



Montana Department of  
**E**NVIRONMENTAL **Q**UALITY

Brian Schweitzer, Governor

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: [www.deq.mt.gov](http://www.deq.mt.gov)

June 2, 2009

Dave Fowler  
Gallatin County  
205 Baxter Lane West  
Bozeman, MT 59718

Dear Mr. Folwer:

Air Quality Permit #2523-02 is deemed final as of June 2, 2009, by the Department of Environmental Quality (Department). This permit is for a portable crushing facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Trista Glazier  
Environmental Scientist  
Air Resources Management Bureau  
(406) 444-3403

VW:TG  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Air Quality Permit #2523-02

Gallatin County  
205 Baxter Lane West  
Bozeman, MT 59718

June 2, 2009



## MONTANA AIR QUALITY PERMIT

Issued To: Gallatin County  
205 Baxter Lane West  
Bozeman, MT 59718

MAQP: #2523-02  
Application Complete: 4/8/09  
Preliminary Determination Issued: 4/29/09  
Department's Decision Issued: 5/15/09  
Permit Final: 6/2/09  
AFS #: 777-2523

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

### SECTION I: Permitted Facilities

#### A. Plant Location

Gallatin operates a portable crushing facility initially located in SE ¼ Section 35, Township 1 South, Range 4 East, in Gallatin County, Montana. MAQP #2523-02 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

#### B. Current Permit Action

On April 8, 2009, the Department received a request to change the maximum design capacity of the existing cone crusher to accurately reflect current operations. Gallatin indicated they will be adding a jaw crusher to their current operations at some time in the near future and requested the permit be modified to include the addition of that unit. In addition, Gallatin provided the horsepower (hp) rating of the diesel-powered engine/generator. The current permit action modifies the permit to include the requested changes and updates the permit to reflect current permit language, format, and rule references.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher shall not exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, shall not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749).
5. Gallatin shall not cause or authorize the use of any street, road or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
6. Gallatin 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. Gallatin shall not operate more than two crushers at any given time and the combined maximum design capacity shall not exceed 460 tons per hour (TPH) (ARM 17.8.749).
8. Crushing production is limited to 4,029,600 tons during any rolling 12-month time period (ARM 17.8.749).
9. Gallatin shall not operate more than one diesel-powered engine/generator and the maximum design capacity shall not exceed 430 hp (ARM 17.8.749).
10. If the permitted equipment is used in conjunction with any other equipment owned or operated by Gallatin, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
11. Gallatin 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).
12. Gallatin shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart III, *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).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

#### C. Operational Reporting Requirements

1. If this crushing 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. Gallatin 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. Gallatin shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
4. Gallatin 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 Gallatin as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
5. Gallatin shall document, by month, the crushing production from the facility. By the 25<sup>th</sup> day of each month, Gallatin shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

#### D. Notification

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

2. Within 15 days of the actual start-up date of any NSPS-affected equipment, Gallatin shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).
3. Within 15 days of the actual start-up date of any non-NSPS-affected equipment, Gallatin 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 – Gallatin 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 System (CEMS), Continuous Emission Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Gallatin fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Gallatin of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Gallatin 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. Gallatin shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Permit Analysis  
Gallatin County  
Montana Air Quality Permit (MAQP) #2523-02

I. Introduction/Process Description

Gallatin County (Gallatin) owns and operates a gravel crushing facility.

A. Permitted Equipment

Gallatin owns and operates a portable crushing facility consisting of two portable crushers (combined maximum capacity up to 460 tons per hour (TPH)), a 430-horsepower (hp) diesel-powered engine/generator, and associated equipment.

B. Source Description

Gallatin uses this crushing plant and associated equipment to crush rock for use as road material. For a typical operational setup, materials are loaded into the feed hopper, conveyed to the jaw crusher, conveyed to the closed circuit crushing screen plant then discharged onto the final piling conveyor. Materials are sent to stockpile for use as road material.

C. Permit History

MAQP #2523-00 was issued final in March 23, 1989.

On March 3, 1995, Gallatin County requested MAQP #2523-00 be modified to reflect that the maximum production rate was physically limited to 120 TPH, due to the size cones they installed on the 1986 El-Jay crusher. **MAQP #2523-01** limited the production rate of the 1986 El-Jay crusher to a maximum production rate of 120 TPH, relieving Gallatin from any requirements of 40 CFR 60, Subpart 000. MAQP #2523-01 replaced MAQP #2523-00.

D. Current Permit Action

On April 8, 2009, the Department of Environmental Quality (Department) received a request to change the maximum design capacity of the existing cone crusher to accurately reflect current operations. Gallatin indicated they will be adding a jaw crusher to their current operations at some time in the near future and requested the permit be modified to include the addition of that unit. In addition, Gallatin provided the hp rating of the diesel-powered engine/generator. The current permit action modifies the permit to include the requested changes and updates the permit to reflect current permit language, format, and rule references. **MAQP #2523-02** replaces MAQP #2523-01.

E. Additional Information

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

## II. Applicable Rules and Regulations

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

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

1. 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).

Gallatin 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>

Gallatin 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.
  3. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
  5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
  6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Gallatin 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 or facilities subject to an NSPS Subpart as listed below:
    - b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Gallatin, the portable crushing equipment to be used under MAQP #2523-02 is subject to this subpart because it meets the definition of an affected facility and the cone crusher was constructed after August 31, 1983. The jaw crusher also may potentially be subject to this subpart.
    - c. 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE) indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2005, and is not a fire pump engine. In order to keep the permit de minimis-friendly, this permit authorizes the use of a diesel-powered engines/generators and limits the engine capacity to 430 hp or less. The permit application states that the facility will be powered primarily by a diesel-powered engine/generator that was manufactured in 1986; therefore, this CI ICE will not be subject to this Subpart. This Subpart will be applicable to any CI ICE currently in use or added at a future date that is manufactured after April 1, 2005.
  7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:

- a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAP) Subpart as listed below:
  - b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAP) for Stationary Reciprocating Internal Combustion Engines (RICE) establishes national emission limitations and operating limitations for HAP emitted from stationary RICE located at major and area sources of HAP emissions. The proposed facility contains an engine which is an affected source under 40 CFR 63 Subpart ZZZZ; however, because the engine is an existing compression ignition engine at an area source of HAPs it qualifies for an exemption within Subpart ZZZZ that excludes them from the maximum achievable control technology standards and reporting requirements in 40 CFR Part 63. No initial notification is required. However, because this permit is written in a de minimis-friendly manner, substantive portions of this regulation may apply to future engines at the facility.
- D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Gallatin submitted the appropriate permit application fee for the current permit action.
  2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.
- An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Gallatin has a PTE greater than 15 tons per year of particulate matter (PM) and oxides of nitrogen (NO<sub>x</sub>); 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. Gallatin 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. Gallatin submitted an affidavit of publication of public notice for the March 31, 2009, issue of the *Bozeman Daily Chronicle*, a newspaper of general circulation in the Town of 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 Gallatin of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM<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 MAQP #2523-02 for Gallatin, the following conclusions were made:

- a. The facility's PTE is less than 100 tons/year for any pollutant.
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is subject to a current NSPS, 40 CFR 60, Subpart OOO and potentially subject to 40 CFR 60, Subpart IIII.
- e. This facility is potentially subject to area source provisions of a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
- f. This source is not a Title IV affected source or a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Gallatin will be a minor source of emissions as defined under Title V.

### III. BACT Determination

A BACT determination is required for each new or modified source. Gallatin 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.

#### Area Source Fugitive Emissions and Crushing/Screening Emissions

Two types of emissions controls are readily available and used for dust suppression of fugitive emissions at the site, fugitive emissions for the surrounding area of operations, and for equipment emissions from the crushing operation. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the crushing/screening operation, and for emissions from the crushing/screening operation. However, because water is more readily available, is more cost effective, is equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions for the general plant area. In addition, water suppression has been required of recently permitted similar sources. Gallatin may, however, use chemical dust suppressant to assist in controlling particulate emissions from the surrounding plant area.

Gallatin shall not cause or authorize to be discharged into the atmosphere from any NSPS-affected crusher, any visible emissions that exhibit an opacity of 15% or greater averaged over 6 consecutive minutes. Also, Gallatin shall not cause or authorize to be discharged into the atmosphere from any affected conveyor transfers, or other NSPS-affected equipment, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes. Further, Gallatin shall not cause or authorize to be discharged into the atmosphere from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

Gallatin must also take reasonable precautions to limit the fugitive emissions of airborne particulate matter from haul roads, access roads, parking areas, and the general area of operation. Gallatin is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity and reasonable precaution limitations. Gallatin may also use chemical dust suppression, in order to maintain compliance

with emission limitations in Section II.A of MAQP #2523-02. The Department determined that using water spray bars, water, and chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the crushing operation.

Diesel Generator

Due to the limited amount of emissions produced by the diesel engine/generator and the lack of readily available 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 engine/generator.

In addition, any new diesel engine would be required to comply with the federal engine emission limitations including either EPA Tier 2 emission standards for non-road engines (40 CFR Part 1039) or New Source Performance Standard emission limitations for stationary engines (40 CFR 60, Subpart III).

The control options required for this crushing facility are comparable to other recently permitted similar sources, and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

| <b>CONTROLLED</b><br>Emission Source | <b>tons/year</b> |             |              |              |             |             |
|--------------------------------------|------------------|-------------|--------------|--------------|-------------|-------------|
|                                      | <b>PM</b>        | <b>PM10</b> | <b>NOx</b>   | <b>CO</b>    | <b>VOC</b>  | <b>SO2</b>  |
| 430 hp Diesel Engine Generator       | 4.14             | 4.14        | 58.39        | 12.58        | 4.74        | 3.86        |
| 230 TPH Jaw Crusher                  | 1.21             | 0.54        | --           | --           | --          | --          |
| 230 TPH Cone Crusher                 | 1.21             | 0.54        | --           | --           | --          | --          |
| Storage Piles                        | 3.32             | 1.57        | --           | --           | --          | --          |
| Haul Roads / Vehicle Traffic         | 5.68             | 1.57        | --           | --           | --          | --          |
| Conveyor Transfer Points             | 0.56             | 0.19        | --           | --           | --          | --          |
| <b>Total Emissions</b>               | <b>16.13</b>     | <b>8.55</b> | <b>58.39</b> | <b>12.58</b> | <b>4.74</b> | <b>3.86</b> |

**Crushing [Cone Crusher] (SCC 3-05-020-05)**

Maximum Process Rate = 230 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

**PM Emissions:**

Emission Factor = 0.0012 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.0012 lb/ton) \* (ton/2000 lb) = 1.21 ton/yr

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.0012 lb/ton) \* (ton/2000 lb) \* (1 - 0/100) = **1.21 ton/yr**

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

Emission Factor = 0.00054 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00054 lb/ton) \* (ton/2000 lb) = **0.54 ton/yr**

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

Maximum Process Rate = 230 ton/hr (Application information)

Maximum Hours of Operation = 8,760 hrs/yr

**PM Emissions:**

Emission Factor = 0.0012 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.0012 lb/ton) \* (ton/2000 lb) \* (1 - 0/100) = **1.21 ton/yr**

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

Emission Factor = 0.00054 lb/ton (crushing, AP 42, Table 11.19.2-2, 8/04)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00054 lb/ton) \* (ton/2000 lb) \* (1 - 0/100) = **0.54 ton/yr****Conveyor Transfer Point (SCC 3-05-020-06)**

Maximum Process Rate = 230 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

Number of Transfers = 4 transfer (Company Information)

**Total PM Emissions:**

Emission Factor = 0.00014 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00014 lb/ton) \* (ton/2000 lb) \* (4 transfer) \* (1 - 0/100) = **0.56 ton/yr****Total PM<sub>10</sub> Emissions:**

Emission Factor = 0.000046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.000046 lb/ton) \* (ton/2000 lb) \* (4 transfer) \* (1 - 0/100) = **0.19 ton/yr****Storage Piles**

Maximum Process Rate = 230 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 8,760 hrs/yr

Number of Piles = 2 piles

**PM Emissions:**

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

Emission Factor =  $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00330$  lb/ton

Where: k = particle size multiplier = 0.74 (Value for PM &lt; 30 microns per AP 42, Sec. 13.2.4.3, 11/06)

U = mean wind speed = 8.2 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)

M = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)

Control Efficiency = 50% (Water or chemical spray)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00330 lb/ton) \* (ton/2000 lb) \* (2 piles) = 6.64 ton/yr

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00330 lb/ton) \* (ton/2000 lb) \* (2 piles) \* (1 - 50/100) = **3.32 ton/yr****PM<sub>10</sub> Emissions:**

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

Emission Factor =  $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00156$  lb/ton

Where: k = particle size multiplier = 0.35 (Value for PM &lt; 10 microns per AP 42, Sec. 13.2.4.3, 11/06)

U = mean wind speed = 8.2 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)

M = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)

Control Efficiency = 50% (Water or chemical spray)

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00156 lb/ton) \* (ton/2000 lb) \* (2 piles) = 3.14 ton/yr

Calculation: (230 ton/hr) \* (8760 hrs/yr) \* (0.00156 lb/ton) \* (ton/2000 lb) \* (2 piles) \* (1 - 50/100) = **1.57 ton/yr****Haul Roads**

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)

VMT per hour = (5 VMT/day) \* (day/24 hrs) = 0.21 VMT/hr

Hours of Operation = 8,760 hrs/yr

**PM Emissions:**

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b = 12.46$  lb/VMTWhere: k = constant = 4.9 lbs/VMT (Value for PM<sub>30</sub>/TSP, AP 42, Table 13.2.2-2, 11/06)

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

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

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

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

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

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

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

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

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor =  $k * (s / 12)^a * (W / 3)^b$  = 3.43 lb/VMT

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

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

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

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

b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)

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

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (3.43 lb/VMT) \* (ton/2000 lb) = 3.13 tons/yr (Uncontrolled Emissions)

Calculation: (8760 hrs/yr) \* (0.21 VMT/hr) \* (3.43 lb/VMT) \* (ton/2000 lb) \* (1-50/100) = **1.57 tons/yr** (Apply 50% control efficiency)

### **Diesel Engine Generator**

Note: Emissions are based on the power output of the engine (430 hp).

Operational Capacity of Engine = 430 hp

Hours of Operation = 8,760.00 hours

### **PM Emissions:**

PM Emissions = **4.14 ton/yr** (Assume PM = PM10)

PM Emissions = 8,286.96 lbs/yr (Assume PM = PM10)

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

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (430 hp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **4.14 ton/yr**

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

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (430 hp) \* (0.031 lbs/hp-hr) \* (ton/2000 lb) = **58.39 ton/yr**

### **CO Emissions:**

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (430 hp) \* (0.00668 lbs/hp-hr) \* (ton/2000 lb) = **12.58 ton/yr**

### **VOC Emissions:**

Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)

Calculation: (8,760 hours) \* (430 hp) \* (0.0025141 lbs/hp-hr) \* (ton/2000 lb) = **4.74 ton/yr**

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

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: (8,760 hours) \* (430 hp) \* (0.00205 lbs/hp-hr) \* (ton/2000 lb) = **3.861 ton/yr**

V. Existing Air Quality

MAQP #2523-02 is issued for the operation of a portable aggregate screening facility to be initially located in SE 1/4 Section 35, Township 1 South, Range 4 East, in Gallatin County, Montana. This facility would be allowed to operate at any area designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding those counties that have a Department approved permitting program, those areas considered Tribal Lands, or those areas in or within 10 kilometers (km) of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* Gallatin will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

VI. Air Quality Impacts

This permit is for a portable crushing plant to be located at various locations around Montana. This permit contains operational conditions and limitations that would protect air quality for this site and the surrounding area. Also, this facility is a portable source that would operate on an intermittent and temporary basis, so any effects to air quality will be minor and short-lived. Further, the amount of controlled particulate emissions generated by this project should not cause concentrations of PM<sub>10</sub> in the ambient air that exceed the set standard. In addition, this source is portable and any air quality impacts will be minimal.

VII. Ambient Air Impact Analysis

The Department determined, based on ambient air modeling, 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.

IX. 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, MT 59620**  
**(406) 444-3490**

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued To:* Gallatin County  
205 Baxter Lane West  
Bozeman, MT 59718

*Montana Air Quality Permit number:* 2523-02

*Preliminary Determination Issued:* 4/29/09

*Department Decision Issued:* 5/15/09

*Permit Final:* 6/2/09

1. *Legal Description of Site:* Gallatin operates a portable crushing plant located in SE ¼ of Section 35, Township 1 South, Range 4 East, in Gallatin County, Montana. MAQP #2523-02 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 km of certain PM<sub>10</sub> nonattainment areas. An addendum to this air quality permit would be required if Gallatin intends to locate in or within 10 km of certain PM<sub>10</sub> nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*
2. *Description of Project:* The permit applicant proposes the operation of a jaw crusher as well as increases the maximum design capacity of the existing cone crusher. Currently on site is a portable crushing plant that consists of a cone crusher (up to 230 TPH), a diesel-powered engine/generator (up to 430 hp), and associated equipment.
3. *Objectives of Project:* The object of the project would be to produce road construction material for the county creation of crushed rock. The issuance of MAQP #2523-02 would allow Gallatin to operate the permitted equipment at various locations throughout Montana.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Gallatin has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #2523-02.
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

Emissions from the crushers and diesel-powered engine/generator would have only minor impacts upon the terrestrial and aquatic life and habitats in areas where Gallatin may operate. Although air pollutant deposition would occur in the areas where Gallatin operates, the size and temporary nature of the operation, dispersion characteristics of pollutants, and conditions placed in MAQP #2523-02 would result in minor impacts. In addition, the crushers and engine/generator would be relatively small and located at previously disturbed sites. Therefore, the operation of the crushers and engine/generator would present only minor impacts to the terrestrial and aquatic life and habitats in areas of potential operation.

B. Water Quality, Quantity and Distribution

There would only be minor impacts on the water quality, quantity, and distribution because of the relatively small size and temporary nature of the operation. While deposition of pollutants would occur, the Department determined that any impacts from deposition of pollutants would be minor. As described in 7.F. of the EA, due to the conditions placed in MAQP #2523-02 and the size a nature of the facility, the maximum impacts from the air emissions from this facility would be minor. Therefore, the crushers and diesel-powered engine/generator would have only minor impacts to water quality, quantity, and distribution in the proposed area of operation.

C. Geology and Soil Quality, Stability and Moisture

As a result of the operation of the portable crushers and diesel-powered engine/generator, 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 operations. As explained in Section 7.F. of this EA, the facility's size, operational requirements, temporary nature of the operation, and conditions placed in MAQP #2523-02 would minimize the impacts from deposition. In addition, the crushers and

engine/generator would be relatively small in size and located at previously disturbed sites, which would also reduce the potential impact to the local geology and soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

Because small amounts of pollutant deposition would occur on the surrounding vegetation, there would be minor impacts on the local vegetative cover, quantity, and quality. The crushers and engine/generator would also be relatively small in size and located at previously disturbed sites. As explained in Section 7.F. of this EA, the Department determined that, as a result of the size and temporary nature of the operation and conditions placed in MAQP #2523-02, any impacts on vegetative cover, quantity, and quality from the deposition of pollutants would be minor.

E. Aesthetics

The crushers and diesel-powered engine/generator would be visible and may create some additional noise in the area of operation. The engine/generator would be relatively small and would be used to power the portable facility at previously disturbed sites. Therefore, any aesthetic impact to a given area would generally be minor and temporary.

F. Air Quality

The air quality emission impacts from the diesel-powered engine/generator and crushers would be minor because MAQP #2523-02 would include conditions for protecting air quality. Because of the size and temporary nature of the operation and conditions placed in MAQP #2523-02, impacts from the deposition of pollutants would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to unique, endangered, fragile, or limited environmental resources in the initial proposed area of operation, contacted the Montana Natural Heritage Program (MNHP). Search results concluded there are two occurrences of one such environmental resource found within the defined area. The defined area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer.

*Canis Lupus* (Gray Wolf) and *Spenopholis intermedia* (Slender Wedgegrass) are species of concern in the area. Only minor and temporary effects to these species of concern would be expected from the proposed operation because pollutants would be dispersed before reaching this species. Also, this operation is located within the same area previously permitted and in an area previously used for aggregate crushing. Given the temporary and portable nature of the operations, any impacts would be minor and short-lived. Additionally, operational conditions and limitations within MAQP #2523-02 would aid in the protection of these resources by protecting the surrounding environment.

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

The operation of the generator/engine and crushers would require only small demands on water, air, and energy as a result of the relatively small size and temporary nature of the facility. While small amounts of water would be used for dust control on the surrounding roadways and job site, no water would be needed to operate the generator. Furthermore, as described in Section 7.F. of this EA, pollutant emissions generated from the facility would have minimal impacts on air quality in the immediate and surrounding area. The engine/generator would

consume energy in the form of diesel fuel, a non-renewable resource. Overall, the equipment is relatively small and would have operational restrictions placed in MAQP #2523-02. Demands and impacts to the environmental resource of air and energy would be minor.

#### I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. According to the response from SHPO, there has been one previously recorded site within the designated search locale. Site 24GA0743 is the historic Spain Ferris Ditch. The absence of more cultural properties in the area does not mean that they do not exist but rather may reflect the absence of any previous cultural resource inventory in the area.

As long as there will be no disturbance or alteration to structures over 50 years of age SHPO indicated there is a low likelihood cultural properties will be impacted. SHPO does not recommend a cultural resource inventory. However, should structures need to be altered or if cultural materials be inadvertently discovered during this project SHPO asks that their office be contacted and the site investigated. The crushers and engine/generator would be located within a previously disturbed industrial site. Therefore, the operation of the generator could have a minor not impact on any known historical or archeological sites.

#### J. Cumulative and Secondary Impacts

The crushers and diesel-powered engine/generator would cause minor impacts on the physical and biological environment because the generator would result in emissions of PM, PM<sub>10</sub>, NO<sub>x</sub>, volatile organic compounds (VOC), carbon monoxide (CO), and sulfur oxides (SO<sub>x</sub>). Additional noise impacts from the engine/generator would also be minor. As a result of the temporary or seasonal nature of the facility and conditions and limitations contained within MAQP #2523-02, impacts would be minimized. There is potential for other operations to locate at this site; however, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the 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 crushers and engine/generator would cause no disruption to the social structures and mores in the area because the source is a minor source of emissions (by industrial standards) and would only have intermittent operations. Additionally, the equipment would be expected to operate in an area previously designated and used for aggregate crushing. Further, the facility would be a minor source of air pollution and would be required to operate according to the conditions that would be placed in MAQP #2523-02. Therefore, no impacts are expected upon social structures or mores as a result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of these areas would not be impacted by the proposed addition of engine/generator and crushers because these sites are expected to be previously designated and used for aggregate crushing. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. Therefore, predominant use of the surrounding areas would not change as a result of this project.

C. Local and State Tax Base and Tax Revenue

The operation of the engine/generator and crushers would have little, if any, impact on the local and state tax base and tax revenue because the facility is a relatively small industrial source (minor source) and would be used on a seasonal and intermittent basis. No additional full time or permanent employees are expected to be added as a result of issuing MAQP #2523-02. Thus, only minor, if any, impacts to the local and state tax base and revenue could be expected. Furthermore, the impacts to local tax base and revenue would be minor because the source would also be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The engine/generator and crushers would be used at previously disturbed industrial areas; therefore, the Department does not expect that the permitted operation would impact or displace agricultural production. Furthermore, only minor impacts on any local industrial production would be expected because the operation of the facility (and generators/engines) would be temporary and would be relatively small in size.

E. Human Health

MAQP #2523-02 would incorporate conditions to ensure that the engine/generator and crushers would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. Therefore, only minor impacts would be expected upon human health from the proposed crushing facility.

F. Access to and Quality of Recreational and Wilderness Activities

The engine/generator and crushers would typically operate within the confines of an existing open-cut pit. Therefore, only minor impacts upon the access to and quality of recreational and wilderness activities would result. Also, the facility would operate on a seasonal and intermittent basis and would be relatively small by industrial standards. Therefore, any changes in the quality of recreational and wilderness activities created by operating the equipment at a given site would be expected to be minor and intermittent.

G. Quantity and Distribution of Employment

As a result of the relatively small size and temporary nature of the operation, the quantity and distribution of employment in the area would not be impacted. No full time, permanent employees would be expected to be employed as a result of issuing MAQP #2523-02 for the operation of the crushers and diesel-powered engine/generator.

H. Distribution of Population

No individuals would be expected to permanently relocate to a given area of operation as a result of MAQP #2523-02. Also, the facility has only intermittent and seasonal operations. Therefore, the addition of engine/generator and crushers would not disrupt the normal population distribution in a given area of operation.

I. Demands for Government Services

Although minor increases would be observed in the local traffic on existing roads in the area where the facility operates, the operation of the crushers and diesel-powered engine/generator would not result in a need for new, altered, or additional government services.

J. Industrial and Commercial Activity

The operation of the crushers and engine/generator would represent only a minor increase in the industrial activity in any given area because of the small size and the portable and temporary nature of the facility; therefore, only minor additional industrial or commercial activity would result from the generator operations.

#### K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals that would affect Gallatin. The facility would be allowed, by permit, to operate in areas designated by EPA as attainment or unclassified. MAQP #2523-02 would contain limits for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards. Because the facility would be a small and portable source, and would have intermittent and seasonal operations, any effects from the facility would be minor and short-lived.

#### L. Cumulative and Secondary Impacts

The operation would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate areas of operation because the source is a portable and temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate areas, thus, having a direct effect on the social environment. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Thus, only minor and temporary cumulative effects would result to the local economy.

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a crushing plant and associated equipment. MAQP #2523-02 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: Trista Glazier

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