



Montana Department of
ENVIRONMENTAL **Q**UALITY

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April 3, 2013

Garnet USA, LLC
Ms. Kristina Lueck
P.O. Box 161
Alder, MT

Dear Ms. Lueck:

Montana Air Quality Permit #4842-00 is deemed final as of April 3, 2013 by the Department of Environmental Quality (Department). This permit is for a portable crushing and screening facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Tashia Love
Environmental Science Specialist
Air Resources Management Bureau
(406) 444-5280

JM:TL
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4842-00

Garnet USA, LLC
P.O. Box 161
Alder, Montana 59710

April 3, 2013



MONTANA AIR QUALITY PERMIT

Issued To: Garnet USA, LLC
P.O. Box 161
Alder, Montana 59710

MAQP: #4842-00
Application Complete: 01/25/2013
Preliminary Decision Issued: 02/13/2013
Department's Decision Issued: 03/18/2013
Permit Final: 04/03/2013
AFS #: 777-4842

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

SECTION I: Permitted Facilities

A. Permitted Equipment

Garnet proposes to operate a portable crushing and screening facility and associated equipment. A complete list of permitted equipment is contained in Section I.A of the permit analysis.

B. Plant Location

The initial location of the proposed portable crushing and screening operation is Section 9, Township 6 South, Range 4 West, in Madison County, Montana. However, MAQP #4842-00 applies while operating at any location in Montana, except those areas having a Montana Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) 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.*

C. Current Permit Action

The Department received a permit application on December 03, 2012, from Garnet for a crushing and screening operation. The Preliminary Determination for the permit was issued on January 8, 2013. On January 25, 2013, Garnet submitted comments to the Department requesting significant changes to the proposed equipment. Due to a revised equipment list and change in homepit location from the original permit application, MAQP #4842-00 will be reposted for public comment as a Preliminary Determination.

SECTION II: Conditions and Limitations

A. Emission Limitations

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

2. All visible emissions from any other NSPS-affected equipment, other than a crusher (such as screens or conveyors), shall not exhibit opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR, Subpart OOO).
 - For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity
 - For equipment that commences construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 10% opacity
3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749).
5. Garnet 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. Garnet 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. Garnet shall not operate more than three (3) crushers at any given time and the combined maximum rated design capacity of the crushers shall not exceed 1,000 tons per hour (TPH) (ARM 17.8.749).
8. Garnet shall not operate more than two (2) screens at any given time and the combined maximum rated design capacity of the screens shall not exceed 800 TPH (ARM 17.8.749).
9. Garnet shall not operate or have on site more than two (2) diesel-fired generator sets at any given time. The combined maximum rated design capacity of the diesel-fired generator engine(s) shall not exceed 850 horsepower (hp). The total combined hours for the diesel-fired engine generator set(s) shall not exceed 6,000 hours of operation during any rolling 12-month time period (ARM 17.8.749).
10. If the permitted equipment is used in conjunction with any other equipment owned or operated by Garnet, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of emissions during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
11. Garnet shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
12. Garnet 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 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, Subpart ZZZZ).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but no later than 180 days after initial startup, 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 emissions limitations contained in Sections II.A.1 and II.A.2 (ARM 17.8.340, 40 CFR Part 60, Subpart A and Subpart OOO).
2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.105).
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. Garnet 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. Garnet 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. Garnet shall maintain on-site records showing daily hours of operation (including operating hours of the diesel fired generator sets) and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Garnet 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. Garnet shall document, by month, the hours of operation for each of the diesel engine/generator set(s). By the 25th day of each month, Garnet shall total the hours of operation for each 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.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Garnet 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).

D. Notification

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

SECTION III: General Conditions

- A. Inspection – Garnet 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), 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 Garnet fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Garnet 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 Garnet 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. Garnet 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
Garnet USA, LLC (Garnet)
MAQP #4842-00

I. Introduction/Process Description

Garnet owns and operates a portable crushing and screening facility with a combined maximum rated design capacity of 1,000 tons per hour (TPH) crushing production and 800 TPH screening production. The facility employs diesel-fired generator sets to provide power to equipment with a maximum rated design capacity of 850 horsepower (hp).

A. Permitted Equipment

The following list of permitted equipment is based on information provided within the application submitted by Garnet and is provided for reference. MAQP #4842-00 is written de minimis friendly and operational flexibility is provided so that alternate equipment may be utilized as long as maximum capacities are not exceeded and permit conditions are met. See Section II of the MAQP for specific equipment limitations and/or conditions. Equipment permitted under this action consists of the following:

- Jaw Crusher (600 TPH)
- Cone Crusher (200 TPH)
- Impact Crusher(200 TPH)
- Triple Deck Screen (600 TPH)
- Integrated Vibrating Cone Screen (200 TPH)
- Up to two Diesel-Fired Engine Generator Sets (850 hp combined capacity)
- Associated Material Handling Equipment; feeder conveyor, conveyors (including stacking equipment conveyors), stackers, aggregate bunkers etc.

B. Source Description

Garnet proposes the crushing and screening facility be operated at the Garnet mine site located at Section 9, Township 6 South, Range 4 West, in Madison County, Montana. Blasted or ripped rock ore material will be excavated into piles and loaded onto an apron feeder with the loader for crushing and processing. The apron feeder will have a grizzly screen to reject material too large for the jaw crusher and accept the material for further processing. The jaw crusher will send material to the triple deck screen by conveyor which sorts and circulates the oversized material back to the jaw crusher while sending the undersize fines straight to the stacker. The main material of marble to golf ball sized particles will flow by conveyor to the cone crusher. The cone crusher has a built in recirculation to allow the finer crushed particles to be conveyed to the radial stacker along with the fines from the triple deck screen directly. The oversize particles on the cone crusher are circulated through the machine until they are fine enough to pass the final screen size.

C. Current Permit Action

The Department of Environmental Quality (Department) received a permit application on December 03, 2012, from Garnet for a crushing and screening operation. The Preliminary Determination for the permit was issued on January 8, 2013. On January 25, 2013, Garnet submitted comments to the Department requesting significant changes to the proposed equipment. Due to the revised equipment list and change in homepit location from the

original permit application, MAQP #4842-00 will be reposted for public comment as a Preliminary Determination. The comments from Garnet from the original Preliminary Determination are included to highlight the differences from the original permit application.

D. Response to Public Comments

Person/Group Commenting	Permit Reference	Comment	Department Response
Garnet	Section I.B	Garnet requests ‘The initial location of the proposed portable crushing and screening operation be in Section 9, T6S, R4W, in Madison County, Montana.	The Department has made the requested change to the permit.
Garnet	Section II.A.7	Garnet requests this section be changed to ‘Garnet shall not operate more than three (3) crushers at any given time and the combined maximum rated design capacity of the crushers shall not exceed 1,000 tons per hour (tph)	The Department has made the requested change to the permit.
Garnet	Section II.A.8	Garnet requests this section be changed to ‘Garnet shall not operate more than two (2) screens at any given time and the maximum rate design capacity of the screens shall not exceed 800 tph.	The Department has made the requested change to the permit.
Garnet	Section II.A.9	Garnet requests this section be changed to ‘Garnet shall not operate or have on site more than two (2) diesel-fired generators and the combined maximum rated design capacity of the two generators shall not exceed 850 horsepower (hp).’	The Department has made the requested 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).

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

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

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

1. ARM 17.8.204 Ambient Air 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 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀
11. ARM 17.8.230 Fluoride in Forage

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions are taken to control emissions of airborne particulate matter. (2) Under this rule, Garnet 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 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.
7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by Garnet the portable crushing/screening operation and associated equipment are subject to NSPS (40 CFR 60), as follows:
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Garnet, the 2003 Cone Crusher and Screen and 1985 Impact Crusher to be used under MAQP #4842-00 are subject to this subpart because it meets the definition of an affected facility and was constructed or modified after August 31, 1983.
 - 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.

 Applicability to this subpart is dependent upon the nature and location of operation. The diesel engine associated with this air quality permit is not a CI ICE engine constructed after July 11, 2005, as it was constructed in 1988. Since this permit is de-minimis friendly, future equipment may be subject to Subpart III.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Based on the information submitted by Garnet the associated diesel engines are applicable to NESHAP (40 CFR 63), as follows:

- a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.
 - b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary RICE at a major or area source of Hazardous Air Pollutant (HAP) emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. As Garnet is considered an area source of HAP emissions and operates RICE equipment the engine is potentially subject to this subpart depending upon the location and nature of operation.
- D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. Garnet 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; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.
- E. ARM 17.8, Subchapter 7 – Permit, Construction, and Operation of Air Contaminant Sources, including, but not limited to:
1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
 2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, mineral crusher, or mineral screen that has the potential to emit (PTE) greater than 15 tons per year (tpy) of any pollutant. Garnet has a PTE greater than 15 tpy of PM, PM₁₀, 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. Garnet 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. Garnet submitted an affidavit of publication of public notice for the, February 7, 2013, issue of the *Madisonian Partners, Inc.*, a newspaper of general circulation in the City of Ennis in Madison 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 Garnet 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 single HAP, PTE > 25 tpy of any combination of HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tpy of PM₁₀ in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In review and issuance of MAQP #4842-00 for Garnet, the following conclusions were made:
 - a. Garnet has taken federally enforceable permit operating limits to maintain the facility's PTE to less than 100 tpy and 80 tpy thresholds for all criteria pollutants.
 - b. The facility's PTE is less than 100 tpy for all criteria pollutants.
 - c. The facility's PTE is less than 10 tpy for any single HAP and less than 25 tpy of combined HAPs.

- d. This source is not located in a serious PM₁₀ nonattainment area.
- e. This facility is subject to current NSPS (40 CFR 60, Subpart OOO and potentially Subpart IIII).
- f. This facility is potentially subject to a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
- g. This source is not a Title IV affected source.
- h. This source is not a solid waste combustion unit.
- i. This source is not an EPA designated Title V source.

Garnet has taken federally-enforceable 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.

- j. 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 source 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 potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

The Department has determined that the annual reporting requirements contained in the permit are sufficient to satisfy this requirement.

- 3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required 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 any new or modified source. Garnet shall install on the new or modified source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be used.

A BACT analysis accompanied the permit application submitted by Garnet, addressing available methods of controlling emissions from operation of the crushing and screening operation. The Department has reviewed these methods, as well as previous BACT determinations. The following control options have been reviewed by the Department in order to make the following BACT determinations.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

A. Crushing & Screening Particulate Emissions

Two types of emission controls are readily available and used for dust suppression of fugitive emissions that result from the operation of crushing/screening equipment and associated activities. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the crushing/screening operation, and for emissions from the crushing/screening operation itself. However, in view of the fact that water is more readily available, more cost effective, is equally effective as chemical dust suppressant, while presenting less potential environmental quality degradation, water has been identified as the most appropriate method of pollution control of particulate emissions. In addition, water suppression has been required of recently permitted similar sources. However, Garnet may use chemical dust suppressant to assist in controlling particulate emissions.

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

Garnet is required to have water spray bars and water available on site (at all times) and to apply the water, as necessary, to maintain compliance with the opacity restrictions and reasonable precautions limitations. Garnet may also use chemical dust suppressant to maintain compliance with emissions limitations in Section II.A of MAQP #4842-00. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the operation for the additional equipment.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

B. Diesel-Fired Engine (s)

Due to the limited amount of emissions produced by the diesel-fired engine(s) used in association with MAQP #4842-00 and the lack of cost effective add-on controls, add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no add-on controls would constitute BACT for the diesel-fired engine.

In addition, any new diesel-fired engine would likely be required to comply with the federal engine emission limitations including, for example, EPA Tier emission standards for non-road engines (40 CFR Part 89 or 1039), New Source Performance Standard emission limitations for stationary compression ignition engines (40 CFR 60, Subpart IIII), or National Emissions Standards for Hazardous Air Pollutant Sources for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). Therefore, the Department has determined that compliance with applicable federal standards and proper operation and maintenance of the engines constitutes BACT for these engines.

IV. Emission Inventory

Emissions Inventory	tons/year						
	PM	PM ₁₀	PM _{2.5}	NO _x	CO	VOC	SO ₂
Cone Crusher (600 tph)	3.15	1.42	0.26	--	--	--	--
Impact Crusher (200 tph)	1.05	0.47	0.09				
Jaw Crusher (200 tph)	1.05	0.47	0.09	--	--	--	--
Integrated Vibrating Cone Screen (200 tph)	1.93	0.65	0.04				
Portable Screening Plant (600 tph)	5.78	1.94	0.13	--	--	--	--
Diesel-fired Engine Generator (850 hp)	5.61	5.61	5.61	79.05	17.03	6.40	5.23
Material Transfer	4.29	1.41	0.40	--	--	--	--
Pile Forming/Bulk Loading	14.50	6.83	0.11	--	--	--	--
Truck Unloading	0.61	0.07	0.06	--	--	--	--
Haul Roads	5.68	1.57	0.16	--	--	--	--
Total Emissions	43.66	20.45	6.94	79.05	17.03	6.40	5.23

(a) Emission Inventory reflects enforceable limits on hours of operation of the diesel-fired generator engine to keep allowable NO_x emissions below the Title V threshold [100 tpy] and the State CMS SM Source threshold [80 tpy].

(b) PM emissions presented in the table represent the sum of the filterable and condensable particulate matter (CPM) fractions. All CPM

hp, horsepower	PM, particulate matter
BSFC, brake-specific fuel consumption	PM _{COND} , condensable particulate matter
CO, carbon monoxide	PM ₁₀ , particulate matter with an aerodynamic diameter of 10 microns or less
CMS, Compliance Monitoring Strategy	PM _{2.5} , particulate matter with an aerodynamic diameter of 2.5 microns or less [Sum of condensable and filterable]
hr, hour	SCC, Source Classification Code
lbs, pounds	SO ₂ , oxides of sulfur
MMBtu, million British Thermal Units	TPH, tons per hour
NO _x , oxides of nitrogen	TPY, tons per year
NG, negligible emissions [< 0.01 tpy]	VOC, volatile organic compounds
PTE, Potential To Emit	

Cone Crusher

Process Rate	600	ton/hr	
Hours of Operation			
Total PM Emissions:	8,760	hrs/yr	
Emission Factor	0.0012	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) = 3.15 ton/yr	3.15	ton/yr	
PM₁₀ Emissions:			
Emission Factor	0.00054	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) = 1.42 ton/yr	1.42	ton/yr	
PM_{2.5} Emissions:			
Emission Factor	0.0001	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) = 0.26 ton/yr	0.26	ton/yr	

Jaw Crusher

Process Rate	200	ton/hr	
Hours of Operation	8,760	hrs/yr	
Total PM Emissions:			
Emission Factor	0.0012	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) = 1.05 ton/yr	1.05	ton/yr	

PM₁₀ Emissions:

Emission Factor	0.00054	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) = 0.47 ton/yr	0.47	ton/yr	

PM_{2.5} Emissions:

Emission Factor	0.0001	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) = 0.09 ton/yr	0.09	ton/yr	

Impact Crusher

Process Rate	200	ton/hr	
Hours of Operation	8,760	hrs/yr	
Total PM Emissions:			
Emission Factor	0.0012	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) = 1.05 ton/yr	1.05	ton/yr	

PM₁₀ Emissions:

Emission Factor	0.00054	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) = 0.47 ton/yr	0.47	ton/yr	

PM_{2.5} Emissions:

Emission Factor	0.0001	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) = 0.09 ton/yr	0.09	ton/yr	

Triple Deck Screen

Process Rate	600	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) Screening (Controlled)
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) = 5.78 ton/yr	5.78	ton/yr	

Total PM₁₀ Emissions:

Emission Factor	0.00074	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Screening (Controlled)
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) = 1.94 ton/yr	1.94	ton/yr	

Total PM_{2.5} Emissions:

Emission Factor	0.00005	lb/ton	(AP 42, Table 11.19.2-2, 8/04) Screening (Controlled)
Calculation: (600 ton/hr) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) = 0.13 ton/yr	0.13	ton/yr	

Integrated Vibrating Cone Screen

Process Rate 200 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 Screening (Controlled))
Calculation: $(200 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.0022 \text{ lb/ton}) *$
 $(\text{ton}/2000 \text{ lb}) = 1.93 \text{ ton/yr}$ **1.93** ton/yr

Total PM₁₀ Emissions:

Emission Factor 0.00074 lb/ton (AP 42, Table 11.19.2-2, 8/04 Screening (Controlled))
Calculation: $(200 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00074 \text{ lb/ton}) *$
 $(\text{ton}/2000 \text{ lb}) = 0.65 \text{ ton/yr}$ **0.65** ton/yr

Total PM_{2.5} Emissions:

Emission Factor 0.00005 lb/ton (AP 42, Table 11.19.2-2, 8/04 Screening (Controlled))
Calculation: $(200 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00005 \text{ lb/ton}) *$
 $(\text{ton}/2000 \text{ lb}) = 0.04 \text{ ton/yr}$ **0.04** ton/yr

850 hp Diesel-Fired Engine Generator

Generator Size 850 hp
Hours of Operation (limited) 6,000 hrs/yr

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

Emission Factor (Assume PM = PM-10) 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: $(850 \text{ hp}) * (6,000 \text{ hrs/yr}) * (0.0022$
 $\text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 5.61 \text{ ton/yr}$ **5.61** ton/yr

PM₁₀ Emissions (filterable + condensable):

Emission Factor 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: $(850 \text{ hp}) * (6,000 \text{ hrs/yr}) * (0.0022$
 $\text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 5.61 \text{ ton/yr}$ **5.61** ton/yr

PM_{2.5} Emissions (filterable):

Emission Factor 2.20E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: $(850 \text{ hp}) * (6,000 \text{ hrs/yr}) * (0.0022$
 $\text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 5.61 \text{ ton/yr}$ **5.61** ton/yr

NO_x Emissions:

Emission Factor 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: $(850 \text{ hp}) * (6,000 \text{ hrs/yr}) * (0.031$
 $\text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 79.05 \text{ ton/yr}$ **79.05** ton/yr

CO Emissions:

Emission Factor 6.68E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: $(850 \text{ hp}) * (6,000 \text{ hrs/yr}) * (0.00668$
 $\text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 17.03 \text{ ton/yr}$ **17.03** ton/yr

VOC Emissions:

Emission Factor 2.51E-03 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: $(850 \text{ hp}) * (6,000 \text{ hrs/yr}) * (0.00251$
 $\text{ lbs/hp-hr}) * (\text{ton}/2000 \text{ lb}) = 6.40 \text{ ton/yr}$ **6.40** ton/yr

SO₂ Emissions:

Emission Factor	2.05E-03	lbs/hp-hr	(AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (850 hp) * (6,000 hrs/yr) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = 5.23 ton/yr	5.23	ton/yr	

Material Transfer

Process Rate	1,000	ton/hr
Hours of Operation	8,760	hrs/yr
Number of Transfers	7	transfer

Total PM Emissions:

Emission Factor	0.00014	lb/ton	(AP 42, Table 11.19.2-2, 8/04)
Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (7 transfer) = 4.29 ton/yr	4.29	ton/yr	

Total PM₁₀ Emissions:

Emission Factor	4.60E-05	lb/ton	(AP 42, Table 11.19.2-2, 8/04)
Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (7 transfer) = 1.41 ton/yr	1.41	ton/yr	

Total PM_{2.5} Emissions:

Emission Factor	1.30E-05	lb/ton	(AP 42, Table 11.19.2-2, 8/04)
Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (7 transfer) = 0.40 ton/yr	0.40	ton/yr	

Pile Forming/Bulk Loading

Process Rate	1,000	ton/hr
Hours of Operation	8,760	hrs/yr
Number of Piles	1	piles

Use <http://www.raws.dri.edu/index.html> to find Wind speed average

MT Average Windspeed (use for portables) 9.33%

PM Emissions:

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00331$ lb/ton	0.00331	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		Average for Poplar MT http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?mtMPOP
U = mean wind speed	9.33	mph	
M = material moisture content	2.10	%	AP 42 Table 12.2.4-1 Various Limestone Products 13.2.4.4 Controls-unless use chemicals, water only has minor effect
Control Efficiency	0	%	
Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00331 lb/ton) * (ton/2000 lb) * (1 piles) = 14.50 ton/yr	14.50	ton/yr	
Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00331 lb/ton) * (ton/2000 lb) * (1 piles) * (1 - 0/100) = 14.50 ton/yr	14.50	ton/yr	

PM₁₀ Emissions:

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00156$ lb/ton	0.00156	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		Average for Poplar MT http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?mtMPOP
U = mean wind speed	9.33	mph	
M = material moisture content	2.10	%	AP 42 Table 12.2.4-1 Various Limestone Products 13.2.4.4 Controls-unless use chemicals, water only has minor effect
Control Efficiency	0	%	

Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00156 lb/ton) * (ton/2000 lb) * (1 piles) = 6.83 ton/yr
 Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00156 lb/ton) * (ton/2000 lb) * (1 piles) * (1 - 0/100) = 6.83 ton/yr

PM_{2.5} Emissions:

Emission Factor = k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00002 lb/ton

Where: k = particle size multiplier
 U = mean wind speed
 M = material moisture content

Control Efficiency

Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00002 lb/ton) * (ton/2000 lb) * (1 piles) = 0.11 ton/yr
 Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00002 lb/ton) * (ton/2000 lb) * (1 piles) * (1 - 0/100) = 0.11 ton/yr

0.00002 lb/ton
 0.053
 9.33 mph
 2.10 %
 0 %
 0.11 ton/yr
0.11 ton/yr

(AP 42, Sec. 13.2.4.3, 11/06)
 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
 Average for Poplar MT <http://www.raws.dri.edu/cgi-bin/rawMAIN.pl?mtMPOP>
 AP 42 Table 12.2.4-1 Various Limestone Products
 13.2.4.4 Controls-unless use chemicals, water only has minor effect

Truck Unloading

Process Rate 1,000 ton/hr
 Hours of Operation 8,760 hrs/yr
 Number of Loads 1 Loads

Total PM Emissions:

Emission Factor
 Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (1 Loads) = 0.61 ton/yr (AP 42, Table 11.19.2-2, 8/04)

0.00014 lb/ton
0.61 ton/yr

Used Conveyor Transfer since ND on Truck Unloading
 (AP 42, Table 11.19.2-2, 8/04)

Total PM₁₀ Emissions:

Emission Factor
 Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.000016 lb/ton) * (ton/2000 lb) * (1 Loads) = 0.07 ton/yr Used Truck unloading Fragmented Stone

1.60E-05 lb/ton
0.07 ton/yr

(AP 42, Table 11.19.2-2, 8/04)
 Used Truck unloading Fragmented Stone

Total PM_{2.5} Emissions:

Emission Factor
 Calculation: (1,000 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (1 Loads) = 0.06 ton/yr (AP 42, Table 11.19.2-2, 8/04)

1.30E-05 lb/ton
0.06 ton/yr

Used Conveyor Transfer since ND on Truck Unloading
 (AP 42, Table 11.19.2-2, 8/04)

Haul Roads

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

(Estimated)

PM Emissions:

Emission Factor = k * (s / 12)^a * (W / 3)^b = 12.46 lb/VMT

Where: k = constant
 s = surface silt content
 W = mean vehicle weight
 a = constant
 b = constant

12.46 lb/VMT
 4.9 lbs/VMT
 7.1 %
 54 tons
 0.7
 0.45

(AP 42, Ch. 13.2.2, 11/06)
 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
 (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
 (1994 average loaded/unloaded or a 40 ton truck)
 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
 (Water spray or chemical dust suppressant)

Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 11.37 \text{ tons/yr}$	11.37	tons/yr
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 5.68 \text{ tons/yr}$	5.68	tons/yr

PM₁₀ 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	50	%	(Water spray or chemical dust suppressant)
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 3.13 \text{ tons/yr}$	3.13	tons/yr	
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 1.57 \text{ tons/yr}$	1.57	tons/yr	

PM_{2.5} 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	50	%	(Water spray or chemical dust suppressant)
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (0.34 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 0.31 \text{ tons/yr}$	0.31	tons/yr	
Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (0.34 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 0.16 \text{ tons/yr}$	0.16	tons/yr	

V. Existing Air Quality

The initial location of this portable source is to be located in Section 9, Township 6 South, Range 4 West, in Madison County, Montana. The initial location and those areas for which this facility is permitted to operate under MAQP #4842-00 has been designated unclassified/attainment with all ambient air quality standards and there are no major air pollution sources in the surrounding area.

VI. Air Quality Impacts

MAQP #4842-00 will cover the plant while operating at any location within Montana, excluding those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas.

Emissions generated from the operation of this source are to be well control and limited, furthermore, the portable unit would be expected to be operated on an intermittent and seasonal basis and any air quality impacts would be minimal and temporary. Therefore, the Department determined that the impact from this permitting action will be minor and is not expected to cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

The Department determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation on 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

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

Analysis prepared by: Tashia Love

Date: January 30, 2013

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Garnet USA, LLC
P.O. Box 161
Alder, Montana 59710

Montana Air Quality Permit Number (MAQP): 4842-00

Preliminary Determination Issued: February 13, 2013

Department Decision Issued: March 18, 2013

Permit Final: April 3, 2013

1. *Legal Description of Site:* Garnet USA, LLC (Garnet) proposes to operate a portable crushing/screening facility which will initially be located in Section 9, Township 6 South, Range 4 West in Madison County, Montana. However, MAQP #4842-00 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana. An addendum would be required for locations in or within 10 km of certain PM₁₀ nonattainment areas.*
2. *Description of Project:* The Department received a permit application from Garnet for the operation of a portable crushing/screening facility with a combined maximum rated design process rate of 1,000 tons per hour (TPH) of crushing capacity and 800 TPH of screening capacity. Garnet proposes to utilize a portable diesel-fired engine generator set to supply electrical power to the plant. The application proposed the use of two (2?) diesel-fired generator sets to provide electrical power to equipment with a maximum rated design capacity of 850 horsepower (hp).
3. *Objectives of Project:* The object of the project would be to produce business and revenue for the company through the sale and use of aggregate. The issuance of MAQP #4842-00 would allow Garnet to operate the permitted equipment at various locations throughout Montana (as described above), including the proposed initial site location.
4. *Alternatives Considered:* In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Garnet demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A listing of the enforceable permit conditions and a permit analysis, including a BACT analysis, would be contained in MAQP #4842-00.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

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

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			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

This permitting action would be expected to have a minor effect on terrestrial and aquatic life and habitats, as the proposed plant would operate within a previously disturbed industrial site in leveled dredge tailings. Furthermore, the air emissions would likely have only minor effects on terrestrial and aquatic life because facility emissions would be well dispersed in the area of the operation (see Section 7.F of this EA) and would have intermittent and seasonal operations. Therefore, only minor and temporary effects to terrestrial and aquatic life and habitat would be expected from the proposed project.

B. Water Quality, Quantity, and Distribution

Water would be required for dust suppression on the mineral processing equipment and surrounding facility area. The water use would be expected to cause minor, if any, impacts to water sources. In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F of this EA. However, the Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #4842-00, any impacts from deposition of pollution on water quality, quantity, and distribution expected would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Only minor impacts from deposition on soil would likely result (as described in 7.F of this EA) and only minor amounts of water would be used for pollution control, and only as necessary, in controlling particulate emissions. Thus, only minimal water runoff would likely occur. Since only minor amounts of pollution would be expected and corresponding emissions would be widely dispersed before settling upon surrounding soil and vegetation (as described in Section 7.D of EA), impacts would be minor. Therefore, any effects upon geology and soil quality, stability, and moisture from air pollutant emissions from equipment operations would likely be minor and short-lived.

D. Vegetation Cover, Quantity, and Quality

Only minor impacts would be expected to occur on vegetative cover, quality, and quantity because the facility will be operating on land that is currently used as an industrial site. During operations, the facility would likely be a relatively minor source of emissions and the pollutants widely dispersed (as described in 7.F of this EA) therefore, deposition on vegetation from the proposed project would be expected to be minor. Also, due to limited water usage (as described in Section 7.F of this EA) and minimal associated disturbance from the application of water and run-off (as described in Section 7.B of this EA), corresponding vegetative impacts would likely be minor.

E. Aesthetics

The crushing/screening facility would disturb approximately two acres of land. Activity within the facility will create noise while operating at the proposed site. The proposed project is on private land owned by Garnet and public access is not allowed. The application states the nearest home and/or structure is 0.25 miles from the proposed project site, therefore visual and noise impacts would be minor and short-lived. The facility would operate on an intermittent and seasonal basis.

F. Air Quality

Air quality impacts from the proposed project would likely be minor because the facility would be small and operate on an intermittent and temporary basis. MAQP #4842-00 includes conditions limiting the facility's opacity and requiring water and spray bars to be available on site to ensure compliance with opacity standards. These conditions would limit fugitive emissions. Further, Garnet has taken federally-enforceable limitations to remain a minor source of emissions with respect to Title V. Pollutant deposition from the facility would be expected to be minimal because the pollutants are widely dispersed (from factors such as wind speed and wind direction) and exhibit minimal deposition on the surrounding area. Therefore, air quality impacts from operating the facility in this area would be expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of concern that may be found in the area where the proposed crushing/screening facility will occur. Search results have concluded five animal species of concern in the area and one plant species concern. Area, in this case, will be defined by the township and range of the proposed site, with an additional 1-mile buffer. The known species of concern include: the Great Blue Heron, the Greater Sage-Grouse (Sensitive), the Bobolink (Sensitive), the Hoary Bat, and the Western Spotted Skunk.

While the Great Blue Heron may be found within the search area, this species is known to inhabit cottonwoods along major rivers and lakes, which are not impacted by the operation of this facility. The Greater Sage-Grouse's preferred habitat is sagebrush with a migration to alfalfa fields or greasewood bottom when forbs on the benches dry out. In Montana, the Bobolink builds nest in tall grass and mixed-grass prairies. The Western Spotted Skunk's habitat is not well known, but they have been found in arid, rocky and brushy canyons and hillsides. Information from other portions of its range suggest that when they are inactive or bearing young, they occupy a den in rocks, burrows, hollow logs, brush piles, or under buildings. Therefore, the proposed project would have minor to no impacts considering its operations will occur in a previously disturbed industrial area. Since the Hoary bat is migratory and only a summer resident in Montana, it is unlikely that the installation of the proposed project in a previously disturbed industrial site would have any impact on these animals.

The plant species, the Ute Ladies' Tresses is found primarily in alkaline wetlands, swales and old, meander channels often on the edge of the wetland or in areas that are dry by mid-summer. MAQP #4842-00 application states there are no potential impacts to wetlands or drainage patterns.

Specific efforts of operating the proposed project in this area would be minor since the project is located partially within an existing construction area. Therefore, the Department determined that any effects upon these species would likely be minor and short-lived.

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

Due to the relatively small size of the project, only small demands on environmental resources would likely be required for proper operation. Only small quantities of water are required for dust suppression of particulate emissions being generated at the site. In addition, impacts to air resources would be expected to be minor because the source would be considered a minor industrial source of emissions, with intermittent and seasonal operations, and because air pollutants generated by the facility would be widely dispersed as described in Section 7.F of this EA. Furthermore, Garnet has taken federally-enforceable limitations to remain a minor source of emissions with respect to Title V.

I. Historical and Archaeological Sites

The Department contacted the Montana History Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction and operation. According to their records, there have been several previously records sites within the designated search locales. In addition to the sites, there have been a few previously conducted cultural resource inventories done in the areas.

As long as no disturbance or alteration to structures over fifty years of age, SHPO feels “that there is a low likelihood cultural properties will be impacted”. Therefore, it is unlikely that the project would affect any historic or archaeological site and no resulting impacts.

J. Cumulative and Secondary Impacts

The operation of the proposed project would likely cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate air emissions. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the facility would be expected to operate in areas designated and used for such operations on a temporary and seasonal basis. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4842-00. Overall, any cumulative and or secondary impacts to the physical and biological aspects of the human environment would be minor.

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

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

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

A. Social Structures and Mores

The operation of the proposed project would be expected to cause minor disruption to the social structures and mores in the area because the source would be a minor industrial source in a relatively remote location. The facility would only have intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #4842-00. Therefore, the existing social structures and mores would not be affected as a result of this permitting action.

B. Cultural Uniqueness and Diversity

The impact to cultural uniqueness and diversity of these areas would be minor from the proposed equipment because the site will be located in an area that is an existing industrial side owned by Garnet where access is secure and controlled. Additionally, the facility would be considered a portable source with seasonal and intermittent operations. Therefore, the Department determined that there would be minor effects to cultural uniqueness and diversity.

C. Local and State Tax Base and Tax Revenue

The proposed project would have little, if any impact on the local and state tax base and tax revenue because the facility would be a temporary source and small by industrial standards. Garnet is currently at 14 employees but is planning to increase to approximately 30 employees for full processing and mining activities. The proposed project itself would likely employ two additional employees to the facility. Thus, only minor impacts to the local and state tax case and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be expected to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

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

E. Human Health

MAQP #4842-00 would incorporate conditions to ensure the crushing/screening facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F of this EA, the air emissions from the facility would be minimized by the use of water spray and other conditions established in MAQP #4842-00. Therefore, only minor impacts would be expected upon human health from the proposed crushing/screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

Based on the information received from Garnet, no recreational activities or wilderness areas are near the proposed project site. No access to the public is available on the land privately owned by Garnet where the proposed project would be located. Therefore, no impacts to the access to and quality of recreational and wilderness activities would be expected.

G. Quantity and Distribution of Employment

The portable crushing/screening operation would only require a few employees to operate and would have seasonal and intermittent operations. The crushing/screening operation would be considered a portable source and would not be expected to have long-term effects upon the quantity and distribution of employment in any given area of operation. The application states that 2 employees would be employed as a result of the proposed project. Therefore, minor effects upon the quantity and distribution of employment in these areas would be expected.

H. Distribution of Population

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

I. Demands of Government Services

Minor increases would be seen in traffic on existing roadways in the area while the crushing/screening facility operates. In addition, government services would be required for acquiring the appropriate permits from government agencies. Demands for government services would be minor.

J. Industrial and Commercial Activity

The operation of the crushing/screening facility would represent only a minor increase in the industrial activity in the proposed area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Therefore, only limited additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

Garnet would be allowed, by MAQP #4842-00, to operate in areas designated by Environmental Protection Agency as attainment or unclassified for ambient air quality. MAQP #4842-00 contains operational restrictions for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. Because the proposed crushing/screening facility would be a portable source and would likely have intermittent and seasonal operations, any impacts from the project would be expected to be minor and short-lived.

L. Cumulative and Secondary Impacts

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

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the operation of a portable crushing and screening facility; MAQP #4842-00 provides conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

EA prepared by: Tashia Love
Date: January 30, 2013