

## AIR QUALITY PERMIT

Issued To: Bates Construction, Inc  
20323 Norris Road  
Manhattan, MT 59741

Permit: #2960-02  
Application Complete: 4/19/07  
Preliminary Determination Issued: 5/9/07  
Department's Decision Issued: 6/11/07  
Permit Final: 6/27/07  
AFS: #777-2960

An air quality permit, with conditions, is hereby granted to Bates Construction, Inc. (Bates), pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### SECTION I. Permitted Facilities

#### A. Plant Location

Permit #2960-02 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of nonattainment areas for particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>). *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Bates will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of any PM<sub>10</sub> nonattainment area. The plant was originally located at the Northwest ¼ of Section 10, Township 3 South, Range 4 East, in Gallatin County, Montana.

#### B. Current Permit Action

On April 19, 2007, the Department received a complete application for a permit modification from Bates. Specifically, under the current permit action Bates proposed the addition of the following equipment to permitted operations: three crushers, each with a maximum rated material throughput design capacity of 500 tons per hour (TPH); a screen with a maximum rated material throughput design capacity of 500 TPH; and two diesel fuel-fired generators, each with a maximum rated design capacity of 1000 kilowatts (kW). In addition, the current permit action identifies all permitted equipment in a de minimis friendly format for the purpose of providing Bates with operational flexibility under the terms of the permit. Further, the current permit action establishes a Title V synthetic minor limit on Bates by including an enforceable condition limiting the number of allowable operating hours for the three permitted diesel fuel-fired generators to a level that results in allowable emissions which are less than the Title V major source permitting threshold.

### 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, ARM 17.8.752, 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, ARM 17.8.752, and 40 CFR, 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 and ARM 17.8.752).
4. Water and water spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
5. Bates shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308 and ARM 17.8.752).
6. Bates shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749 and ARM 17.8.752).
7. Bates shall not operate more than four crushers at any given time and the combined maximum rated design capacity shall not exceed 2,000 tons per hour (ARM 17.8.749).
8. Total combined crushing production of the four crushers shall not exceed 17,520,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. Bates shall not operate more than three screens at any given time and the combined maximum rated design capacity shall not exceed 1,500 tons per hour (ARM 17.8.749).
10. Total combined screening production of the three screens shall not exceed 13,140,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. Bates shall not operate more than three diesel fuel-fired generators at any given time and the combined maximum rated design capacity shall not exceed 2500 kW (ARM 17.8.749).
12. Total combined operation of the three diesel fuel-fired generators shall not exceed 5,700 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 Bates, 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 and ARM 17.8.752).
14. Bates 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. Bates 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 Compression Ignition Internal Combustion Engines (ARM 17.8.340 and 40 CFR 60, Subpart IIII).

## 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. NSPS affected equipment at the Bates facility includes each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station, which was constructed, reconstructed, or modified after August 31, 1983 (ARM 17.8.340 and 40 CFR 60, General Provisions 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. In addition, 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 intent to transfer form and 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 17.8.765).
2. Bates 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. Bates shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit.

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(1)(d) (ARM 17.8.745).

4. Bates 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 Bates 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.

5. Bates shall document, by month, the total combined crushing production from the facility. By the 25<sup>th</sup> day of each month, Bates shall sum the total combined crushing production of the facility during the previous 12 months to verify compliance with the limitation in Section II.A.8. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
6. Bates shall document, by month, the total combined screening production from the facility. By the 25<sup>th</sup> day of each month, Bates shall sum the total combined screening production of the facility during the previous 12 months to verify compliance with the limitation in Section II.A.10. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
7. Bates shall document, by month, the total combined operating hours of the three diesel fuel-fired generators. By the 25<sup>th</sup> day of each month, Bates shall sum the total combined operating hours of the three diesel fuel-fired generators during the previous 12 months to verify compliance with the limitation in Section II.A.12. A written report of the compliance verification shall be submitted along with the annual emissions inventory (ARM 17.8.749).
8. Bates shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission 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, Bates shall notify the Department of the date of commencement of construction of the affected equipment. NSPS affected equipment at the Bates facility would include each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station, which was constructed, reconstructed, or modified after August 31, 1983, and any diesel generator that was manufactured after April 1, 2006, or modified or reconstructed after July 11, 2005 (ARM 17.8.340 and 40 CFR 60, Subpart A, Subpart OOO, and Subpart III).
2. Within 15 days of the actual start-up date of any NSPS affected equipment, Bates shall submit written notification to the Department of the initial start-up date of the affected equipment. NSPS affected equipment at the Bates facility would include each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station, which was constructed, reconstructed, or modified after August 31, 1983, and any diesel generator that was manufactured after April 1, 2006, or modified or reconstructed after July 11, 2005 (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, Bates 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 – Bates 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 (i.e. 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 Bates fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Bates 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 therefor, 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, as amended by the 1991 Legislature, failure to pay the annual operation fee by Bates may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must be begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (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. Bates 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.

Permit Analysis  
Bates Construction, Inc.  
Permit #2960-02

I. Introduction/Process Description

A. Permitted Equipment

Bates Construction, Inc. (Bates) owns and operates a portable crushing/screening facility. Permitted equipment at the facility includes, but is not limited to, the following:

1. Four crushers, each with a maximum rated design capacity of 500 tons per hour (TPH);
2. Three screens, each with a maximum rated design capacity of 500 TPH;
3. (1) diesel-fired generator with a maximum rated design capacity of 500 kilowatts (kW);
4. Two diesel fuel-fired generators, each with a maximum rated design capacity of 1000 kW; and
5. Associated material handling equipment (load hopper, conveyors, transfer points, etc.).

B. Source Description

Bates proposes to use this crushing/screening plant and associated equipment to process sand and gravel materials for use in various construction operations. For a typical operational setup, aggregate materials are loaded into the crushing/screening plant(s) by a feeder. Materials are crushed and sent via conveyors to the screens for appropriate sizing and ultimately to a stockpile for sale and use in construction operations.

C. Permit History

On August 2, 1996, the Department of Environmental Quality (Department) received a complete permit application from Bates requesting a permit for the operation of a portable crushing/screening facility consisting of a 1995 Torgerson Impact Crusher, a 1978 El Jay Two-Deck Screen, two 1996 Spomac 24'X40' Conveyors, a 1996 42' x 20' homebuilt conveyor, a 1996 113-kW Cummins diesel generator; and associated equipment. **Permit #2960-00** was issued final on March 11, 1996.

On February 27, 2003, Bates submitted a complete application for the modification of Permit #2960-00. Specifically, the modification added a 1999 JCI Cone Crusher (400 TPH), a 1999 JCI Three-Deck Screen (450 TPH), and a 300-kW diesel generator to the existing permit and removed a 113-kW diesel generator from the permit. **Permit #2960-01** was issued final on April 30, 2003, and replaced Permit #2960-00.

D. Current Permit Action

On April 19, 2007, the Department received a complete application for permit modification from Bates. Specifically, under the current permit action Bates proposed the addition of the following equipment to permitted operations: three crushers, each with a maximum rated material throughput design capacity of 500; a screen with a maximum rated material throughput design capacity of 500 TPH; and two diesel fuel-fired generators, each with a maximum rated design capacity of 1000-kW. In addition, the current permit action identifies all permitted equipment in a de minimis friendly format for the purpose of providing Bates with operational flexibility under the terms of the permit. Further, the

current permit action establishes a Title V synthetic minor limit on Bates by including an enforceable condition limiting the number of allowable operating hours for the three permitted diesel fuel-fired generators to a level that results in allowable emissions which are less than the Title V major source permitting threshold.

Further, after issuance of the preliminary determination on Permit #2960-02, the Department noticed an error contained in Section II.A.12. The appropriate enforceable limit on combined diesel generator operating hours is 5,700 hours during any rolling 12-month time period rather than 1,900 hours, as required in the preliminary determination. This condition has been corrected in the Department's decision. **Permit #2960-02** replaces Permit #2960-01.

#### E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

### II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. 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).

Bates 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

Bates must maintain compliance with the applicable National and Montana Ambient Air Quality Standards (NAAQS/MAAQS).

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, Bates 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 rule.
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 rule.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, shall comply with the standards and provisions of 40 CFR Part 60.

#### 40 CFR 60, Subpart A, General Provisions

The provisions of this part apply to the owner or operator of any source which contains an affected facility.

#### 40 CFR 60, Subpart OOO, NSPS for Non-Metallic Mineral Processing Plants

In order for a crushing/screening plant to be subject to NSPS requirements under Subpart OOO, two specific criteria must be met. First, the crushing/screening plant must meet the definition of an affected facility, and second, the equipment in question must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Bates, the permitted crushing/screening equipment may be subject to NSPS requirements. NSPS affected equipment at the Bates facility would include each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, and enclosed truck or railcar loading station, which was constructed, reconstructed, or modified after August 31, 1983.

#### 40 CFR 60, Subpart IIII, NSPS for Compression Ignition Internal Combustion Engines

This subpart will apply to any diesel generator that was manufactured after April 1, 2006, or modified or reconstructed after July 11, 2005. Since the permit is written to allow Bates to operate up-to 3 diesel generators with a maximum rated design capacity of up to 1000 kW per generator, this subpart may apply to Bates in the future.

- 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. Bates 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 facility to obtain an air quality permit or permit modification if they construct, alter or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Bates has the potential to emit more than 15 tons per year of PM, particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM<sub>10</sub>), oxides of nitrogen (NO<sub>x</sub>), and carbon monoxide (CO); 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 are not subject to the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Bates 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. Bates submitted an affidavit of publication of public notice for the March 30, 2007, issue of the *West Yellowstone News*, a newspaper of general circulation in the Towns of Bozeman and West Yellowstone in Gallatin County, MT, 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 and determination is contained 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 Bates of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit can be transferred from one location to another if written notice of intent to transfer is sent to the Department. (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 since it is not a listed source and the facility's potential to emit 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 per year of any pollutant
  - b. PTE > 10 tons per year of any one Hazardous Air Pollutant (HAP), PTE > 25 tons per year of a combination of all HAPs, or lesser quantity as the Department may establish by rule, or
  - c. PTE > 70 tons per year of PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2960-02 for Bates, the following conclusions were made:

- a. The facility's permitted allowable 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. The facility is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is potentially subject to a current NSPS standard (40 CFR Part 60, Subpart A and Subpart OOO).
- e. This facility is not subject to any current NESHAP standards.
- f. This source is neither a Title IV affected source nor a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that this facility is a synthetic minor source under the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program.

- 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.
  - ii. 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.

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 altered source. Bates shall install on the new or altered source the maximum air pollution control capability, which is technically practicable and economically feasible, except that BACT shall be utilized. The Department reviewed previous BACT determinations for other recently permitted similar sources prior to making the following BACT determination.

A. Particulate Matter Emissions: Crushing, Screening, and Associated Material Handling Emissions

All visible emissions from any NSPS affected crusher shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes. All visible emissions from any other NSPS affected equipment such as screens and conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes. In addition, all visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes. Further, if the permitted equipment is used in conjunction with any other equipment owned or operated by Bates, 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.

Water and water spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity limitations. Further, Bates 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. Reasonable precautions consist of treating all unpaved portions of the haul roads, access roads, parking lots, and the general plant area with water and/or chemical dust suppressant, as necessary, to control emissions of airborne particulate matter. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity limitations and reasonable precautions requirements constitutes BACT in this case.

B. Combustion Source Gaseous and Particulate Emissions: Diesel Fuel-Fired Generators

Because of the limited amount of emissions produced by the diesel fuel-fired generators and the lack of readily available and cost-effective add-on controls for these emission sources, the Department determined that the requirement for add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no additional controls would constitute BACT for the diesel fuel-fired generators, in this case. In addition, Bates has accepted federally enforceable operating limits for the diesel fuel-fired generators for the purpose of avoiding major Title V Operating Permit Program applicability thereby further limiting emissions from the affected sources.

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

Source	ton/year					
	PM	PM <sub>10</sub>	NO <sub>x</sub>	VOC	CO	SO <sub>x</sub>
Jaw Crusher (500 TPH)	2.63	1.18	0.00	0.00	0.00	0.00
Jaw Crusher (500 TPH)	2.63	1.18	0.00	0.00	0.00	0.00
Cone Crusher (500 TPH)	2.63	1.18	0.00	0.00	0.00	0.00
Cone Crusher (500 TPH)	2.63	1.18	0.00	0.00	0.00	0.00
Screen (500 TPH)	4.82	1.62	0.00	0.00	0.00	0.00
Screen (500 TPH)	4.82	1.62	0.00	0.00	0.00	0.00
Screen (500 TPH)	4.82	1.62	0.00	0.00	0.00	0.00
Material Transfer	9.81	3.22	0.00	0.00	0.00	0.00
Pile Forming	36.79	17.52	0.00	0.00	0.00	0.00
Bulk Loading	0.03	0.03	0.00	0.00	0.00	0.00
Haul Roads	12.68	3.60	0.00	0.00	0.00	0.00
Diesel Generator (500 kw)	1.40	1.40	19.75	1.57	4.25	1.31
Diesel Generator (1000 kw)	2.80	2.80	39.49	3.15	8.51	2.61
Diesel Generator (1000 kw)	2.80	2.80	39.49	3.15	8.51	2.61
<b>Total</b>	<b>91.29</b>	<b>40.98</b>	<b>98.73</b>	<b>7.87</b>	<b>21.27</b>	<b>6.53</b>

**Crusher (2 Jaw and 2 Cone Crushers @ 500 TPH/Crusher)**

Process Rate: 500 ton/hr (Company Information)  
Hours of Operation: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.0012 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations: 0.0012 lb/ton \* 500 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 2.63 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.00054 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations: 0.00054 lb/ton \* 500 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 1.18 ton/yr

**Screen (3 Screens @ 500 TPH/Screen)**

Process Rate: 500 ton/hr (Company Information)  
Hours of Operation: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.0022 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations: 0.0022 lb/ton \* 500 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 4.82 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.00074 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations: 0.00074 lb/ton \* 500 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 1.62 ton/yr

**Material Transfer**

Process Rate: 2000 ton/hr (Company Information)  
Hours of Operation: 8760 hr/yr (Annual Capacity)

#### PM Emissions

Emission Factor: 0.00014 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations:  $0.00014 \text{ lb/ton} * 2000 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 9.81 \text{ ton/yr}$

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

Emission Factor: 4.60E-05 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations:  $4.60\text{E-}05 \text{ lb/ton} * 2000 \text{ ton/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.22 \text{ ton/yr}$

#### **Pile Forming**

Process Rate: 2000 ton/hr (Company Information)  
Number of Transfers: 8 Transfers (Company Information)  
Hours of Operation: 8760 hr/yr (Annual Capacity)

#### PM Emissions

Emission Factor: 0.00014 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations:  $0.00014 \text{ lb/ton} * 2000 \text{ ton/hr} * 8 \text{ transfers} = 2.24 \text{ lb/hr}$   
 $2.24 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 9.81 \text{ ton/yr}$

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

Emission Factor: 4.60E-05 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Controlled 8/04)  
Calculations:  $4.60\text{E-}05 \text{ lb/ton} * 2000 \text{ ton/hr} * 8 \text{ transfers} = 0.74 \text{ lb/hr}$   
 $0.74 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.22 \text{ ton/yr}$

#### **Bulk Loading**

Process Rate: 2000 ton/hr (Company Information)  
Number of Piles: 1 Pile (Company Information)  
Hours of Operation: 8760 hr/yr (Annual Capacity)

#### PM Emissions

Emission Factor: 0.0084 lb/ton (AP-42, Section 8.23, Table 8.23-4, <4% Moisture, 8/82)  
Control Efficiency: 50% (Water Spray – BACT Determination)  
Calculations:  $0.0084 \text{ lb/ton} * 2000 \text{ ton/hr} * 1 \text{ pile} = 16.80 \text{ lb/hr}$   
 $16.80 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} * 50\% = 36.79 \text{ ton/yr}$

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

Emission Factor: 0.004 lb/ton (AP-42, Section 8.23, Table 8.23-4, <4% Moisture, 8/82)  
Control Efficiency: 50% (Water Spray – BACT Determination)  
Calculations:  $0.004 \text{ lb/ton} * 2000 \text{ ton/hr} * 1 \text{ pile} = 8.00 \text{ lb/hr}$   
 $8.00 \text{ lb/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} * 50\% = 17.52 \text{ ton/yr}$

#### **Haul Roads/Vehicle Traffic**

Vehicle miles traveled: 5 VMT/day {Estimated}  
Assumption: Rated Load Capacity < 50 tons  
Haul Road Use: 365 day/yr

#### PM Emissions:

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

PM<sub>10</sub> Emissions:

Emission Factor: 3.95 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)  
Calculations: 5 VMT/day \* 3.95 lb/VMT = 19.75 lb/day  
19.75 lb/day \* 365 day/yr \* 0.0005 ton/lb = 3.60 ton/yr

**Diesel Generator (500 kW)**

Generator Capacity: 500 kW (Permit Limit)<sup>a</sup>  
Conversion: 500 kW \* 1.341 hp/kW = 670.5 hp  
Hours of Operation: 1900 hr/yr (Permit Limit – Title V Synthetic Minor)

PM Emissions

Assume all PM emissions resulting from diesel combustion are PM<sub>10</sub> emissions

PM<sub>10</sub> Emissions

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations: 670.5 hp \* 0.0022 lb/hp-hr \* 1900 hr/yr \* 0.0005 ton/lb = 1.40 ton/yr

NO<sub>x</sub> Emissions

Emission Factor: 0.0310 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations: 670.5 hp \* 0.0310 lb/hp-hr \* 1900 hr/yr \* 0.0005 ton/lb = 19.75 ton/yr

VOC Emissions

Emission Factor: 0.00247 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations: 670.5 hp \* 0.00247 lb/hp-hr \* 1900 hr/yr \* 0.0005 ton/lb = 1.57 ton/yr

CO Emissions

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations: 670.5 hp \* 0.00668 lb/hp-hr \* 1900 hr/yr \* 0.0005 ton/lb = 4.25 ton/yr

SO<sub>x</sub> Emissions

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations: 670.5 hp \* 0.00205 lb/hp-hr \* 1900 hr/yr \* 0.0005 ton/lb = 1.31 ton/yr

<sup>a</sup> Permit #2960-02 allows Bates to use a diesel generator with a capacity of up to 500 kW or 670.5 hp. Department policy dictates the use of more conservative emission factors (AP-42, Section 3.3) for diesel generators with capacity of less than 600 hp to estimate emissions if applicant proposes an engine with a capacity of “up to” a capacity which exceeds 600 hp.

**Diesel Generator (2 @ 1000 kW/Generator)**

Generator Capacity: 1000 kW (Permit Limit)<sup>a</sup>  
Conversion: 1000 kW \* 1.341 hp/kW = 1341 hp  
Hours of Operation: 1900 hr/yr (Permit Limit – Title V Synthetic Minor)

PM Emissions

Assume all PM emissions resulting from diesel combustion are PM<sub>10</sub> emissions

PM<sub>10</sub> Emissions

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations: 1341 hp \* 0.0022 lb/hp-hr \* 1900 hr/yr \* 0.0005 ton/lb = 2.80 ton/yr

#### NO<sub>x</sub> Emissions

Emission Factor: 0.0310 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations:  $670.5 \text{ hp} * 0.0310 \text{ lb/hp-hr} * 1900 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 39.49 \text{ ton/yr}$

#### VOC Emissions

Emission Factor: 0.00247 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations:  $670.5 \text{ hp} * 0.00247 \text{ lb/hp-hr} * 1900 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 3.15 \text{ ton/yr}$

#### CO Emissions

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations:  $670.5 \text{ hp} * 0.00668 \text{ lb/hp-hr} * 1900 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 8.51 \text{ ton/yr}$

#### SO<sub>x</sub> Emissions

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3-1, 10/96)  
Calculations:  $670.5 \text{ hp} * 0.00205 \text{ lb/hp-hr} * 1900 \text{ hr/yr} * 0.0005 \text{ ton/lb} = 2.61 \text{ ton/yr}$

<sup>a</sup> Permit #2960-02 allows Bates to use two diesel generators with a capacity of up to 1000 kW or 1341 hp per generator. Department policy dictates the use of more conservative emission factors provided for diesel generators with a capacity of less than 600 hp (AP-42, Section 3.3-1, 10/96) to estimate emissions if the applicant proposes an engine with a capacity of “up to” a capacity which exceeds 600 hp but allows for engines with a hp capacity of less than 600 hp.

#### V. Existing Air Quality

Permit #2960-02 applies while operating at any location in Montana, except within those areas having a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of nonattainment areas for PM<sub>10</sub>. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Bates will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of any PM<sub>10</sub> nonattainment area. The facility’s initial site location is the Northwest ¼ of Section 10, Township 3 South, Range 4 East, in Gallatin County, Montana. Gallatin County is unclassifiable/attainment for the NAAQS for all criteria pollutants.

#### VI. Air Quality Impacts

In the view of the Department, allowable emissions generated by the operation of the portable crushing/screening plant will not exceed any set NAAQS or MAAQS. In addition, this source is portable and any air quality impacts will be minor and short-lived.

#### VII. Taking or Damaging Implication Analysis

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

#### VIII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, 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, Montana 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Bates Construction, Inc  
20323 Norris Road  
Manhattan, MT 59741

*Air Quality Permit Number:* 2960-02

*Preliminary Determination Issued:* May 9, 2007

*Department Decision Issued:* June 11, 2007

*Permit Final:* June 27, 2007

1. *Legal Description of Site:* Permit #2960-02 would apply while operating at any location in Montana, except within those areas having a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of nonattainment areas for PM<sub>10</sub>. A Missoula County air quality permit would be required for locations within Missoula County, Montana. Bates would be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of any PM<sub>10</sub> nonattainment area.
2. *Description of Project:* The current permit action would allow for the addition of the following equipment to permitted operations: three crushers, each with a maximum rated material throughput design capacity of 500 TPH; a screen with a maximum rated material throughput design capacity of 500 TPH; and two diesel fuel-fired generators, each with a maximum rated design capacity of 1000 kW. In addition, the current permit action would identify all permitted equipment in a de minimis friendly format. Further, the current permit action would establish a Title V synthetic minor limit on Bates by including an enforceable condition limiting the number of allowable operating hours for the three permitted (2 added under current permit action) diesel fuel-fired generators to a level that would result in allowable emissions which would be less than the Title V major source permitting threshold.
3. *Objectives of Project:* The objective of the project would be to generate additional business and revenue for the company.
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 Bates 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 and determination in accordance with the requirements of the ARM 17.8.752, would be included in Permit #2960-02.

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

Terrestrials would use the same area as the modified crushing/screening operations. The modified crushing/screening operations would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life and habitats would be expected as a result of new equipment operations or from pollutant deposition.

Impacts on aquatic life and habitats could result from storm water runoff and pollutant deposition, but such impacts would be minor as the modified facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be used for pollution control. Since only a minor amount of air emissions would be generated from the proposed new equipment, only minor deposition of air pollutants would occur. Therefore, only minor and temporary impacts to aquatic life and habitat would be expected from the proposed new crushing/screening equipment.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

## B. Water Quality, Quantity, and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation and for pollution control for the proposed new equipment operations. However, water use would only cause a minor disturbance to these areas, since only relatively small amounts of water would be needed. Only minor surface and groundwater quality impacts would be expected as a result of using water for dust suppression because only small amounts of water would be required to control air pollutant emissions and deposition of air pollutant emissions would be minor (as described in Section 7.F of this EA).

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

## C. Geology and Soil Quality, Stability, and Moisture

The proposed modification of existing crushing/screening operations would have only minor impacts on soils in any proposed site location (due to the construction and use of the new crushing/screening equipment) because the facility would remain a relatively small industrial operation, would continue to use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Therefore, any impacts from the proposed new crushing/screening equipment to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

Overall, any impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the proposed crushing/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

## D. Vegetation Cover, Quantity, and Quality

Because the modified facility would remain a minor source of emissions, by industrial standards, and would typically operate in areas previously designated and used for non-metallic mineral processing operations, impacts from the emissions from the modified crushing/screening facility would be minor and typical. As described in Section 7.F of this EA, the amount of air emissions generated from the modified facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because water use for pollution control would be minimal, as described in Section 8.B, and the associated soil disturbance from modified operations would be minimal, as described in Section 8.C, corresponding vegetative impacts would be minor.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

#### E. Aesthetics

The modified crushing/screening operation would be visible and would create additional noise while in operation. However, Permit #2960-02 would include conditions to control emissions, including visible emissions, from the proposed new equipment. Also, because the modified crushing/screening operation is portable and would operate on an intermittent and seasonal basis and would typically locate within a previously permitted open-cut pit, any visual and noise impacts would be minor and short-lived.

Overall, any impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the proposed crushing/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

#### F. Air Quality

The air quality impacts from the modified crushing/screening operations would be minor because Permit #2960-02 would include conditions limiting the opacity from the proposed new equipment, as well as requiring water spray bars and other means to control air pollution. Further, Permit #2960-02 would limit total emissions from the proposed new equipment, any existing permitted equipment, and any additional equipment owned and operated by Bates to 250 tons/year or less at any given operating site, excluding fugitive emissions.

Further, the modified crushing/screening plant would be used on a temporary and intermittent basis and would typically operate within an area designated for such operations, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent amounts of deposition generated from the modified crushing/screening operations 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. Overall, any air quality impacts resulting from the proposed modification of permitted crushing/screening operations would be minor.

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

Emissions from the modified crushing/screening plant operations may impact unique, endangered, fragile, or limited environmental resources located in a given proposed project area. However, as detailed in Section V of the permit analysis, any emissions and resulting impacts from the project would be minor due to the low concentration of those pollutants emitted.

Permit #2960-02 would regulate the proposed modified crushing/screening operations while located at various locations throughout the state. Most operations would take place within existing and previously disturbed industrial gravel pits thereby resulting in only minor impacts to the industrial area. Further, given the temporary and portable nature of the operations, any impacts would be minor and short-lived. In addition, operational conditions and limitations in Permit #2960-02 would be protective of these resources by limiting overall impacts to the surrounding environment.

Overall, any impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the proposed crushing/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

## H. Demands on Environmental Resources of Water, Air, and Energy

Due to the relatively small size of the facility, including the proposed new equipment, the crushing/screening 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 new and existing equipment operations and vehicle traffic at the site. Energy requirements would be accommodated through the operation of the permitted and proposed new diesel and gasoline-fired electric generator(s) and would be minor due to the relatively small amount of fuel required to operate the generator(s). In addition, the crushing/screening plant would operate on an intermittent and seasonal basis thereby minimizing energy demands. Further, impacts to air resources from the new equipment would be minor because the source would remain small by industrial standards, would operate on an intermittent and seasonal basis, 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 any given project area would be minor because the proposed crushing/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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

Typically, the modified crushing/screening plant would operate within a previously disturbed open-cut pit used for such purposes. According to past correspondence from the Montana Historical Society, State Historic Preservation Office (SHPO), there would be a low likelihood of disturbance to any known archaeological or historical site given any previous industrial disturbance in any given area of operation. Therefore, it is unlikely that the proposed modified crushing/screening plant would impact any historical or archaeological sites in a given area of operation.

## J. Cumulative and Secondary Impacts

The proposed modification to the existing crushing/screening operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment of a given proposed area of operation because the proposed new equipment would generate emissions of regulated air pollutants and noise would be generated from new 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 be expected to operate in areas designated and typically used for such 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.

Overall, any cumulative or secondary impacts to the above-cited physical and biological resource of the human environment of any given project area would be minor because the proposed modified crushing/screening operations would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

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 modified crushing/screening operation would cause no disruption to the social structures and mores in a given area of operation because the modified source would be a minor industrial source of emissions, would initially and typically operate in an existing industrial gravel pit used for such purposes, and would operate on a temporary and intermittent basis. Further, the proposed new equipment would be required to operate according to the limits and conditions that would be included in Permit #2960-02, which would limit any impacts to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of any given area of operation would not be impacted by the proposed modification of the crushing/screening plant because the proposed facility would remain a portable source, the facility would conduct seasonal and intermittent operations, and the facility would utilize a relatively small number of employees for normal operations. The predominant use of the surrounding area would not change as a result of the modification of this crushing/screening operation. Therefore, the cultural uniqueness and diversity of any given area of operation would not be impacted.

C. Local and State Tax Base and Tax Revenue

The proposed modified crushing/screening operations would have little, if any, impact on the local and state tax base and tax revenue of any given area of operation because the facility would be a minor industrial source, would remain a portable source, and would conduct only seasonal and intermittent operations. Further, the facility would require the use of only a few employees and little or no additional employment to accommodate the proposed new equipment. 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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

#### D. Agricultural or Industrial Production

The proposed modified crushing/screening operations would result in only minor impacts to the local industrial production of a given area since the facility would remain small by industrial standards and would result in only minor and controlled air emissions (see Section 7.F of this EA). Also, while the facility could locate within or adjacent to land that is currently used for agricultural animal grazing and/or other agricultural production, most operations would take place within existing and previously disturbed industrial gravel pits thereby resulting in only minor impacts and little or no displacement of agricultural land. Because minimal deposition of air pollutants from the new equipment would occur on the surrounding land, only minor and temporary impacts to the surrounding vegetation and land would occur thereby further limiting any impacts to surrounding agricultural land and practices in any given area of operations.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

#### E. Human Health

Permit #2960-02 would include limits and conditions applicable to the proposed new equipment to ensure that the crushing/screening 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. As described in Section 7.F. of this EA, the air emissions from the proposed modification of the existing facility would be minimized by the use of water spray and other process limits that would be required by Permit #2960-02. Also, the facility would operate on a temporary and intermittent basis and pollutants would be widely dispersed (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed modified crushing/screening operations.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

#### F. Access to and Quality of Recreational and Wilderness Activities

Noise from the proposed modified facility would be minor because the crushing/screening operation would remain small by industrial standards and would operate in areas typically used for such operations (i.e. existing gravel pit). As a result, the amount of noise generated from

the proposed new crushing/screening equipment would be minimal and typical for the area. Also, the facility would operate on a seasonal and intermittent basis. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed new equipment operating with the existing crushing and screening plant would be minor and short-lived.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

G. Quantity and Distribution of Employment

H. Distribution of Population

The modified crushing/screening operation would require only a few existing employees for normal operations and operations would be conducted on a seasonal and intermittent basis thereby resulting in little, if any, permanent immigration into or emigration out of a given area of operation. Therefore, the proposed modification of the existing crushing/screening operations would not impact the above-cited economic and social resources of the human environment of any given project area.

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the modified crushing/screening operation is in progress. In addition, 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, demands for government services would be minor.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

J. Industrial and Commercial Activity

The modified crushing/screening operation would represent only a minor increase in the industrial activity in any given area of operation because the source would remain a relatively small industrial source that would be portable and temporary in nature. No additional industrial or commercial activity would be expected as a result of the proposed modification of existing crushing/screening operations.

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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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 modified crushing/screening plant would operate in various locations throughout the state which are designated by EPA as attainment or unclassified for the National Ambient Air Quality Standards; therefore, the Department is unaware of any locally adopted environmental plans or goals that may be affected by the proposed modification of the existing crushing/screening plant. The state standards included in the air quality permit would be protective of any proposed project area.

#### L. Cumulative and Secondary Impacts

The modified crushing/screening operations would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source. No 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 would remain relatively small by industrial standards and would conduct operations on a temporary basis, only minor economic impacts to a given local economy would be expected from operating the modified facility. Further, this facility may be operated in conjunction with other equipment owned and operated by Bates; however, any cumulative impacts to the social and economic aspects of the human environment would be minor and short-lived. Overall, the modified crushing/screening 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.

Overall, any cumulative or secondary 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/screening operation would typically operate within areas designated for such operations and the proposed new equipment would result in similar impacts to those impacts created by the existing equipment. 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.

*Recommendation:* An Environmental Impact Statement (EIS) is not required.

*If an EIS is not required, explain why the EA is an appropriate level of analysis:* All potential effects resulting from construction and operation of the proposed facility are minor; therefore, an EIS is not required.

*Other groups or agencies contacted or which may have overlapping jurisdiction:* Montana Department of Environmental Quality - Permitting and Compliance Division (Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

*Individuals or groups contributing to this EA:* Montana Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana State Historic Preservation Office (Montana Historical Society).

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