



Montana Department of  
**ENVIRONMENTAL QUALITY**

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February 28, 2012

Mr. Chris Mehring  
R.E. Miller & Sons  
15 Ramshorn  
Dillon, MT 59725

Dear Mr. Mehring:

Montana Air Quality Permit #3040-03 is deemed final as of February 28, 2012, by the Department of Environmental Quality (Department). This permit is for a portable crushing and screening facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Deanne Fischer, P.E.  
Environmental Engineer  
Air Resources Management Bureau  
(406) 444-3403

VW:DF  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Montana Air Quality Permit #3040-03

R.E. Miller & Sons  
15 Ramshorn  
Dillon, MT 59725

February 28, 2012



## MONTANA AIR QUALITY PERMIT

Issued To: R.E. Miller & Sons  
15 Ramshorn  
Dillon, MT 59725

MAQP #3040-03  
Application Complete: 12/14/2011  
Preliminary Decision Issued: 01/10/2012  
Department Decision Issued: 02/10/2012  
Permit Final: 02/28/2012  
AFS #: 777-3040

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to R.E. Miller & Sons (R.E. Miller) pursuant to Section 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

R.E. Miller operates a portable crushing and screening facility initially located in the NW<sup>1</sup>/<sub>4</sub> of Section 16 and the SW<sup>1</sup>/<sub>4</sub> of Section 9, Township 8 South, Range 9 West, in Beaverhead County, Montana. However, MAQP #3040-03 applies while operating in any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

#### B. Current Permit Action

On December 14, 2011, R.E. Miller submitted a complete permit application to modify MAQP #3040-02. The modification involves the addition of a 5x12 electric scalping screen as part of the wash plant, a 30 kilowatt (kW) Olympian diesel engine generator, and replacement of the Deutz diesel engine driving the 1991 Finlay screen (from a 50 brake horsepower (bhp) diesel engine to a 57.5 bhp diesel engine). Because potential emissions resulting from the addition of the 5x12 scalping screen, 30 kW diesel engine generator and the 57.5 bhp diesel engine exceed 5 tons per year (TPY), the permit action is considered a permit modification. In addition to accounting for the new emitting sources, the permit action updates the permit to reflect 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:
  - a. For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity (ARM 17.8.340 and 40 CFR 60, Subpart OOO)

- b. For crushers that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 15% opacity (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO)
2. All visible emissions from any other NSPS-affected equipment, other than a crusher (such as screens or conveyor transfers), shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes.
  - a. For equipment that commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity (ARM 17.8.340 and 40 CFR 60, Subpart OOO)
  - b. For equipment that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity. (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart OOO)
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749, ARM 17.8.752).
5. R.E. Miller 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. R.E. Miller 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, ARM 17.8.752).
7. R.E. Miller shall not operate more than 2 crushers at any given time and the total combined maximum rated design capacity of the crushers shall not exceed 700 tons per hour (TPH) (ARM 17.8.749).
8. R.E. Miller shall not operate more than 4 screens at any given time and the total combined maximum rated design capacity of the screens shall not exceed 790 TPH (ARM 17.8.749).
9. R.E. Miller shall not operate or have on-site more than 2 diesel engines driving electrical generators (or directly driving crushers, screens, etc.). The maximum combined capacity of the engines that drive the generators shall not exceed 1,019 bhp (ARM 17.8.749).
10. Operation of the 2 diesel engine/generators shall not exceed 5,700 hours each during any rolling 12-month time period (ARM 17.8.749, ARM 17.8.1204).
11. R.E. Miller shall not operate or have on-site more than 1 diesel engine on the Finlay screen. The maximum capacity of the engine that drives the screen shall not exceed 57.5 bhp (ARM 17.8.749).

12. R.E. Miller 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).
13. R.E. Miller shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).
14. If the permitted equipment is used in conjunction with any other equipment owned or operated by R.E. Miller, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons/year during any rolling 12 month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

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 Part 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. R.E. Miller 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. R.E. Miller shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745, that would include *the addition of a new emissions unit*, change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation. The notice must be submitted to the Department, in writing, 10 days prior to startup or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).
4. R.E. Miller 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 R.E. Miller 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. R.E. Miller shall document, by month, the hours of operation of the 2 diesel engine/generators. By the 25<sup>th</sup> day of each month, R.E. Miller shall total the hours of operation for the diesel engine/generator for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. R.E. Miller shall annually certify that its emissions are less than those that would require the source 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).

### Section III: General Conditions

- A. Inspection – R.E. Miller 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 emissions monitoring system (CEMS) or continuous emissions rate monitoring system (CERMS)), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if R.E. Miller fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving R.E. Miller 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 therefor, 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 R.E. Miller 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. R.E. Miller 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  
R.E. Miller & Sons  
MAQP #3040-03

I. Introduction/Process Description

A. Permitted Equipment

R.E. Miller & Sons (R.E. Miller) owns and operates a portable crushing and screening facility including a 1988 Cedar Rapids Jaw Crusher (maximum capacity 400 ton per hour (TPH)), a 1986 El-Jay cone crusher (maximum capacity 300 TPH) with an attached 5x16 El-Jay screen (maximum capacity 300 TPH), a wash plant containing a 5x12 electric scalping screen (maximum capacity 180 TPH) and a 5x16, 3 deck incline screen, and a Finlay screen (maximum capacity 130 TPH) driven by a 57.5 brake horsepower (bhp) Deutz diesel engine. All electric motors at the crusher plant are supplied with power from a 635 kilowatt (kW) (947 bhp) Caterpillar diesel engine generator. While crushing during cold winter months, a 30 kW (72 bhp) Olympian diesel engine generator is used to keep the crusher motor drives warm.

B. Source Description

Crusher Plant

Gravel is mined from a pit adjacent to the screening/wash plant operation. A 972 Cat loader is used to dig and carry material to the plant. Material is fed into a vibrating fed hopper, which vibrates material into a 1988 Cedar Rapids jaw crusher (maximum capacity 400 TPH). Material is reduced to 4-inch (") minus and conveyed to a 5x16 El-Jay screen (maximum capacity 300 TPH) where material is screened to a desired size. All material above desired sized goes into attached 1986 El-Jay cone crusher (maximum capacity 300 TPH) and crushed smaller, then returned back to the screen by conveyer to be resized. All material that meets desired size is conveyed to a stack and then taken to a stockpile by front-end loader.

Wash Plant

Gravel is mined from a pit adjacent to the scalping screen/wash plant operation. A 972 Cat loader is used to dig and carry material to the plant. The hopper at the wash plant holds nine (9) cubic yards and has bars over the top, so only gravel 5-inches or smaller falls through the bars. Large rock is rejected by the bars and stacked aside. The smaller material is fed by variable speed belt out of the feed hopper onto the conveyor, and sent to a 5x12 electric scalping screen deck (maximum capacity 180 TPH). This inclined vibrating screen separates out rocks 1½-inches and larger. The 1½" plus material is rejected off while the 1½" minus is conveyed to the wash plant. The gravel is fed into the wash plant onto a 5x16, 3 deck incline screen (maximum capacity 180TPH) and is washed by 14 wash bars with 6 spray nozzles on each wash bar. The material is screened and washed and conveyed into 4 stock piles: 1½", ¾", ¼", and ⅜".

Finlay Screen

The 1991 Finlay Screen (maximum capacity 130 TPH) 57.5 bhp Deutz 3-cylinder diesel has been used primarily for screening topsoil. Soil material is fed into the feed hopper by a front-end loader. Material is fed over grizzly bars spaced at 5". All materials over 5", lumps, roots, and rocks are separated off. Smaller material is conveyed to a 4x8 incline screen (maximum capacity 130TPH) to meet desired size. Smaller material is stacked by loader and sold while larger material is used for pit reclamation fill.

R.E. Miller has indicated that the crushing/screening/wash plant facility will have a home pit located in the NW¼ of Section 16 and the SW¼ of Section 9, Township 8 South, Range 9 West, in Beaverhead County, Montana. It will maintain this location as its “home pit” and when not at other locations will return back to this location where it may reside for longer than 12 months.

C. Permit History

On April 21, 1999, R.E. Miller was issued MAQP #3040-00 for the operation of a gravel crushing and screening operation to originally locate in the NW¼ of Section 16 and the SW¼ of Section 9, Township 8 South, Range 9 West. The original site location was located south of Dillon in Beaverhead County.

The initial permit contained a crusher production limit error and a screening production limit error. The conditions stated the limits as rolling 24-hour production limits, but they should have been stated as rolling 12-month production limits. No other changes were made to the permit. MAQP #3040-01 replaced MAQP #3040-00.

On November 22, 1999, R.E. Miller submitted a complete permit application to modify MAQP #3040-01. The modification involved the addition of the 1986 El-Jay cone crusher (300 TPH) and attached screen (300 TPH). Because potential emissions resulting from the addition of the El Jay cone crusher and attached screen, exceeded 15 tons per year (TPY), the permit action was considered a permit modification.

In addition, per R.E. Miller’s request, the Department of Environmental Quality (Department) completed a permit determination regarding the wash plant and associated equipment if the equipment was operated on its own, without the associated crushing equipment. Because the potential emissions resulting from wash plant operations, when operated on their own, are less than 25 TPY, the wash plant and associated non-crushing equipment will not require a separate air quality permit. Therefore, if the crushing operation is moved off site to a location separate from the wash plant, the existing MAQP #3040-02 would maintain coverage of the crushing operation, while the wash plant will be allowed to run separately without an air quality permit. MAQP #3040-02 replaced MAQP #3040-01.

D. Current Permit Action

On October 19, 2012, R.E. Miller submitted a permit application to modify MAQP #3040-02. An incompleteness letter was sent by the Department and the permit fee and additional information required to complete the application was received on December 14, 2011. The modification involves the addition of a 5x12 electric scalping screen as part of the wash plant, a 30 kW (72 bhp) Olympian diesel engine generator, and replacement of the Deutz diesel engine driving the Finlay screen (from a 50 bhp diesel engine to a 57.5 bhp diesel engine).

In addition, R.E. Miller clarified that the bhp rating of the existing 635 kW diesel engine generator is actually 947 bhp rather than 851.5 bhp and confirmed that there is an existing 5x16, 3 deck screen (180 TPH) associated with the wash plant that should be included in the permit.

Based on the information submitted by R.E. Miller, the potential to emit oxides of nitrogen (NOx) exceeded the Title V permitting threshold. As requested by R. E. Miller, an hourly operating limit of 5,700 hours per year (hr/yr) for each of the 2 diesel engine generators (30 kW and 635 kW) was established to keep allowable emissions below the Title V threshold.

Because potential emissions resulting from the addition of the 5x12 scalping screen, 30 kW diesel engine generator and the 57.5 bhp diesel engine exceed 5 TPY the permit action is considered a permit modification. In addition to accounting for the new emitting sources, adding an hourly operating limit of 5,700 hr/yr to the 2 engine generators, clarifying the size and type of existing emitting equipment on site, and updating the table of potential emissions, the permit action updates the permit to reflect current permit language and rule references used by the Department. MAQP #3040-03 replaces MAQP #3040-02.

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

A. ARM 17.8, Sub-Chapter 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).

R.E. Miller 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, Sub-Chapter 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
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>

R.E. Miller must maintain compliance with the applicable ambient air quality standards.

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

1. ARM 17.8.304, Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over six 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 section, R.E. Miller 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). R.E. Miller is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:

- a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by R.E. Miller, the portable crushing equipment to be used under MAQP #3040-03 is subject to this subpart because it meets the definition of an affected facility and has been constructed or modified after August 31, 1983.
  - c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary compression ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, are subject to this subpart. An ICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Based on the information submitted to the Department, the diesel engines to be used under MAQP #3040-03 were manufactured prior to April 1, 2006, have not remained at the same location for more than 12 consecutive months, and are not subject to this subpart. Engines that are added in the future may be subject to this subpart if the crushing and screening plant does remain at a permitted location for 12 months or more (such as the home pit).
7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This requires that a source, as defined and applied in 40 CFR Part 63, comply with the requirements of 40 CFR Part 63. The following subparts could potentially become applicable to the facility during the life of the permit:
- a. 40 CFR 63, Subpart A – General Provisions apply to all equipment of facilities subject to a NESHAP Subpart as listed below:
  - b. 40 CFR 63, Subpart ZZZZ – NESHAPs for Stationary Reciprocating Internal Combustion Engines (RICE). This rule establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary RICE located at major and area sources of HAP emissions. A RICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. The RICE to be used under MAQP #3040-03 are not subject to this subpart because based on the information submitted by R.E. Miller, the diesel RICE have not remained at the same location for more than 12 consecutive months and are therefore not considered to be stationary. If the crushing and screening plant does remain at a permitted location for 12 months or more (such as the home pit), the permitted RICE may be subject to this subpart.

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

1. ARM 17.8.504, Air Quality Permit Application Fees. 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. R.E. Miller submitted the appropriate permit application fee for the current permit action.
2. ARM 17.8.505, Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. This operation fee is based on the actual or estimated amount of air pollutants emitted during the previous calendar year.

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

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

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. R.E. Miller has a PTE greater than 15 tons per year of oxides of nitrogen (NO<sub>x</sub>), carbon monoxide (CO), and sulfur dioxide (SO<sub>2</sub>); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. R.E. Miller 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. R.E. Miller submitted an affidavit of publication of public notice for the December 7,

2011 issue of the *Dillon Tribune*, a newspaper of general circulation in the Town of Dillon, Montana in Beaverhead 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 R.E. Miller 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 tons per year of any pollutant (excluding fugitive emissions).

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
  - a. PTE > 100 tons/year of any pollutant;
  - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
  - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) in a serious PM<sub>10</sub> nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3040-03 for R.E. Miller, the following conclusions were made:
  - a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is subject to a current NSPS (40 CFR 60, Subpart OOO and potentially Subpart IIII).

- e. This facility is potentially subject to 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.

R.E. Miller 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. R.E. Miller 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.

Visible emissions from NSPS affected equipment are limited to opacity as referenced in Section II.A.1 and II.A.2.

The Department determined, based on the relatively low amount of particulate, PM<sub>10</sub>, NO<sub>x</sub>, CO, VOC and SO<sub>2</sub> emitted, it is economically infeasible to require additional pollution controls on the 30 kW diesel engine generator or the 57.5 bhp engine on the Findlay screen. Therefore, the Department determined that proper operation and maintenance with no additional controls for PM, PM<sub>10</sub>, VOC, CO, and SO<sub>x</sub> would constitute BACT for the 57.5 bhp engine on the Findlay screen and the 30 kW (72 bhp) diesel engine generator.

IV. Emissions Inventory

Emission Source	PM	PM <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>x</sub>	CO	VOC	SO <sub>2</sub>
Primary Crusher: 1988 Cedar Rapids Jaw Crusher (400 TPH)	2.10	0.95	0.18	--	--	--	--
Secondary Crusher: 1986 El Jay Cone Crusher (300 TPH)	1.58	0.71	0.13	--	--	--	--
Scalping Screen (with wash plant) (180 TPH)	1.73	0.58	0.04	--	--	--	--
5x16, 3 Deck Screen (with Wash plant) (180 TPH)	1.73	0.58	0.04				
1986 El Jay screen (300 TPH)	2.89	0.97	0.07	--	--	--	--
1991 Finlay 50/30 Screen (130 TPH)	1.25	0.42	0.03	--	--	--	--
Deutz 57.5 Bhp Engine (for Finlay Screen)	0.55	0.55	0.55	7.81	1.68	0.63	0.52
Olympian 30 kW Diesel Generator (72 bhp)	0.45	0.45	0.45	6.36	1.37	0.52	0.42
Caterpillar 635 kW Diesel Generator (947 bhp)	1.89	1.89	1.89	64.77	14.84	1.90	21.83
Material Transfer (8 transfers)	1.96	0.64	0.18	--	--	--	--
Pile Forming (1 pile)	3.47	1.64	0.25	--	--	--	--
Bulk Loading (1 load)	3.47	1.64	0.25	--	--	--	--
Haul Roads	11.37	3.13	0.31	--	--	--	--
<b>Total Emissions</b>	<b>34.47</b>	<b>14.17</b>	<b>4.37</b>	<b>78.94</b>	<b>17.90</b>	<b>3.05</b>	<b>22.77</b>

- a. Inventory reflects enforceable limits on hours of operation to keep allowable emissions below the Title V threshold AND 80 tpy.  
 b. As requested by R. E. Miller, an hourly operating limit of 5,700 hr/yr for each of the 2 diesel engine generators (30 kW and 635 kW) was established to keep allowable emissions below the Title V threshold.

\*\* CO = carbon monoxide  
 HAPs = hazardous air pollutants  
 bhp = brake horsepower  
 lb = pound  
 N/A = not applicable  
 ND = no data available  
 NO<sub>x</sub> = oxides of nitrogen  
 PM = particulate matter  
 PM<sub>10</sub> = particulate matter with an aerodynamic diameter of 10 microns or less  
 PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter of 2.5 microns or less  
 SO<sub>2</sub> = oxides of sulfur  
 TPH = tons per hour  
 TPY = tons per year  
 VOC = volatile organic compounds  
 yr = year

**Primary Crusher: 1988 Cedar Rapids Jaw Crusher (400 TPH)**

Process Rate 400 ton/hr  
 Hours of Operation 8,760 hrs/yr

**PM Emissions:**

Emission Factor 0.0012 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
 (400 ton/hr) \* (8760 hrs/yr) \* (0.0012 lb/ton) \* (ton/2000 lb)= **2.10** ton/yr

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

Emission Factor 0.00054 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
 (400 ton/hr) \* (8760 hrs/yr) \* (0.00054 lb/ton) \* (ton/2000 lb)= **0.95** ton/yr

**PM<sub>2.5</sub> Emissions:**

Emission Factor 0.0001 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
 (400 ton/hr) \* (8760 hrs/yr) \* (0.0001 lb/ton) \* (ton/2000 lb)= **0.18** ton/yr

**Secondary Crusher: 1986 El Jay Cone Crusher (300 TPH)**

Process Rate 300 ton/hr  
Hours of Operation 8,760 hrs/yr

**PM Emissions:**

Emission Factor 0.0012 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(300 ton/hr) \* (8760 hrs/yr) \* (0.0012 lb/ton) \* (ton/2000 lb)= **1.58** ton/yr

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

Emission Factor 0.00054 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(300 ton/hr) \* (8760 hrs/yr) \* (0.00054 lb/ton) \* (ton/2000 lb)= **0.71** ton/yr

**PM<sub>2.5</sub> Emissions:**

Emission Factor 0.0001 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(300 ton/hr) \* (8760 hrs/yr) \* (0.0001 lb/ton) \* (ton/2000 lb)= **0.13** ton/yr

**Scalping Screen (with wash plant) (180 TPH)**

Process Rate 180 ton/hr  
Hours of Operation 8,760 hrs/yr

**Total PM Emissions:**

Emission Factor 0.0022 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(180 ton/hr) \* (8760 hrs/yr) \* (0.0022 lb/ton) \* (ton/2000 lb)= **1.73** ton/yr

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

Emission Factor 0.00074 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(180 ton/hr) \* (8760 hrs/yr) \* (0.00074 lb/ton) \* (ton/2000 lb)= **0.58** ton/yr

**Total PM<sub>2.5</sub> Emissions:**

Emission Factor 0.00005 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(180 ton/hr) \* (8760 hrs/yr) \* (0.00005 lb/ton) \* (ton/2000 lb)= **0.04** ton/yr

**5x16, 3 Deck Screen (with Wash plant)**

Process Rate 180 ton/hr  
Hours of Operation 8,760 hrs/yr

**Total PM Emissions:**

Emission Factor 0.0022 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(180 ton/hr) \* (8760 hrs/yr) \* (0.0022 lb/ton) \* (ton/2000 lb)= **1.73** ton/yr

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

Emission Factor 0.00074 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(180 ton/hr) \* (8760 hrs/yr) \* (0.00074 lb/ton) \* (ton/2000 lb)= **0.58** ton/yr

**Total PM<sub>2.5</sub> Emissions:**

Emission Factor 0.00005 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(180 ton/hr) \* (8760 hrs/yr) \* (0.00005 lb/ton) \* (ton/2000 lb)= **0.04** ton/yr

**1986 El Jay screen (300 TPH)**

Process Rate 300 ton/hr  
Hours of Operation 8,760 hrs/yr

**Total PM Emissions:**

Emission Factor 0.0022 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(300 ton/hr) \* (8760 hrs/yr) \* (0.0022 lb/ton) \* (ton/2000 lb)= **2.89** ton/yr

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

Emission Factor 0.00074 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(300 ton/hr) \* (8760 hrs/yr) \* (0.00074 lb/ton) \* (ton/2000 lb)= **0.97** ton/yr

**Total PM<sub>2.5</sub> Emissions:**

Emission Factor 0.00005 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(300 ton/hr) \* (8760 hrs/yr) \* (0.00005 lb/ton) \* (ton/2000 lb) **0.07** ton/yr

**1991 Finlay 50/30 Screen (130 TPH)**

Process Rate 130 ton/hr  
Hours of Operation 8,760 hrs/yr

**Total PM Emissions:**

Emission Factor 0.0022 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(130 ton/hr) \* (8760 hrs/yr) \* (0.0022 lb/ton) \* (ton/2000 lb)= **1.25** ton/yr

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

Emission Factor 0.00074 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(130 ton/hr) \* (8760 hrs/yr) \* (0.00074 lb/ton) \* (ton/2000 lb)= **0.42** ton/yr

**Total PM<sub>2.5</sub> Emissions:**

Emission Factor 0.00005 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(130 ton/hr) \* (8760 hrs/yr) \* (0.00005 lb/ton) \* (ton/2000 lb)= **0.03** ton/yr

**Deutz 57.5 Bhp Engine (for Finlay Screen)**

Generator Size 57.5 hp  
Hours of Operation 8,760 hrs/yr

**PM Emissions:**

Emission Factor (Assume PM = PM-10) 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(8,760 hrs/yr) \* (57.5bhp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **0.55** ton/yr

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

Emission Factor 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(8,760 hrs/yr) \* (57.5bhp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **0.55** ton/yr

**PM<sub>2.5</sub> Emissions:**

Emission Factor 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(8,760 hrs/yr) \* (57.5bhp) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **0.55** ton/yr

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

Emission Factor	3.1E-02	lbs/hp-hr	(AP-42, Sec. 3.3, Table 3.3-1, 10/96)
$(8,760 \text{ hrs/yr}) * (57.5\text{bhp}) * (0.0022 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>7.81</b>	ton/yr	

**CO Emissions:**

Emission Factor	6.68E-03	lbs/hp-hr	(AP-42, Sec. 3.3, Table 3.3-1, 10/96)
$(8,760 \text{ hrs/yr}) * (57.5\text{bhp}) * (0.00668 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>1.68</b>	ton/yr	

**VOC Emissions:**

Emission Factor	2.51E-03	lbs/hp-hr	(AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)
$(8,760 \text{ hrs/yr}) * (57.5\text{bhp}) * (0.0025141 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>0.63</b>	ton/yr	

**SO<sub>2</sub> Emissions:**

Emission Factor	2.05E-03	lbs/hp-hr	(AP-42, Sec. 3.3, Table 3.3-1, 10/96)
$(8,760 \text{ hrs/yr}) * (57.5\text{bhp}) * (0.00205 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>0.52</b>	ton/yr	

**Caterpillar 635 kW Diesel Generator(947 bhp)**

Generator Size	947	hp	
Hours of Operation	5,700	hrs/yr	

**PM Emissions (assume PM=PM10= PM2.5):**

Emission Factor (Assume PM = PM-10)	7.00E-04	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.0007 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>1.89</b>	ton/yr	

**PM<sub>10</sub> Emissions (filterable + condensable):**

Emission Factor	7.00E-04	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.0007 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>1.89</b>	ton/yr	

**PM<sub>2.5</sub> Emissions (filterable):**

Emission Factor	7.00E-04	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.0007 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>1.89</b>	ton/yr	

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

Emission Factor	0.024	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.024 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>64.77</b>	ton/yr	

**CO Emissions:**

Emission Factor	5.50E-03	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.0055 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	14.84	ton/yr	

**VOC Emissions:**

Emission Factor	7.05E-04	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, TOC, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.000705 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>1.90</b>	ton/yr	

**SO<sub>2</sub> Emissions:**

Emission Factor	8.09E-03	lbs/hp-hr	(AP-42, Sec. 3.4, Table 3.4-1, 10/96)
$(947\text{bhp}) * (5,700 \text{ hrs/yr}) * (0.00809 \text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) =$	<b>21.83</b>	ton/yr	

**Olympian 30 kW Diesel Generator (72 bhp)**

Generator Size 72.0 hp 30  
Hours of Operation 5,700 hrs/yr

**PM Emissions:**

Emission Factor (Assume PM = PM-10) 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(72bhp) \* (5,700 hrs/yr) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **0.45** ton/yr

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

Emission Factor 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(72bhp) \* (5,700 hrs/yr) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **0.45** ton/yr

**PM<sub>2.5</sub> Emissions:**

Emission Factor 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(72bhp) \* (5,700 hrs/yr) \* (0.0022 lbs/hp-hr) \* (ton/2000 lb) = **0.45** ton/yr

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

Emission Factor 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(72bhp) \* (5,700 hrs/yr) \* (0.031 lbs/hp-hr) \* (ton/2000 lb) = **6.36** ton/yr

**CO Emissions:**

Emission Factor 6.68E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(72bhp) \* (5,700 hrs/yr) \* (0.00668 lbs/hp-hr) \* (ton/2000 lb) = **1.37** ton/yr

**VOC Emissions:**

Emission Factor 2.51E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1,  
(72bhp) \* (5,700 hrs/yr) \* (0.0025141 lbs/hp-hr) \* (ton/2000  
**0.52** ton/yr TOC, Exhaust & Crankcase, 10/96)  
lb)=

**SO<sub>2</sub> Emissions:**

Emission Factor 2.05E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)  
(72bhp) \* (5,700 hrs/yr) \* (0.00205 lbs/hp-hr) \* (ton/2000 lb) = **0.42** ton/yr

**Conveyor Transfer Points (controlled) - (SCC 3-05-020-06)**

Process Rate 400 ton/hr  
Hours of Operation 8,760 hrs/yr  
Number of Transfers 8 transfer

**Total PM Emissions:**

Emission Factor 0.00014 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(400 ton/hr) \* (8760 hrs/yr) \* (0.00014 lb/ton) \* (ton/2000 lb) \*  
(8 transfer) = **1.96** ton/yr

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

Emission Factor 4.60E-05 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(400 ton/hr) \* (8760 hrs/yr) \* (0.000046 lb/ton) \* (ton/2000 lb) \*  
(8 transfer) = **0.64** ton/yr

**Total PM<sub>2.5</sub> Emissions:**

Emission Factor 1.30E-05 lb/ton (AP 42, Table 11.19.2-2, 8/04)  
(400 ton/hr) \* (8760 hrs/yr) \* (0.000013 lb/ton) \* (ton/2000 lb) \*  
(8 transfer) = **0.18** ton/yr

**Pile Forming/ (application states that material has >4% moisture by weight)**

Process Rate	400	ton/hr
Hours of Operation	8,760	hrs/yr
Number of Piles	1	piles

**PM Emissions:**

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} =$	0.00198	lb/ton	(AP 42, Sec. 13.2.4.3, 11/06) (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)
Where: k = particle size multiplier	0.74		
U = mean wind speed	9.2	mph	(Average: Dillon,MT: www.wrcc.dri.edu) (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content	4.00	%	
Control Efficiency	0	%	(Water or chemical spray)
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00198 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) =$	3.47	ton/yr	
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00198 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 0/100) =$	<b>3.47</b>	ton/yr	

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

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} =$	0.00094	lb/ton	(AP 42, Sec. 13.2.4.3, 11/06) (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
Where: k = particle size multiplier	0.35		
U = mean wind speed	9.2	mph	(Average: Dillon,MT: www.wrcc.dri.edu) (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content	4.00	%	
Control Efficiency	0	%	(Water or chemical spray)
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00094 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) =$	1.64	ton/yr	
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00094 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 0/100) =$	<b>1.64</b>	ton/yr	

**PM<sub>2.5</sub> Emissions:**

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} =$	0.00014	lb/ton	(AP 42, Sec. 13.2.4.3, 11/06) (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
Where: k = particle size multiplier	0.053		
U = mean wind speed	9.2	mph	(Average: Dillon,MT: www.wrcc.dri.edu) (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content	4.00	%	
Control Efficiency	0	%	(Water or chemical spray)
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) =$	0.25	ton/yr	
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 0/100) =$	<b>0.25</b>	ton/yr	

**Bulk Loading (application states that material has >4% moisture by weight)**

Process Rate	400	ton/hr
Hours of Operation	8,760	hrs/yr
Number of Piles	1	piles

**PM Emissions:**

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} =$	0.00198	lb/ton	(AP 42, Sec. 13.2.4.3, 11/06) (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)
Where: k = particle size multiplier	0.74		
U = mean wind speed	9.2	mph	(Average: Dillon,MT: www.wrcc.dri.edu) (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content	4.00	%	
Control Efficiency	0	%	(Water or chemical spray)
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00198 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) =$	3.47	ton/yr	
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00198 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 0/100) =$	3.47	ton/yr	

**PM10 Emissions:**

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} =$	0.00094	lb/ton	(AP 42, Sec. 13.2.4.3, 11/06)
Where: k = particle size multiplier	0.35		(Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
U = mean wind speed	9.2	mph	(Average: Dillon,MT: www.wrcc.dri.edu)
M = material moisture content	4.00	%	(Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency	0	%	(Water or chemical spray)
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00094 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) =$	1.64	ton/yr	
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00094 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 0/100) =$	1.64	ton/yr	

**PM2.5 Emissions:**

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} =$	0.00014	lb/ton	(AP 42, Sec. 13.2.4.3, 11/06)
Where: k = particle size multiplier	0.053		(Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
U = mean wind speed	9.2	mph	(Average: Dillon,MT: www.wrcc.dri.edu)
M = material moisture content	4.00	%	(Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency	0	%	(Water or chemical spray)
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) =$	0.25	ton/yr	
$(400 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ piles}) * (1 - 0/100) =$	0.25	ton/yr	

**Haul Roads**

Vehicle Miles Traveled	5	VMT/day	(Estimated)
VMT per Hour	0.21	VMT/hr	
Hours of Operation	8,760	hrs/yr	

**PM Emissions:**

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 12.46 \text{ lb/VMT}$	12.46	lb/VMT	(AP 42, Ch. 13.2.2, 11/06)
Where: k = constant	4.9	lbs/VMT	(Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content	7.1	%	(Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight	54	tons	(1994 average loaded/unloaded or a 40 ton truck)
a = constant	0.7		(Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
b = constant	0.45		(Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency	0	%	(Water spray or chemical dust suppressant)
$(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) =$	11.37	tons/yr	
$(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) =$	11.37	tons/yr	

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

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 3.43 \text{ lb/VMT}$	3.43	lb/VMT	
Where: k = constant	1.5	lbs/VMT	(Value for PM10, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content	7.1	%	(Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight	54	tons	(1994 average loaded/unloaded or a 40 ton truck)
a = constant	0.9		(Value for PM10, AP 42, Table 13.2.2-2, 11/06)
b = constant	0.45		(Value for PM10, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency	0	%	(Water spray or chemical dust suppressant)
$(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) =$	3.13	tons/yr	
$(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1 - 0/100) =$	3.13	tons/yr	

**PM<sub>2.5</sub> Emissions:**

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 0.34 \text{ lb/VMT}$	0.34	lb/VMT	
Where: k = constant	0.15	lbs/VMT	(Value for PM10, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content	7.1	%	(Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight	54	tons	(1994 average loaded/unloaded or a 40 ton truck)
a = constant	0.9		(Value for PM10, AP 42, Table 13.2.2-2, 11/06)
b = constant	0.45		(Value for PM10, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency	0	%	(Water spray or chemical dust suppressant)
$(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (0.34 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) =$	0.31	tons/yr	

**V. Existing Air Quality**

This permit is for a portable facility to originally be located in the NW¼ of Section 16 and the SW¼ of Section 9, Township 8 South, Range 9 West, and those areas under the permitting authority of the Department that have been designated unclassified/attainment in accordance with all ambient air quality standards, and where there are no major air pollution sources in the surrounding area.

**VI. Air Quality Impacts**

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

**VII. Ambient Air Impact Analysis**

Based on the information provided and the conditions established in MAQP #3040-03, the Department determined that the impact from this permitting action will be minor.

**VIII. Taking or Damaging 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)

YES	NO	
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

IX. Environmental Assessment

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

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

**FINAL ENVIRONMENTAL ASSESSMENT (EA)**

*Issued For:* R.E. Miller and Sons  
15 Ramshorn  
Dillon, MT 59725

*Montana Air Quality Permit (MAQP) number:* 3040-03

*Preliminary Determination Issued:* January 10, 2012

*Department Decision Issued:* February 10, 2012

*Final Permit Issued:* February 28, 2012

1. *Legal Description of Site:* The R.E. Miller and Sons (R.E. Miller) home pit is located in the NW¼ of Section 16 and the SW¼ of Section 9, Township 8 South, Range 9 West, in Beaverhead County, Montana This permit is for the operation of a portable crushing/screening plant to be located in various locations throughout the State of Montana.
2. *Description of Project:* Under the current permit action R.E. Miller and Sons requested the addition of a 30 kilowatt (kW) Olympian diesel engine generator to the existing crushing/screening plant, a 5x12 electric scalping screen as part of the wash plant, and, replacement of a Deutz diesel engine driving a 1991 Finlay screen (from a 50 brake-horsepower (bhp) diesel engine to a 57.5 bhp diesel engine).
3. *Objectives of Project:* The crushing/screening plant would be used to crush and sort sand and gravel materials for sale and use in construction operations. The process description is discussed in the permit analysis, Section I.B, of MAQP #3040-03.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because R.E. Miller has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #3040-03.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

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

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

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

A. Terrestrial and Aquatic Life and Habitats

The total size of the site is 55 acres. Of the 55 acres, 13 acres are along the highway and are part of the Stoltz Minor Subdivision. The remaining 42 acres are for future development of the gravel pit. Terrestrials would use the same area as the crushing/screening operations. The new equipment added as part of the current permit action would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life would be expected as a result of equipment operations or from pollutant deposition. Further, R.E. Miller holds an open-cut mining contract to operate at this site.

Impacts on aquatic life could result from water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations) and with minor amounts of water used for pollution control. Since good dispersion of air pollutants would occur in the proposed area of operation and only a minor amount of air emissions would be generated, only minor deposition would occur.

B. Water Quality, Quantity and Distribution

Water would be used as pollution control, but would only cause a minor disturbance to the area. The Beaverhead River is nearby; however, no surface water or ground water quality problems would be expected as a result of using water for pollution control. Any accidental spills or leaks from equipment would be handled according to the appropriate environmental regulations in an effort to minimize any potential adverse impact on the immediate and surrounding area.

C. Geology and Soil Quality, Stability and Moisture

The site is a dry-land bench area with one foot of topsoil, and the next 15-20 feet pit run gravel. The gravel is mined and the slopes backfilled with oversize rock and other on-site materials that are not suitable for gravel production. Topsoil is added over this material. The impacts of the new equipment added as part of the current permit action would be minor.

D. Vegetation Cover, Quantity and Quality

The quality and quantity of vegetation cover would not be affected by the new equipment added as part of the current permit action. R.E. Miller stockpiles the topsoil while they are mining the gravel, and uses the topsoil to cover the backfill. Each portion of the site is re-vegetated after the mining activities. Since the sites are pre-existing pits, the effects of the projects would be less noticeable.

E. Aesthetics

The new equipment added as part of the current permit action would be visible and would create additional noise in the area. The site is bordered by scattered farmland to the east, highway and interstate frontage to the west, and industrial developments to the north and south. MAQP #3040-03 includes conditions to control emissions (including visible emissions) from the plant. Since the new equipment added as part of the current permit action are small, any noise impacts will be minimal. The site is relatively quiet in relation to the surrounding industrial activities (Barretts Minerals, Montana Pride Hay Cubing, Sweetwater Garnet Plant, and Beaverhead Livestock).

F. Air Quality

The air quality impacts from the new equipment added as part of the current permit action would be minor. MAQP #3040-03 includes conditions limiting the opacity from the plant, as well as requiring water spray bars and other means to control air pollution. In addition, the emissions will be limited because the plant generally operates only five days per week and 20 weeks per year and the 30 kW and 635 kW diesel engine generators are limited to a maximum 5,700 hrs/year operation. Further, the crushing and screening operations are limited by MAQP #3040-03 to total particulate emissions of 250 tons per year (tpy) or less from the plant or from any additional equipment owned or operated by R.E. Miller at the site.

G. Unique Endangered, Fragile or Limited Environmental Resources

The Department previously contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of special concern associated with the proposed site location. Search results have concluded there are several such environmental resources in the area. Area, in this case, would be defined by the township and range of the proposed site, with an additional one-mile buffer. The species of special concern include bald eagle, great basin pocket mouse, bitterroot milkvetch, and ferruginous hawk. While these resources are found within the defined area, the MNHP search did not indicate any species of special concern located directly on the proposed site. Therefore, it is unlikely any of the previously listed species will be adversely affected by the proposed project. This area is a pre-existing site, and R.E. Miller holds an open-cut mining contract from the IEMB to operate in this area.

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

The new equipment added as part of the current permit action will only demand small quantities of water, air, and energy for proper operating. Generally, the operations are seasonal, which result in smaller demands on the environmental resources.

#### I. Historical and Archaeological Sites

The Department previously contacted the Montana Historical Society, Historic Preservation Office to determine if there are any historical or archaeological sites located on the proposed premises. As reported by the Montana Historical Society, there is one previously recorded historic site in the area. The site 24BE1713 is the Union Pacific Railroad and is considered eligible for listing on the National Register of Historic Places. In addition to this site, there is one other possible historic site in the area. The Perkins Hains ditch may be a historic irrigation structure if it is over 50 years old. In the past, irrigation systems have been found eligible for listing on the National Register for their importance in the agricultural development of Montana. R.E. Miller currently holds an open-cut mining contract with the IEMB to operate at this location.

#### J. Cumulative and Secondary Impacts

The addition of a 30 kW Olympian diesel engine generator to the existing crushing/screening plant, addition of a 5x12 electric scalping screen as part of the wash plant, and replacement of a Deutz diesel engine driving a 1991 Finlay screen would cause a minor effect to both the physical environment and human environment. There is potential for other operations to locate at these sites. However, any operations will have to apply for and hold the appropriate permits from the Department prior to operation. These permits will address the environmental impacts associated with the operations at the proposed site. The new or modified emitting sources at the crusher operation when operating alone or in conjunction with any other equipment owned or operated by R.E. Miller at the same site, would be limited by MAQP #3040-03 to emissions of 250 tpy or less during any rolling 12 month time period.

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
1	Social Structures and Mores				X		yes
2	Cultural Uniqueness and Diversity				X		yes
3	Local and State Tax Base and Tax Revenue			X			yes
4	Agricultural or Industrial Production			X			yes
5	Human Health			X			yes
6	Access to and Quality of Recreational and Wilderness Activities			X			yes
7	Quantity and Distribution of Employment				X		yes
8	Distribution of Population				X		yes
9	Demands for Government Services			X			yes
10	Industrial and Commercial Activity			X			yes
	Locally Adopted Environmental Plans and Goals				X		yes
12	Cumulative and Secondary Impacts			X			yes

SUMMARY OF COMMENTS ON POTENTIAL IMPACTS: The following comments have been prepared by the Department.

#### POTENTIAL IMPACT ON PHYSICAL ENVIRONMENT

##### POTENTIAL IMPACT ON HUMAN ENVIRONMENT

###### A. Social Structures and Mores

The new equipment added as part of the current permit action would cause no disruption to native or traditional lifestyles or communities of any potential site or area of operation.

###### B. Cultural Uniqueness and Diversity

It would be unlikely that the new equipment added as part of the current permit action would have an adverse impact on the cultural uniqueness and diversity of any proposed area of operation.

###### C. Local and State Tax Base and Tax Revenue

The new equipment added as part of the current permit action would have little, if any, effect on local and state tax base and tax revenue. The facility would be a temporary source and, therefore, would not remain at any individual site for a substantial period of time.

D. Agricultural or Industrial Production

The new equipment added as part of the current permit action would be located in a previously disturbed industrial pit and would not displace any agricultural production. The new equipment added as part of the current permit action are considered small by industrial standards and would, therefore, have only a minor impact on local industrial production.

E. Human Health

MAQP #3040-03 incorporates conditions to ensure that the new equipment added as part of the current permit action would be operated in compliance with all applicable rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

The new equipment added as part of the current permit action would not affect any access to recreational and wilderness activities. The main recreational opportunities in the area are presented by the Beaverhead River. There are no access sites or recreational opportunities to the Beaverhead River from the R.E. Miller property. However, minor effects to the quality of recreational and wilderness activities may be created by the noise from the site. Any impacts from the site would be minor due to the small size of the equipment added as part of the current permit action.

G. Quantity and Distribution of Employment

Given the temporary nature of the operation, it would not be expected that the activities from the new equipment added as part of the current permit action would affect the quantity and distribution of employment in the area.

H. Distribution of Population

Given the temporary nature of the operation, it would not be expected that the activities from adding the new equipment added as part of the current permit action will disrupt the normal population distribution in the area.

I. Demands of Government Services

No increases would be seen in traffic on existing roads in the area due to the new equipment added as part of the current permit action. Government services would be required for acquiring the appropriate permits from government agencies. Demands for government services would be minimal.

J. Industrial and Commercial Activity

The new equipment added as part of the current permit action represents only a minor increase in the industrial activity in any given area. No additional industrial or commercial activity is expected as a result of the crusher operations.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals.

L. Cumulative and Secondary Impacts

The addition of a 30 kW Olympian diesel engine generator, a 5x12 electric scalping screen, and a 57.5 bhp Deutz diesel engine to the existing crusher operations would cause a minor effect to both the physical environment and human environment. There would be potential for other operations to locate at these sites. However, any operations would have to apply for and hold the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the proposed site. The crusher operations are limited by MAQP #3040-03 to total particulate emissions of 250 tpy or less from non-fugitive crusher operations and any other additional equipment used at the site.

The proposed site location, or open cut pit, has been previously permitted through the Industrial and Energy Minerals Bureau. Therefore, further information and an additional site specific EA can be found in the Mined Land Reclamation Contract for the site.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: Since this plant is a portable source, it is unlikely there will be any significant impact. MAQP #3040-03 includes conditions and limitations, which, if properly applied, will safeguard any potential environmental threat created by the proposed crushing operation.

Other groups or agencies contacted or which may have overlapping jurisdiction: Department of Environmental Quality, State Historic Preservation Office (Montana Historical Society), and the Industrial and Energy Minerals Bureau.

Individuals or groups contributing to this EA: Department of Environmental Quality,

EA prepared by: Deanne Fischer

Date: 12/22/2011