

AIR QUALITY PERMIT

Issued To: Helena Sand and Gravel, Inc. Permit #3167-02
P.O. Box 5960 Administrative Amendment (AA) Request
Helena, MT 59604 Received: 04/13/06
Department Decision on AA: 08/08/06
Permit Final: 08/24/06
AFS # 777-3167

An air quality permit, with conditions, is hereby granted to Helena Sand and Gravel, Inc. (Helena Sand and Gravel), pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.701, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location:

Helena Sand and Gravel operates a portable crushing/screening facility at various locations throughout Montana. Permit #3167-02 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program. *A Missoula County air quality permit will be required for locations within Missoula County.* A list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action:

On April 13, 2006, Helena Sand and Gravel requested an administrative amendment to allow for wintertime operations (October 1-March 31) and summertime operations (April 1 – September 30) in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. The current permit action will include an addendum to allow for both wintertime and summertime operations at certain locations in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM₁₀ nonattainment areas. In addition, the current permit action will update the permit to reflect current permit format, language, 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, 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 17.8.710).
5. Helena Sand and Gravel 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. Helena Sand and Gravel 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. Helena Sand and Gravel shall not operate more than one crusher at any given time and the maximum rated design capacity of the crusher shall not exceed 200 tons per hour (TPH) (ARM 17.8.749).
8. Total crushing production from the facility shall be limited to 1,752,000 tons during any rolling 12-month time period (ARM 17.8.749).
9. Helena Sand and Gravel shall not operate more than one screen at any given time and the maximum rated design capacity of the screen shall not exceed 350 TPH (ARM 17.8.749).
10. Total screening production from the facility shall be limited to 3,066,000 tons during any rolling 12-month time period (ARM 17.8.749).
11. Helena Sand and Gravel shall not operate more than one generator at any given time and the maximum rated design capacity of the generator shall not exceed 450 kilowatts (kW) (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Helena Sand and Gravel, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department of Environmental Quality (Department) (ARM 17.8.749).
13. Helena Sand and Gravel shall comply with all applicable standards and limitations, and the reporting, record keeping, and notification requirements contained in 40 CFR Part 60, Subpart OOO, for the crushing/screening plant (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

B. Emission Testing Requirements

1. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
2. 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, a 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. Helena Sand and Gravel 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. Helena Sand and Gravel 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(l)(d) (ARM 17.8.745).
4. Helena Sand and Gravel 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 Helena Sand and Gravel 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. Helena Sand and Gravel shall document, by month, the crushing production from the facility. By the 25th day of each month, Helena Sand and Gravel shall calculate the crushing production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Helena Sand and Gravel shall document, by month, the screening production from the facility. By the 25th day of each month, Helena Sand and Gravel shall calculate the screening production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – Helena Sand and Gravel shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Helena Sand and Gravel fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Helena Sand and Gravel 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, as amended by the 1991 Legislature, failure to pay the annual operation fee by Helena Sand and Gravel 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. Helena Sand and Gravel 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
Helena Sand and Gravel, Inc.
Permit #3167-02

I. Introduction/Process Description

A. Permitted Equipment

Helena Sand and Gravel, Inc. (Helena Sand and Gravel) operates a portable crusher (maximum capacity 200 tons per hour (TPH)), a screen (maximum capacity 350 TPH), a diesel generator (up to 450 kilowatts (kW)), and associated equipment.

B. Process Description

For a typical operational setup, materials are loaded into a hopper that feeds a conveyor to a portable crushing unit. Material is crushed by the crusher and conveyed to the screen. Properly-sized material is conveyed to a stockpile for use and oversized material is conveyed back through the crushing/screening operation and then to a stockpile for use.

C. Permit History

Helena Sand and Gravel was issued **Permit #3167-00** on September 5, 2001, for the operation of a portable 1998 Nordberg cone crusher (maximum capacity 250 TPH), a 1996 El-Jay 3-deck screen (maximum capacity 350 TPH), a 450 kW diesel generator, and associated equipment.

On May 15, 2002, Helena Sand and Gravel requested a permit modification for the addition of a 1990 Torgerson Crusher and the removal of the 1998 Nordberg HP300 Crusher. The modification results in the generation of particulate emissions of less than 15 tons per year. Therefore, the crushing facility was added in accordance with ARM 17.8.745. **Permit #3167-01** replaced Permit #3167-00.

D. Current Permit Action

On April 13, 2006, Helena Sand and Gravel requested an administrative amendment to allow for wintertime operations (October 1-March 31) and summertime operations (April 1 – September 30) in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. The current permit action will include an addendum to allow for both wintertime and summertime operations at certain locations in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM₁₀ nonattainment areas. In addition, the current permit action will update the permit to reflect current permit format, language, and rule references. **Permit #3167-02** replaces Permit #3167-01.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT) determinations, air quality impacts, and environmental assessments, are included in the permit 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 of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies, where appropriate.

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

1. 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.
2. 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.*, MCA.

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

3. ARM 17.8.110 Malfunctions. 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.
4. ARM 17.8.111 Circumvention. No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Sub-Chapter 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-10

Helena Sand and Gravel must comply with the applicable ambient air quality standards.

C. ARM 17.8, Sub-Chapter 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 to an 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. Under this section, Helena Sand and Gravel 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 17.8.310 Particulate Matter, Industrial Process. This section requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
 4. ARM 17.8.340 Standard of Performance for New Stationary Sources. The owner and operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, New Source Performance Standards (NSPS), shall comply with the standards and provisions of 40 CFR Part 60. In order for a crushing/screening plant to be subject to NSPS requirements, 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. Because the crusher and screen capacity is greater than 150 TPH and the plant was manufactured after August 31, 1983, the plant meets the definition of an affected facility and, subsequently, is subject to NSPS requirements (40 CFR Part 60, Subpart A General Provisions and Subpart 000 Non-Metallic Mineral Processing Plants).
- D. ARM 17.8, Sub-Chapter 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. Helena Sand and Gravel shall 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. Helena Sand and Gravel was not required to submit an application fee for the current permit action because it is considered an administrative action.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Sub-Chapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, 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. Helena Sand and Gravel has a PTE greater than 15 tons per year of particulate matter, PM₁₀, NO_x, CO, and SO_x; therefore, an air quality permit is required.
 3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.
 - (1) This rule requires that a permit application be submitted prior to installation, alteration, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change.
 - (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. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
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 Helena Sand and Gravel of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, et seq.
10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack

that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond 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, Sub-Chapter 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 sub-chapter.
2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the Federal Clean Air Act (FCAA) that it would emit, except as this sub-chapter would otherwise allow.

This facility is not a major stationary source because it is not a listed source and does not have the potential to emit more than 250 tons per year (excluding fugitive emissions) of any air pollutant.

G. ARM 17.8, Sub-Chapter 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. Potential To Emit (PTE) > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule.
 - c. Sources with the PTE > 70 tons/year of PM₁₀ in a serious PM₁₀ non-attainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. 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 #3167-02 for Helena Sand and Gravel, the following conclusions were made:

- a. The facility's PTE is less than 100 tons/year for all criteria pollutants.
- b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is subject to a current NSPS.
- e. This facility is not subject to any current NESHAP standards.
- f. This source is not a Title IV affected source or a solid waste combustion unit.
- g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Helena Sand and Gravel will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Helena Sand and Gravel will be required to obtain a Title V Operating Permit.

III. Emission Inventory

Source	Ton/Year					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Crusher (up to 200 TPH)	2.37	1.05				
Screen (up to 350 TPH)	19.16	6.67				
Material Transfer	16.10	5.90				
Pile Forming	6.44	3.07				
Bulk Loading	6.44	3.07				
Diesel Generator (up to 450 kW)	1.85	1.85	63.43	1.69	14.54	1.22
Haul Roads	2.74	1.23				
Total	55.09	22.84	63.43	1.69	14.54	1.22

- A complete emission inventory for Permit #3167-02 is on file with the Department.

IV. BACT Determination

A BACT determination is required for any new or altered source. Helena Sand and Gravel shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

V. Existing Air Quality and Impacts

Permit #3167-02 is for a portable crushing/screening operation to be located at various locations throughout Montana. Permit #3167-02 will cover operations at any location within Montana, excluding those counties having a Department approved permitting program. In the view of the Department, the amount of controlled particulate emissions generated by this project will not cause concentrations of PM₁₀ in the ambient air that exceed the ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal.

VI. Taking or Damaging Implication Analysis

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

VII. Environmental Assessment

An environmental assessment was not required for this permit action because it is considered an administrative action.

Prepared By: Eric Thunstrom

Date: 07/26/06

Addendum #1
Helena Sand and Gravel, Inc.
Permit #3167-02

An addendum to air quality Permit #3167-02 is issued to Helena Sand and Gravel, Inc. (Helena Sand and Gravel), pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

Helena Sand and Gravel owns and operates a portable crusher (maximum capacity 200 tons per hour (TPH), a screen (maximum capacity 350 TPH), a diesel generator (up to 450 kilowatts (kW)), and associated equipment. Helena Sand and Gravel operates at various locations throughout Montana, including in or within 10 kilometers (km) of the following certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas: Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish.

II. Seasonal and Site Restrictions

Addendum #1 applies to the Helena Sand and Gravel facility while operating at any location in or within 10 km of certain PM₁₀ nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31) – the only location(s) in or within 10 km of certain PM₁₀ nonattainment areas where Helena Sand and Gravel may operate is:
- SE ¼ of the SE ¼ of Section 23, Township 29 North, Range 22 West (Stillwater Road); and
 - Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).
- B. During the summer season (April 1-September 30) – Helena Sand and Gravel may operate at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM₁₀ nonattainment areas.
- C. Helena Sand and Gravel shall comply with the limitations and conditions contained in Addendum #1 to Permit #3167-02. Addendum #1 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum #1 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

- A. Operational Limitations and Conditions – **Winter Season (October 1 – March 31)**
1. Water spray bars must be operated, when necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is operating (ARM 17.8.749).
 2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749).

3. Helena Sand and Gravel shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749).
4. Helena Sand and Gravel shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749).
5. Helena Sand and Gravel shall treat all unpaved portions of the haul roads, access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
6. Total crushing production from the crusher shall not exceed 3,000 tons during any rolling 24-hour time period (ARM 17.8.749).
7. Total screening production from the screen shall be limited to 5,250 tons during any rolling 24-hour time period (ARM 17.8.749).
8. Helena Sand and Gravel shall not operate more than one diesel generator at any given time and the maximum rated design capacity shall not exceed 450 kilowatts (kW) and shall not exceed 15 hours of operation during any rolling 24-hour time period (ARM 17.8.749).

B. Operational Limitations and Conditions – Summer Season (April 1 – September 30)

1. Water spray bars must be operated, when necessary on the crushers, screens, and all transfer points whenever the crushing/screening plant is operating (ARM 17.8.749).
2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749).
3. Helena Sand and Gravel shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749).
4. Helena Sand and Gravel shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over six consecutive minutes (ARM 17.8.749).
5. Helena Sand and Gravel shall treat all unpaved portions of the haul roads, access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
6. Total crushing production from the crusher shall not exceed 4,800 tons during any rolling 24-hour time period (ARM 17.8.749).

7. Total screening production from the screen shall be limited to 8,400 tons during any rolling 24-hour time period (ARM 17.8.749).
8. Helena Sand and Gravel shall not operate more than one diesel generator at any given time and the maximum rated design capacity shall not exceed 450 kilowatts (kW) (ARM 17.8.749).

C. Operational Reporting Requirements

1. Helena Sand and Gravel shall provide the Department with written notification of job completion within 10 working days of job completion (ARM 17.8.749).
2. Helena Sand and Gravel shall provide the Department with written notice of relocation of the permitted equipment within 15 working days before the physical transfer of the equipment (ARM 17.8.765).
3. Production information for the sites covered by this addendum must be submitted to the Department with the annual emission inventory request or within 30 days of completion of the project. The information must include (ARM 17.8.749):
 - a. Tons of material crushed at each site;
 - b. Tons of material screened by each screen at each site;
 - c. Tons of bulk material loaded at each site;
 - d. Daily hours of operation at each site;
 - e. Gallons of diesel fuel used for the generator/engine at each site;
 - f. Fugitive dust information consisting of a listing of all plant vehicles including the following for each vehicle type:
 - i. Number of vehicles;
 - ii. Vehicle type;
 - iii. Vehicle weight, loaded;
 - iv. Vehicle weight, unloaded;
 - v. Number of tires on vehicle;
 - vi. Average trip length;
 - vii. Number of trips per day per vehicle;
 - viii. Average vehicle speed;
 - ix. Area of activity; and
 - x. Vehicle fuel usage (gasoline or diesel) annual total.
 - g. Fugitive dust control for haul roads and general plant area:
 - i. Hours of operation of water trucks; and
 - ii. Application schedule for chemical dust suppressant, if applicable.
4. Helena Sand and Gravel shall document, by day, the total crushing production during the winter season. Helena Sand and Gravel shall sum the total crushing production during the previous 24 hours to verify compliance with the limitations in Section III.A.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission

- inventory (ARM 17.8.749).
5. Helena Sand and Gravel shall document, by day, the total crushing production during the summer season. Helena Sand and Gravel shall sum the total crushing production during the previous 24 hours to verify compliance with the limitations in Section III.B.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
 6. Helena Sand and Gravel shall document, by day, the total screening production during the winter season. Helena Sand and Gravel shall sum the combined total screening production during the previous 24 hours to verify compliance with the limitations in Section III.A.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
 7. Helena Sand and Gravel shall document, by day, the total screening production during the summer season. Helena Sand and Gravel shall sum the combined total screening production during the previous 24 hours to verify compliance with the limitations in Section III.B.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
 8. Helena Sand and Gravel shall document, by day, the hours of operation of the diesel generator during the winter season. Helena Sand and Gravel shall total the hours of operation of the diesel generator(s) during the previous 24 hours to verify compliance with the limitations in Section III.A.8. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
 9. Helena Sand and Gravel shall document, by day, the hours of operation of the diesel generator during the summer season. Helena Sand and Gravel shall total the hours of operation of the diesel generator(s) during the previous 24 hours to verify compliance with the limitations in Section III.B.8. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).

Addendum #1 Analysis
Helena Sand and Gravel, Inc.
Permit #3167-02

I. Permitted Equipment

Helena Sand and Gravel owns and operates a portable crusher (maximum capacity 200 TPH), a screen (maximum capacity 350 TPH), a 450 kW diesel generator, and associated equipment. Helena Sand and Gravel operates at various locations throughout Montana, including in or within 10 kilometers (km) of the following certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas: Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish.

II. Source Description

Helena Sand and Gravel proposes to use this crushing/screening plant and associated equipment to crush sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor and passed through the crusher. Materials are crushed, by the crusher and sent to the two screens. Materials are screened, separated, and sent to stockpile for sale and use in construction operations.

III. Applicable Rules and Regulations

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

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

- A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the source demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Helena Sand and Gravel demonstrated compliance with all applicable rules and standards as required for permit issuance.
- B. ARM 17.8.764 Modification of Permit. An air quality permit may be modified 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 which do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
 - 1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;

2. The source will operate in the new location for a period of less than 1 year; and
3. The source will not have any significant impact on any nonattainment area or any Class I area.

Helena Sand and Gravel must submit proof of compliance with the transfer and public notice requirements when Helena Sand and Gravel transfers to any of the locations covered by this addendum and will only be allowed to stay in the new location for a period of less than 1 year. Also, the conditions and limitations in Addendum #1 to Permit #3167-02 will prevent Helena Sand and Gravel from having a significant impact on PM₁₀ nonattainment areas.

IV. Emission Inventory

Source	Lb/day					
	PM	PM ₁₀	NOx	VOC	CO	SOx
Crusher (up to 200 TPH)	8.10	3.60				
Screen (up to 350 TPH)	65.63	22.84				
Material Transfer	55.13	20.21				
Pile Forming	22.05	10.50				
Bulk Loading	22.05	10.50				
Haul Roads	15.00	6.75				
Diesel Generator (up to 450 kW)	6.34	6.34	217.24	6.38	49.78	18.31
Total	194.29	80.74	217.24	6.38	49.78	18.31

Note: Emission inventory for winter season.

Source	Lb/day					
	PM	PM ₁₀	NOx	VOC	CO	SOx
Crusher (200 TPH)	12.96	5.76				
Screen (350 TPH)	105.00	36.54				
Material Transfer	88.20	32.34				
Pile Forming	35.28	16.80				
Bulk Loading	35.28	16.80				
Haul Roads	15.00	6.75				
Diesel Generator (up to 450 kW)	10.14	10.14	347.59	10.21	79.66	29.29
Total	301.86	125.13	347.59	10.21	79.66	29.29

Note: Emission inventory for summer season.

- A complete emission inventory for 3167-02 is on file with the Department.

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for

PM₁₀. As a result of this designation, EPA required the Department and the City-County Health Departments submit PM₁₀ State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM₁₀ emissions.

Addendum #1 to Permit #3167-02 is for a portable crushing/screening plant to locate at sites in or within 10 km of certain PM₁₀ nonattainment areas during the winter season (October 1 through March 31). Winter season (October 1 through March 31) operations may include only the locations listed in Section II.A of Addendum #1. Addendum #1 of Permit #3167-02 would also allow for summertime operations (April 1 through September 30) at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM₁₀ nonattainment areas.

VI. Air Quality Impacts

Helena Sand and Gravel is allowed to operate a portable crushing/screening plant to be located at various locations throughout Montana. Permit #3167-02 and Addendum #1 will cover the Helena Sand and Gravel crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department-approved permitting program and those areas considered tribal lands. In the view of the Department, the amount of controlled particulate emissions generated by this project will not cause concentrations of PM₁₀ in the ambient air that exceed the ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal.

VII. Taking or Damaging Implication Analysis

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

VIII. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared By: Eric Thunstrom
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