Montana Department of
ENVIRONMENTAL QUALITY
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August 1, 2013

George Gill Construction
P.O. Box 177
Outlook, MT 59252

Dear Mr. Gill:

Montana Air Quality Permit #4942-00 is deemed final as of August 1, 2013, by the Department of Environmental Quality (Department). This permit is for a portable crushing and screening facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Craig Henrikson
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

JM:CH
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4942-00

George Gill Construction
P.O. Box 177
Outlook, MT 59252

August 1, 2013

MONTANA AIR QUALITY PERMIT

Issued To: George Gill Construction
P.O. Box 177
Outlook, MT 59252

MAQP: #4942-00
Application Complete: 06/19/2013
Preliminary Decision Issued: 06/28/2013
Department's Decision Issued: 07/16/2013
Permit Final: 08/01/2013
AFS #: 777-4942

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

SECTION I: Permitted Facilities

A. Permitted Equipment

George Gill proposes to operate a portable crushing and screening facility and associated equipment. Permitted equipment includes:

- Crushing Unit with a maximum 100 tons per hour (TPH) rating
- Screening Unit with a maximum 100 TPH rating
- Up to three Diesel-Fired Engines (820 horsepower combined capacity)
- Associated Material Handling Equipment; feeder conveyor, conveyors (including stacking equipment conveyors), stackers, aggregate bunkers etc.

B. Plant Location

The initial location of the proposed portable crushing and screening operation is Section 21 and 22, Township 35 North, Range 54 East, in Sheridan County, Montana. However, MAQP #4942-00 applies while operating at any location in Montana, except those areas having a Montana Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (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.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. 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).

2. 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 (ARM 17.8.749).

3. George Gill 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).

4. George Gill 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.3 (ARM 17.8.749).

5. George Gill shall not operate more than one (1) crusher at any given time and the rated design capacity of the crusher shall not exceed 100 TPH (ARM 17.8.749).

6. George Gill shall not operate more than one (1) screen at any given time and the rated design capacity of the screen shall not exceed 100 TPH (ARM 17.8.749).

7. George Gill shall not operate or have on site more than three (3) diesel-fired engines at any given time. The combined maximum rated design capacity of the diesel-fired engine(s) shall not exceed 820 horsepower (hp). The total combined hours for the diesel-fired engine generator set(s) shall not exceed 6,000 hours of operation during any rolling 12-month time period (ARM 17.8.749).

8. If the permitted equipment is used in conjunction with any other equipment owned or operated by George Gill, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of emissions during any rolling 12-month time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

9. George Gill 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 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 the maximum production rate, but no later than 180 days after initial startup, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other Department approved method and procedure, must be performed to demonstrate compliance with the emissions limitation contained in Sections II.A.1 (ARM 17.8.340).

2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.105).

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

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. George Gill 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. George Gill 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. George Gill shall maintain on-site records showing daily hours of operation (including operating hours of the diesel fired generator sets) and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by George Gill as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. George Gill shall document, by month, the hours of operation for each of the diesel engine/generator set(s). By the 25th day of each month, George Gill shall total the hours of operation for each diesel engine/generator for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. George Gill shall annually certify that its emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

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

SECTION III: General Conditions

A. Inspection – George Gill shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emissions Monitoring System (CEMS), Continuous Emissions Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

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

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving George Gill of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by George Gill 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. George Gill 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
George Gill Construction (George Gill)
MAQP #4942-00

I. Introduction/Process Description

George Gill owns and operates a portable crushing and screening facility with a maximum rated design capacity of 100 tons per hour (TPH) crushing production and 100 TPH screening production. The crushing and screening unit both employ diesel-fired engines to provide power to equipment with a maximum rated design capacity of 820 horsepower (hp).

A. Permitted Equipment

The following list of permitted equipment is based on information provided within the application submitted by George Gill and is provided for reference. MAQP #4942-00 is written de minimis friendly and operational flexibility is provided so that alternate equipment may be utilized as long as maximum capacities are not exceeded and permit conditions are met. See Section II of the MAQP for specific equipment limitations and/or conditions. Equipment permitted under this action consists of the following:

- Crushing Unit (100 TPH)
- Screening Unit (100 TPH)
- Up to three Diesel-Fired Engines (820 hp combined capacity)
- Associated Material Handling Equipment; feeder conveyor, conveyors (including stacking equipment conveyors), stackers, aggregate bunkers etc.

B. Source Description

George Gill proposes the crushing and screening facility be operated at the George Gill mine site located at Section 21 and 22, Township 35 North, Range 54 East, in Sheridan County, Montana. A wheel loader will feed the crusher /screening plant. Finished product will be stockpiled with loaders.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Montana Department of Environmental Quality (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).

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

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

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

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}
11. ARM 17.8.230 Fluoride in Forage

George Gill 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, George Gill shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

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

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by George Gill the portable crushing/screening operation and associated equipment are subject to NSPS (40 CFR 60), as follows:

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

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by George Gill, the 2003 Hewitt-Robbins Twin Apache Crusher and CEC Roadrunner Screen with maximum rated design capacities of 100 TPH to be used under MAQP #4942-00 are not subject to this subpart because they do not meet the definition of an affected facility with a capacity of greater than or equal to 150 TPH.

   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.

      Applicability to this subpart is dependent upon the nature and location of operation. The diesel engines associated with this air quality permit are not CI ICE engines constructed after July 11, 2005. Since this permit is de minimis friendly, future equipment may be subject to Subpart IIII. A CI ICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 consecutive years) and operates at least 3 months each year.

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 George Gill the associated diesel engines are applicable to NESHAP (40 CFR 63), as follows:

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

   b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants (NESHAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary RICE at a major or area source of Hazardous Air Pollutant (HAP) emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. As George Gill is considered an area source of HAP emissions and operates RICE equipment the engine is potentially subject to this subpart depending upon the location and nature of operation. A RICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 consecutive years) and operates at least 3 months each year. Based on the information submitted by George Gill, the RICE equipment to be used under this permit may be subject to this subpart because they operate at an area source of HAP emissions and the engine may remain at the same home pit location for more than 12 consecutive 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. George Gill submitted the appropriate permit application fee for the current permit action.

   2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

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

   1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, mineral crusher, or mineral screen that has the potential to emit (PTE) greater than 15 tons per year (tpy) of any pollutant. George Gill has a PTE greater than 15 tpy of PM, oxides of nitrogen (NO_x), and carbon monoxide (CO) therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. George Gill 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. George Gill submitted an affidavit of publication of public notice for the June 6, 2013, issue of the *Sheridan County News*, a newspaper of general circulation in the Town of Plentywood in Sheridan 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 George Gill of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12. ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

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

This facility is not a major stationary source because it is not a listed source and the facility's PTE is less than 250 tpy of any pollutant (excluding fugitive emissions).

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

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

a. PTE > 100 tpy of any pollutant;

b. PTE > 10 tpy of any single HAP, PTE > 25 tpy of any combination of HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE > 70 tpy of 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 review and issuance of MAQP #4942-00 for George Gill, the following conclusions were made:

   a. George Gill has taken federally enforceable permit operating limits to maintain the facility's PTE to less than 100 tpy and 80 tpy thresholds for all criteria pollutants.

   b. The facility's PTE is less than 100 tpy for all criteria pollutants.

   c. The facility's PTE is less than 10 tpy for any single HAP and less than 25 tpy of combined HAPs.

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

   e. This facility is not subject to NSPS 40 CFR 60, Subpart OOO, but is potentially subject to Subpart IIII.

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

   g. This source is not a Title IV affected source.

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

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

   George Gill has taken federally-enforceable limitations to remain a minor source of emissions with respect to Title V. Based on these limitations, the Department determined that this facility is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program.

   j. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

      i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.

      ii. Any source that obtains a federally enforceable limit on potential to emit shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

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

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

BACT Determination

A BACT determination is required for any new or modified source. George Gill shall install on the new or modified source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be used.

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

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

A. Crushing & Screening Particulate Emissions

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

George Gill 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.

George Gill 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. George Gill may also use chemical dust suppressant to maintain compliance with emissions limitations in Section II.A of MAQP #4942-00. The Department determined that using water spray bars, water, and/or chemical dust suppressant to maintain compliance with the opacity requirements and reasonable precaution limitations constitutes BACT for the operation for the additional equipment.

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

B. Diesel-Fired Engine(s)

Due to the limited amount of emissions produced by the diesel-fired engine(s) used in association with MAQP #4942-00 and the lack of cost effective add-on controls, add-on controls would be cost prohibitive. Therefore, the Department determined that proper operation and maintenance with no add-on controls would constitute BACT for the diesel-fired engine.

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

III. Emission Inventory

	tons/year						
Emission Source	**PM**	**PM10**	**PM2.5**	**NOx**	**CO**	**VOC**	**SO2**
Handling/Conveyors	0.43	1.41	0.04	--	--	--	--
Storage Piles	8.66	4.10	0.62	--	--	--	--
Screening	0.48	0.16	0.01	--	--	--	--
Crushing	0.53	0.24	0.04	--	--	--	--
Truck Loading	0.04	0.04	0.04	--	--	--	--
Haul Roads / Vehicle Traffic	4.36	1.20	0.12	--	--	--	--
820 hp Diesel Engines (up to three engines)	5.41	5.41	5.41	76.26	16.43	6.18	5.04
Total Emissions	**24.31**	**13.76**	**6.28**	**76.26**	**16.43**	**6.18**	**5.04**

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

Handling/Conveyors

AP-42, Table 11.19.202, 8/04

Maximum Process Rate = 200 ton/hr (Maximum plant process rate)	200	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr
Number of Transfers = 7 transfer (Company Information)	7	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 = 50%	50	%
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (7 transfer) =	**0.86**	ton/yr
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (7 transfer) * (1 - 50/100) =	**0.43**	ton/yr

Total PM2.5 Emissions:

Emission Factor = 0.000013 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)	0.000013	lb/ton
Control Efficiency = 50%	50	%
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (7 transfer) =	**0.08**	ton/yr
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (7 transfer) * (1 - 50/100) =	**0.04**	ton/yr

Total PM10 Emissions:

Emission Factor = 0.00046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)	0.00046	lb/ton
Control Efficiency = 50%	50	%
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00046 lb/ton) * (ton/2000 lb) * (7 transfer) =	**2.82**	ton/yr
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00046 lb/ton) * (ton/2000 lb) * (7 transfer) * (1 - 50/100) =	**1.41**	ton/yr

Storage Piles

Maximum Process Rate = 200 ton/hr (Maximum plant process rate)	200	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760	hrs/yr
Number of Piles = 6 piles by # of piles, or exclude #piles from calcs	6	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 = 0.00330 lb/ton	0.00330	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 = 8.2 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	8.2	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 = 50% (Water or chemical spray)	50	%
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00330 lb/ton) * (ton/2000 lb) * (6 piles) =	**17.32**	ton/yr
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00330 lb/ton) * (ton/2000 lb) * (6 piles) * (1 - 50/100) =	**8.66**	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 = 0.00024 lb/ton	0.00024	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 = 8.2 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	8.2	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 = 50% (Water or chemical spray)	50	%
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00024 lb/ton) * (ton/2000 lb) * (6 piles) =	**1.24**	ton/yr
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00024 lb/ton) * (ton/2000 lb) * (6 piles) * (1 - 50/100) =	**0.62**	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 = 0.00156 lb/ton	0.00156	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 = 8.2 mph (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)	8.2	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 = 50% (Water or chemical spray)	50	%
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00156 lb/ton) * (ton/2000 lb) * (6 piles) =	**8.19**	ton/yr
Calculation: (200 ton/hr) * (8760 hrs/yr) * (0.00156 lb/ton) * (ton/2000 lb) * (6 piles) * (1 - 50/100) =	**4.10**	ton/yr

Screening

Maximum Process Rate = 100 ton/hr	100	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr
Number of Screens = 1 screen(s) (Company Information)	1	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
Control Efficiency = 50%	50	%
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) * (1 screen(s)) =	**0.96**	ton/yr
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) * (1 screen(s)) * (1 - 50/100) =	**0.48**	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
Control Efficiency = 50%	50	%
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) * (1 screen(s)) =	**0.32**	ton/yr
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) * (1 screen(s)) * (1 - 50/100) =	**0.16**	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
Control Efficiency = 50%	50	%
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) * (1 screen(s)) =	**0.02**	ton/yr
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) * (1 screen(s)) * (1 - 50/100) =	**0.01**	ton/yr

Crushing

Maximum Process Rate = 100 ton/hr (Application information)	100	ton/hr
Maximum Hours of Operation = 8,760 hrs/yr	8,760.00	hrs/yr

PM Emissions:

Emission Factor = 0.0012 lb/ton (tertiary crushing, controlled, AP 42, Table 11.19.2-2, 8/04)	0.0012	lb/ton
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =	**0.53**	ton/yr
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =	**0.53**	ton/yr

PM_{10} Emissions:

Emission Factor = 0.00054 lb/ton (tertiary crushing, controlled, AP 42, Table 11.19.2-2, 8/04)	0.00054	lb/ton
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) =	**0.24**	ton/yr
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) =	**0.24**	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: (100 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) =	**0.04**	ton/yr
Calculation: (100 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) =	**0.04**	ton/yr

Truck Loading

Maximum Process Rate = 200 ton/hr (Maximum plant process rate)	200	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 = 0.00008 lb/ton	0.00008	lb/ton
Control Efficiency = 50% (Water spray)	50	%
Calculation: (200 ton/hr) * (0.00008 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) =	**0.0701**	ton/yr
Calculation: (200 ton/hr) * (0.00008 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) * (1 - 50/100) =	**0.04**	ton/yr

PM10 Emissions:

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

Emission Factor = 0.00008 lb/ton	0.00008	lb/ton
Control Efficiency = 50% (Water spray)	50	%
Calculation: (200 ton/hr) * (0.00008 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) =	**0.0000**	ton/yr
Calculation: (200 ton/hr) * (0.00008 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) * (1 - 50/100) =	**0.04**	ton/yr

PM10 Emissions:

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

Emission Factor = 0.00008 lb/ton	0.00008	lb/ton
Control Efficiency = 50% (Water spray)	50	%
Calculation: (200 ton/hr) * (0.00008 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) =	**0.0000**	ton/yr
Calculation: (200 ton/hr) * (0.00008 lb/ton) * (ton/2000 lb) * (8760 hrs/yr) * (1 - 50/100) =	**0.04**	ton/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

Diesel Engines (up to three engines)

Note: Emissions are based on the power output of the engine (820 hp).

Operational Capacity of Engine = 820 hp	820.00	hp
Hours of Operation = 6,000.00 hours	6,000.00	hours

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

PM Emissions = 5.41 ton/yr (Assume PM = PM10 = PM2.5)	**5.41**	ton/yr

PM-10 Emissions:

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	2.20E-03	lbs/hp-hr
Calculation: (6,000 hours) * (820 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 5.41 ton/yr	**5.41**	ton/yr

PM-2.5 Emissions:

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	2.20E-03	lbs/hp-hr
Calculation: (6,000 hours) * (820 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 5.41 ton/yr	**5.41**	ton/yr

NOx Emissions:

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	3.10E-02	lbs/hp-hr
Calculation: (6,000 hours) * (820 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 76.26 ton/yr	**76.26**	ton/yr

CO Emissions:

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	6.68E-03	lbs/hp-hr
Calculation: (6,000 hours) * (820 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 16.43 ton/yr	**16.43**	ton/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: (6,000 hours) * (820 hp) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) = 6.18 ton/yr	**6.18**	ton/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: (6,000 hours) * (820 hp) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = 5.043 ton/yr	**5.04**	ton/yr

IV. Existing Air Quality

The initial location of this portable source is to be located in Section 21 and 22, Township 35 North, Range 54 East, in Sheridan County, Montana. The initial location and those areas for which this facility is permitted to operate under MAQP #4942-00 has been designated unclassified/attainment with all ambient air quality standards and there are no major air pollution sources in the surrounding area.

V. Air Quality Impacts

MAQP #4942-00 will cover the plant while operating at any location within Montana, excluding those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM_{10} nonattainment areas.

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

VI. Ambient Air Impact Analysis

The Department determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VII. 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.

VIII. Environmental Assessment

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

Analysis prepared by: Tashia Love
Date: June 24, 2013

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: George Gill Construction
P.O. Box 177
Outlook, MT 59252

Montana Air Quality Permit (MAQP) Number: 4942-00
Preliminary Determination Issued: 06/28/2013
Department Decision Issued: 07/16/2013
Permit Final: 08/01/2013

1. *Legal Description of Site*: George Gill Construction (George Gill) proposes to operate a portable crushing/screening facility which will initially be located in Section 21 and 22, Township 35 North, Range 54 East in Sheridan County, Montana. However, MAQP #4942-00 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) 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 PM_{10} nonattainment areas.

2. *Description of Project*: The Department received a permit application from George Gill for the operation of a portable crushing/screening facility with a maximum rated design process rate of 100 tons per hour (TPH) of crushing capacity and 100 TPH of screening capacity. George Gill proposes to utilize portable diesel-engines attached to the crushing and screening plans to power the facility. The application proposed the use of three diesel-fired engines to provide power to equipment with a maximum rated design capacity of 820 horsepower (hp).

3. *Objectives of Project*: The object of the project would be to produce business and revenue for the company through the sale and use of aggregate. The issuance of MAQP #4942-00 would allow George Gill 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 George Gill 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 #4942-00.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and to demonstrate compliance with those requirements and would not unduly restrict private property rights.

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

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

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

A. Terrestrial and Aquatic Life and Habitats

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

B. Water Quality, Quantity, and Distribution

Water would be required for dust suppression on the mineral processing equipment and surrounding facility area. The water use would be expected to cause minor, if any, impacts to water sources. In addition, the facility would emit air pollutants, and corresponding deposition of pollutants would occur (as described in Section 7.F of this EA). However, the Department determined that, due to dispersion characteristics of pollutants and conditions that would be placed in MAQP #4942-00, any impacts from deposition of pollution on water quality, quantity, and distribution expected would be minor.

C. Geology and Soil Quality, Stability, and Moisture

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

D. Vegetation Cover, Quantity, and Quality

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

E. Aesthetics

The crushing/screening facility would be located in a total property area of 125.9 acres. Activity within the facility will create noise while operating at the proposed site. The proposed project is on private land. The application states the nearest home and/or structure is 1 mile from the proposed project site, therefore visual and noise impacts would be minor and short-lived. The facility would operate on an intermittent and seasonal basis.

F. Air Quality

Air quality impacts from the proposed project would likely be minor because the facility would be small and operate on an intermittent and temporary basis. MAQP #4942-00 includes conditions limiting the facility's opacity and requiring water and spray bars to be available on site to ensure compliance with opacity standards. These conditions would limit fugitive emissions. Further, George Gill has taken federally-enforceable limitations to remain a minor source of emissions with respect to Title V. Pollutant deposition from the facility would be expected to be minimal because the pollutants are widely dispersed (from factors such as wind speed and wind direction) and exhibit minimal deposition on the surrounding area. Therefore, air quality impacts from operating the facility in this area would be expected to be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department contacted the Montana Natural Heritage Program (MNHP) in an effort to identify any species of concern that may be found in the area where the proposed crushing/screening facility will occur. Search results have concluded seven 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 Whooping Crane (endangered), Sprague's Pipit (sensitive), Baird's Sparrow (sensitive), Chestnut-collared Longspur (sensitive), Bobolink (sensitive), Northern Redbelly Dace, and Pearl Dace (sensitive).

While the Whooping Crane may be found within the search area, this species is known to inhabit marsh habitat, wet meadows, and freshwater marshes which are not impacted by the operation of this facility. The Sprague's Pipit, Baird's Sparrow, Chestnut-collared Longspur, and Bobolink preferred habitat is native prairie grasses, requiring relatively large areas of appropriate habitat. Therefore, the crushing/screening facility may have minor impact on these species of concern. The Northern Redbelly Dace and Pearl Dace inhabit small prairie rivers and streams which are not impacted by the operation of the proposed facility.

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

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

I. Historical and Archaeological Sites

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

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

J. Cumulative and Secondary Impacts

The operation of the proposed project would likely cause minor cumulative and secondary impacts to the physical and biological aspects of the human environmental because the facility would generate air emissions. Noise would also be generated from the site. Emissions and noise would cause minimal disturbance because the facility would be expected to operate in areas designated and used for such operations on a temporary and seasonal basis. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #4942-00. Overall, any cumulative and or secondary impacts to the physical and biological aspects of the human environment would be minor.

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

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

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

A. Social Structures and Mores

The operation of the proposed project would be expected to cause minor disruption to the social structures and mores in the area because the source would be a minor industrial source in a relatively remote location. The facility would only have intermittent operations. Further, the facility would be required to operate according to the conditions that would be placed in MAQP #4942-00. Therefore, the existing social structures and mores would not be affected as a result of this permitting action.

B. Cultural Uniqueness and Diversity

The impact to cultural uniqueness and diversity of these areas would be minor from the proposed equipment because the site will be located in an area that is private land. Additionally, the facility would be considered a portable source with seasonal and intermittent operations. Therefore, the Department determined that there would be minor effects to cultural uniqueness and diversity.

C. Local and State Tax Base and Tax Revenue

The proposed project would have little, if any impact on the local and state tax base and tax revenue because the facility would be a temporary source and small by industrial standards. George Gill is currently at 3 employees with 2-3 future employees expected. Thus, only minor impacts to the local and state tax case and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be expected to be minor because the source would be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

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

E. Human Health

MAQP #4942-00 would incorporate conditions to ensure the crushing/screening facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. As described in Section 7.F of this EA, the air emissions from the facility would be minimized by the use of water spray and other conditions established in MAQP #4942-00. Therefore, only minor impacts would be expected upon human health from the proposed crushing/screening facility.

F. Access to and Quality of Recreational and Wilderness Activities

Based on the information received from George Gill, 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 portable crushing/screening operation would only require a few employees to operate and would have seasonal and intermittent operations. The crushing/screening operation would be considered a portable source and would not be expected to have long-term affects upon the quantity and distribution of employment in any given area of operation. The application states 5-6 employees would be employed as a result of the proposed project. Therefore, minor effects upon the quantity and distribution of employment in these areas would be expected.

H. Distribution of Population

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

I. Demands of Government Services

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

J. Industrial and Commercial Activity

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

K. Locally Adopted Environmental Plans and Goals

George Gill would be allowed, by MAQP #4942-00, to operate in areas designated by Environmental Protection Agency as attainment or unclassified for ambient air quality. MAQP #4942-00 contains operational restrictions for protecting air quality and to keep facility emissions in compliance with any applicable ambient air quality standards, as a locally adopted environmental plan or goal for operating at this proposed site. Because the proposed crushing/screening facility would be a portable source and would likely have intermittent and seasonal operations, any impacts from the project would be expected to be minor and short-lived.

L. Cumulative and Secondary Impacts

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

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the operation of a portable crushing and screening facility; MAQP #4942-00 provides conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

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