY

PM₁₀
Emissions:

Emission Factor 0.00074 lbs/ton [AP-42 Table 11.19.2-2 8/04]
Calculations (0.00074 lbs/ton) * (1,000.00 ton/hour) = 0.74 lbs/hr
(0.74 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) = 1.85 TPY

PM_{2.5}

Emissions:

Emission Factor	0.00005 lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00005 lbs/ton) * (1,000.00 ton/hour) =		0.05	lbs/hr
	(0.05 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =		0.13	TPY

Transfer Points (Assume 5 Transfer Point that are Controlled)

Process Rate:	5000	ton/hr (total of stacker and conveyors each handling 500 tph)
Operating Hours	3640	hours/year

PM Emissions: (Conveyor Transfer Points)

Emission Factor	0.00014 lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00014 lbs/ton) * (5,000.00 ton/hour) =		0.70	lbs/hr
	(0.70 lbs/hr) * (3640 hrs/yr) *(0.0005 tons/lb) =		1.27	TPY

PM₁₀

Emissions:

Emission Factor	0.000046 lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000046 lbs/ton) * (5,000.00 ton/hour) =		0.23	lbs/hr
	(0.23 lbs/hr) * (3640 hrs/yr) *(0.0005 tons/lb) =		0.42	TPY

PM_{2.5}

Emissions:

Emission Factor	0.000013 lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000013 lbs/ton) * (5,000.00 ton/hour) =		0.07	lbs/hr
	(0.07 lbs/hr) * (3640 hrs/yr) *(0.0005 tons/lb) =		0.12	TPY

Pile Formation (Assume equipment thru- put is crusher total capacity)

Process Rate:	1000	ton/hr	Equation 1 from AP-42 Sec 13.2.4.3 11/06	
Operating Hours	5000	hrs/year	U = wind speed miles per hour	8.15 (Typical Value)
			k = particle size multiplier	0.74 AP-42 Sec 13.2.4-3 11/06
			M = Moisture content %	2.52 (Typical Value)

Emission Factor	0.003233753 lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4		
Calculations	(0.00323 lbs/ton) * (1,000.00 ton/hour) =		3.23	lbs/hr
	(3.23 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =		8.08	TPY

			Equation 1 from AP-42 Sec 13.2.4.3 11/06		
			U = wind speed miles per hour	8.15	8.15 (Typical Value)
			k = particle size multiplier	0.35	0.35 AP-42 Sec 13.2.4-3 11/06
PM ₁₀ Emissions:			M = Moisture content %	2.52	2.52 (Typical Value)
Emission Factor	0.001529478	lbs/ton	$E = k * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$		
Calculations	(0.00153 lbs/ton) * (1,000.00 ton/hour) =		1.53	lbs/hr	
	(1.53 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =		3.82	TPY	

			Equation 1 from AP-42 Sec 13.2.4.3 11/06		
			U = wind speed miles per hour	8.15	8.15 (Typical Value)
			k = particle size multiplier	0.053	0.35 AP-42 Sec 13.2.4-3 11/06
PM _{2.5} Emissions:			M = Moisture content %	2.52	2.52 (Typical Value)
Emission Factor	0.000231607	lbs/ton	$E = k * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$		
Calculations	(0.00023 lbs/ton) * (1,000.00 ton/hour) =		0.23	lbs/hr	
	(0.23 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =		0.58	TPY	

Truck Loading (Assume all material is eventually loaded)

Modeled as Truck Loading Conveyor

Process Rate:	1000	ton/hr
Operating Hours	5000	hours/year

PM Emissions:

Emission Factor	0.00014	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00014 lbs/ton) * (1,000.00 ton/hour) =		0.14	lbs/hr	
	(0.14 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =		0.35	TPY	

PM₁₀ Emissions:

Emission Factor	0.000046	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000046 lbs/ton) * (1,000.00 ton/hour) =		0.05	lbs/hr	
	(0.05 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =		0.12	TPY	

Diesel Fired Engines (Total 1150 hp)

Engine Rating:	1150	hp	
Operating Hours:	5000	hrs/yr	
Fuel Input	8.05	MMbtu/hr	BSFC = 7,000 BTU/hp-hr (AP42 Table 3.3-1 10/96)
	58.759	gallons/hr	(137,000 BTU/gal)

Particulate Emissions:

PM Emissions:

Emission Factor	0.000165	lb/hp-hr	[CAT Spec Sheet]	
Calculations	(0.000165 lb/hp-hr) * (1150 hp) =			0.19 lbs/hr
	(0.19 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.47 TPY

PM₁₀ Emissions:

Emission Factor	0.000165	lb/hp-hr	[Cat Spec Sheet]	
Calculations	(0.000165 lb/hp-hr) * (1150 hp) =			0.19 lbs/hr
	(0.19 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.47 TPY

PM_{2.5} Emissions (filterable):

Emission Factor	0.000165	lb/hp-hr	[Cat Spec Sheet]	
Calculations	(0.000165 lb/hp-hr) * (1150 hp) =			0.19 lbs/hr
	(0.19 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.47 TPY

PM_{2.5} Emissions (condensable):

Emission Factor	0.0077	MMBtu	[AP-42 3.4-1, 10/96]	
Calculations	(0.0077 lb/MMBtu) * (8.05 MMBtu/hr) =			0.06 lbs/hr
	(0.06 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.15 TPY

CO Emissions:

Emission Factor	0.00024	lb/hp-hr	[Cat Spec Sheet]	
Calculations	(0.00024 lb/hp-hr) * (1150 hp) =			0.28 lbs/hr
	(0.28 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.69 TPY

NO_x Emissions:

Emission Factor	0.0057	lb/hp-hr	[Cat Spec Sheet]	
Calculations	(0.0057 lb/hp-hr) * (1150 hp) =			6.59 lbs/hr
	(6.59 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			16.47 TPY

SO_x

Emissions:

Emission Factor	0.00205 lb/hp-hr	[AP-42 3.3-1, 6/06]	
Calculations	(0.0021 lb/hp-hr) * (1150 hp) =		2.36 lbs/hr
	(2.36 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =		5.89 TPY

VOC

Emissions:

Emission Factor	0.00251 lb/hp-hr	[AP-42 3.3-1, 6/06]	
Calculations	(0.0025 lb/hp-hr) * (1150 hp) =		2.89 lbs/hr
	(2.89 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =		7.22 TPY

Unpaved Roadways (Haul Roads)

Emission Factor	$EF = k(s/12)^a * (W/3)^b$	[AP-42 13.2.2.2, 11/06]
	EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)	
	k, Empirical Constant PM =	4.9 [AP-42 Table 13.2.2-2, 11/06]
	k, Empirical Constant PM ₁₀ =	1.5 [AP-42 Table 13.2.2-2, 11/06]
	k, Empirical Constant PM _{2.5} =	0.15 [AP-42 Table 13.2.2-2, 11/06]
	s, Surface Material Silt Content (%) =	7.1 [AP-42 Table 13.2.2-1, 11/06]
	W, Mean Vehicle Weight (tons) =	48 [Estimated]
	a, Empirical Constant PM =	0.7 [AP-42 Table 13.2.2-2, 11/06]
	a, Empirical Constant PM ₁₀ and PM _{2.5} =	0.9 [AP-42 Table 13.2.2-2, 11/06]
	b, Empirical Constant PM, PM ₁₀ and PM _{2.5} =	0.45 [AP-42 Table 13.2.2-2, 11/06]

PM Emissions(uncontrolled): PM₃₀

Emission Factor	$EF = 4.9 * (7.1/12)^{0.7} * (48/3)^{0.45} =$	11.82 lbs/VMT
Calculations	(11.82 lbs/VMT) * (5 miles/day) =	59.08 lbs/day
	(59.08 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =	10.78 TPY
	50% Control Efficiency	5.39 TPY

PM₁₀
Emissions(uncontrolled):

Emission Factor	$EF = 1.5 * (7.1/12)^{0.9} * (48/3)^{0.45} =$	3.26 lbs/VMT
Calculations	(3.26 lbs/VMT) * (5 miles/day) =	16.28 lbs/day
	(16.28 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =	2.97 TPY
	50% Control Efficiency	1.486 TPY

PM_{2.5}
Emissions(uncontrolled):

Emission Factor	$EF = 0.15 * (7.1/12)^{0.9} * (48/3)^{0.45} =$	0.33 lbs/VMT
Calculations	(0.33 lbs/VMT) * (5 miles/day) =	1.63 lbs/day
	(1.63 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =	0.30 TPY
	50% Control Efficiency	0.15 TPY

V. Existing Air Quality

This permit is for a portable facility to be located in Township 4 South, Range 18 East, in Section 24 in Stillwater County, Montana, and in those areas which have been designated unclassified/attainment with all ambient air quality standards. MAQP #5005-00 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM₁₀ 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 PM₁₀ nonattainment areas.

VI. Air Quality Impacts

This permit contains conditions and limitations that would protect air quality for the site and surrounding area. Further more, this facility is a portable source that would operate on an intermittent and temporary basis, so any impacts to air quality will be minor and of limited duration.

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #5005-00, 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.

VIII. Taking or Damaging Implication Analysis

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

YES	NO	
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, was completed for this project. A copy is attached.

Analysis Prepared By: Craig Henrikson
Date: January 24, 2013

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: *Blue Mountain Crushing*
 P.O. Box 526423
 Salt Lake City, UT 84152

Montana Air Quality Permit Number: *5005-00*

Preliminary Determination Issued: *01/22/2014*

Department Decision Issued: *2/7/2014*

Permit Final: *2/25/2014*

1. *Legal Description of Site:* Blue Mountain Crushing. (BMC) submitted an application to crush and screen rock material for use as a raw material. BMC would initially be located in Township 4 South, Range 18 East, in Section 24 in Stillwater County, Montana. However, Montana Air Quality Permit (MAQP) #5005-00 would apply while operating at any location in Montana, except within those areas having a Department-approved permitting program, those areas considered to be 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 would be required if BMC intends to locate in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* An addendum would be required for locations in or within 10 km of certain PM₁₀ nonattainment areas.
2. *Description of Project:* The permit application is for the operation of a portable non-metallic mineral crushing and screening operation including two crushers, two independent screens, up to a total of eight conveyors and stackers, diesel-fired engines up to 1,150 total brakehorsepower (bhp) and associated equipment.
3. *Objectives of Project:* The object of the project would be to produce material which can be used for road projects. The issuance of MAQP #5005-00 would allow BMC to operate the permitted equipment at various locations throughout Montana, including the proposed initial site location.
4. *Alternatives Considered:* In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because permitting BMC's equipment in a de minimis fashion should facilitate 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 listing of the enforceable permit conditions and a permit analysis, including a Best Available Control Technology (BACT) analysis, is included in this permit action.
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 the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would 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

The operation of the crushing and screening facility would have minor impacts upon the terrestrial and aquatic life and habitats in areas where the facility may operate. Although air pollutant deposition would occur in the areas where the equipment would operate, the size and nature of the operation, dispersion characteristics of pollutants, and conditions placed in MAQP #5005-00 would result in minor impacts as the site is an existing gravel pit. Therefore, the operation of the equipment would present minor impacts on terrestrial and aquatic life is present in the area of potential operation.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the crushing and screening facility would operate, there would only be minor impacts on water quality, quantity, and distribution because of the nature, size, operational requirements, and conditions placed in MAQP #5005-00 for the facility. Further, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor. In addition, any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area. Overall, the operation of the equipment would have minor impacts to water quality, quantity, and distribution in the area of operations.

C. Geology and Soil Quality, Stability, and Moisture

As a result of the operation of the crushing and screening facility, there would be minor impacts to the geology and soil quality, stability, and moisture near the equipment's operational area because of the increased vehicle traffic and deposition of pollutants from the

facility. As explained in Section 7.F. of this EA, the facility's size, operational requirements, nature of the operation being located near an existing gravel pit, and conditions placed in MAQP #5005-00 would minimize the impacts from deposition.

D. Vegetation Cover, Quantity, and Quality

The operation of the crushing and screening equipment would result in no impacts to the vegetative cover, quantity, and quality, because the proposed operation would be located near an existing gravel pit. As explained in Section 7.F. of this EA, the Department determined that, due to the nature of the operation, conditions placed in MAQP #5005-00, and dispersion characteristics of the emissions, any impacts from deposition would not be expected. In addition, because the water usage would be limited to use in particulate control (as described in Section 7.B. of this EA) and presence at an existing gravel pit (as described in Section 7.C. of this EA), corresponding vegetative impacts from water and soil disturbance would not occur.

E. Aesthetics

The crushing and screening facility would be visible and would create noise in the areas where it would operate. MAQP #5005-00 would include conditions to control emissions (including visible emissions) from the equipment and the surrounding work area. The diesel-fired equipment would be moderately sized by industrial standards and would be used to power permitted equipment operated by BMC. The proposed project site is within a previous gravel pit site and therefore, any aesthetic impact would be minor.

F. Air Quality

Air quality impacts from the operation of the crushing and screening facility would be minor because emissions from the crushing and screening facility would be relatively small when controls are applied to the equipment. Dispersion and deposition of pollutants would occur from the operation of the crushing and screening facility; however, the Department determined that any air quality impacts from the pollutants would be minor due to dispersion characteristics (from factors such as wind speed and wind direction) and conditions placed in MAQP #5005-00.

MAQP #5005-00 would include conditions limiting opacity from the crushing and screening facility and would require that reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, or the general work area. In addition, the permit would also limit total emissions from the crushing and screening facility and any additional equipment operated at the same site to 250 tons per year or less. Further, because the crushing and screening facility has less than 100 tons per year of potential emissions for any pollutant generated, the Department determined that the crushing and screening facility is a minor source of emissions as defined under Title V.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify species of special concern that may be present in the proposed areas of operation, the Department contacted the Montana Natural Heritage Program (MNHP) for a review of species of special concern. Four species of concern were identified within the area where the crushing and screening facility is proposed. These include the Great Blue Heron, the Bald Eagle, Bobolink and the Greater Short-horned Lizard. Issuance of this permit would increase emissions to the atmosphere near any location proposed for the operation of the crushing and screening facility. However, as explained in Section 7.F. of this EA, because of

the nature of the crushing and screening facility, and conditions placed in MAQP #5005-00, any impacts to unique endangered, fragile, or limited environmental resources from the deposition of pollutants would not be expected given the location of the proposed facility at the existing gravel pit site.

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

Water would be used on particulate emissions at equipment transfer points, haul roads, access roads, parking lots, or the general plant property, as necessary, to control dust resulting from use of the crushing and screening facility. The diesel-fired equipment would consume energy from diesel fuel, a non-renewable resource. Generally, the operations are seasonal and would result in small demands on environmental resources. Therefore, any impacts on the demands of the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

According to correspondence with the Montana State Historic Preservation Office (SHPO), there have been previously recorded sites in the same section of the proposed site location. However, given the proposed site is an existing gravel pit, no impact to historical or archaeological sites would likely occur. If any new land disturbance occurs, it will be into an existing alfalfa field which has already been disturbed through farming practices. Therefore, it is unlikely that the project would affect any historic or archaeological site and no resulting impacts would be expected.

J. Cumulative and Secondary Impacts

The operation of the crushing and screening facility would cause minor effects to the physical and biological environment because the facility may operate at different locations under the permit conditions. However, any operations would have to apply for and receive the appropriate permits in addition to this air quality permit prior to operation. The permits would address the environmental impacts associated with the operations at the proposed site.

The crushing and screening facility operations would be limited by MAQP #5005-00 to total emissions of 250 tons/year or less from non-fugitive crushing and screening facility operations and any other additional equipment used at any given site.

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

The operation of the crushing and screening facility would not likely alter or disrupt any local lifestyles or communities (social structures and mores) in the area of operation because the limited operation of the facility and use in an existing gravel pit.

B. Cultural Uniqueness and Diversity

The operation of crushing and screening equipment would have no impact on the cultural uniqueness and diversity because the equipment operations would be at a site which is an existing gravel pit.

C. Local and State Tax Base and Tax Revenue

The proposed operation of the crushing and screening facility would minor impact on local and state tax base and tax revenue as the operation is very small in size. Some new jobs will be created during the operation of this facility.

D. Agricultural or Industrial Production

No impact on agricultural or industrial production would occur as the proposed site for the crushing and screening facility would be located in an existing gravel pit.

E. Human Health

MAQP #5005-00 would incorporate conditions to ensure that the crushing and screening facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of

this EA, the Department determined that any impacts from deposition of pollutants would be minor due to dispersion characteristics and conditions placed in MAQP #5005-00. The air emissions from this facility would be minimized by opacity limitations on the crushing and screening facility and the surrounding area of operation.

F. Access to and Quality of Recreational and Wilderness Activities

This plant will be located on previously disturbed property, and in a previously used industrial area (gravel operation) and therefore does not impact access to recreational and wilderness activities.

G. Quantity and Distribution of Employment

Given the relatively small production capacity of the operation, it is not expected that the activities from the operation of the crushing and screening facility would significantly affect the quantity and distribution of employment in any given area. A small number of new jobs are expected to be created to operate the proposed equipment.

H. Distribution of Population

Given the relatively small production capacity of the operation, it is not expected that the activities from the crushing and screening facility would disrupt the normal population distribution of any given area. No secondary activities are identified to move to the current proposed area as a result of the current project.

I. Demands of Government Services

Government services may be required for acquiring the appropriate permits and ensuring compliance with the permits that are issued; however, the government services required would be minor.

J. Industrial and Commercial Activity

The operation of the crushing and screening facility would represent only a minor increase in the industrial activity in any given area. No additional industrial or commercial activities are identified from the operation of the crushing and screening facility and secondary activities are not expected from the limited operation facility. Therefore, no industrial and commercial activity resulting from the current permit action is expected.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals at any given site that the crushing and screening facility may be operated at under MAQP #5005-00. The conditions identified in MAQP #5005-00 would apply to operation of the crushing and screening facility at the proposed initial site as well as any other location in Montana as described in Section 1 of this EA.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary social and economic impacts from this project would be minor because the crushing and screening facility is considered a small sized operation by industrial standards. No new businesses are expected to be drawn to the area as a result of the county run operation. In addition, any social and economic impacts that are created would be minor because of the relatively small size and nature of the operation.

Recommendation: No Environmental Impact Statement (EIS) is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: Because this crushing and screening facility is relatively small in size and must use reasonable precautions to control emissions, any impacts created would be minor impacts.

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.*

EA Prepared by: Craig Henrikson

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