Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

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PRELIMINARY DETERMINATION
ON PERMIT APPLICATION

Date of Mailing: March 26, 2014

Name of Applicant: River Aggregates, LLC

Source: Portable Non-Metallic Mineral Processing Plant

Proposed Action: The Department of Environmental Quality (Department) proposes to issue a permit, with conditions, to the above-named applicant. The application was assigned Montana Air Quality Permit Application Number 5004-00.

Proposed Conditions: See attached.

Public Comment: Any member of the public desiring to comment must submit such comments in writing to the Air Resources Management Bureau (Bureau) of the Department at the above address. Comments may address the Department's analysis and determination, or the information submitted in the application. In order to be considered, comments on this Preliminary Determination are due by April 25, 2014. Copies of the application and the Department's analysis may be inspected at the Bureau's office in Helena. For more information, you may contact the Department.

Departmental Action: The Department intends to make a decision on the application after expiration of the Public Comment period described above. A copy of the decision may be obtained at the above address. The permit shall become final on the date stated in the Department's Decision on this permit, unless an appeal is filed with the Board of Environmental Review (Board).

Procedures for Appeal: Any person jointly or severally adversely affected by the final action may request a hearing before the Board. Any appeal must be filed by the date stated in the Department's Decision on this permit. The request for a hearing shall contain an affidavit setting forth the grounds for the request. Any hearing will be held under the provisions of the Montana Administrative Procedures Act. Submit requests for a hearing in triplicate to: Chairman, Board of Environmental Review, P.O. Box 200901, Helena, MT 59620.

For the Department,

Julie A Merkel

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

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JM:DCK
Enclosure

MONTANA AIR QUALITY PERMIT

Issued To: River Aggregates, LLC
P.O. Box 408
Alexander, ND 58831

MAQP: #5004-00
Application Complete: 03/14/2014
Preliminary Decision Issued: 03/26/2014
Department's Decision Issued:
Permit Final:
AFS#: 777-5004

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

Section I: Permitted Facilities

A. Permitted Equipment

River Aggregates proposes to install and operate a portable non-metallic mineral processing plant and associated equipment. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Plant Location

River Aggregates operates a portable non-metallic mineral processing plant, which will initially be located within Section 21, Township 24 North, Range 59 East, in Richland County, Montana. However, MAQP #5004-00 applies while operating at any location in Montana, except within those areas having a Montana Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) or certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum to this air quality permit will be required if River Aggregates intends to locate in or within 10 km of certain PM_{10} nonattainment areas.

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 in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 Code of Federal Regulations (CFR) Part 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 (such as screens and conveyors) for which requirements of 40 CFR 60 Subpart OOO are applicable 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 commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity.

- For equipment that commence 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 water spray bars shall be available on site at all times and operated, as necessary, to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).

5. River Aggregates 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. River Aggregates shall treat all unpaved portions of the haul roads, access roads, parking lots, or general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749 and ARM 17.8.752).

7. River Aggregates may have onsite and operate one or more crushers where the combined maximum rated design capacity of the crusher(s) shall not exceed 950 tons per hour (TPH) (ARM 17.8.749).

8. River Aggregates may have onsite and operate one or more screens where the combined maximum rated design capacity of the screen(s) shall not exceed 950 TPH (ARM 17.8.749).

9. River Aggregates may have onsite and operate one or more diesel-fired nonroad engines, including generator set engines, where the combined maximum rated design capacity of the diesel-fired engine(s) shall not exceed 2,360 brake-horsepower (bhp) (ARM 17.8.749 and ARM 17.8.1204).

10. Combined operating hours of the diesel-fired nonroad engine(s) shall not exceed 2,700 hours during any rolling 12-month period (ARM 17.8.749 and ARM 17.8.1204).

11. If the permitted equipment is used in conjunction with any other equipment owned or operated by River Aggregates, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of emissions during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

12. River Aggregates 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).

13. River Aggregates shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal 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).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2. Additional testing may be required by 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, 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 portable crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. River Aggregates 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 is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in the permit analysis.

3. 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 units as required by the Department. This information may be used for calculating operating fees, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. River Aggregates 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 emission 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).

5. River Aggregates shall maintain on-site records showing daily hours of operation and daily production rates for the last 12-months. All records compiled in accordance with this permit shall be maintained by River Aggregates as a permanent business record for at least 5 years following the date of the measurement, must be submitted to the Department upon request, and must be available at the plant site for inspection by the Department (ARM 17.8.749).

6. River Aggregates shall document, by month, the hours of operation of the nonroad diesel-fired engine(s), including generator set engines. By the 25th day of each month, River Aggregates shall calculate the hours of operation for the diesel-fired engine(s) 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).

7. River Aggregates shall annually certify that its emissions are less than those that would require the facility to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

River Aggregates shall provide the Department with written notification of the actual start-up date of the crushing and screening operation postmarked within 15 days after the actual start-up date (ARM 17.8.749).

Section III: General Conditions

A. Inspection – River Aggregates 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)/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 River Aggregates fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving River Aggregates 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*. (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. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by River Aggregates. 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. River Aggregates shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas having a Department-approved permitting program or areas considered tribal areas.

Montana Air Quality Permit (MAQP) Analysis
River Aggregates, LLC
MAQP #5004-00

I. Introduction/Process Description

River Aggregates, LLC (River Aggregates) owns and operates a portable non-metallic mineral processing plant.

A. Permitted Equipment

The following list of permitted equipment is based on the most recent permit application and is provided for reference, as MAQP #5004-00 is written de minimis friendly, whereby operational flexibility is provided so that alternate equipment may be utilized given that maximum permitted capacities are not exceeded. See Section II of the MAQP for specific equipment limitations and/or conditions. Equipment permitted under this action includes, but is not limited to the following:

- 950 tons per hour (TPH) aggregate crushing capacity;
  → Metso/Norberg HP 300 cone crusher (package)
  → Metso/Norberg HP 4 cone crusher
- 950 TPH aggregate screening capacity;
  → Metso/Norberg HP 300 screen (package)
  → Metso FS303 7'x20' single deck screen
  → Metso FS303 2-deck screen
- Diesel-fired engines, generator sets or package engines, with a maximum combined capacity of 2,360 brake-horse power (bhp);
  → (2) 1998 Caterpillar 3412 diesel generator set [1,180 brake-horsepower (bhp)]
- Associated equipment, such as: feeders, conveyors (including integrated equipment conveyors), stackers, and other material handling equipment.
  → (15) 36'x 60' conveyors
  → 36'x 150' stacker
  → 36'x 100' stacker

B. Source Description

The crushing/screening plant is used to crush and sort gravel/sand materials for use in various construction activities. For a typical operational setup the raw materials will initially be sent through a primary crusher and then through a series of secondary crushers and/or screens for sorting or processing to the desire dimension, and ultimately to a stockpile for use in construction operations.

River Aggregates will initially be located within Section 21, Township 24 North, Range 59 East, in Richland, Montana. This site will serve as the sources home-pit.

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule is 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).

   River Aggregates 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.

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 which, 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. (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 Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO_2)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO_2)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standards for Ozone (O_3)
6. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
7. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (PM_{10})

River Aggregates 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 are taken to control emissions of airborne particulate matter. (2) Under this rule, River Aggregates shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.

4. ARM 17.8.310 Particulate Matter, Industrial 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 rule.

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 rule.

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 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by River Aggregates the portable crushing/screening operation and associated equipment are applicable to NSPS (40 CFR 60), as follows:

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by River Aggregates, the portable crushing equipment to be used under MAQP #5004-00 is subject to this subpart as it meets the definition of an affected facility constructed after August 31, 1983.

   c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. As the permit is written in a de minimis-friendly manner, the CI ICE equipment to be used by River Aggregates under MAQP #5004-00 is potentially subject to this Subpart depending upon the construction/manufacture date and the upon the location, nature, and duration of operation.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Based on the information submitted by River Aggregates, the associated diesel-fired engines are applicable to NESHAP (40 CFR 63), as follows:

   a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

   b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants 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 hazardous air pollutant (HAP) emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. As River Aggregates is considered an area source of HAP emissions and operates RICE equipment, the engine(s) are potentially subject to this subpart depending upon the location, nature, and duration of operation.

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. River Aggregates submitted the appropriate permit application fee for this 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.

   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 (tpy) of any pollutant. River Aggregates has a PTE greater than 15 tpy of PM, PM_{10}, CO, and oxides of nitrogen (NO_x); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.

4. ARM 17.8.745 Montana Air Quality Permits—Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. River Aggregates 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. River Aggregates submitted an affidavit of publication of public notice for the March 9, 2014, issue of the *Sydney Herald*, a newspaper of general circulation in the City of Sydney, 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 River Aggregates of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of Intent to Transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

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

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major 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 tpy of any air pollutant (excluding fugitive emissions).

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

a. PTE > 100 tpy of any pollutant;

b. PTE > 10 tpy of any single HAP, PTE > 25 tpy of combined HAPs, or a lesser quantity as the Department may establish by rule; or

c. PTE > 70 tpy of PM_{10} in a serious PM_{10} 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 #5004-00 for River Aggregates, the following conclusions were made:

   a. River Aggregates has requested that federally-enforceable permit operating limits be established to maintain the facility's PTE to less than the 100 tpy and 80 tpy thresholds for all criteria pollutants.

   b. The facility's PTE is less than 10 tpy of any single HAP and less than 25 tpy of combined HAPs.

   c. This source is not located in a serious PM_{10} nonattainment area.

   d. This facility is subject to current NSPS (40 CFR 60, Subpart OOO and potentially subject to Subpart IIII).

   e. This facility is potentially subject to current NESHAP standards (40 CFR 63, Subpart ZZZZ).

   f. This source is not a Title IV affected source.

   g. This source is not a solid waste combustion unit.

   h. This source is not an EPA designated Title V source.

   River Aggregates requested federally-enforceable permit limitations to remain a minor source of emissions with respect to Title V. Based on these limitations, the Department determined that this facility is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit; this source will be subject to the Title V Operating Permit Program.

   i. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

      i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.

      ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

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

A. Process and Fugitive Particulate Emissions

Two types of emission controls are readily available and used for dust suppression of fugitive emissions at the site. These two control methods are water and/or chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the crushing/screening operation, and for emissions from the crushing/screening operation itself. However, because water is more readily available, is more cost effective, is often equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions. In addition, water suppression has been required of recently permitted similar sources. However, depending on individual site circumstances River Aggregates may use chemical dust suppressants to assist in controlling particulate emissions. The Department determined that the use of water and/or chemical dust suppressant, as necessary, constitutes BACT.

River Aggregates shall not cause or authorize to be discharged into the atmosphere from any NSPS-affected crusher any visible emissions that exhibit an opacity of 12% or greater averaged over 6 consecutive minutes for crushers that commenced construction, modification, or reconstruction on or after April 22, 2008. Additionally, River Aggregates shall not cause or authorize to be discharged into the atmosphere from any other associated NSPS-affected equipment, such as screens and material conveyors, any visible emissions that exhibit an opacity of 7% or greater averaged over 6 consecutive minutes for equipment that commences construction, modification, or reconstruction after April 22, 2008, and 10% for equipment that commences construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008. Finally, River Aggregates shall not cause or authorize to be discharged into the atmosphere from any crusher, screen, or associated equipment, not subject to NSPS, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes

River Aggregates is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity restrictions and reasonable precautions limitations.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT.

B. Diesel Engines

Due to the limited amount of emissions produced by the diesel-fired engines and the lack of readily available cost effective post-manufacturer add-on controls, add-on controls would be cost prohibitive.

Generally, any new diesel-fired engine would likely be required to comply with the federal engine emission limitations including, for example, EPA Tier engine exhaust emission standards for non-road engines (40 CFR Part 1039), New Source Performance

Standard emission limitations for stationary compression ignition engines (40 CFR 60, Subpart IIII), or National Emissions Standards for Hazardous Air Pollutant Sources for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ).

Therefore, the Department has determined that compliance with applicable federal standards and proper operation and maintenance of the engines constitutes BACT for these engines. The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

	Emissions Tons/Year [PTE] [(a)]							
	Emissions Tons/Year [PTE]							
Emission Source	PM	PM_{10}	$PM_{2.5}$	PM_{cond}	CO	NOx[(b)]	SO_2	VOC
Aggregate Crushers	4.99	2.25	0.42	--	--	--	--	--
Aggregate Deck Screen	9.15	3.08	0.21	--	--	--	--	--
Material Handling	29.57	12.73	2.31	--	--	--	--	--
Diesel-Fired Engines [≤ 2036 bhp]	5.66	5.66	1.00	0.14	17.18	79.74	5.27	6.47
Unpaved Roadways (Haul Roads)	5.49	1.51	0.15	--	--	--	--	--
TOTAL EMISSIONS ▶	54.87	25.23	4.09	0.14	17.18	79.74	5.27	6.47

(a) PM emissions presented in the table represent the sum of the filterable and condensable particulate matter (CPM) fractions. All CPM is considered to be $PM_{2.5}$.
(b) Emission Inventory reflects enforceable limits on hours of operation of the diesel-fired generator engine to keep allowable NO_x emissions below the Title V threshold [100 tpy] and the State CMS SM source threshold [80 tpy].

ASOS, Automated Surface Observing System	PTE, Potential To Emit
AWOS, Automated Weather Observing System	PM, particulate matter
BSFC, brake specific fuel consumption	PM_{COND}, condensable particulate matter
bhp, brake-horsepower	PM_{10}, particulate matter with an aerodynamic diameter of 10 microns or less
Btu, British Thermal Units	$PM_{2.5}$, particulate matter with an aerodynamic diameter of 2.5 microns or less
CMS, compliance monitoring strategy	[Sum of condensable and filterable]
CO, carbon monoxide	SCC, Source Classification Code
EF, emission factor	SO_2, sulfur dioxide
hr, hour	TPH, tons per hour
lbs, pounds	TPY, tons per year
MM, million	VMT, vehicle miles travelled
mph, miles per hour	VOC, volatile organic compounds
NO_X, oxides of nitrogen	

Portable Non-Metallic Mineral Processing Plant

Production Rate:

Crushers	950 tons/hour (Maximum)	8,322,000 tons/year (Maximum)
Screens	950 tons/hour (Maximum)	8,322,000 tons/year (Maximum)

Allowable Hours of Operation: 8760 hours/year [Material Processing]
2180 hours/year [Diesel-Fired Engine(s)]

Power Source: Diesel-Fired Generator set or package engine(s) not to exceed 2360 bhp (combined) or Utility provided line power

Material Processing:
Aggregate Crushers [SCC 3-05-020-01]
Process Rate: 950 tons/hour
Operating Hours: 8760 hours/year

Particulate Emissions (controlled):
PM Emissions:

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

Calculations	(0.0012 lbs/ton) * (950 tons/hr) =		1.14 lbs/hr
	(1.14 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		4.99 TPY

PM_{10} Emissions:

Emission Factor	0.00054 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00054 lbs/ton) * (950 tons/hr) =		0.51 lbs/hr
	(0.513 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		2.25 TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.00010 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0001 lbs/ton) * (950 tons/hr) =		0.10 lbs/hr
	(0.095 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.42 TPY

Aggregate Cold Deck Screens [SCC 3-05-020-02]
Process Rate: 950 tons/hour
Operating Hours: 8760 hours/year

Particulate Emissions (controlled):

PM Emissions:

Emission Factor	0.0022 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0022 lbs/ton) * (950 tons/hr) =		2.09 lbs/hr
	(2.09 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		9.15 TPY

PM_{10} Emissions:

Emission Factor	0.00074 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00074 lbs/ton) * (950 tons/hr) =		0.70 lbs/hr
	(0.703 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		3.08 TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.00005 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00005 lbs/ton) * (950 tons/hr) =		0.05 lbs/hr
	(0.0475 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.21 TPY

Material Handling:

Fragmented Stone Load-In ► Ground Storage [SCC 3-05-020-31]
Process Rate: 950 tons/hour [Crusher Capacity]
Operating Hours: 8760 hours/year

Particulate Emissions (uncontrolled):
PM Emissions:

Emission Factor	0.000031 lbs/ton	[PM = PM_{10}/0.51 ► AP-42 Appendix B.2 - Table B.2.2, Category 3, 1/95]	
Calculations	(0.000031 lbs/ton) * (950 tons/hr) =		0.03 lbs/hr
	(0.02945 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.13 TPY

PM_{10} Emissions:

Emission Factor	0.000016 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.000016 lbs/ton) * (950 tons/hr) =		0.02 lbs/hr
	(0.0152 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.07 TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.000005 lbs/ton [$PM_{2.5}$ = PM*0.15 ► AP-42 Appendix B.2 - Table B.2.2, Category 3, 1/95]	
Calculations	(0.000005 lbs/ton) * (950 tons/hr) =	0.00 lbs/hr
	(0.0044175 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =	0.02 TPY

Conveyor Transfer Points [SCC 3-05-020-06]

Process Rate:	950 tons/hour [Maximum Facility Capacity]
Operating Hours:	8760 hours/year
Total Transfers:	15 Transfers [Worst-Case Based On Equipment Available]

Particulate Emissions (controlled):

PM Emissions:

Emission Factor	0.00014 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00014 lbs/ton) * (950 tons/hr) * (15 Transfers) =	2.00 lbs/hr
	(1.995 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =	8.74 TPY

PM_{10} Emissions:

Emission Factor	0.000046 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.000046 lbs/ton) * (950 tons/hr) * (15 Transfers) =	0.66 lbs/hr
	(0.656 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =	2.87 TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.000013 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.000013 lbs/ton) * (950 tons/hr) * (15 Transfers) =	0.19 lbs/hr
	(0.185 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =	0.81 TPY

Storage Pile Load-In & Load-Out [SCC 30502505 / 30502502]

Process Rate:	950 tons/hour [Maximum Facility Capacity]
Operating Hours:	8760 hours/year
Pile Transfers:	1 [Initial Pile Formation]

Particulate Emissions (controlled):

Emission Factor EF = k (0.0032) * [$(U/5)^{1.3}$ / $(M / 2)^{1.4}$] [AP-42 13.2.4, 11/06]

where: EF, Emission Factor = lbs Emitted / ton Processed

k, Dimensionless Particle Size Multiplier PM =	0.74	[AP-42 13.2.4, 11/06]
k, Dimensionless Particle Size Multiplier PM_{10} =	0.35	[AP-42 13.2.4, 11/06]
k, Dimensionless Particle Size Multiplier $PM_{2.5}$ =	0.053	[AP-42 13.2.4, 11/06]
U, Mean Wind Speed (mph) =	9.3	[ASOS/AWOS AVE-MT 10 yr Ave.]
M, Material Moisture Content (%) =	2.10	[AP-42 13.2.4.1, 11/06]

PM Emissions:

Emission Factor	EF = 0.74 * (0.0032) * [(9.33/5)^1.3 / (2.1/ 2)^1.4] =	0.0050 lbs/ton
Calculations	(0.0050 lbs/ton) * (950 tons/hr) * (1 pile transfers) =	4.73 lbs/hr
	(4.73 lbs/hr) * (8760 hours/yr) * (0.0005 tons/lb) =	20.71 TPY

PM_{10} Emissions:

Emission Factor	EF = 0.35 * (0.0032) * [(9.33/5)^1.3 / (2.1/ 2)^1.4] =	0.0024 lbs/ton
Calculations	(0.0024 lbs/ton) * (950 tons/hr) * (1 piles) =	2.24 lbs/hr
	(2.24 lbs/hr) * (8760 hours/yr) * (0.0005 tons/lb) =	9.79 TPY

$PM_{2.5}$ Emissions:

Emission Factor	EF = 0.053 * (0.0032) * [(9.33/5)^1.3 / (2.1/ 2)^1.4] =	0.00036	lbs/ton
Calculations	(0.0004 lbs/ton) * (950 tons/hr) * (1 piles) =	0.34	lbs/hr
	(0.34 lbs/hr) * (8760 hours/yr) * (0.0005 tons/lb) =	1.48	TPY

Diesel Generator Engine [SCC 2-02-001-02]

Engine Rating:	2360	bhp [Design Maximum Output]
Fuel Input:	16.52	MMBtu/hr [BSFC →7,000 Btu/hp-hr]
	120.6	gallons/hour [Estimated →19,300 Btu/lb]
Hours of Operation:	2700	hours/year

Particulate Emissions (uncontrolled):

PM Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.0022 lb/hp-hr) * (2360 bhp) =			5.19 lbs/hr
	(5.19 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			7.01 TPY

PM_{10} Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.0022 lb/hp-hr) * (2360 bhp) =			5.19 lbs/hr
	(5.19 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			7.01 TPY

$PM_{2.5}$ Emissions (filterable):

Emission Factor	0.0479	lb/MMBtu	[AP-42 Table 3.4-2, 10/96]	
Calculations	(0.0479 lb/MMBtu) * (16.52 MMBtu/hr) =			0.79 lbs/hr
	(0.79 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			1.07 TPY

$PM_{2.5}$ Emissions (condensable):

Emission Factor	0.0077	lb/MMBtu	[AP-42 Table 3.4-2, 10/96]	
Calculations	(0.0077 lb/MMBtu) * (16.52 MMBtu/hr) =			0.13 lbs/hr
	(0.13 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			0.17 TPY

CO Emissions (uncontrolled):

Emission Factor	0.00668	lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.00668 lb/hp-hr) * (2360 bhp) =			15.76 lbs/hr
	(15.76 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			21.28 TPY

NOx Emissions (uncontrolled):

Emission Factor	0.031	lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.031 lb/hp-hr) * (2360 bhp) =			73.16 lbs/hr
	(73.16 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			98.77 TPY

SO_2 Emissions (uncontrolled):

Emission Factor	0.00205	lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.00205 lb/hp-hr) * (2360 bhp) =			4.84 lbs/hr
	(4.84 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			6.53 TPY

VOC Emissions (uncontrolled):

Emission Factor	0.002514	lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.0025141 lb/hp-hr) * (2360 bhp) =			5.93 lbs/hr
	(5.93 lbs/hr) * (2700 hrs/yr) * (0.0005 tons/lb) =			8.01 TPY

Unpaved Roadways (Haul Roads) - Secondary Emissions

Miles Travelled:	5	Miles/Day [Estimate]
Vehicle Weight:	50	Tons [Mean Vehicle Weight Empty/Full]
Control Method:	Water Application	
Control Efficiency (C_e):	50%	

Particulate Emissions (controlled):

Emission Factor EF = k(s/12)^a * (W/3)^b [AP-42 13.2.2.2, 11/06]

where: 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) =	50	[Applicant Provided Data]
a, Empirical Constant PM =	0.7	[AP-42 Table 13.2.2-2, 11/06]
a, Empirical Constant PM_{10} /$PM_{2.5}$ =	0.9	[AP-42 Table 13.2.2-2, 11/06]
b, Empirical Constant PM - $PM_{2.5}$ =	0.45	[AP-42 Table 13.2.2-2, 11/06]

PM Emissions:

Emission Factor	EF = 4.9 * (7.1/12)^0.7 * (50/3)^0.45 =	12.04 lbs/VMT	
Calculations	(12.04 lbs/VMT) * (5 miles/day) * (1 - 0.5 Ce) =		30.09 lbs/day
	(30.09 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		5.49 TPY

PM_{10} Emissions:

Emission Factor	EF = 1.5 * (7.1/12)^0.9 * (50/3)^0.45 =	3.32 lbs/VMT	
Calculations	(3.32 lbs/VMT) * (5 miles/day) * (1 - 0.5 Ce) =		8.29 lbs/day
	(8.29 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		1.51 TPY

$PM_{2.5}$ Emissions:

Emission Factor	EF = 0.15 * (7.1/12)^0.9 * (50/3)^0.45 =	0.33 lbs/VMT	
Calculations	(0.33 lbs/VMT) * (5 miles/day) * (1 - 0.5 Ce) =		0.83 lbs/day
	(0.83 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		0.15 TPY

V. Existing Air Quality

This permit is for a portable facility to be located in areas which have been designated unclassified/attainment with all ambient air quality standards. MAQP #5004-00 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers of certain PM_{10} nonattainment areas.

VI. Air Quality Impacts

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

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #5004-00, the Department determined that the impact from this permitting action will be minor; furthermore 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	
✓		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	✓	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	✓	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	✓	4. Does the action deprive the owner of all economically viable uses of the property?
	✓	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?
	✓	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	✓	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?
	✓	7a. Is the impact of government action direct, peculiar, and significant?
	✓	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	✓	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?
	✓	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

IX. Environmental Assessment

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

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

DRAFT ENVIRONMENTAL ASSESSMENT (EA)

Issued To: River Aggregates LLC
P.O. Box 408
Alexander, ND 58831

Montana Air Quality Permit Number (MAQP): 5004-00
Preliminary Determination Issued: 03/26/2014
Department Decision Issued:
Permit Final:

1. *Legal Description of Site*: River Aggregates LLC (River Aggregates) proposes to install and operate a portable non-metallic mineral crushing and screening plant, located in Section 21, Township 24 North, Range 59 East, in Richland County, Montana. However, MAQP #5004-00 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter within an aerodynamic diameter of ten microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

2. *Description of Project*: The Department received a permit application from River Aggregates for the proposed operation of a portable crushing and screening facility with a maximum rated design process rate of 950 tons per hour (TPH) of combined crushing capacity and 950 TPH of combined screening capacity. The proposed mineral processing plant and associated equipment are powered by one or more diesel-fired package engines or generator sets. River Aggregates has requested that this permit be written in a de minimis friendly manner.

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 #5004-00 would allow River Aggregates to operate the permitted equipment at various locations throughout Montana (as described above), 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 River Aggregates demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in MAQP #5004-00.

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			✓			Yes
B	Water Quality, Quantity, and Distribution			✓			Yes
C	Geology and Soil Quality, Stability and Moisture			✓			Yes
D	Vegetation Cover, Quantity, and Quality			✓			Yes
E	Aesthetics			✓			Yes
F	Air Quality			✓			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			✓			Yes
H	Demands on Environmental Resource of Water, Air and Energy			✓			Yes
I	Historical and Archaeological Sites				✓		Yes
J	Cumulative and Secondary Impacts			✓			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

This permitting action would be expected to have a minor effect on terrestrial and aquatic life and habitats, as the proposed plant would operate within an existing gravel pit. Furthermore, the air emissions would likely have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of the operations (see Section 7.F of this EA) and would have intermittent and seasonal operations. Any impacts to aquatic life would be minimized through conditions within the open cut mine permit and associated Storm Water Pollution Prevention Plan (SWPPP). Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the proposed project.

B. Water Quality, Quantity, and Distribution

Water would be required for dust suppression on the mineral processing equipment and surrounding facility area, including haul roads. This water use would be expected to only cause minor, if any, impacts to water resources because the facility is small and only a small volume of water would be required to be used. In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F. of this EA. The site is in an existing open-cut mine where water runoff would be more readily controlled. However, the Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #5004-00, any impacts from deposition of pollutants on water quality, quantity, and distribution from the project would expect to be minor.

C. Geology and Soil Quality, Stability, and Moisture

Only minor impacts from deposition of air pollutants on soils would likely result (as described in Section 7.F of this EA) and only minor amounts of water would be used for pollution control, and only as necessary, in controlling particulate emissions. Thus, only minimal water runoff would likely occur. Since only minor amounts of pollution would be

expected and corresponding emissions would be widely dispersed before settling upon surrounding soils and vegetation (as described in Section 7.D of this EA), impacts would be minor. Therefore, any effects upon geology and soil quality, stability, and moisture from air pollutant emissions from equipment operations would likely be minor and short-lived.

D. Vegetation Cover, Quantity, and Quality

Only minor impacts would be expected to occur with respect to vegetative cover, quality, and quantity because the facility would operate in an area where vegetation has been previously disturbed. During operations, the facility would be a minor source of emissions and the pollutants widely dispersed (as described in Section 7.F of this EA); therefore, deposition on vegetation from the proposed project would expect to be minor. Also, due to limited water usage (as described in Section 7.B of this EA) and minimal associated soil disturbance from the application of water and water runoff (as described in Section 7.C of this EA), corresponding vegetative impacts would likely be minor.

E. Aesthetics

The facility would be visible and would create noise while operating the proposed equipment at the site. However, activity will occur within an existing active gravel pit. Further, MAQP #5004-00 would include conditions to control emissions, including visible emissions, from the plant. The facility would operate on an intermittent and seasonal basis, and would be a small industrial source. Therefore, any visual aesthetic impacts would be short-lived and are expected to be minor.

F. Air Quality

Air quality impacts from the proposed project would likely be minor because the facility would be relatively small and operate on an intermittent and temporary basis. MAQP #5004-00 includes conditions limiting the facility's opacity; require water and water spray bars be available on site and used to ensure compliance with opacity standards; and limit the facility's crushing production.

Further, the Department determined that this facility would be a minor source of emissions as the source's has accepted federally enforceable permit conditions which limit potential emissions below 80 tons per year (tpy) for any pollutant. Pollutant deposition from the facility would likely be minimal because the pollutants emitted are widely dispersed (from factors such as wind speed and wind direction) and exhibit minimal deposition on the surrounding area. Therefore, air quality impacts from operating the crushing facility in this area would be expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operation (Section 21, Township 24 North, Range 59 East, in Richland County, Montana), contacted the Natural Resource Information System – Montana Natural Heritage Program. Search results concluded there is a single species of concern within the area. The search area, in this case, is defined by the section, township, and range of the proposed site, with an additional one (1) mile buffer. Species identified was the Whooping Crane (endangered).

While this species may be found within the search area, the impact, specific effects from operation of the crushing/screening facility in this area would be minor since the facility is relatively small in size and located within an existing gravel pit. In addition the source will have only seasonal and intermittent operations in the area. Therefore, the Department determined that any effects upon these species would likely be minor and short-lived.

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

Due to the relatively small size of the project, only small demands on environmental resources would likely be required for proper operation. Only small quantities of water are required for dust suppression of particulate emissions being generated at the site. In addition, impacts to air resources would be expected to be minor because the source would be considered a minor industrial source of emissions, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed as described in Section 7.F of this EA. Energy requirements would also be small, as the diesel engines would use small amounts of fuel. Overall, any impacts to water, air, and energy resources would likely be minor.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the location of the facility. According to correspondence from the Montana State Historic Preservation Office, no previously recorded sites within the designated search areas. As this plant will likely operate in an existing gravel pit there is low likelihood of disturbance to any known archaeological or historic site given previous industrial disturbance in the area. Therefore, it is unlikely that the crushing/screening operation would have an effect on any known historic or archaeological sites.

J. Cumulative and Secondary Impacts

The operation of the crushing and screening equipment would likely cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would be limited in the amount of emissions allowed to be released to the atmosphere. Emissions and noise generated from the equipment would likely result in only minor impacts to the area, as the facility would be seasonal and temporary. The proposed project would be short-term in nature, and likely have minor cumulative effects upon resources within the area. These resources include water, terrestrial and aquatic life, soils, and vegetation. Overall, cumulative and secondary impacts to the physical and biological aspects of the human environment would likely be minor.

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

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores				✓		Yes
B	Cultural Uniqueness and Diversity				✓		Yes
C	Local and State Tax Base and Tax Revenue			✓			Yes
D	Agricultural or Industrial Production			✓			Yes
E	Human Health			✓			Yes
F	Access to and Quality of Recreational and Wilderness Activities				✓		Yes
G	Quantity and Distribution of Employment				✓		Yes
H	Distribution of Population				✓		Yes
I	Demands for Government Services			✓			Yes
J	Industrial and Commercial Activity			✓			Yes
K	Locally Adopted Environmental Plans and Goals			✓			Yes
L	Cumulative and Secondary Impacts			✓			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 non-metallic mineral processing facility would not be expected to cause any disruption to the social structures and mores in the area because the source would be a minor industrial source located within an existing industrial area that would only have temporary and intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #5004-00, which would limit the effects to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not likely be impacted by the operation of the proposed facility because the source would locate within an existing gravel pit and would have intermittent and temporary operation. Therefore, there would not be any expected impacts to the cultural uniqueness and diversity of the project location.

C. Local and State Tax Base and Tax Revenue

The operation of the facility would likely have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source of emissions and would have seasonal and intermittent operations. River Aggregates indicated that two employees are required to operate this facility. Thus, only minor impacts to the local and state tax base and revenue would be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would expect to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The operation of the mineral processing facility would only have a minor impact on local industrial production since the facility would be relatively small by industrial standards. Because minimal deposition of air pollutants would occur on the surrounding land (as described in Section 7.F of this EA), only minor and temporary effects on the surrounding vegetation (i.e. agricultural production) would occur. In addition, the facility operations would be small and temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts upon surrounding vegetation, as described in Section 7.D of this EA.

E. Human Health

MAQP #5004-00 would incorporate conditions to ensure that the facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other operational limits that would be required by MAQP #5004-00. Also, the facility would be operating on a temporary basis and pollutants would disperse from the ventilation of emissions at this site (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed project.

F. Access to and Quality of Recreational and Wilderness Activities

Based on information received from River Aggregates, no recreational activities or wilderness areas are near the proposed project site. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

The operation of the River Aggregates plant would require two employees and employment would occur only seasonally and intermittent. No individuals would be expected to permanently relocate to this area of operation as a result of proposed operations. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

The operation is a portable industrial facility that would only require a limited number of employees. No individuals would be expected to permanently relocate to this area as a result of this expansion. Therefore, the mineral processing facility would not likely impact the normal population distribution in the initial area of operation or any future operating site.

I. Demands of Government Services

Only a small increase in traffic on existing roadways in the area would be expected from the proposed project. Government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be expected to be minor.

J. Industrial and Commercial Activity

The operation of the new equipment would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Furthermore, the industrial

activity associated with this plant will occur within an existing gravel pit. Therefore, only limited additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

River Aggregates would be allowed, by MAQP #5004-00, to operate in areas designated by the United States Environmental Protection Agency as attainment or unclassified for ambient air quality. The Department is not aware of any locally adopted environmental plans and goal within this area. Because the proposed equipment would be a portable source with only minor emissions, any impacts to any locally adopted environmental plans from the project would be expected to be minor and temporary.

L. Cumulative and Secondary Impacts

The operation of the facility would cause only minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source would be a portable and temporary source. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility. Further, this facility may be operated in conjunction with other equipment owned and operated by River Aggregates, but any cumulative impacts upon the social and economic aspects of the human environment would likely be minor and short-lived. Thus, only minor and temporary cumulative effects would be expected to the local economy.

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the operation of a portable non-metallic mineral processing facility; MAQP #5004-00 provides conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

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