



Montana Department of
ENVIRONMENTAL QUALITY

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December 7, 2012

Harper Sand and Gravel, Inc.
2461 W M Road
Worden, MT 59088

Dear Mr. Hanley:

Montana Air Quality Permit #4822-00 is deemed final as of December 7, 2012, by the Department of Environmental Quality (Department). This permit is for a portable crushing and screening 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,

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

Craig Henrikson, P.E.
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

JM:CPH
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4822-00

Harper Sand and Gravel, Inc.
2461 W M Road
Worden, MT 59088

December 7, 2012



MONTANA AIR QUALITY PERMIT

Issued To: Harper Sand and Gravel, Inc. Montana Air Quality Permit #4822-00
2461 W M Road Application Complete: October 12, 2012
Worden, MT 59088 Preliminary Decision: November 5, 2012
Department Decision Issued: November 21, 2012
Permit Final: December 7, 2012
AFS #: 777-4822

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

SECTION I: Permitted Facilities

A. Permitted Equipment

MAQP #4822-00 allows the operation of a single cone crusher, 3-deck screen, grizzly feeder, and a generator with associated engine up to 1186 horsepower (hp) and associated equipment including stackers and conveyors and associated wash plant.

B. Plant Location

HSG operates a portable crushing and screening facility located in Township 25 North, Range 59 East in Sections 35 and 36 in Richland County. MAQP #4822-00 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM₁₀ nonattainment areas. A summary of equipment used in developing the emission inventory is contained in Section I.A. of the Permit Analysis to MAQP # 4822-00.

SECTION II: Conditions and Limitations

A. Emission Limitations

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

2. All visible emissions from any other NSPS-affected equipment, other than a crusher (such as screens or conveyor transfers), shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
 - For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity
 - For equipment that commences construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 10% opacity
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8. 304).
4. Water and spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752).
5. HSG shall not cause or authorize to be discharged into the atmosphere from any street, road, or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).
6. HSG 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. HSG shall not operate more than one crusher at any given time with the maximum rated design capacity of the crusher not exceeding 400 tons per hour (TPH) (ARM 17.8.749).
8. HSG shall not operate than the two screens simultaneously and the total combined maximum rated design capacity of the screens shall not exceed 800 TPH (ARM 17.8.749).
9. HSG shall not operate more than one diesel-fired engine driving an electrical generator (or directly driving crushers, screens, etc.) at any given time and the maximum rated design capacity shall not exceed 1,186 hp as determined by the rated size of the engine powering the generator (ARM 17.8.749).
10. The total hours of the diesel-fired engine that may be used under this permit shall be limited to 2,100 hours of operation during any rolling 12-month time period (ARM 17.8.749).
11. If the permitted equipment is used in conjunction with any other equipment owned or operated by HSG, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
12. HSG shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, 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 IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

13. HSG shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures, as specified in 40 CFR 60.675 must be performed on all NSPS affected equipment to demonstrate compliance with the emission limitations contained in Sections II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO).
2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer Form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. HSG 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. HSG shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include ***the addition of a new emissions unit***, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

4. HSG 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 HSG as a permanent business record for at least 5 years following the date of the measurement, must be available for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
5. HSG shall document, by month, the hours of operation of the diesel engine/generator. By the 25th of each month, HSG shall calculate the hours of operation of the diesel engine/generator for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

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

SECTION III: General Conditions

- A. Inspection – HSG shall allow the Department’s representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring Systems (CEMS) or Continuous Emission Rate Monitoring Systems (CERMS)), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if HSG fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving HSG 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 of the annual operation fee by HSG 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. HSG shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

MONTANA AIR QUALITY PERMIT (MAQP) ANALYSIS
Harper Sand and Gravel, Inc.
MAQP #4822-00

I. Introduction/Process Description

A. Permitted Equipment

Harper Sand and Gravel, Inc., (HSG) operates a single cone crusher, a 3-deck screen, a grizzly feeder which are all powered by a diesel-fired generator. The total crushing capacity is limited to 400 tons/hr (TPH) and total screening capacity is limited to 800 TPH. All equipment may be operated simultaneously. A limit was taken on generator hours to keep emissions below modeling hours for modeling thresholds for oxides of nitrogen (NO_x).

Cone Crusher
3 Deck Screen 7 X 20
Grizzly Feeder
Diesel-Fired Generator with associated engine rating of 1,186 horsepower

B. Source Description

HSG 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 feeder, transferred by conveyor, and passed through the closed-loop processing equipment. Materials are crushed by the crusher(s) and sent to the screen(s). Materials are screened, separated, and sent to stockpile for sale and use in construction operations.

HSG's initial location is the home pit and is located at 47.8712 latitude and -104.0605 longitude. The township, range, section description is 25 North, Range 59 East in sections 35 and 36 in Richland County.

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 locations 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).

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

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.
5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

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

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, HSG shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standards of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). HSG is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
 - a. 40 CFR 60, Subpart A. – General Provisions apply to all equipment of facilities subject to an NSPS Subpart as listed below.
 - b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by HSG, the portable crushing equipment to be used under MAQP #4822-00 is subject to this requirement because it meets the definition of an affected facility and has been constructed or modified after August 31, 1983.
 - c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary compression ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, are subject to this subpart. Based on the information submitted to the Department, the diesel engine to be used under MAQP #4822-00 may be subject to this subpart. Engines that are added in the future may also be subject to this subpart.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. 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 of facilities subject to a NESHAP Subpart as listed below:

- b. 40 CFR 63, Subpart ZZZZ – NESHAPs for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. A RICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Based on the information submitted by HSG, the RICE equipment to be used under this permit may be subject to this subpart because they operate at an area source of HAP emissions and the engine may remain at the same home pit location for more than 12 consecutive months.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. HSG submitted the appropriate application fee for the current permit action.
2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

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

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. HSG has a PTE greater than 15 tons per year of total particulate matter (PM), and oxides of nitrogen (NO_x); therefore, an MAQP 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. HSG 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. HSG submitted an affidavit of publication of public notice for the October 14, 2012 issue of the *Sidney Herald*, a newspaper of general circulation in the Town of Sidney in Richland 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 HSG 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 MAQP 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 MAQP 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 MAQP 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 MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an MAQP may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

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

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 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 PM₁₀ in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4822-00 for HSG, 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 PM₁₀ nonattainment area.
 - d. This facility is potentially subject to area source provisions of a current National Emissions Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart ZZZZ).
 - e. This facility is subject to current NSPS standards (40 CFR 60, Subpart OOO and potentially Subpart IIII).
 - 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 HSG 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, HSG will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. HSG shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized. All visible emissions from the facility are limited to opacity as referenced in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.752). In addition, all visible emissions from any other associated equipment are limited to 20% opacity. Also, HSG must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking areas, and general plant property. HSG shall use water spray bars and/or chemical dust suppressant, as necessary to maintain compliance with the opacity and reasonable precaution limitations.

Based on the relatively low amount of particulate, PM₁₀, NO_x, CO, VOC and SO₂ emitted it is economically infeasible to require pollution controls on the diesel generator. The control options selected have controls and control costs similar to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

Emission Source	Emissions Tons/Year [PTE]							VOC
	PM	PM ₁₀	PM _{2.5}	PM _{Cond.}	CO	NO _x	SO _x	
Cone Crusher	2.10	0.95	0.18					
Truck Unloading (Assume all material is unloaded that can be processed in crusher)	0.03	0.03	--					
Screens (Two Total)	7.71	2.59	0.18					
Transfer Points (Assume 7 Transfer Points)	1.72	0.56	0.16					
Pile Formation	5.67	2.68	0.41					
Truck Loading (Assume all material is eventually loaded)	0.25	0.08	0.08					
Diesel Generator (Total 1186 hp)	2.74	2.74	0.50	0.07	8.32	38.60	2.55	3.13
Unpaved Roadways (Haul Roads)	5.39	1.49	0.15					
EMISSIONS (Excluding Haul Roads)	20.21	9.63	1.50	0.07	8.32	38.60	2.55	3.13

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

Harper Sand and Gravel Inc. Emission Inventory Calculation Details

Crusher Capacity

Process Rate: 400 ton/hr
 Operating Hours 8760 hours/year

PM Emissions:

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

Calculations (0.0012 lbs/ton) * (400.00 ton/hour) = 0.48 lbs/hr
 = (0.48 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) = 2.10 TPY

PM₁₀ Emissions:

Emission Factor	0.00054 lbs/ton 8/04]	[AP-42 Table 11.19.2-2		
Calculations	(0.00054 lbs/ton) * (400.00 ton/hour) =		0.22 lbs/hr	
	(0.22 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =		0.95 TPY	

PM_{2.5}
Emissions:

Emission Factor	0.0001 lbs/ton 8/04]	[AP-42 Table 11.19.2-2		
Calculations	(0.0001 lbs/ton) * (400.00 ton/hour)		0.04 lbs/hr	
	=			
	(0.04 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =		0.18 TPY	

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

Process Rate:	400.0 ton/hr	(Assumes each crusher operates independently)
Operating Hours	8760 hours/year	

PM₁₀ Emissions:

Emission Factor	0.000016 lbs/ton 8/04]	[AP-42 Table 11.19.2-2		
Calculations	(0.000016 lbs/ton) * (400.00 ton/hour) =		0.01 lbs/hr	
	(0.01 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =		0.03 TPY	

Screening

Process Rate:	800 ton/hr
Operating Hours	8760 hours/year

PM Emissions: (Screening controlled)

Emission Factor	0.00220 lbs/ton 8/04]	[AP-42 Table 11.19.2-2		
Calculations	(0.0022 lbs/ton) * (800.00 ton/hour)		1.76 lbs/hr	
	=			
	(1.76 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =		7.71 TPY	

PM₁₀ Emissions:

Emission Factor	0.00074 lbs/ton 8/04]	[AP-42 Table 11.19.2-2		
Calculations	(0.00074 lbs/ton) * (800.00 ton/hour) =		0.59 lbs/hr	
	(0.59 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =		2.59 TPY	

PM_{2.5}
Emissions:

Emission Factor	0.00005 lbs/ton 8/04]	[AP-42 Table 11.19.2-2		
Calculations	(0.00005 lbs/ton) * (800.00 ton/hour) =		0.04 lbs/hr	
	(0.04 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =		0.18 TPY	

Transfer Points (Assume 7 Transfer Point that are Controlled)

Process Rate: 2800 ton/hr (total of stacker and conveyors)
 Operating Hours 8760 hours/year

PM Emissions: (Conveyor Transfer Points)

Emission Factor 0.00014 lbs/ton [AP-42 Table 11.19.2-2 8/04]
 Calculations (0.00014 lbs/ton) * (2,800.00 ton/hour) = 0.39 lbs/hr
 (0.39 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) = 1.72 TPY

PM₁₀ Emissions:

Emission Factor 0.000046 lbs/ton [AP-42 Table 11.19.2-2 8/04]
 Calculations (0.000046 lbs/ton) * (2,800.00 ton/hour) = 0.13 lbs/hr
 (0.13 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) = 0.56 TPY

PM_{2.5} Emissions:

Emission Factor 0.000013 lbs/ton [AP-42 Table 11.19.2-2 8/04]
 Calculations (0.000013 lbs/ton) * (2,800.00 ton/hour) = 0.04 lbs/hr
 (0.04 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) = 0.16 TPY

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

Process Rate: 400 ton/hr Equation 1 from AP-42 Sec 13.2.4.3 11/06
 Operating Hours 8760 hrs/yea U = wind speed miles per hour 8.15 (Typical Value)
 r k = particle size multiplier 0.74 AP-42 Sec 13.2.4-3 11/06
 PM Emissions: M = Moisture content % 2.52 (Typical Value)

Emission Factor 0.00323375 lbs/ton $E = k * (0.0032) * (U/5)^{1.3} / (M/2)^{1.4}$
 Calculations (0.00323 lbs/ton) * (400.00 ton/hour) = 1.29 lbs/hr
 (1.29 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) = 5.67 TPY

Equation 1 from AP-42 Sec 13.2.4.3 11/06
 U = wind speed miles per hour 8.15 8.15 (Typical Value)
 k = particle size multiplier 0.35 0.35 AP-42 Sec 13.2.4-3 11/06
 PM₁₀ Emissions: M = Moisture content % 2.52 2.52 (Typical Value)

Emission Factor	0.00152947 8	lbs/ton	$E = k \cdot (0.0032)^k \cdot (U/5)^{1.3} / (M/2)^{1.4}$	
Calculations	(0.00153 lbs/ton) * (400.00 ton/hour) =			0.61 lbs/hr
	(0.61 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			2.68 TPY

PM_{2.5} Emissions:

Equation 1 from AP-42 Sec 13.2.4.3
11/06

U = wind speed miles per hour	8.15	8.15	(Typical Value)
k = particle size multiplier	0.05	0.35	AP-42 Sec 13.2.4-3 11/06
	3		
M = Moisture content %	2.52	2.52	(Typical Value)

Emission Factor	0.00023160 7	lbs/ton	$E = k \cdot (0.0032)^k \cdot (U/5)^{1.3} / (M/2)^{1.4}$	
Calculations	(0.00023 lbs/ton) * (400.00 ton/hour) =			0.09 lbs/hr
	(0.09 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			0.41 TPY

Truck Loading (Assume all material is eventually loaded)

Modeled as Truck Loading Conveyor

Process Rate:	400	ton/hr
Operating Hours	8760	hours/year

PM Emissions:

Emission Factor	0.00014	lbs/ton	[AP-42 Table 11.19.2-2 8/04]	
Calculations	(0.00014 lbs/ton) * (400.00 ton/hour) =			0.06 lbs/hr
	(0.06 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			0.25 TPY

PM₁₀ Emissions:

Emission Factor	0.000046	lbs/ton	[AP-42 Table 11.19.2-2 8/04]	
Calculations	(0.000046 lbs/ton) * (400.00 ton/hour) =			0.02 lbs/hr
	(0.02 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			0.08 TPY

Diesel Generator (Total 1186 hp) (Lowest rated engine for emission purposes since no known year)

Engine Rating:	1186	hp	
Operating Hours:	2100	hrs/yr	
Fuel Input	8.302	MMbtu/hr	BSFC = 7,000 BTU/hp-hr (AP42 Table 3.3-1 10/96)
	60.599	gallons/hr	(137,000 BTU/gal)

Particulate Emissions:

PM Emissions:

Emission Factor	0.0022 lb/hp-hr	[AP-42 3.3-1, 10/96]		
Calculations	(0.0022 lb/hp-hr) * (1186 hp) =		2.61	lbs/hr
	(2.61 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		2.74	TPY

PM₁₀ Emissions:

Emission Factor	0.0022 lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0022 lb/hp-hr) * (1186 hp) =		2.61	lbs/hr
	(2.61 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		2.74	TPY

PM_{2.5} Emissions (filterable):

Emission Factor	0.0497 lb/MMBtu	[AP-42 3.4-1, 10/96]		
Calculations	(0.0497 lb/MMBtu) * (8.302 MMBtu/hr) =		0.41	lbs/hr
	(0.41 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		0.43	TPY

PM_{2.5} Emissions (condensable):

Emission Factor	0.0077 MMBtu	[AP-42 3.4-1, 10/96]		
Calculations	(0.0077 lb/MMBtu) * (8.302 MMBtu/hr) =		0.06	lbs/hr
	(0.06 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		0.07	TPY

CO Emissions:

Emission Factor	0.00668 lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.00668 lb/hp-hr) * (1186 hp) =		7.92	lbs/hr
	(7.92 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		8.32	TPY

NO_x Emissions:

Emission Factor	0.031 lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.031 lb/hp-hr) * (1186 hp) =		36.77	lbs/hr
	(36.77 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		38.60	TPY

SO_x Emissions:

Emission Factor	0.00205 lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0021 lb/hp-hr) * (1186 hp) =		2.43	lbs/hr
	(2.43 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		2.55	TPY

VOC Emissions:

Emission Factor	0.00251 lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0025 lb/hp-hr) * (1186 hp) =		2.98	lbs/hr
	(2.98 lbs/hr) * (2100 hrs/yr) * (0.0005 tons/lb) =		3.13	TPY

Unpaved Roadways (Haul Roads)

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

PM Emissions(uncontrolled): PM₃₀

Emission Factor	$EF = 4.9 * (7.1/12)^{0.7} * (48/3)^{0.45} =$	11.8	lbs/VM
		2	T
Calculations	$(11.82 \text{ lbs/VMT}) * (5 \text{ miles/day}) =$	59.08	lbs/day
	$(59.08 \text{ lbs/day}) * (365 \text{ days/yr}) * (0.0005 \text{ tons/lb}) =$	10.78	TPY
	50% Control Efficiency	5.39	TPY

PM₁₀ Emissions(uncontrolled):

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

PM_{2.5} Emissions(uncontrolled):

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

V. Existing Air Quality

HSG's initial location is the home pit and is located at 47.8712 latitude and -104.0605 longitude. The township, range, section description is 25 North, Range 59 East in sections 35 and 36 in Richland County. This location and those areas for which this facility is permitted to operate under MAQP #4822-00 are considered attainment/unclassified for all the National Ambient Air Quality Standards (NAAQS).

VI. Air Quality Impacts

This permit is for a portable crushing and screening facility. MAQP #4822-00 will cover the operation at any location within the State of Montana, excluding those counties that have a Department approved permitting program, areas considered tribal lands, or areas in or within 10

kilometers (km) of certain PM₁₀ nonattainment areas. In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be short-lived.

VII. Ambient Air Impact Analysis

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

VIII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

VIII. Environmental Assessment

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

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: *Harper Sand and Gravel, Inc.*
 2461 W M Road
 Worden, MT 59088

Montana Air Quality Permit Number: *4822-00*

Preliminary Determination Issued: *11/05/2012*

Department Decision Issued: *11/21/2012*

Permit Final: *12/7/2012*

1. *Legal Description of Site:* Harper Sand and Gravel, Inc. (HSG) submitted an application to operate a portable crushing and screening operation with associated wash plant all powered by a single diesel-fired generator. Montana Air Quality Permit (MAQP) #4822-00 would apply while operating at any location in Montana, except within those areas having a Department-approved permitting program, those areas considered to be tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. An addendum to this air quality permit would be required if HSG intends to locate in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*
2. *Description of Project:* The permit application is for the operation of a portable crushing and screening operation and a diesel-fired generator with total engine horsepower (hp) up to 1186. The diesel-fired generator would be used to provide power to the HSG equipment (i.e. screens, crusher, conveyors, etc.).
3. *Objectives of Project:* The object of the project would be to produce business and revenue for the company through the sale and use of aggregate. The issuance of MAQP #4822-00 would allow HSG to operate the permitted equipment at various locations throughout Montana, including the proposed initial site location.
4. *Alternatives Considered:* In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because permitting HSG's equipment in a de minimis fashion should facilitate compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A listing of the enforceable permit conditions and a permit analysis, including a Best Available Control Technology (BACT) analysis, is included in this permit action.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

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

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

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

A. Terrestrial and Aquatic Life and Habitats

The operation of the portable crushing and screening facility would have only minor impacts upon the terrestrial and aquatic life and habitats in areas where the generator may operate. Although air pollutant deposition would occur in the areas where the equipment would operate, the size and temporary nature of the operation, dispersion characteristics of pollutants, and conditions placed in MAQP #4822-00 would result in minor impacts. Therefore, the operation of the equipment would present only minor impacts to the terrestrial and aquatic life and habitats in areas of potential operation.

B. Water Quality, Quantity, and Distribution

Although there would be an increase in air emissions in the area where the portable crushing and screening facility would operate, there would only be minor impacts on water quality, quantity, and distribution because of the temporary nature, size, operational requirements, and conditions placed in MAQP #4822-00 for the facility. Further, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor. In addition, any accidental spills or leaks from equipment would be required to be handled according to the appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area. Overall, the operation of the equipment would have minor impacts to water quality, quantity, and distribution in the area of operations.

C. Geology and Soil Quality, Stability, and Moisture

As a result of the operation of the portable crushing and screening facility, there would be minor impacts to the geology and soil quality, stability, and moisture near the equipment's operational area because of the increased vehicle traffic and deposition of pollutants from the portable crushing and screening operation. 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 #4822-00 would minimize the impacts from deposition. In addition, the equipment would be operating on a temporary basis for the duration of the projects, which would also reduce the potential impact to the local geology and soil quality, stability, and moisture.

D. Vegetation Cover, Quantity, and Quality

The operation of the crushing and screening equipment would result in minor impacts to the vegetative cover, quantity, and quality, because small amounts of vegetation would likely be disturbed as a result of operating the portable crushing and screening facility. In addition, pollutant deposition would occur on the surrounding vegetation. However, as explained in Section 7.F. of this EA, the Department determined that, due to the temporary nature of the operation, conditions placed in MAQP #4822-00, and dispersion characteristics of the emissions, any impacts from deposition would be minor. In addition, because the water usage would be minor (as described in Section 7.B. of this EA) and the associated soil disturbance would be minor (as described in Section 7.C. of this EA), corresponding vegetative impacts from water and soil disturbance would also be minor.

E. Aesthetics

The portable crushing and screening facility would be visible and would create noise in the areas where it would operate. MAQP #4822-00 would include conditions to control emissions (including visible emissions) from the crushing and screening equipment and the surrounding work area. The generator would be moderately sized by industrial standards and temporary and would be used to power permitted portable equipment operated by HSG. Therefore, any aesthetic impact to a given area would be minor and last only as long as the equipment is located at a given location.

F. Air Quality

Air quality impacts from the operation of the portable crushing and screening facility would be minor because emissions from the portable crushing and screening facility would be relatively small. Dispersion and deposition of pollutants would occur from the operation of the portable crushing and screening facility; however, the Department determined that any air quality impacts from the pollutants would be minor due to dispersion characteristics (from factors such as wind speed and wind direction) and conditions placed in MAQP #4822-00.

MAQP #4822-00 would include conditions limiting opacity from the portable crushing and screening facility and would require that reasonable precautions be taken to control emissions from haul roads, access roads, parking lots, or the general work area. In addition, the permit would also limit total emissions from the portable crushing and screening facility and any additional equipment operated at the same site to 250 tons per year or less. Further, because the portable crushing and screening facility has less than 100 tons per year of potential emissions for any pollutant generated, the Department determined that the portable crushing and screening facility is a minor source of emissions as defined under Title V.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify species of special concern that may be present in the proposed areas of operation, the Department contacted the Montana Natural Heritage Program (MNHP) for a review of species of special concern. A single species (Whooping Crane) was identified as endangered within the area where the crushing/screening facility is proposed. Issuance of this permit would increase emissions to the atmosphere near any location proposed for the operation of the portable crushing and screening facility. However, as explained in Section 7.F. of this EA, because of the temporary nature of the portable crushing and screening facility, and conditions placed in MAQP #4822-00, any impacts to unique endangered, fragile, or limited environmental resources from the deposition of pollutants would be minor.

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

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

I. Historical and Archaeological Sites

According to correspondence with the Montana State Historic Preservation Office (SHPO), there are no previously recorded sites within the proposed site location. Therefore, it is unlikely that the project would affect any historic or archaeological site and no resulting impacts.

J. Cumulative and Secondary Impacts

The operation of the portable crushing and screening facility would cause minor effects to the physical and biological environment because the site is currently in pasture land. However, any operations would have to apply for and receive the appropriate permits in addition to this MAQP prior to operation. The permits would address the environmental impacts associated with the operations at the proposed site. The source is also currently pursuing an open cut mining permit at the same location.

The portable crushing and screening facility operations would be limited by MAQP #4822-00 to total emissions of 250 tons/year or less from non-fugitive portable crushing and screening facility operations and any other additional equipment used at any given site.

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

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

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

A. Social Structures and Mores

The operation of the portable crushing and screening facility would not likely alter or disrupt any local lifestyles or communities (social structures and mores) in the area of operation because equipment would operate intermittently, and only for the duration of specific projects. However, because the location is currently not occupied by any equipment the existing social structures and mores could be affected in a minor way as a result of this permitting action.

B. Cultural Uniqueness and Diversity

It would be likely that the operation of the portable crushing and screening equipment would have a minor impact on the cultural uniqueness and diversity because the equipment operations would be new to the location which has previously not been occupied by equipment.

C. Local and State Tax Base and Tax Revenue

The proposed operation of the portable crushing and screening facility would have a minor affect on local and state tax base and tax revenue. The facility is a relatively small and temporary source; therefore, it may not remain at any individual site for any extended time period. Up to eight (8) new jobs would be created as a result of issuing MAQP #4822-00, and any revenue created by the operation of the portable crushing and screening facility would be widespread and for a relatively short time period.

D. Agricultural or Industrial Production

Under normal circumstances, operation of portable crushing and screening facility would take place in a previously disturbed industrial area. This location, however, currently is pasture land and rangeland so the area will result in a loss of approximately 10 acres. Therefore, the Department expects that the operation of the portable crushing and screening facility would have a minor affect on agricultural land. Further, the portable crushing and screening facility operation is in one place only for the duration of each specific project and would have only a minor impact on any local industrial production.

E. Human Health

MAQP #4822-00 would incorporate conditions to ensure that the portable crushing and screening facility would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the Department determined that any impacts from deposition of pollutants would be minor due to dispersion characteristics and conditions placed in MAQP #4822-00. The air emissions from this facility would be minimized by opacity limitations on the portable crushing and screening facility and the surrounding area of operation.

F. Access to and Quality of Recreational and Wilderness Activities

This plant will not be located on previously disturbed property, or in a previously used industrial area, but it would not impact access to recreational and wilderness activities. However, minor impact on the quality of recreational activities is expected due to noise from the cone crusher, screens and generator. Emissions from the generator would be minimized as a result of limitations placed in MAQP #4822-00 and the temporary and portable nature of the operation.

G. Quantity and Distribution of Employment

Given the relatively small size and temporary nature of the operation, it is not expected that the activities from the operation of the portable crushing and screening facility would significantly affect the quantity and distribution of employment in any given area. Minor increases in an area's employment could result as a result of issuing MAQP #4822-00.

H. Distribution of Population

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

I. Demands of Government Services

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

J. Industrial and Commercial Activity

The operation of the portable crushing and screening facility would represent only a minor increase in the industrial activity in any given area. No additional industrial or commercial activity would result from the operation of the portable crushing and screening facility because no secondary activities are expected to move to any area as a result of the current project.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals at any given site that the portable crushing and screening facility may be operated at under MAQP #4822-00. The conditions identified in MAQP #4822-00 would apply to operation of the portable crushing and screening facility at the proposed initial site as well as any other location in Montana as described in Section 1 of this EA.

L. Cumulative and Secondary Impacts

Overall, the cumulative and secondary social and economic impacts from this project would be minor because the portable crushing and screening facility is considered a small sized operation by industrial standards. New businesses would likely not be drawn to the area and few permanent jobs would be created or lost due to the operation of the portable crushing and screening facility. Because up to eight (8) employees would be hired due to the operation of the portable crushing and screening facility, there would be minor economic impacts from new employees. In addition, any social and economic impacts that are created would be minor and short-lived because of the relatively small size and temporary nature of the operation.

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

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

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

Individuals or groups contributing to this EA: *Department of Environmental Quality – Air Resources Management Bureau.*

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