DEQ
Montana Department
of Environmental Quality

March 28, 2017

Ken Stoeber
TMC, Inc.
P.O. Box 69
Belgrade, MT 59714

Dear Mr. Stoeber:

Montana Air Quality Permit #5052-01 is deemed final as of 3/28/2017, by the Department of Environmental Quality (Department). This permit is for a portable crusher and screen operation owned by TMC, Inc. 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 Services Section Supervisor
Air Quality Bureau
(406) 444-3626

Loni Patterson
Environmental Engineer
Air Quality Bureau
(406) 444-1452

JM:LP
Enclosure

Montana Department of Environmental Quality
Air, Energy & Mining Division

Montana Air Quality Permit #5052-01

TMC, Inc.
P.O. Box 69
Belgrade, MT 59714

March 28, 2017

MONTANA AIR QUALITY PERMIT

Issued To: TMC, Inc.
P.O. Box 69
Belgrade, MT 59714

MAQP: #5052-01
Application Complete: 2/14/2017
Preliminary Determination Issued: 2/21/2017
Department's Decision Issued: 3/10/2017
Permit Final: 3/28/2017
AFS #: 777-5052

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to TMC, Inc. 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

TMC, Inc. operates a portable crusher and screen operation the home pit is located in the NW ¼ of Section 17 Township 1 South Range 5 East, Gallatin County, Montana. However, MAQP 5052-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas.

B. Permit Action

TMC, Inc. submitted a permit modification application on 1/26/2017. The modification removes the existing two crushers from the permit and adds two new crushing plants and increases the limit of horsepower (hp) for the generator sets on the site at any given time to 1400 hp.

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) 60, Subpart OOO).

    a. For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity.

    b. For crushers that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 15%

2. All visible emissions from any other NSPS-affected equipment, such as screens and conveyors transfers, shall not exhibit an opacity in excess of the following averaged over six consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):

   a. For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity.

   b. 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 17.8.752).

5. TMC Inc. 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. TMC, Inc. 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. TMC, Inc. shall not operate more than two crushers at any given time and the total combined maximum rated design capacities of the crushers shall not exceed 860 tph (ARM 17.8.749).

8. TMC, Inc. shall not operate more than three screens at any given time and the total combined maximum rated design capacities of the screens shall not exceed 1380 tph (ARM 17.8.749).

9. TMC, Inc. shall not operate or have on-site more than two diesel engine(s)/generator set(s). Maximum combined rated design capacity of the diesel-fired engine(s) driving the generator shall not exceed 1400 hp (ARM 17.8.749).

10. TMC, Inc. shall operate engine(s)/ generator set(s) that are EPA certified Tier 2 rated or better. (ARM 17.8.749).

11. If the permitted equipment is used in conjunction with any other equipment owned or operated by TMC, Inc. 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).

12. TMC, Inc. shall comply with all applicable standards and limitations, monitoring, reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

13. TMC, Inc. shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

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

2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this 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. TMC, Inc. 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. TMC, Inc. 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. TMC, Inc. shall have available onsite at all times documentation for the diesel engines that verifies their compliance with EPA nonroad diesel engine Tier 2 or better emission standards as described in Section II.A.10(ARM 17.8.749).

D. Notification

TMC, Inc. shall provide the Department with written notification of the actual start-up date of the portable crushing and screening facility postmarked within 15 days after the actual start-up date (ARM 17.8.749)

SECTION III: General Conditions

A. Inspection – TMC, Inc. shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (continuous emissions monitoring system (CEMS) or continuous emissions rate monitoring system (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if TMC, Inc. fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving TMC, Inc. 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 action as specified in Section 75-2-401, *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the

Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by the Department 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 TMC, Inc. 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. TMC, Inc. 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
TMC, Inc.
MAQP #5052-01

I. Introduction/Process Description

TMC, Inc. owns and operates a portable non-metallic mineral processing plant.

A. Permitted Equipment

The following list of permitted equipment is based on information provided within the application submitted by TMC, Inc. and is provided for reference. MAQP #5052-01 is written de minimis-friendly to provide operational flexibility 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:

- 2017 JCI K300/6203CCPM-Cone Crusher Plant with a maximum 460 tph rating
- 2016 Pioneer 2650 Jaw Crusher Plant unit with a maximum 400 tph rating
- Kolberg Super Stack Conveyers
- Kolberg Radial Stacking Conveyer
- 3 Screening Plants with a maximum 460 tph rating, each
- EPA certified Tier 2 Diesel-Fired engine(s)/generator(s) set with a combined maximum rating of 1400 hp

B. Source Description

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

TMC, Inc. home pit is located within the NW ¼ of Section 17, Township 1 South, Range 5 East, Gallatin County, Montana.

C. Permit History

On August 29, 2014, TMC, Inc. was issued **MAQP #5052-00** for the operation of a portable non-metallic mineral processing plant.

D. Current Permit Action

TMC, Inc. submitted a permit modification application on 1/26/2017. The modification removes the existing two crushers from the permit and adds two new crushing plants and increases the limit of horsepower (hp) for the generator sets on the site at any given time to 1400 hp. The permit action will complete those requests. **MAQP 5052-01** replaces 5052-00.

E. Response to Public Comments

No comments received.

F. 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 locations of complete copies of all applicable rules and regulations where appropriate.

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

1. ARM 17.8.101 Definitions. This rule 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).

   TMC, Inc. 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
7. ARM 17.8.221 Ambient Air Quality Standard for Visibility
8. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

TMC, Inc. must maintain compliance with the applicable ambient air quality standards.

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, TMC, Inc. 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 Processes. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

6. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). TMC, Inc. is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

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

b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by TMC, Inc., the portable crushing equipment to be used under MAQP #5052-01 is subject to this subpart as it meets the definition of an affected facility constructed after August 31, 1983.

c. 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. A CI ICE is considered stationary if it remains or will remain at a location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. As the permit is written in a de minimis-friendly manner, the CI ICE equipment to be used by TMC, Inc. under MAQP #5052-01 is potentially subject to this Subpart depending upon the construction/manufacture date and the upon the location, nature, and duration of operation. Since the CI ICE is intended to be portable, TMC, Inc. may not be required to comply with the applicable requirements of 40 CFR 60, Subpart IIII. This subpart could become applicable if a CI ICE remains in a location for more than 12 months.

7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. TMC, Inc. is potentially a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts.

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

b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. A RICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. As TMC, Inc. is considered an area source of HAP emissions and operates RICE equipment, the engine(s) are potentially subject to this subpart depending upon the

location, nature, and duration of operation. Since the RICE to be used under MAQP #5052-01 is intended to be portable, TMC, Inc. may not be required to comply with the applicable requirements of 40 CFR 63, Subpart ZZZZ. However, this subpart would become applicable if TMC, Inc. constructed and operated a RICE that remains in a location for more than 12 months.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. TMC, Inc. 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.

   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 of any pollutant. TMC, Inc. has a PTE greater than 15 tons per year of oxides of nitrogen (NO_x) PM, and 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. TMC, Inc. 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. TMC, Inc. submitted an affidavit of publication of public notice for the January 27, 2017 issue of the *Bozeman Daily Chronicle*, a newspaper of general circulation in the Town of Bozeman, in Gallatin 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 TMC, Inc. 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 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 tons/year of any pollutant;

b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #5052-01 for TMC, Inc., the following conclusions were made:

a. The facility's PTE is less than 100 tons/year for any pollutant.

b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.

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

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

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

f. This source is not a Title IV affected source

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

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

Based on these facts, the Department has determined that TMC, Inc will be a minor source of emissions as defined under Title V. 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.

III. BACT Determination

A BACT determination is required for each new or modified source. TMC, Inc. 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.

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. Process and Fugitive Particulate Emissions

Two types of emission controls are readily available and used for dust suppression of fugitive emissions at the site. These two control methods are water and/or chemical dust suppressant. Chemical dust suppressant could be used on the area surrounding the crushing/screening operation, and for emissions from the crushing/screening operation itself. However, because water is more readily available, is more cost

effective, is often equally effective as chemical dust suppressant, and is more environmentally friendly, water has been identified as the most appropriate method of pollution control of particulate emissions. In addition, water suppression has been required of recently permitted similar sources. However, depending on individual site circumstances TMC, Inc. may use chemical dust suppressants to assist in controlling particulate emissions. The Department determined that the use of water and/or chemical dust suppressant, as necessary, constitutes BACT.

TMC, Inc. 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, TMC, Inc. 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, TMC, Inc. 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. These opacity limits are federal and state emission standards rather than a BACT determination.

TMC, Inc. 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. TMC, Inc. may also use chemical dust suppressant to maintain compliance with emissions limitations in Section II.A of MAQP #5052-01.

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

B. Diesel Engines

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

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

applicable federal standards and proper operation and maintenance of the engines constitutes BACT for these engines.

IV. Emission Inventory

CONTROLLED	**tons/year**						
Emission Source	**PM**	**PM10**	**PM2.5**	**NOx**	**CO**	**VOC**	**SO2**
Handling/Conveyors	5.80	1.91	0.54	--	--	--	--
Pile forming	14.68	6.92	1.05	--	--	--	--
Screens (3@ 460 TPH)	13.30	4.47	0.30	--	--	--	--
860 tph Total Crushers	4.52	2.03	0.38	--	--	--	--
Haul Roads / Vehicle Traffic	4.36	1.20	0.12	--	--	--	--
Bulk Loading	0.19	0.19	0.19	--	--	--	--
Haul Roads / Vehicle Traffic	4.36	1.20	0.12	--	--	--	--
1400 hp Diesel Engine(s) Generator(s)	2.03	2.03	2.03	64.89	35.15	15.42	12.57
Total Emissions	**49.25**	**19.95**	**4.72**	**64.89**	**35.15**	**15.42**	**12.57**

Conveyor Transfer Point (SCC 3-05-020-06)

Maximum Process Rate = 860 ton/hr (Maximum plant process rate)	860	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr
Number of Transfers = 11 transfer (Company Information)	11	transfer
Total PM Emissions:		
Emission Factor = 0.00014 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)	0.00014	lb/ton
Control Efficiency = 0%	0	%
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (11 transfer) =	5.80	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (11 transfer) * (1 - 0/100) =	5.80	ton/yr
Total PM2.5 Emissions:		
Emission Factor = 0.000013 lb/ton (0.0030 uncontrolled, 0.000013 controlled, AP 42, Table 11.19.2-2, 8/04)	0.000013	lb/ton
Control Efficiency = 0%	0	%
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (11 transfer) =	0.54	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (11 transfer) * (1 - 0/100) =	0.54	ton/yr
Total PM10 Emissions:		
Emission Factor = 0.000046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)	0.000046	lb/ton
Control Efficiency = 0%	0	%
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (11 transfer) =	1.91	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (11 transfer) * (1 - 0/100) =	1.91	ton/yr

Storage Piles

Maximum Process Rate = 860 ton/hr (Maximum plant process rate)	860	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760	hrs/yr
Number of Piles = 1 piles by # of piles, or exclude #piles from calcs	1	piles

PM Emissions:		
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00390 lb/ton	0.00390	lb/ton
Where: k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.74	
U = mean wind speed = 9.33 mph (Average from values providedin FAA ASOS/AWOS reporting data)	9.33	mph
M = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	2.5	%
Control Efficiency = 0% (Water or chemical spray)	0	%
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00390 lb/ton) * (ton/2000 lb) * (1 piles) =	14.68	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00390 lb/ton) * (ton/2000 lb) * (1 piles) * (1 - 0/100) =	14.68	ton/yr
PM2.5 Emissions:		
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00028 lb/ton	0.00028	lb/ton
Where: k = particle size multiplier = 0.053 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.053	
U = mean wind speed = 9.3 mph (Average from values providedin FAA ASOS/AWOS reporting data)	9.3	mph
M = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	2.5	%
Control Efficiency = 0% (Water or chemical spray)	0	%
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00028 lb/ton) * (ton/2000 lb) * (1 piles) =	1.05	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00028 lb/ton) * (ton/2000 lb) * (1 piles) * (1 - 0/100) =	1.05	ton/yr
PM10 Emissions:		
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00184 lb/ton	0.00184	lb/ton
Where: k = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.35	
U = mean wind speed = 9.3 mph (Average from values providedin FAA ASOS/AWOS reporting data)	9.3	mph
M = material moisture content = 2.5% (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	2.5	%
Control Efficiency = 0% (Water or chemical spray)	0	%
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00184 lb/ton) * (ton/2000 lb) * (1 piles) =	6.92	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00184 lb/ton) * (ton/2000 lb) * (1 piles) * (1 - 0/100) =	6.92	ton/yr
Screening (SCC 3-05-020-02, 03) (existing and new screen from crushing plant)		
Maximum Process Rate = 460 ton/hr	460	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr
Number of Screens = 3 screen(s) (Company Information)	3	screen(s)
Total PM Emissions:		
Emission Factor = 0.0022 lb/ton (0.025 uncontrolled, 0.0022 controlled, AP 42, Table 11.19.2-2, 8/04)	0.0022	lb/ton
Calculation: (460 ton/hr) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) * (3 screen(s)) =	13.30	ton/yr
Calculation: (460 ton/hr) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) * (3 screen(s)) * (1 - 0/100) =	13.30	ton/yr
Total PM10 Emissions:		

Emission Factor = 0.00074 lb/ton (0.0087 uncontrolled, 0.00074 controlled, AP 42, Table 11.19.2-2, 8/04)	0.00074	lb/ton
Calculation: (460 ton/hr) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) * (3 screen(s)) =	4.47	ton/yr
Calculation: (460 ton/hr) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) * (3 screen(s)) * (1 - 0/100) =	4.47	ton/yr

Total PM2.5 Emissions:

Emission Factor = 0.00005 lb/ton (0.0087 uncontrolled, 0.00074 controlled, AP 42, Table 11.19.2-2, 8/04)	0.00005	lb/ton
Calculation: (460 ton/hr) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) * (3 screen(s)) =	0.30	ton/yr
Calculation: (460 ton/hr) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) * (3 screen(s)) * (1 - 0/100) =	0.30	ton/yr

Crushing [Crusher] (SCC 3-05-020-03)

Maximum Process Rate = 860 ton/hr (Application information)	860	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr

PM Emissions:

Based on AP-42

Emission Factor = 0.0012 lb/ton (tertiary crushing, controlled, AP 42, Table 11.19.2-2, 8/04)	0.0012	lb/ton
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =	4.52	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =	4.52	ton/yr

PM10 Emissions:

Emission Factor = 0.00054 lb/ton (tertiary crushing, controlled, AP 42, Table 11.19.2-2, 8/04)	0.00054	lb/ton
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) =	2.03	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) =	2.03	ton/yr

PM2.5 Emissions:

Based on AP-42

Emission Factor = 0.0001 lb/ton (tertiary crushing, controlled, AP 42, Table 11.19.2-2, 8/04)	0.0001	lb/ton
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) =	0.38	ton/yr
Calculation: (860 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) =	0.38	ton/yr

<u>Truck unloading - SCC3-05-020-32</u>

Maximum Process Rate = 860 ton/hr (Maximum plant process rate)	860	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760	hrs/yr
Number of Piles = 1 load	1	load

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

Emission Factor = 0.00010 lb/ton	0.00010	lb/ton
Control Efficiency = 50% (Water spray)	50	%
Calculation: (860 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) =	0.3767	ton/yr
Calculation: (860 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) * (1 - 50/100) =	0.19	ton/yr

PM10 Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 11.19.2-2, 8/04.

Emission Factor = 0.00010 lb/ton	0.00010	lb/ton
Control Efficiency = 50% (Water spray)	50	%
Calculation: (860 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) =	0.0000	ton/yr

Calculation: (860 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) * (1 - 50/100) =	0.19	ton/yr

PM10 Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 11.19.2-2, 8/04.		
Emission Factor = 0.00010 lb/ton	0.00010	lb/ton
Control Efficiency = 50% (Water spray)	50	%
Calculation: (860 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) =	0.0000	ton/yr
Calculation: (860 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) * (1 - 50/100) =	0.19	ton/yr

Diesel Engine(s) Generator(s)

Note: Emissions are based on the combined power output of the engines (1400 hp).		
Operational Combined Capacity of Engines = 1,400 hp	1,400.00	hp
Hours of Operation = 8,760.00 hours	8,760.00	hours

PM = PM10 = PM2.5 Emissions (all PM < 1um in size):

PM Emissions = 2.03 ton/yr (Assume PM = PM10 = PM2.5)	2.03	ton/yr
PM Emissions = 4,055.62 lbs/yr (Assume PM = PM10 = PM2.5)	4,055.62	lbs/yr

PM-10 Emissions:

Emission Factor = 0.000330693393 lbs/hp-hr (EPA's Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling, Tier 2 EF)	3.31E-04	lbs/hp-hr
Calculation: (8,760 hours) * (1,400 hp) * (0.000330693393 lbs/hp-hr) * (ton/2000 lb) = 2.03 ton/yr	2.03	ton/yr
Calculation: (8,760 hours) * (1,400 hp) * (0.000330693393 lbs/hp-hr) = 4,055.62 lbs/yr	4,055.62	lbs/yr

PM-2.5 Emissions:

Emission Factor = 0.000330693393 lbs/hp-hr (EPA's Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling, Tier 2 EF)	3.31E-04	lbs/hp-hr
Calculation: (8,760 hours) * (1,400 hp) * (0.000330693393 lbs/hp-hr) * (ton/2000 lb) = 2.03 ton/yr	2.03	ton/yr
Calculation: (8,760 hours) * (1,400 hp) * (0.000330693393 lbs/hp-hr) = 4,055.62 lbs/yr	4,055.62	lbs/yr

NOx Emissions:

Emission Factor = 0.010582188576 lbs/hp-hr (EPA's Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling, Tier 2 EF)	1.06E-02	lbs/hp-hr
Calculation: (8,760 hours) * (1,400 hp) * (0.010582188576 lbs/hp-hr) * (ton/2000 lb) = 64.89 ton/yr	64.89	ton/yr
Calculation: (8,760 hours) * (1,400 hp) * (0.010582188576 lbs/hp-hr) = 129,779.96 lbs/yr	129,779.96	lbs/yr

CO Emissions:

Emission Factor = 0.005732018812 lbs/hp-hr (EPA's Exhaust and Crankcase Emission Factors for Nonroad Engine Modeling, Tier 2 EF)	5.73E-03	lbs/hp-hr
Calculation: (8,760 hours) * (1,400 hp) * (0.005732018812 lbs/hp-hr) * (ton/2000 lb) = 35.15 ton/yr	35.15	ton/yr
Calculation: (8,760 hours) * (1,400 hp) * (0.005732018812 lbs/hp-hr) = 70,297.48 lbs/yr	70,297.48	lbs/yr

VOC Emissions:

Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust + Crankcase, 10/96)	2.51E-03	lbs/hp-hr
Calculation: (8,760 hours) * (1,400 hp) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) = 15.42 ton/yr	15.42	ton/yr
Calculation: (8,760 hours) * (1,400 hp) * (0.0025141 lbs/hp-hr) = 30,832.92 lbs/yr	30,832.92	lbs/yr

SOx Emissions:

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	2.05E-03	lbs/hp-hr
Calculation: (8,760 hours) * (1,400 hp) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = 12.571 ton/yr	12.57	ton/yr
Calculation: (8,760 hours) * (1,400 hp) * (0.00205 lbs/hp-hr) = 25,141.20 lbs/yr	25,141.20	lbs/yr

Haul Roads

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)	5	VMT/day
VMT per hour = (5 VMT/day) * (day/24 hrs) = 0.21 VMT/hr	0.21	VMT/hr
Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr

PM Emissions:
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor = k * (s / 12)^a * (W / 3)^b = 9.56 lb/VMT	9.56	lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	4.9	lbs/VMT
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	7.1	%
W = mean vehicle weight = 30 tons (U.S. Dept. of Transportation Comprehensive Truck Size and Weight Study, page II-3 and Table III-4, max. 30 tons)	30	tons
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.7	
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.45	
Control Efficiency = 50% (Water spray or chemical dust suppressant)	50	%
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (9.56 lb/VMT) * (ton/2000 lb) =	8.73	tons/yr
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (9.56 lb/VMT) * (ton/2000 lb) * (1-50/100) =	4.36	tons/yr

PM10 Emissions:
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor = k * (s / 12)^a * (W / 3)^b = 2.64 lb/VMT	2.64	lb/VMT
Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	1.5	lbs/VMT
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	7.1	%
W = mean vehicle weight = 30 tons (U.S. Dept. of Transportation Comprehensive Truck Size and Weight Study, page II-3 and Table III-4, max. 30 tons)	30	tons
a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.9	
b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.45	
Control Efficiency = 50% (Water spray or chemical dust suppressant)	50	%
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (2.64 lb/VMT) * (ton/2000 lb) =	2.41	tons/yr
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (2.64 lb/VMT) * (ton/2000 lb) * (1-50/100) =	1.20	tons/yr

PM2.5 Emissions:
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor = k * (s / 12)^a * (W / 3)^b = 0.26 lb/VMT	0.26	lb/VMT
Where: k = constant = 0.15 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.15	lbs/VMT
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	7.1	%
W = mean vehicle weight = 30 tons (U.S. Dept. of Transportation Comprehensive Truck Size and Weight Study, page II-3 and Table III-4, max. 30 tons)	30	tons
a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.9	
b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)	0.45	
Control Efficiency = 50% (Water spray or chemical dust suppressant)	50	%

Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (0.26 lb/VMT) * (ton/2000 lb) =	0.24	tons/yr
Calculation: (8760 hrs/yr) * (0.21 VMT/hr) * (0.26 lb/VMT) * (ton/2000 lb) * (1-50/100) =	0.12	tons/yr

V. Existing Air Quality

This permit is for a portable facility to originally be located in the NW ¼ of Section 17, Township 1S, Range 5E in Gallatin County, Montana. Gallatin County, and those areas for which this facility is permitted to operate, that have 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

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

VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #5052-01, 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 of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

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

YES	NO	
		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	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.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

ENVIRONMENTAL ASSESSMENT (EA)

Issued To: TMC, Inc.
P.O. Box 69
Belgrade, MT 59714

Montana Air Quality Permit number: 5052-01
Preliminary Determination Issued: 2/21/2017
Department Decision Issued: 3/10/2017
Permit Final: 3/28/2017

1. *Legal Description of Site*: TMC, Inc. operates a crusher and screen operation with the home pit located in the NW ¼ of Section 17 Township 1 South Range 5 East, Gallatin County, Montana. However, MAQP #5052-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

2. *Description of Project:* The Department received a permit application from TMC, Inc. for the modification for operation of a portable crushing and screening facility. The new maximum rated design process rate of 860 tons per hour (TPH) of combined crushing capacity and 1260 TPH of combined screening capacity. The application proposed the use of up to two diesel-fired engines/generators set to provide power to equipment with a combined maximum rated design capacity of 1400 horsepower (hp). TMC, Inc. has requested that this permit be written in a de minimis friendly manner.

3. *Objectives of Project*: The object of the project would be to produce business and revenue for the company through the sale and use of aggregate. The issuance of MAQP #5052-01 would allow TMC, Inc. to operate the permitted equipment at various locations throughout Montana (as described above), including the home pit site location.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny modification of the MAQP of the existing operation. This would keep the operation from increasing their capacity to fulfill contracts they are bidding for which would have an adverse effect to the business. The increase in potential air emissions would affect the environment. The operation is required to use best available control technologies to mitigate air emissions.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would is included in MAQP #5052-01.

6. *Regulatory Effects on Private Property*: The home pit is a permitted opencut pit and the operation is already permitted, there are no foreseen regulatory effects on the private property.

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

Terrestrial and aquatic life and habitats may be affected by this project. It should be noted that the crusher and screen operation's home pit is an existing permitted opencut pit and the operation is permitted with an MAQP the project permits the increase in crushing capacity and an increase in hp for the diesel engines used on site.

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. The water demand from the operation is not expected to increase.

C. Geology and Soil Quality, Stability and Moisture

The Department is not aware of any fragile, erosive, susceptible to compaction, or unstable geology or soil near the project site. The project will be using sand and gravel from nearby. There are no special reclamation considerations known.

D. Vegetation Cover, Quantity, and Quality

As this is an existing site, no new vegetation cover, quantity and quality is expected to be altered. In addition, the surface area disturbance is not expected to increase.

E. Aesthetics

The proposed project is located on an existing operation on an existing opencut site; no aesthetics would be altered due to this permitting action.

F. Air Quality

Air quality impacts are expected as the operation is increasing the crushing and screen capacity by 34 tph and 460 tph in addition to increasing the hp for the generator sets used to power the equipment. The MAPQ issued would contain conditions limiting the allowable emissions from the facility. The amount of allowable emissions generated from the plant would be below those levels which the Department would require more rigorous air quality impact analysis be conducted. The facility would be in an unclassified/attainment area for all regulated pollutants

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify and species of concern that may be found in the area where the proposed crushing/screening facility will occur. Search results have concluded there are twenty two

animal species of concern in the area. 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 Little Brown Myotis, American White Pelican, Black-crowned Night Heron, Bobolink, Burrowing Owl, Cassin's Finch, Evening Grosbeak, Ferruginous Hawk, Golden Eagle, Great Blue Heron, Great Gray Owl, Green-tailed Towhee, Lewis's Woodpecker, Northern Goshawk, Peregrine Falcon, Snapping Turtle, Northern Leopard Frog, Western Toad, Isocapnia crinita, Isocapnia integra, Minulus nanus, Physaria saximontana var dentata, Sporobolus neglectus and the Bald Eagle. Specific effects of operating the proposed project in this area would be minor since the project is small, temporary, and operates on an intermittent basis. Therefore, the Department determined that any effects upon these species would likely be minor and short-lived.

H. Sage Grouse Executive Order

The Department recognizes that the site location is not within the designated Sage Grouse Habitat Area as defined by Executive Order No. 12-2015.

I. Demands on Environmental Resource of Water, Air and Energy

That amount of water used that is required for dust suppression of particulate emission being generated at the site is not expected to increase. The traffic on haul roads is expected to remain the same. Air resources will still be protected through the MAQP operating conditions. The source will continue to generate its own power, separate from the grid.

J. Historical and Archaeological Sites

The Department contacted the Montana Historical Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the location of the facility. According to correspondence from the Montana State Historic Preservation Office, there have been a few previously recorded sites within the designated search locales. The sites are two historic railroads, a historic homestead/farmland, historic agriculture and a mammal fossil. In addition to the sites, there have been a few previously conducted cultural resource inventories done in the areas. As long as there will be no disturbance or alteration to structures over fifty years of age, SHPO indicates "there is a low likelihood cultural properties will be impacted". Therefore, it is unlikely that the crushing/screening operation would have an effect on any known historic or archaeological sites.

K. Cumulative and Secondary Impacts

The operation of the proposed project would not likely contribute to the cumulative and secondary impacts as it is an existing portable crushing and screening operation. Theoretically, the resources used and disturbed will remain constant.

7. *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.*

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 not be expected to cause any disruption to the social structures and mores in the area because the source is already in operation. The permitting action would not affect the social structures and mores.

B. Cultural Uniqueness and Diversity

The impact to cultural uniqueness and diversity of these areas would likely not occur from the operation as it is an existing portable crushing and screening facility. There is no effect on the cultural uniqueness and diversity.

C. Local and State Tax Base and Tax Revenue

The continued operation of the facility would not be expected to impact the local and state tax base and tax revenue.

D. Agricultural or Industrial Production

The proposed project is an existing operation that is modifying to increase throughput and the size of the engines used on site. There would be no effect on agriculture or industrial production.

E. Human Health

MAQP 5052-01 incorporates conditions to ensure compliance with all applicable air quality rules and standards. The rules and standards are designed to protect human health. The proposed project is modification to an existing portable crusher and screen operation. The increase in air emissions may affect human health.

F. Access to and Quality of Recreational and Wilderness Activities

Based on information received from TMC, Inc., there is no hunting access, recreational activities or wilderness areas 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 proposed modification would not alter the quantity and distribution of employment.

H. Distribution of Population

The project is not expected to have an impact on the normal population distribution in the initial area of operation or any further operating site.

I. Demands for 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. Since the operation already exists there is no increase in demand for government services outside this permitting process.

J. Industrial and Commercial Activity

The operation of the new equipment from the modification would represent an increase in the industrial activity in the proposed area. The industrial activity associated with this plant will occur within an existing gravel pit. There are no additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

TMC, Inc. would be allowed by MAQP #5052-01 to operate in areas designated by the United States Environmental Protection Agency as attainment or unclassified for ambient air quality. MAQP #5052-01 contains operational restrictions for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards. Because the operation would be a portable source with only minor emissions, any impacts to any locally adopted environmental plans from the project would be expected to be minor and temporary. The Department requires the source to comply with all state and local regulations in regards to environmental plans and goals.

L. Cumulative and Secondary Impacts

The proposed modification is not expected to impact the economy of the surrounding area. Socially this project would not have cumulative or secondary impacts to the nearby communities.

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 modification of an existing portable non-metallic mineral processing facility; MAQP #5052-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. 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- Montana Sage Grouse Conservation Program

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

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