



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: www.deq.mt.gov

October 16, 2012

Steve Koontz
Koontz Construction, Inc.
1007 Eagle Court
Livingston, MT 59047

Dear Mr. Koontz:

Montana Air Quality Permit #3098-03 is deemed final as of October 16, 2012, by the Department of Environmental Quality (Department). This permit is for a portable non-metallic mineral processing plant and associated equipment. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Doug Kuenzli
Environmental Science Specialist
Air Resources Management Bureau
(406) 444-4267

JM:DCK
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3098-03

Koontz Construction, Inc.
1007 Eagle Court
Livingston, MT 59047

October 16, 2012



MONTANA AIR QUALITY PERMIT

Issued To: Koontz Construction, Inc.
1007 Eagle Court
Livingston, MT 59047

MAQP: #3098-03
Application Complete: 07/24/2012
Preliminary Determination Issued: 09/12/2012
Department's Decision Issued: 09/28/2012
Permit Final: 10/16/2012
AFS: #777-3098

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

SECTION I: Permitted Facilities

A. Plant Location:

Koontz owns and operates a portable non-metallic mineral processing plant located in various locations throughout Montana. MAQP #3098-03 applies while operating at any location in Montana, except within those areas having a Montana Department of Environmental Quality (Department)-approved permitting program or those areas considered tribal lands. *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 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas.

B. Current Permit Action:

On July 24, 2012, the Department received a complete application to modify Koontz's air quality permit to allow for the addition of one jaw crusher and one vibrating grizzly screen, each with a maximum rated design throughput capacity of 540 tons per hour (TPH). In addition to the proposed changes the current permit action updates rule references used by the Department and updates the emission inventory.

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 Regulation (CFR) 60, Subpart OOO).
 - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity
 - For crushers that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 15% opacity
2. All visible emissions from any other NSPS-affected equipment, other than a crusher (such as screens or 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 and 17.8.752).
 5. Koontz 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. Koontz 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. Koontz shall not operate more than three (2) crushers at any given time and the combined maximum rated design capacity shall not exceed 815 TPH (ARM 17.8.749).
 8. Koontz shall not operate more than three (3) screens at any given time and the combined maximum rated design capacity shall not exceed 890 TPH (ARM 17.8.749).
 9. Any one diesel-fired engine or combination of engines shall not exceed 730 brake-horsepower (bhp) (ARM 17.8.749).
 10. If the permitted equipment is used in conjunction with any other equipment owned or operated by Koontz, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
 11. Koontz 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. Koontz shall comply will all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart III; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

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

3. Koontz 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. Koontz 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 Koontz 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).

D. Notification

Koontz shall provide the Department with written notification of the actual start-up date of the new permitted jaw crusher and vibrating grizzly screen postmarked within 15 days after the actual start-up date (ARM 17.8.748).

SECTION III: General Conditions

- A. Inspection – Koontz shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emission Monitoring System (CEMS), Continuous Emission 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 Koontz fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Koontz of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756)
- D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Koontz 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. Koontz 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
Koontz Construction, Inc.
MAQP #3098-03

I. Introduction/Process Description

A. Permitted Equipment

Koontz Construction, Inc. (Koontz) owns and operates a portable non-metallic mineral processing plant. Equipment used at this facility includes:

- Diesel Engine(s) (not to exceed 730 brake-horsepower (bhp));
- 2 Crusher(s) (combined capacity up to 815 tons per hour (TPH));
- 3 Screen(s) (combined capacity up to 890 TPH);
- Associated equipment, such as: dozer traps, feeders, conveyors (including integrated equipment conveyors), stackers, and other material handling equipment.

B. Source Description

The crushing plant will be used to crush and sort sand and gravel materials for sale and use in construction operations. For a typical operational setup, the raw materials will initially be sent through the dozer trap. From there, the material will be conveyed to a vibrating grizzly where oversized material will be removed. From the vibrating grizzly, the material will be conveyed to the crusher. Next, the materials will be conveyed either to the stockpiles for use in construction operations or back to the grizzly and through the system for further processing.

The designated home location for this facility is Section 17, Township 2 South, Range 9 East, in Park County, Montana.

C. Permit History

MAQP #3098-00 was an administrative action that reflected the fact that Yellowstone County relinquished permit authority back to the state of Montana. The facility did not change, but the Yellowstone County permit was reissued as a state permit. **MAQP #3098-00** replaced the Yellowstone County air quality permit held by Koontz.

On February 18, 2004, Koontz submitted a MAQP application to modify MAQP #3098-00 in order to replace the 1951 Symons-Nordberg Cone crusher and Cat 3406B diesel generator with similar crushing and screening equipment. The modification of MAQP #3098-00 also generalized the requirement of the permit to allow for greater operating flexibility. **MAQP #3098-01** replaced MAQP #3098-00.

On March 5, 2010, the Department of Environmental Quality (Department) received a letter from Koontz requesting an administrative amendment to add an additional screen to MAQP #3098-01. The permit action added a single 100 TPH screen to MAQP #3098-01 and updated the MAQP to reflect the current language and rule references used by the Department. **MAQP #3098-02** replaced MAQP #3098-01.

D. Current Permit Action

On July 24, 2012, the Department received a complete application to modify Koontz's air quality permit to allow for the addition of one jaw crusher and one vibrating grizzly screen, each with a maximum rated design throughput capacity of 540 TPH. The crushing and

screening equipment is part of an integrated track-mounted package. The package unit is powered by a diesel-fired engine which drives the mineral processing equipment and as well as the track system used to propel the unit. As the unit is track mounted and self propelled, the engine is excluded from permitting under Administrative Rules of Montana (ARM) ARM 17.8.744; therefore the engine's emissions are not accounted for within the emission inventory. In addition to the proposed changes the current permit action updates the permit to reflect the current language and rule references used by the Department, as well as, incorporate equipment changes into the emission inventory. **MAQP #3098-03** replaces MAQP #3098-02.

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 explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the 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).

Koontz 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 (SO₂)
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO₂)
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone (O₃)
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide (H₂S)
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
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 Standards for Particulate Matter with an Aerodynamic Diameter of Ten Microns or Less (PM₁₀)

Koontz 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, Koontz 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 Regulation (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by Koontz the portable crushing/screening operation and associated equipment are applicable to NSPS (40 CFR 60), as follows:
 - a. 40 CFR, 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 Plant. 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 Koontz, the portable crushing equipment to be used under MAQP #3098-03 is subject to this subpart as it meets the definition of an affected facility constructed after August 31, 1983.
 - c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. As the permit is written de minimis-friendly, Koontz may substitute compression ignition internal combustion engine(s), therefore applicability to this subpart shall be dependent upon the nature of operation and the date of construction and/or manufacture of the diesel engine utilized.
 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 Koontz 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 of facilities subject to a NESHAP Subpart as listed below:
 - b. 40 CFR 63, Subpart ZZZZ – NESHAPs for Stationary Reciprocating Internal Combustion Engines (RICE). Pursuant to 40 CFR 63.6590(a), an affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of hazardous air pollutant (HAP) emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand. Pursuant to 40 CFR 63.6590(a)(2)(iii), a stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006. As Koontz is considered an area source of HAP emissions and operates RICE equipment the engine(s) are potentially subject to this subpart.
- 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 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. Koontz 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, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year (tpy) of any pollutant. Koontz has the PTE greater than 15 tpy of PM, PM₁₀, CO, and oxides of nitrogen (NO_x); therefore, an air quality permit is required.
 3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
 4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
 5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.
(1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Koontz 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. Koontz submitted an affidavit of publication of public notice for the July 11, 2012, issue of *The Livingston Enterprise*, a newspaper of general circulation in the City of Livingston in Park 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 used. 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 Koontz of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq.*
 10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
 11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
 12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).
 13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.
 14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an air quality permit may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

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

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 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 tpy of any pollutant;
 - b. PTE > 10 tpy of any single HAP, PTE > 25 tpy of combined 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 reviewing and issuing MAQP #3098-03 for Koontz, the following conclusions were made:
 - a. The facility's PTE is less than 100 tpy for any pollutant.
 - b. The facility's PTE is less than 10 tpy for any single HAP and less than 25 tpy of combined HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to current NSPS (40 CFR 60, Subpart OOO and potentially Subpart IIII).
 - e. This facility is potentially subject to a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
 - f. This source is not a Title IV affected source or a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Koontz will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Koontz may be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. Koontz shall install on the new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis accompanied the permit application submitted by Koontz, 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.

Two types of emission controls are readily available and used for dust suppression of fugitive emissions that result from the operation of equipment associated with non-metallic mineral processing equipment. These two control methods are water and chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the non-metallic mineral processing operations. 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, Koontz may use chemical dust suppressant to assist in controlling particulate emissions.

Koontz 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, Koontz shall not cause or authorize to be discharged into the atmosphere from any non-metallic mineral processing equipment, not subject to NSPS, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

Koontz 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. Koontz may also use chemical dust suppressant to maintain compliance with emissions limitations in Section II.A. of MAQP #3098-03. 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.

IV. Emission Inventory

Emission Source	Emissions Tons/Year [PTE] ^(a)							
	PM	PM ₁₀	PM _{2.5}	PM _{cond}	CO	NO _x	SO ₂	VOC
Aggregate Crushers	4.28	1.93	0.36	--	--	--	--	--
Aggregate Deck Screen	8.58	2.88	0.19	--	--	--	--	--
Material Handling	25.37	10.92	1.98	--	--	--	--	--
Diesel-Fired Engine(s) [≤ 730 bhp]	7.03	7.03	1.24	0.17	21.36	99.12	6.55	8.04
Unpaved Roadways (Haul Roads)	5.49	1.51	0.15	--	--	--	--	--
TOTAL EMISSIONS ►	50.76	24.28	3.93	0.17	21.36	99.12	6.55	8.04

(a) PM emissions presented in the table represent the sum of the filterable and condensable particulate matter (CPM) fractions. All CPM is considered to be PM_{2.5}.

ASOS, Automated Surface Observing System	PM, particulate matter
AWOS, Automated Weather Observing System	PM _{COND} , condensable particulate matter
BSFC, brake specific fuel consumption	PM ₁₀ , particulate matter with an aerodynamic diameter of 10 microns or less
bhp, brake-horsepower	PM _{2.5} , particulate matter with an aerodynamic diameter of 2.5 microns or less [Sum of condensable and filterable]
Btu, British Thermal Units	PTE, Potential To Emit
CO, carbon monoxide	SCC, Source Classification Code
EF, emission factor	SO ₂ , sulfur dioxide
hr, hour	TPH, tons per hour
lbs, pounds	TPY, tons per year
MM, million	VMT, vehicle miles travelled
mph, miles per hour	VOC, volatile organic compounds
NO _x , oxides of nitrogen	

Non-Metallic Mineral Processing Plant

Production Rate:

Crushers (2) 815 tons/hour (Maximum) 7,139,400 tons/year (Maximum)

Screens (3) 890 tons/hour (Maximum) 7,796,400 tons/year (Maximum)

Allowable Hours of Operation: 8760 hours/year [Material Processing]

8760 hours/year [Diesel-Fire Engine(s)]

Power Source: Diesel-Fired Direct Drive Engine(s) or Generator Set Engine(s) Not To Exceed 730 bhp (Combined)

Material Processing:

Aggregate Crushers [SCC 3-05-020-01]

Process Rate: 815 tons/hour

Operating Hours: 8760 hours/year

Particulate Emissions (controlled):

PM Emissions:

Emission Factor	0.0012 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0012 lbs/ton) * (815 tons/hr) =		0.98 lbs/hr
	(0.978 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		4.28 TPY

PM₁₀ Emissions:

Emission Factor	0.00054 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00054 lbs/ton) * (815 tons/hr) =		0.44 lbs/hr
	(0.4401 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		1.93 TPY

PM_{2.5} Emissions:

Emission Factor	0.00010 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0001 lbs/ton) * (815 tons/hr) =		0.08 lbs/hr
	(0.0815 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.36 TPY

Aggregate Cold Deck Screens [SCC 3-05-020-02]

Process Rate: 890 tons/hour

Operating Hours: 8760 hours/year

Particulate Emissions (controlled):

PM Emissions:

Emission Factor	0.0022 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0022 lbs/ton) * (890 tons/hr) =		1.96 lbs/hr
	(1.958 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		8.58 TPY

PM₁₀ Emissions:

Emission Factor 0.00074 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations (0.00074 lbs/ton) * (890 tons/hr) = 0.66 lbs/hr
(0.6586 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 2.88 TPY

PM_{2.5} Emissions:

Emission Factor 0.00005 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations (0.00005 lbs/ton) * (890 tons/hr) = 0.04 lbs/hr
(0.0445 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.19 TPY

Material Handling:

Fragmented Stone Load-In ► Ground Storage [SCC 3-05-020-31]

Process Rate: 815 tons/hour [Crusher Capacity]
Operating Hours: 8760 hours/year

Particulate Emissions (uncontrolled):

PM Emissions:

Emission Factor 0.000031 lbs/ton [PM = PM₁₀/0.51 ► AP-42 Appendix B.2 - Table B.2.2, Category 3, 1/95]
Calculations (0.000031 lbs/ton) * (815 tons/hr) = 0.03 lbs/hr
(0.025265 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.11 TPY

PM₁₀ Emissions:

Emission Factor 0.000016 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations (0.000016 lbs/ton) * (815 tons/hr) = 0.01 lbs/hr
(0.01304 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.06 TPY

PM_{2.5} Emissions:

Emission Factor 0.000005 lbs/ton [PM_{2.5} = PM*0.15 ► AP-42 Appendix B.2 - Table B.2.2, Category 3, 1/95]
Calculations (0.000005 lbs/ton) * (815 tons/hr) = 0.00 lbs/hr
(0.00378975 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.02 TPY

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

Process Rate: 815 tons/hour [Maximum Facility Capacity]
Operating Hours: 8760 hours/year
Total Transfers: 15 Transfers [Based on Process Flow Diagram]

Particulate Emissions (controlled):

PM Emissions:

Emission Factor 0.00014 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations (0.00014 lbs/ton) * (815 tons/hr) * (15 Transfers) = 1.71 lbs/hr
(1.7115 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 7.50 TPY

PM₁₀ Emissions:

Emission Factor 0.000046 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations (0.000046 lbs/ton) * (815 tons/hr) * (15 Transfers) = 0.56 lbs/hr
(0.562 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 2.46 TPY

PM_{2.5} Emissions:

Emission Factor 0.000013 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations (0.000013 lbs/ton) * (815 tons/hr) * (15 Transfers) = 0.16 lbs/hr
(0.159 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 0.70 TPY

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

Process Rate: 815 tons/hour [Maximum Facility Capacity]
Operating Hours: 8760 hours/year
Pile Transfers: 1 [Initial Pile Formation]

Particulate Emissions (controlled):

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

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

k, Dimensionless Particle Size Multiplier PM = 0.74 [AP-42 13.2.4, 11/06]

k, Dimensionless Particle Size Multiplier PM₁₀ = 0.35 [AP-42 13.2.4, 11/06]

k, Dimensionless Particle Size Multiplier PM_{2.5} = 0.053 [AP-42 13.2.4, 11/06]

U, Mean Wind Speed (mph) = 9.3 [ASOS/AWOS AVE-MT 10 yr Ave.]

M, Material Moisture Content (%) = 2.10 [AP-42 13.2.4.1, 11/06]

PM Emissions:

Emission Factor EF = $0.74 * (0.0032) * [(9.33/5)^{1.3} / (2.1/2)^{1.4}] = 0.0050$ lbs/ton
Calculations (0.0050 lbs/ton) * (815 tons/hr) * (1 pile transfers) = 4.06 lbs/hr
(4.06 lbs/hr) * (8760 hours/yr) * (0.0005 tons/lb) = 17.76 TPY

PM₁₀ Emissions:

Emission Factor EF = $0.35 * (0.0032) * [(9.33/5)^{1.3} / (2.1/2)^{1.4}] = 0.0024$ lbs/ton
Calculations (0.0024 lbs/ton) * (815 tons/hr) * (1 piles) = 1.92 lbs/hr
(1.92 lbs/hr) * (8760 hours/yr) * (0.0005 tons/lb) = 8.40 TPY

PM_{2.5} Emissions:

Emission Factor EF = $0.053 * (0.0032) * [(9.33/5)^{1.3} / (2.1/2)^{1.4}] = 0.00036$ lbs/ton
Calculations (0.0004 lbs/ton) * (815 tons/hr) * (1 piles) = 0.29 lbs/hr
(0.29 lbs/hr) * (8760 hours/yr) * (0.0005 tons/lb) = 1.27 TPY

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

Engine Rating: 730 bhp [Design Maximum Output]
Fuel Input: 5.11 MMBtu/hr [BSFC →7,000 Btu/hp-hr]
37.3 gallons/hour [Estimated →19,300 Btu/lb]
Operating Hours: 8760 hours/year

Particulate Emissions (uncontrolled):

PM Emissions:

Emission Factor 0.0022 lb/hp-hr [AP-42 Table 3.3-1, 10/96]
Calculations (0.0022 lb/hp-hr) * (730 bhp) = 1.61 lbs/hr
(1.61 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 7.03 TPY

PM₁₀ Emissions:

Emission Factor	0.0022 lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.0022 lb/hp-hr) * (730 bhp) =		1.61 lbs/hr
	(1.61 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		7.03 TPY

PM_{2.5} Emissions (filterable):

Emission Factor	0.0479 lb/MMBtu	[AP-42 Table 3.4-2, 10/96]	
Calculations	(0.0479 lb/MMBtu) * (5.11 MMBtu/hr) =		0.24 lbs/hr
	(0.24 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		1.07 TPY

PM_{2.5} Emissions (condensable):

Emission Factor	0.0077 lb/MMBtu	[AP-42 Table 3.4-2, 10/96]	
Calculations	(0.0077 lb/MMBtu) * (5.11 MMBtu/hr) =		0.04 lbs/hr
	(0.04 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.17 TPY

CO Emissions (uncontrolled):

Emission Factor	0.00668 lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.00668 lb/hp-hr) * (730 bhp) =		4.88 lbs/hr
	(4.88 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		21.36 TPY

NO_x Emissions (uncontrolled):

Emission Factor	0.031 lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.031 lb/hp-hr) * (730 bhp) =		22.63 lbs/hr
	(22.63 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		99.12 TPY

SO₂ Emissions (uncontrolled):

Emission Factor	0.00205 lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.00205 lb/hp-hr) * (730 bhp) =		1.50 lbs/hr
	(1.50 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		6.55 TPY

VOC Emissions (uncontrolled):

Emission Factor	0.002514 lb/hp-hr	[AP-42 Table 3.3-1, 10/96]	
Calculations	(0.002514 lb/hp-hr) * (730 bhp) =		1.84 lbs/hr
	(1.84 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		8.04 TPY

Unpaved Roadways (Haul Roads) - Secondary Emissions

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

Particulate Emissions (controlled):

Emission Factor	$EF = k(s/12)^a * (W/3)^b$	[AP-42 13.2.2.2, 11/06]
	where: EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)	
	k, Empirical Constant PM =	4.9 [AP-42 Table 13.2.2-2, 11/06]
	k, Empirical Constant PM ₁₀ =	1.5 [AP-42 Table 13.2.2-2, 11/06]
	k, Empirical Constant PM _{2.5} =	0.15 [AP-42 Table 13.2.2-2, 11/06]
	s, Surface Material Silt Content (%) =	7.1 [AP-42 Table 13.2.2-1, 11/06]
	W, Mean Vehicle Weight (tons) =	50 [Applicant Provided Data]
	a, Empirical Constant PM =	0.7 [AP-42 Table 13.2.2-2, 11/06]
	a, Empirical Constant PM ₁₀ /PM _{2.5} =	0.9 [AP-42 Table 13.2.2-2, 11/06]
	b, Empirical Constant PM - PM _{2.5} =	0.45 [AP-42 Table 13.2.2-2, 11/06]

PM Emissions:

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

PM₁₀ Emissions:

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

PM_{2.5} Emissions:

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

V. Existing Air Quality

The designated home-pit location of this portable source is Section 17, Township 2 South, Range 9 East, in Park County, Montana. The home-pit location and those areas for which this facility is permitted to operate under MAQP #3098-03 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 #3098-03 covers operation of the crushing and screen plant while operating in areas within Montana that are classified as attainment or unclassifiable with federal ambient air quality standards, excluding counties that have a Department-approved permitting program and areas that are considered tribal lands. This permit contains conditions and limitations that would protect air quality, and would limit the facility's emissions below the major source threshold. 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

The Department determined that there will be no significant impact from this permit action because this permitting action. Furthermore, the Department believes that the amount of emissions generated by this project will not exceed any set ambient 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.

MAQP Analysis Prepared By: D. Kuenzli

Date: August 22, 2012

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: Koontz Construction, Inc.
1007 Eagle Court
Livingston, MT 59047

Montana Air Quality Permit Number (MAQP): 3098-03

Preliminary Determination Issued: 09/12/2012

Department Decision Issued: 09/28/2012

Permit Final: 10/16/2012

1. *Legal Description of Site:* Koontz Construction, Inc. (Koontz) owns and operates a portable non-metallic mineral crushing and screening plant, located in Section 17, Township 2 South, Range 9 East, in Park County, Montana. However, MAQP #3098-03 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter within an aerodynamic diameter of ten microns or less (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 an application to modify Koontz's air quality permit to allow the operation of additional equipment under MAQP #3098-03. Specifically, Koontz requested authorization to add a crusher and screen package with a maximum capacity of 540 tons per hour (TPH) of production.
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 #3098-03 would allow Koontz 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 Koontz 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 #3098-03.
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 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.

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

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS:

The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

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

B. Water Quality, Quantity, and Distribution

Water would be required for dust suppression on the mineral processing equipment and surrounding facility area, including haul roads. This water use would be expected to only cause minor, if any, impacts to water resources because the facility is small and only a small volume of water would be required to be used. In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur, as described in Section 7.F. of this EA. The site is in an existing open-cut mine where water runoff would be more readily controlled. However, the Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #3098-03, any impacts from deposition of pollutants on water quality, quantity, and distribution expected would be minor.

C. Geology and Soil Quality, Stability, and Moisture

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

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

D. Vegetation Cover, Quantity, and Quality

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

E. Aesthetics

The facility would be visible and would create noise while operating the proposed equipment at the site. However, activity will occur within an existing active gravel pit. Further, MAQP #3098-03 would include conditions to control emissions, including visible emissions, from the plant. The facility would operate on an intermittent and seasonal basis, and would be a small industrial source. Therefore, any visual aesthetic impacts would be short-lived and are expected to be minor.

F. Air Quality

Air quality impacts from the proposed project would likely be minor because the facility would be relatively small and operate on an intermittent and temporary basis. MAQP #3098-03 includes conditions limiting the facility's opacity; require water and water spray bars be available on site and used to ensure compliance with opacity standards; and limit the facility's crushing production.

Further, the Department determined that this facility would be a minor source of emissions as defined under the Title V Operating Permit Program because the source's potential to emit is limited to below the major source threshold level of 100 tons per year (tpy). Pollutant deposition from the facility would expect to be minimal because the pollutants emitted are widely dispersed (from factors such as wind speed and wind direction) and exhibit minimal deposition on the surrounding area. Therefore, air quality impacts from operating the crushing facility in this area would be expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources in the initial proposed area of operation (Section 17, Township 2 South, Range 9 East, in Park County, Montana) contacted the Natural Resource Information System – Montana Natural Heritage Program. Search results concluded there are two species of concern within the area. The search area, in this case, is defined by the section, township, and range of the proposed site, with an additional one (1) mile buffer. Species include the Great Blue Heron and the Yellowstone Cutthroat Trout (Sensitive).

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

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

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

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed initial location of the facility. Search results concluded that there have been no previously recorded historical or archaeological resources of concern within the area surrounding proposed for initial operations. Therefore, no impacts upon historical or archaeological sites would be expected as a result of operating the proposed crushing/screening plant.

J. Cumulative and Secondary Impacts

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

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

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

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

A. Social Structures and Mores

The operation of the non-metallic mineral processing facility would expect to cause no disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions and would only have temporary and intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #3098-03, which would limit the effects to social structures and mores.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not likely be impacted by the operation of the proposed facility because the source would likely have seasonal and intermittent operations. Therefore, there would not be any impacts expected to the cultural uniqueness and diversity of this.

C. Local and State Tax Base and Tax Revenue

The operation of the facility would likely have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source of emissions and would have seasonal and intermittent operations. No additional employees are required for operation of additional equipment. Thus, only minor impacts to the local and state tax base and revenue would be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would expect to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

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

E. Human Health

MAQP #3098-03 would incorporate conditions to ensure that the facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F. of this EA, the air emissions from this facility would be minimized by the use of water spray and other operational limits that would be required by MAQP #3098-03. Also, the facility would be operating on a temporary basis and pollutants would disperse from the ventilation of emissions at this site (see Section 7.F of this EA). Therefore, only minor impacts would be expected on human health from the proposed project.

F. Access to and Quality of Recreational and Wilderness Activities

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

G. Quantity and Distribution of Employment

The increase production capacity resulting from this modification will not require additional employees to operate; furthermore, the operation of this plant would have only seasonal and intermittent operations. No individuals would be expected to permanently relocate to this area of operation as a result of expanded facility operations. Therefore, no effects upon the quantity and distribution of employment in this area would be expected.

H. Distribution of Population

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

I. Demands of Government Services

No increase in traffic on existing roadways in the area while the facility is expected from this expansion. Government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be expected to be minor.

J. Industrial and Commercial Activity

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

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

K. Locally Adopted Environmental Plans and Goals

Koontz would be allowed, by MAQP #3098-03, to operate in areas designated by the United States Environmental Protection Agency as attainment or unclassified for ambient air quality. MAQP #3098-03 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 equipment 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. 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 Koontz, but any cumulative impacts upon the social and economic aspects of the human environment would likely be minor and short-lived. Thus, only minor and temporary cumulative effects would be expected to the local economy.

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the operation of a portable non-metallic mineral processing facility; MAQP #3098-03 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: D. Kuenzli

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