



Montana Department of
ENVIRONMENTAL QUALITY

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December 10, 2010

Kathy Remp
Remp Sand & Gravel, Inc.
238 Remp Extension Road
Libby, Montana 59923

Dear Ms. Remp:

Montana Air Quality Permit #3029-04 is deemed final as of December 10, 2010, by the Department of Environmental Quality (Department). This permit is for a portable gravel 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,

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

Ed Warner
Environmental Engineer
Air Resources Management Bureau
(406) 444-2467

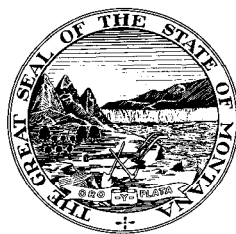
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Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3029-04

Remp Sand & Gravel, LLC
238 Remp Extension Road
Libby, Montana 59923

December 10, 2010



MONTANA AIR QUALITY PERMIT

Issued To: Remp Sand & Gravel, Inc.
238 Remp Extension Road
Libby, Montana 59923

MAQP: #3029-04
Administrative Amendment (AA) Request
Received: 9/22/10
Department's Decision on AA: 11/24/10
Permit Final: 12/10/10
AFS #: 777-3029

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

SECTION I: Permitted Facilities

A. Plant Location

Remp operates a portable gravel crushing and screening facility with a home pit location in the West ½ of the East ¼ of Section 34, Township 31 North, Range 31 West in Lincoln County, Montana. However, MAQP #3029-04 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.*

Addendum 5 and MAQP #3029-04 apply to the Remp facility while operating at specific locations in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas during the winter months (October 1 – March 31) which are approved by the Department, and at any location in or within 10 km of certain PM₁₀ nonattainment areas during the summer months (April 1 – September 30). A list of permitted equipment is included in Section I.A of the Permit Analysis.

B. Current Permit Action

On September 22, 2010, Remp submitted a request to add three new sites to the list of approved pit locations for operation in PM₁₀ nonattainment areas during winter months. These three pits are all within the same PM₁₀ nonattainment area as the home pit location and the Department has determined through previous air modeling that the conditions of Remp's MAQP and Addendum are protective of the NAAQS and MAAQS for PM₁₀ in this area. The current permitting action is an administrative amendment that adds these three sites to the list of approved locations for operation within PM₁₀ nonattainment areas during the winter months as well as updates the document to reflect the current permit language and rule references used by the Department.

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 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 (such as screens and conveyors) 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 spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749).
 5. Remp 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. Remp 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. Remp shall not operate more than five crusher(s) at any given time and the total combined maximum rated design capacity of the crusher(s) shall not exceed 280 tons per hour (TPH) (ARM 17.8.749).
 8. Crushing production is limited to 2.5 million (MM) tons during any rolling 12-month time period (ARM 17.8.749).
 9. Remp shall not operate more than four screen(s) at any given time and the total combined maximum rated design capacity of the screen(s) shall not exceed 340 TPH (ARM 17.8.749).
 10. Screening production is limited to 3.0 MM tons during any rolling 12-month time period (ARM 17.8.749).
 11. Remp shall not operate or have on-site more than one diesel generator engine. The maximum capacity of the engine that drives the generator shall not exceed 519 hp (ARM 17.8.749).
 12. Operation of the diesel engine driving the generator shall not exceed 7,000 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
 13. Remp shall not operate more than three diesel-fired engines at any given time in addition to the diesel generator engine referenced to in Section II.A.11, and the maximum-rated design capacity of those three additional engines shall not exceed a total of 2.1 million British thermal units per hour (MMBtu/hr) (ARM 17.8.749).

14. Operation of each of the three additional diesel-fired engines referenced in Section II.A.13 shall not exceed 5,000 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
15. If the permitted equipment is used in conjunction with any other equipment owned or operated by Remp, 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).
16. Remp shall comply with all applicable standards and limitations, monitoring, 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).
17. Remp shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart III; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). 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 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. Remp 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, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Remp shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(l)(d) (ARM 17.8.745).
4. Remp 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 Remp as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
5. Remp shall document, by month, the crushing production from the facility. By the 25th day of each month, Remp shall calculate the crushing production from the facility for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Remp shall document, by month, the screening production from the facility. By the 25th day of each month, Remp shall calculate the screening production from the facility 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).
7. Remp shall document, by month, the hours of operation of each diesel engine. By the 25th day of each month, Remp shall calculate the hours of operation for each diesel engine for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitations in Sections II.A.12 and II.A.14. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
8. Remp 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. Addendum

Remp shall comply with all conditions in Addendum #5 to MAQP #3029-04 when applicable (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – Remp 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 such as 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 Remp fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Remp 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. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Remp 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. Remp 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
Remp Sand & Gravel, Inc.
MAQP #3029-04

I. Introduction/Process Description

Remp Sand & Gravel, Inc. (Remp) owns and operates a portable crushing/screening plant that operates at various locations across Montana.

A. Permitted Equipment

The Remp portable crushing/screening plant consists of up to five crushers (280 tons per hour (TPH)), four screens (340 TPH), a diesel-fired generator with an engine up to 519 horsepower (hp), up to three diesel engines (total up to 2.1 million British thermal units per hour (MMBtu/hr)), and associated equipment.

B. Source Description

Remp proposes to use this crushing/screening plant, consisting of the previously mentioned equipment, to crush and sort sand and gravel materials for sale and use in construction operations. For a typical operational set up, the raw material is fed into the feeder by a front-end loader or similar piece of equipment. From the feeder, the material is sent through the primary screen then through the primary jaw crusher. The material is then transferred to the secondary plant where it is initially sent through the secondary screen then through the jaw and rolls and ultimately conveyed to a stockpile for use.

C. Permit History

On December 10, 1998, Remp submitted a complete permit application to operate a portable gravel crushing plant consisting of a 1974 Cedar Rapids jaw crusher (50 TPH), a 1973 Cedar Rapids roll crusher (50 TPH), a 1973 Cedar Rapids jaw crusher (50 TPH), a 1974 Cedar Rapids (4' x 10') screen (80 TPH), a 1973 Cedar Rapids (5' x 14') screen (80 TPH), and associated equipment. A complete equipment list was included with the permit analysis. The facility initially operated in the West ½ of the East ¼ of Section 34, Township 31 North, Range 31 West, in Lincoln County, Montana.

The proposed site was located within 10 kilometers (km) of the Libby particulate matter less than 10 microns (PM₁₀) nonattainment area (NAA). In addition, the permitted facility was scheduled to operate during the winter months (October 1- March 31). Therefore, the Department of Environmental Quality (Department) conducted modeling for the proposed location and determined that, with limitations, Remp would not adversely affect the Libby PM₁₀ NAA. **MAQP #3029-00** and **Addendum 1** were issued final on January 13, 1999.

On October 13, 2000, Remp submitted a request for modification of MAQP #3029-00 to renew their addendum to operate in or within 10 km of the Libby PM₁₀ NAA during the winter months and in or within 10 km of the Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte PM₁₀ NAAs during the summer months (April 1- September 30). The proposed site was located within the West ½ of the East ¼ of Section 34, Township 31 North, Range 31 West in Lincoln County, Montana. Modeling was conducted to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) and the Montana Ambient Air Quality Standards (MAAQS) for PM₁₀. **MAQP #3029-01** and **Addendum 2** were issued final on November 29, 2000 and were also updated with the most current emission factors. MAQP #3029-01 replaced MAQP #3029-00 and Addendum 2 replaced Addendum 1.

On May 24, 2002, Remp submitted a request for modification of MAQP #3029-01 to renew their addendum to operate in or within 10 km of the Libby NAA during the winter months, and in or within 10 km of the Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte NAAs during the summer months. The proposed site was located within the West ½ of the East ¼ of Section 34, Township 31 North, Range 31 West in Lincoln County, Montana. Modeling was conducted to demonstrate compliance with the NAAQS and the MAAQS for PM₁₀. **MAQP #3029-02** replaced MAQP #3029-01 and **Addendum 3** replaced Addendum 2.

On April 21, 2008, Remp submitted a request for modification of MAQP #3029-02 to include new equipment, including a 1995 El Jay Cone Crusher, a Pioneer Jaw Crusher, a 1995 Fab-Tec 3-Deck Screen, a Suntract 3-Deck Screen, a Caterpillar generator powered by a 519 hp diesel engine, a 35-hp engine, and associated equipment. Synthetic minor operational limits were placed on the diesel-fired equipment to maintain emissions below the major source threshold. In addition, the permit was also updated to make the permit minimis-friendly, and to reflect the current permit language and rule references used by the Department. **MAQP #3029-03** replaced MAQP #3029-02 and **Addendum 4** replaced Addendum 3.

D. Current Permit Action

On September 22, 2010, Remp submitted a request to add three new sites to the list of approved pit locations for operation in PM₁₀ NAAs during winter months. These three pits are all in the same general vicinity as the home pit location and the Department has determined through previous air modeling that the conditions of Remp's MAQP and Addendum are protective of the NAAQS and MAAQS for PM₁₀ in this area. The current permitting action is an administrative amendment that adds these three sites to the list of approved locations for operation within PM₁₀ NAAs during the winter months as well as updates the document to reflect the current permit language and rule references used by the Department. **MAQP #3029-04** replaces MAQP #3029-03 and **Addendum 5** replaces Addendum 4.

E. Additional Information

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

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

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

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

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

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

Remp 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, Remp 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 Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR Part 60.
 - 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 provided by Remp, the equipment identified for the crushing/screening facility is not currently subject to NSPS requirements. The Cedar Rapids equipment is not subject because it has not been constructed, reconstructed, or modified after August 31, 1983. The equipment added in MAQP #3029-03 is not subject because the cumulative capacity of the crushers is below 150 TPH. However, since the permit is written in a de minimis-friendly manner, Remp may be subject to this requirement in the future.
 - c. 40 CFR 60, Subpart III - 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. This NSPS will apply if the engine remains at a 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 provided by Remp, the CI ICE in use at the facility are manufactured before April 1, 2005; therefore, NSPS requirements do not apply. However, because this permit is written in a de minimis-friendly manner the NSPS requirements may apply to future engines.
7. 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. Remp may be considered an NESHAP-affected facility under 40 CFR Part 63 while operating within their home pit and subject to the requirements of the following subparts.

- 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 (HAPs) 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. The RICE equipment to be used under MAQP #3029-04 may be subject to this subpart because the RICE would meet the definition of an existing stationary RICE operating at an area source of HAP emissions if they remain at that location for more than 12 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. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
 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. Remp has a PTE greater than 15 TPY of particulate matter (PM), oxides of nitrogen (NO_x), and carbon monoxide (CO); therefore, an air quality permit is required.
 3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that 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. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Remp 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 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 air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 TPY 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 TPY of any pollutant;
 - b. PTE > 10 TPY of any one hazardous air pollutant (HAP), PTE > 25 TPY of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 TPY of PM₁₀ in a serious PM₁₀ NAA.
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 #3029-04 for Remp, the following conclusions were made:
 - a. The facility's PTE is less than 100 TPY for any pollutant.
 - b. The facility's PTE is less than 10 TPY for any one HAP and less than 25 TPY of all HAPs.

- c. This source is not located in a serious PM₁₀ NAA. The home pit location is within a PM₁₀ NAA; however, it is not classified as a serious NAA by the United States Environmental Protection Agency (EPA).
- d. This facility is not currently subject to any NSPS.
- e. This facility is potentially subject to current NESHAP standards. 40 CFR 63, Subpart A – General Provisions and 40 CFR 63, Subpart ZZZZ – National Emissions Standards for HAP for Stationary RICE are applicable to a RICE if it operates in a location for longer than 12 months.
- 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.

Remp 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. Remp 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 BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory

Source	TPY					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
1974 Cedar Rapids jaw crusher (50 TPH)	0.26	0.13				
1973 Cedar Rapids roll crusher (50 TPH)	0.26	0.13				
1973 Cedar Rapids jaw crusher (50 TPH)	0.26	0.13				
1995 El-Jay cone crusher (70 TPH)	0.35	0.18				
Pioneer jaw crusher (60 TPH)	0.31	0.13				
1974 Cedar Rapids screen (80 TPH)	0.79	0.26				
1973 Cedar Rapids screen (80 TPH)	0.79	0.26				
Suntract screen (80 TPH)	0.79	0.26				
1995 Fab-Tec screen (100 TPH)	0.96	0.31				
Truck Unloading	0.01	0.01				
Material Transfer	0.88	0.26				
Pile	2.98	1.40				
Forming						
Bulk	0.02	0.02				
Loading						
Generator (519 hp diesel engine)	3.96	3.96	56.04	4.59	12.08	3.68
Diesel Engines (35 hp, 7.8 gph, 5.5 gph)	1.63	1.63	23.15	1.90	5.00	1.53
Haul Roads	12.68	3.60				
Total	26.93	12.67	79.19	6.49	17.08	5.21

NOTES:

Inventory reflects enforceable limits on hours of operation to keep allowable emissions below the Title V threshold and 80 TPY. Diesel generator engine hours are restricted to 7,000 hours per year and the smaller diesel engines are limited to 5,000 hours per year each.

CO = carbon monoxide	PM _{2.5} = particulate matter with an aerodynamic diameter of 2.5 microns or less
HAPs = hazardous air pollutants	SO _x = oxides of sulfur
hp = horsepower	TPH = tons per hour
lb = pound	TPY = tons per year
NO _x = oxides of nitrogen	VOC = volatile organic compounds
PM = particulate matter	yr = year
PM ₁₀ = particulate matter with an aerodynamic diameter of 10 microns or less	

CRUSHERS - (SCC 3-05-030-03, controlled) 2,452,800 TPY TOTAL CRUSHING

1974 Cedar Rapids Jaw Crusher (50 TPH)

Process Rate: 50 TPH
 Hours of operation: 8760 hr/yr 438,000 TPY

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
 Calculations: 0.0012 lbs/ton * 50 TPH = 0.06 lbs/hr
 0.06 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = 0.26 TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: 0.00054 lbs/ton * 50 TPH = 0.03 lbs/hr
 0.03 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = 0.13 TPY

1973 Cedar Rapids Roll Crusher (50 TPH)

Process Rate: 50 TPH
 Hours of operation: 8760 hr/yr 438,000 TPY

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 50 TPH = 0.06 lbs/hr
0.06 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.26** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 50 TPH = 0.03 lbs/hr
0.03 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.13** TPY

1973 Cedar Rapids Jaw Crusher (50 TPH)

Process Rate: 50 TPH
Hours of operation: 8760 hr/yr 438,000 TPY

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 50 TPH = 0.06 lbs/hr
0.06 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.26** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 50 TPH = 0.03 lbs/hr
0.03 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.13** TPY

1995 El-Jay Cone Crusher (70 TPH)

Process Rate: 70 TPH
Hours of operation: 8760 hr/yr 613,200 TPY

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 70 TPH = 0.08 lbs/hr
0.08 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.35** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 70 TPH = 0.04 lbs/hr
0.04 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.18** TPY

Pioneer Jaw Crusher (60 TPH)

Process Rate: 60 TPH
Hours of operation: 8760 hr/yr 525,600 TPY

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 60 TPH = 0.07 lbs/hr
0.07 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.31** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 60 TPH = 0.03 lbs/hr
0.03 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.13** TPY

SCREENS - (SCC 3-05-020-02,-03, controlled) 2,978,400 TPY TOTAL SCREENING

1974 Cedar Rapids "Grizzly" Screen (80 TPH)

Process Rate: 80 TPH
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 80 TPH = 0.18 lbs/hr
0.18 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.79** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 80 TPH = 0.06 lbs/hr
0.06 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.26** TPY

1973 Cedar Rapids 2-Deck "Screen Plant" (80 TPH)

Process Rate: 80 TPH
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 80 TPH = 0.18 lbs/hr
0.18 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.79** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 80 TPH = 0.06 lbs/hr
0.06 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.26** TPY

Suntract 3-Deck Screen (80 TPH)

Process Rate: 80 TPH
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 80 TPH = 0.18 lbs/hr
0.18 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.79** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 80 TPH = 0.06 lbs/hr
0.06 lbs/hr * 8760 hr/yr * 0.0005 ton/lb = **0.26** TPY

Fab-Tec 3-Deck Screen (100 TPH)

Process Rate: 100 TPH
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: $0.0022 \text{ lbs/ton} * 100 \text{ TPH} = 0.22 \text{ lbs/hr}$
 $0.22 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.96} \text{ TPY}$

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: $0.00074 \text{ lbs/ton} * 100 \text{ TPH} = 0.07 \text{ lbs/hr}$
 $0.07 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.31} \text{ TPY}$

Material Transfer (SCC 3-05-020-06, controlled)

Truck Unloading

Process Rate: 70 TPH
Number of Loads: 3 Load
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: $0.000016 \text{ lbs/ton} * 70 \text{ TPH} * 3 \text{ Load} = 0.003 \text{ lbs/hr}$
 $0.003 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = \mathbf{0.01} \text{ TPY}$

PM₁₀ Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: $0.000016 \text{ lbs/ton} * 70 \text{ TPH} * 3 \text{ Load} = 0.003 \text{ lbs/hr}$
 $0.003 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ tons/lb} = \mathbf{0.01} \text{ TPY}$

Material Transfer

Process Rate: 70 TPH
Number of Transfers: 20 Transfers
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.00014 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: $0.00014 \text{ lbs/ton} * 70 \text{ TPH} * 20 \text{ Transfers} = 0.20 \text{ lbs/hr}$
 $0.2 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.88} \text{ TPY}$

PM₁₀ Emissions (controlled):

Emission Factor: 4.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: $0.000046 \text{ lbs/ton} * 70 \text{ TPH} * 20 \text{ Transfers} = 0.06 \text{ lbs/hr}$
 $0.06 \text{ lbs/hr} * 8760 \text{ hr/yr} * 0.0005 \text{ ton/lb} = \mathbf{0.26} \text{ TPY}$

File Forming

Process Rate: 70 TPH
Number of Piles: 3 Piles
Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 0.00322 lbs/ton (AP-42 Section 13.2.4 (1/95))
 Calculations: 0.00322 lbs/ton * 70 TPH * 3 Piles = 0.68 lbs/hr
 0.68 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = **2.98** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 0.00153 lbs/ton (AP-42 Section 13.2.4 (1/95))
 Calculations: 0.00153 lbs/ton * 70 TPH * 3 Piles = 0.32 lbs/hr
 0.32 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = **1.40** TPY

Bulk Loading

Process Rate: 70 TPH
 Number of Loads 3 load
 Hours of operation: 8760 hr/yr

PM Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: 0.000016 lbs/ton * 70 TPH * 3 load = 3.36E-03 lbs/hr
 0.00336 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = **0.015** TPY

PM₁₀ Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: 0.000016 lbs/ton * 70 TPH * 3 load = 3.36E-03 lbs/hr
 0.00336 lbs/hr * 8760 hr/yr * 0.0005 tons/lb = **0.015** TPY

Haul Roads

Vehicle miles travelled (estimate): 5.0 VMT/day
 Control Efficiency is included in Emission Factor

PM Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons): 13.90 Lbs/VMT (AP-42 Section 13.2.2 (12/03))
 Calculations: (5 VMT/day)(13.90 Lbs/VMT) = 69.50 lb/day
12.68 TPY

PM₁₀ Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons): 3.95 Lbs/VMT (AP-42 Section 13.2.2 (12/03))
 Calculations: (5 VMT/day)(3.95 Lbs/VMT) = 19.75 lb/day
3.60 TPY

Diesel Generator (519 HP Engine)

Engine **519** Hp *engine kw = 1.341 hp
 Horsepower =
Generator Size = 365 kw 489 hp Hp-hr = 7000 BTU
 Engine BTU/hr = 3.63 MMBTU/hr 26.5 gal/hr gal = 137,000 BTU
Hours of Operation: 7000 hrs/yr

PM Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.31 lbs/MMBtu = 1.13 lb/hr
 1.13 lb/hr * 7000 hr/yr * 0.0005 tons/lb = **3.96** TPY

PM₁₀ Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.31 lbs/MMBtu = 1.13 lb/hr
 1.13 lb/hr * 7000 hr/yr * 0.0005 tons/lb = **3.96** TPY

NO_x Emissions

Emission Factor: **4.41** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 4.41 lbs/MMBtu = 16.01 lb/hr
 16.01 lb/hr * 7000 hr/yr * 0.0005 tons/lb = **56.04** TPY

VOC Emissions

Emission Factor: **0.36** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.36 lbs/MMBtu = 1.31 lb/hr
 1.31 lb/hr * 7000 hr/yr * 0.0005 tons/lb = **4.59** TPY

CO Emissions

Emission Factor: **0.95** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.95 lbs/MMBtu = 3.45 lb/hr
 3.45 lb/hr * 7000 hr/yr * 0.0005 tons/lb = **12.08** TPY

SO_x Emissions 0.05 % sulfur

Emission Factor: **0.29** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.29 lbs/MMBtu = 1.05 lb/hr
 1.05 lb/hr * 7000 hr/yr * 0.0005 tons/lb = **3.68** TPY

Diesel Motors (35 HP, 5.5 GPH & 7.8 GPH)

	Motor 1	Motor 2	Motor 3	TOTAL		
Horsepower (HP) =	35				kw =	1.341 hp
Generator Size (kW) =	47				Hp-hr =	7000 BTU
MMBTU/hr	0.25	1.1	0.75	2.10	gal =	137,000 BTU
Gal/hr =	1.82	7.8	5.5			
Hours of Operation:		5000	hrs/yr			

PM Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 2.1 MMBTU/hr * 0.31 lbs/MMBtu = 0.65 lb/hr
 0.65 lb/hr * 5000 hr/yr * 0.0005 tons/lb = **1.63** TPY

PM₁₀ Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 2.1 MMBTU/hr * 0.31 lbs/MMBtu = 0.65 lb/hr
 0.65 lb/hr * 5000 hr/yr * 0.0005 tons/lb = **1.63** TPY

NO_x Emissions

Emission Factor: **4.41** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 4.41 lbs/MMBtu = 9.26 lb/hr
9.26 lb/hr * 5000 hr/yr * 0.0005 tons/lb = **23.15** TPY

VOC Emissions

Emission Factor: **0.36** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 0.36 lbs/MMBtu = 0.76 lb/hr
0.76 lb/hr * 5000 hr/yr * 0.0005 tons/lb = **1.90** TPY

CO Emissions

Emission Factor: **0.95** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 0.95 lbs/MMBtu = 2.00 lb/hr
2 lb/hr * 5000 hr/yr * 0.0005 tons/lb = **5.00** TPY

SO_x Emissions 0.05 % sulfur

Emission Factor: **0.29** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 0.29 lbs/MMBtu = 0.61 lb/hr
0.61 lb/hr * 5000 hr/yr * 0.0005 tons/lb = **1.53** TPY

V. Existing Air Quality

On July 1, 1987, the EPA promulgated new NAAQS for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls have been designated by EPA as nonattainment for PM₁₀. As a result of this designation, the EPA required the Department and the City-County Health Departments to submit PM₁₀ SIPs. The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM₁₀ emissions.

Addendum 5 to MAQP #3029-04 sets conditions and limitations that allow for this portable crusher plant to be located in or within 10 km of certain PM₁₀ NAAs during the summer months (April 1 through September 30). This portable crusher plant will also be allowed to operate in the following locations within the Libby PM₁₀ NAA during the winter months (October 1 through March 31):

- Remp Pit: West ½ of the East ¼ of Section 34, Township 31 North, Range 31 West, in Lincoln County
- Noble Pit: Section 32, Township 31 North, Range 31 West, in Lincoln County
- Nickelback Pit: Section 30, Township 31 North, Range 31 West, in Lincoln County
- Parker Pit: SE¼ NE¼ Section 2, Township 29 North, Range 31 West, in Lincoln County

The Department determined that the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standard. In addition, this source is portable and will operate on an intermittent and temporary basis at any given location, so any air quality impacts will be minimal.

VI. Air Quality Impacts

Based on the information provided and the conditions established in MAQP #3029-04, the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standards. Thus, the limitations and conditions established in Addendum 5 would further reduce emissions in these areas and would be protective of the ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal. The conditions in MAQP #3029-04 will be protective of air quality while operating at locations not located in or within 10 km of certain PM₁₀ NAAs.

VII. Ambient Air Impact Analysis

The current permitting action is considered an administrative amendment and there are no changes in potential emissions from the facility. Therefore, no ambient air impact analysis was conducted. The Department believes that this facility will continue to not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

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

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

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

IX. Environmental Assessment

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

Analysis Prepared By: Ed Warner
Date: October 21, 2010

Addendum 5
Remp Sand and Gravel, Inc.
Montana Air Quality Permit (MAQP) #3029-04

An addendum to MAQP #3029-04 is hereby granted to Remp Sand and Gravel, Inc. (Remp) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment:

Remp owns and operates a portable crushing/screening plant consisting of up to five crushers (280 tons per hour (TPH)), four screens (340 TPH), a diesel-fired generator with an engine up to 519 horsepower (hp), up to three diesel engines (total up to 2.1 million British thermal units per hour (MMBtu/hr)), and associated equipment.

II. Seasonal and Site Restrictions – **Winter and Summer Seasons**

Addendum 5 applies to the Remp facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31), the only locations in or within 10 km of a PM₁₀ nonattainment area where Remp may operate are:
1. Libby nonattainment area – Remp Pit, West ½ of the East ¼ of Section 34, Township 31 North, Range 31 West, in Lincoln County;
 2. Libby nonattainment area – Noble Pit, Section 32, Township 31 North, Range 31 West, in Lincoln County;
 3. Libby nonattainment area – Nickelback Pit, Section 30, Township 31 North, Range 31 West, in Lincoln County;
 4. Libby nonattainment area – Parker Pit, SE¼ NE¼ of Section 2, Township 29 North, Range 31 West, in Lincoln County; and
 5. Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).
- B. During the summer season (April 1-September 30), Remp may operate at any location in or within 10 km of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM₁₀ nonattainment areas.
- C. Remp shall comply with the limitations and conditions contained in Addendum 5 to MAQP #3029-04 while operating in or within 10 km of any of the previously identified PM₁₀ nonattainment areas. Addendum 5 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum 5 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

A. Operational Limitations and Conditions

1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.749).

2. Remp shall not cause or authorize to be discharged into the atmosphere from any equipment, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749). For NSPS-affected equipment constructed after April 22, 2008 for which an opacity limitation of 7% applies (such as screens and conveyors), that 7% limit shall apply to the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
3. Remp shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater (ARM 17.8.749).
4. Remp shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
5. Remp shall not operate, or have on-site, more than five crushers at any one time. Total crusher production shall not exceed 6,720 tons per day (ARM 17.8.749).
6. Remp shall not operate, or have on-site, more than four screens at any one time. Total screen production shall not exceed 8,160 tons per day (ARM 17.8.749).
7. Remp shall not operate or have on-site more than one diesel generator engine and three additional diesel engines. The maximum capacity of the engine that drives the generator shall not exceed 519 hp and the total ratings of the three additional engines shall not exceed 2.1 million British thermal units per hour (MMBtu/hr) (ARM 17.8.749).
8. Operation of the diesel engine driving the generator shall not exceed 20 hours per day (ARM 17.8.749).

B. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another nonattainment 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. Production information for the sites covered by this addendum must be maintained for five years and submitted to the Department upon request. The information must include (ARM 17.8.749):
 - a. Daily tons of material crushed by each crusher at each site (including amount of recirculated/rerun material). Remp shall document, by day, the total crushing production. Remp shall sum the total crushing production for the previous day to demonstrate compliance with the limitations in Sections III.A.5.
 - b. Daily tons of material screened by each screen at each site (including amount of recirculated/rerun material). Remp shall document, by day, the total screening production. Remp shall sum the total screening production for the previous day to demonstrate compliance with the limitations in Sections III.A.6.
 - c. Daily tons of bulk material loaded at each site (production).

- d. Daily hours of operation at each site.
- e. Gallons of fuel used in the diesel engines at each site.
- f. Fugitive dust information consisting of the daily total miles driven on unpaved roads within the operating site for all plant vehicles.
- g. Fugitive dust control for haul roads and general plant area:
 - i. Hours of operation of water trucks; and
 - ii. Application schedule for chemical dust suppressant, if applicable.

Addendum 5 Analysis
Remp Sand and Gravel, Inc.
Montana Air Quality Permit (MAQP) #3029-04

I. Permitted Equipment

Remp Sand and Gravel, Inc. (Remp) owns and operates a portable crushing/screening plant consisting of up to five crushers (280 tons per hour (TPH)), four screens (340 TPH), a diesel-fired generator with an engine up to 519 horsepower (hp), up to three diesel engines (total up to 2.1 million British thermal units per hour (MMBtu/hr)), and associated equipment.

II. Source Description

Remp uses this crushing/screening plant to crush, screen, and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant via a hopper and transferred by conveyor to the crushers. From the crusher, materials are sent to the screen, where they are separated and conveyed to stockpiles.

III. Applicable Rules and Regulations

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

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

- A. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the 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.
- B. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
 - 1. Written notice of intent to transfer location and proof of public notice are sent to the Department;
 - 2. The source will operate in the new location for a period of less than 1 year; and
 - 3. The source will not have any significant impact on any nonattainment area or any Class I area.

IV. Emission Inventory

Source	lbs/day					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
1974 Cedar Rapids jaw crusher (50 TPH)	1.4	0.7				
1973 Cedar Rapids roll crusher (50 TPH)	1.4	0.7				
1973 Cedar Rapids jaw crusher (50 TPH)	1.4	0.7				
1995 El-Jay cone crusher (70 TPH)	2.0	0.9				
Pioneer jaw crusher (60 TPH)	1.7	0.8				
1974 Cedar Rapids screen (50 TPH)	4.2	1.4				
1973 Cedar Rapids screen (50 TPH)	4.2	1.4				
Suntract screen (80 TPH)	4.2	1.4				
Fab-Tech screen (100 TPH)	5.3	0.3				
Truck Unloading	0.1	0.1				
Material Transfer	4.7	1.6				
Pile Forming	16.2	7.7				
Bulk Loading	0.1	0.1				
Caterpillar Generator (519 hp diesel engine)	22.5	22.5	320.2	26.1	69.0	21.1
Diesel Engines (35 hp, 7.8 gph, 5.5 gph)	1.9	1.9	222.3	18.1	47.9	14.6
Haul Roads	69.5	19.8				
Total	140.8	62.0	542.5	44.2	116.9	35.7

NOTES

Since the potential daily emissions of PM₁₀ is below 82 lb/day, no modeling or daily limitations were required for PM₁₀. In order to keep the facility's daily NO_x PTE below the modeling threshold of 547 lb/day, the 519-hp diesel generator engine was restricted to 20 hrs/day operation.

CO = carbon monoxide	PM _{2.5} = particulate matter with an aerodynamic diameter of 2.5 microns or less
HAPs = hazardous air pollutants	SO _x = oxides of sulfur
hp = horsepower	TPH = tons per hour
lb(s) = pound(s)	TPY = tons per year
NO _x = oxides of nitrogen	VOC = volatile organic compounds
PM = particulate matter	yr = year
PM ₁₀ = particulate matter with an aerodynamic diameter of 10 microns or less	

CRUSHERS - (SCC 3-05-030-03, controlled)

1974 Cedar Rapids Jaw Crusher (50 TPH) 6720 tons/day

Process Rate: 50 tons/hr 24 hr/day winter
 Wintertime Addendum 1200 tons/day

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
 Calculations: 0.0012 lbs/ton * 50 tons/hr = 0.06 lbs/hr
 0.0012 lbs/ton * 1200 tons/day = 1.44 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: 0.00054 lbs/ton * 50 tons/hr = 0.03 lbs/hr
 0.00054 lbs/ton * 1200 tons/day = 0.65 lb/day

1973 Cedar Rapids Roll Crusher (50 TPH)

Process Rate: 50 tons/hr 24 hr/day winter
 Wintertime Addendum 1200 tons/day

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 50 tons/hr = 0.06 lbs/hr
0.0012 lbs/ton * 1200 tons/day = 1.44 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 50 tons/hr = 0.03 lbs/hr
0.00054 lbs/ton * 1200 tons/day = 0.65 lb/day

1973 Cedar Rapids Jaw Crusher (50 TPH)

Process Rate: 50 tons/hr 24 hr/day winter
Wintertime Addendum 1200 tons/day

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 50 tons/hr = 0.06 lbs/hr
0.0012 lbs/ton * 1200 tons/day = 1.44 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 50 tons/hr = 0.03 lbs/hr
0.00054 lbs/ton * 1200 tons/day = 0.65 lb/day

1995 El-Jay Cone Crusher (70 TPH)

Process Rate: 70 tons/hr 24 hr/day winter
Wintertime Addendum 1680 tons/day

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 70 tons/hr = 0.08 lbs/hr
0.0012 lbs/ton * 1680 tons/day = 2.02 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 70 tons/hr = 0.04 lbs/hr
0.00054 lbs/ton * 1680 tons/day = 0.91 lb/day

Pioneer Jaw Crusher (60 TPH)

Process Rate: 60 tons/hr 24 hr/day winter
Wintertime Addendum 1440 tons/day

PM Emissions (controlled):

Emission Factor: 0.0012 lbs/ton (AP-42 Section 11.19.2-2 8/2004)
Calculations: 0.0012 lbs/ton * 60 tons/hr = 0.07 lbs/hr
0.0012 lbs/ton * 1440 tons/day = 1.73 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00054 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00054 lbs/ton * 60 tons/hr = 0.03 lbs/hr
0.00054 lbs/ton * 1440 tons/day = 0.78 lb/day

SCREENS - (SCC 3-05-020-02,-03, controlled)

1974 Cedar Rapids "Grizzly" Screen (80 TPH)

8,160 Tons/day

Process Rate: 80 tons/hr
Wintertime Addendum 1920 tons/day 700,800 tons/year

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 80 tons/hr = 0.18 lbs/hr
0.0022 lbs/ton * 1920 tons/day = 4.22 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 80 tons/hr = 0.06 lbs/hr
0.00074 lbs/ton * 1920 tons/day = 1.42 lb/day

1973 Cedar Rapids 2-Deck "Screen Plant" (80 TPH)

Process Rate: 80 tons/hr
Wintertime Addendum 1920 tons/day

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 80 tons/hr = 0.18 lbs/hr
0.0022 lbs/ton * 1920 tons/day = 4.22 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 80 tons/hr = 0.06 lbs/hr
0.00074 lbs/ton * 1920 tons/day = 1.42 lb/day

Suntract 3-Deck Screen (80 TPH)

Process Rate: 80 tons/hr
Wintertime Addendum 1920 tons/day

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 80 tons/hr = 0.18 lbs/hr
0.0022 lbs/ton * 1920 tons/day = 4.22 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 80 tons/hr = 0.06 lbs/hr
0.00074 lbs/ton * 1920 tons/day = 1.42 lb/day

Fab-Tec 3-Deck Screen (100 TPH)

Process Rate: 100 tons/hr
Wintertime Addendum 2400 tons/day

PM Emissions (controlled):

Emission Factor: 0.0022 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.0022 lbs/ton * 100 tons/hr = 0.22 lbs/hr
0.0022 lbs/ton * 2400 tons/day = 5.28 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00074 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00074 lbs/ton * 100 tons/hr = 0.07 lbs/hr
0.00074 lbs/ton * 2400 tons/day = 1.78 lb/day

Material Transfer (SCC 3-05-020-06, controlled)

Truck Unloading

Process Rate: 70 tons/hr
Wintertime Addendum 1680 tons/day
Number of Loads 3 Load

PM Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.000016 lbs/ton * 70 tons/hr * 3 Load = 0.003 lbs/hr
0.000016 lbs/ton * 1680 tons/day * 3 Load = 0.08 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.000016 lbs/ton * 70 tons/hr * 3 Load = 0.003 lbs/hr
0.000016 lbs/ton * 1680 tons/day * 3 Load = 0.08 lb/day

Material Transfer

Process Rate: 70 tons/hr
Wintertime Addendum 1680 tons/day
Number of Transfers 20 Transfers

PM Emissions (controlled):

Emission Factor: 0.00014 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.00014 lbs/ton * 70 tons/hr * 20 Transfers = 0.20 lbs/hr
0.00014 lbs/ton * 1680 tons/day * 20 Transfers = 4.70 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 4.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
Calculations: 0.000046 lbs/ton * 70 tons/hr * 20 Transfers = 0.06 lbs/hr
0.000046 lbs/ton * 1680 tons/day = 1.55 lb/day

File Forming

Process Rate: 70 tons/hr
Wintertime Addendum 1680 tons/day
Number of Piles 3 Piles

PM Emissions (controlled):

Emission Factor: 0.00322 lbs/ton (AP-42 Section 13.2.4 (1/95))
 Calculations: 0.00322 lbs/ton * 70 tons/hr * 3 Piles = 0.68 lbs/hr
 0.00322 lbs/ton * 1680 tons/day = 16.23 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 0.00153 lbs/ton (AP-42 Section 13.2.4 (1/95))
 Calculations: 0.00153 lbs/ton * 70 tons/hr * 3 Piles = 0.32 lbs/hr
 0.00153 lbs/ton * 1680 tons/day = 7.71 lb/day

Bulk Loading

Process Rate: 70 tons/hr
 Wintertime Addendum 1680 tons/day
 Number of Loads 3 load

PM Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: 0.000016 lbs/ton * 70 tons/hr * 3 load = 3.36E-03 lbs/hr
 0.000016 lbs/ton * 1680 tons/day = 0.08 lb/day

PM₁₀ Emissions (controlled):

Emission Factor: 1.60E-05 lbs/ton (AP-42 Section 11.19.2-2, 8/2004)
 Calculations: 0.000016 lbs/ton * 70 tons/hr * 3 load = 3.36E-03 lbs/hr
 0.000016 lbs/ton * 1680 tons/day = 0.08 lb/day

Haul Roads

Vehicle miles travelled (estimate): 5.0 VMT/day
 Wintertime Addendum 5.0 VMT/day 100.0%
 (estimate based on prod ratio)
 Control Efficiency is included in Emission Factor

PM Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons): 13.90 Lbs/VMT (AP-42 Section 13.2.2 (12/03))
 Calculations: (5 VMT/day)(13.90 Lbs/VMT) = 69.50 lb/day

PM₁₀ Emissions (controlled):

Emission Factor (Rated Load Capacity <50 tons): 3.95 Lbs/VMT (AP-42 Section 13.2.2 (12/03))
 Calculations: (5 VMT/day)(3.95 Lbs/VMT) = 19.75 lb/day

Diesel Generator (519 HP Engine)

Engine **519** Hp *engine kw = 1.341 hp
 Horsepower =
Generator Size = 365 kw 489 hp Hp-hr = 7000 BTU
 generator
 Engine BTU/hr = 3.63 MMBTU/hr 26.5 gal/hr gal = 137,000 BTU
Winter-time Addendum: 20 hrs/day

PM Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.31 lbs/MMBtu = 1.13 lb/hr
 3.63 MMBTU/hr * 0.31 lbs/MMBtu * 20 hrs/day= 22.51 lb/day

PM₁₀ Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.31 lbs/MMBtu = 1.13 lb/hr
 3.63 MMBTU/hr * 0.31 lbs/MMBtu * 20 hrs/day= 22.51 lb/day

NO_x Emissions

Emission Factor: **4.41** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 4.41 lbs/MMBtu = 16.01 lb/hr
 3.63 MMBTU/hr * 4.41 lbs/MMBtu * 20 hrs/day= 320.17 lb/day

VOC Emissions

Emission Factor: **0.36** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.36 lbs/MMBtu = 1.31 lb/hr
 3.63 MMBTU/hr * 0.36 lbs/MMBtu * 20 hrs/day= 26.14 lb/day

CO Emissions

Emission Factor: **0.95** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.95 lbs/MMBtu = 3.45 lb/hr
 3.63 MMBTU/hr * 0.95 lbs/MMBtu * 20 hrs/day= 68.97 lb/day

SO_x Emissions 0.05 % sulfur

Emission Factor: **0.29** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 3.63 MMBTU/hr * 0.29 lbs/MMBtu = 1.05 lb/hr
 3.63 MMBTU/hr * 0.29 lbs/MMBtu * 20 hrs/day= 21.05 lb/day

Diesel Motors (35 HP, 5.5 GPH & 7.8 GPH)

	Motor 1	Motor 2	Motor 3	TOTAL		
Horsepower (HP) =	35				kw =	1.341 hp
Generator Size (kW) =	47				Hp-hr =	7000 BTU
MMBTU/hr	0.25	1.1	0.75	2.10	gal =	137,000 BTU
Gal/hr =	1.82	7.8	5.5			
Winter-time Addendum:		24	hrs/day			

PM Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 2.1 MMBTU/hr * 0.31 lbs/MMBtu = 0.65 lb/hr
 2.1 MMBTU/hr * 0.31 lbs/MMBtu * 24 hrs/day= 1.86 lb/day

PM₁₀ Emissions

Emission Factor: **0.31** lbs/MMBtu (AP-42, 3.3-1, 10/96)
 Calculations: 2.1 MMBTU/hr * 0.31 lbs/MMBtu = 0.65 lb/hr
 2.1 MMBTU/hr * 0.31 lbs/MMBtu * 24 hrs/day= 1.86 lb/day

NO_x Emissions

Emission Factor: **4.41** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 4.41 lbs/MMBtu = 9.26 lb/hr
2.1 MMBTU/hr * 4.41 lbs/MMBtu * 24 hrs/day = 222.26 lb/day

VOC Emissions

Emission Factor: **0.36** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 0.36 lbs/MMBtu = 0.76 lb/hr
2.1 MMBTU/hr * 0.36 lbs/MMBtu * 24 hrs/day = 18.14 lb/day

CO Emissions

Emission Factor: **0.95** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 0.95 lbs/MMBtu = 2.00 lb/hr
2.1 MMBTU/hr * 0.95 lbs/MMBtu * 24 hrs/day = 47.88 lb/day

SO_x Emissions 0.05 % sulfur

Emission Factor: **0.29** lbs/MMBtu (AP-42, 3.3-1, 10/96)
Calculations: 2.1 MMBTU/hr * 0.29 lbs/MMBtu = 0.61 lb/hr
2.1 MMBTU/hr * 0.29 lbs/MMBtu * 24 hrs/day = 14.62 lb/day

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM₁₀. As a result of this designation, the EPA required the Department and the City-County Health Departments to submit PM₁₀ State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies identified these sources to be the major contributors to PM₁₀ emissions.

MAQP #3029-04 and Addendum 5 are for a portable crushing/screening plant that will locate at sites in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas. The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would be expected to operate on an intermittent and temporary basis and any effects on air quality would be expected to be minor and short-lived.

VI. Air Quality Impacts

MAQP #3029-04 and Addendum 5 will cover the operations of this portable crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program and those areas that are tribal lands.

Addendum 5 will cover the operations of this portable crushing/screening plant, while operating in or within 10 km of certain specific sites in the Libby PM₁₀ nonattainment area during the winter months (October 1 through March 31). Additionally, the facility will also be allowed to operate in or within 10 km of PM₁₀ nonattainment areas during the summer months (April 1 through September 30).

VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 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

The current permit action is an administrative amendment and does not constitute a state action; therefore, an environmental assessment is not required for the proposed project.

Addendum Analysis Prepared by: Ed Warner

Date: October 22, 2010