



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: www.deq.mt.gov

September 7, 2011

Pat Drynan
HK Contractors, Inc
PO Box 51450
Idaho Falls, ID 83405

Dear Mr. Drynan:

Montana Air Quality Permit #4613-01 is deemed final as of September 7, 2011, by the Department of Environmental Quality (Department). This permit is for a Portable Crushing and Screening Operation and associated equipment. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

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

VW:DCK
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4613-01

HK Contractors, Inc
PO Box 51450
Idaho Falls, ID 83405

September 7, 2011



MONTANA AIR QUALITY PERMIT

Issued To: HK Contractors, Inc
PO Box 51450
Idaho Falls, ID 83405

MAQP: #4613-01
Administrative Amendment (AA) Request
Received: 07/29/2011
Department's Decision on AA: 08/19/2011
Permit Final: 09/07/2011
AFS #:777-4613

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

HK Contractors proposes to operate a portable crushing and screening operation, which will initially be located in the East ½ of the Southeast ¼ of Section 14, Township 10 North, Range 3 West, in Lewis and Clark County, Montana. However, MAQP #4613-01 applies while operating at any location in Montana, except those areas having a Montana Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM₁₀ nonattainment areas. A complete list of the permitted equipment is contained in Section I.A of the permit analysis.

B. Current Permit Action

On July 29, 2011, the Department received correspondence from HK Contractors requesting an alternation to MAQP #4613-00 to allow the permit to be written in a de minimis friendly manner.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 Code of Federal Regulation (CFR) 60, Subpart OOO):
 - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity
 - For crushers that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 15% opacity
2. All visible emissions from any other NSPS-affected equipment (such as screens and conveyors) 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):
 - For equipment that commence construction, modification, or reconstruction on or after April 22, 2008: 7% opacity

- For equipment that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity
- 3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- 4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).
- 5. HK Contractors 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. HK Contractors 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. HK Contractors shall not operate more than one crusher at any given time and the maximum rated design capacity of the crusher shall not exceed 350 tons per hour (TPH) (ARM 17.8.749).
- 8. HK Contractors shall not operate more than two (2) screens at any given time and the total combined maximum rated design capacity of the screens shall not exceed 1,011 TPH (ARM 17.8.749).
- 9. HK Contractors shall properly operate and maintain the diesel fired engines (ARM 17.8.752).
- 10. HK Contractors shall not operate or have on-site more than three (3) diesel fired engines with a combined maximum rating not to exceed 650 horsepower (hp) (ARM 17.8.749).
- 11. The diesel fired engines authorized under Section II.A.10 shall be Tier 2 certified or higher as specified within 40 CFR Part 89.112(a) (ARM 17.8.749).
- 12. If the permitted equipment is used in conjunction with any other equipment owned or operated by HK Contractors, 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).
- 13. HK Contractors 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).
- 14. HK Contractors shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart III, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart III; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). 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. HK Contractors 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. HK Contractors 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. HK Contractors shall maintain on-site records showing daily hours of operation (including hours of operation for each diesel engine) and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by HK Contractors as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Notification

HK Contractors shall provide the Department with written notification of the actual start-up date of the crushing and screening operation postmarked within 15 days after the actual start-up date (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – HK Contractors 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 HK Contractors fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving HK Contractors 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 HK Contractors 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. HK Contractors 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
HK Contractors, Inc
MAQP #4613-01

I. Introduction/Process Description

A. Permitted Equipment

HK Contractors, Inc (HK Contractors) own and operate a portable crushing and screening facility. Permitted equipment includes;

- Vibrating Grizzly Feed Hopper - 350 tons per hour (TPH)
- Impact Crusher - 350 TPH
- 3 Deck Screen Box - 661 TPH
- Three (3) Diesel Fired Engines up to a maximum combined capacity rating of 650 horsepower (hp)
- Associated material handling equipment; conveyors, stackers, etc.

B. Source Description

HK Contractors intends to utilize the above equipment to crush and sort recycled asphalt and concrete. The equipment may also be used to crush and sort various sand and gravel type materials for various uses. The initial location of this mineral processing operation is the East ½ of the Southeast ¼ of Section 14, Township 10 North, Range 3 West, in Lewis and Clark County, Montana.

C. Permit History

On January 14, 2011, **MAQP #4613-00** was deemed final by the Montana Department of Environmental Quality (Department). This permit authorized HK Contractors to install and operate a portable crushing and screening operation.

D. Current Permit Action

On July 29, 2011, the Department received correspondence from HK Contractors requesting an alternation to MAQP #4613-00 to allow the permit to be written in a de minimis friendly manner, specifically to allow substitution of associated diesel engines. **MAQP #4613-01** will replace MAQP #4613-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.
3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).

HK Contractors 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 (CO)
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
7. ARM 17.8.221 Ambient Air Quality Standard for Visibility
8. ARM 17.8.223 Ambient Air Quality Standard for Particulate Matter with an Aerodynamic Diameter of 10 Microns or Less (PM₁₀)

HK Contractors 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, HK Contractors 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 HK Contractors the portable crushing/screening operation and associated equipment are applicable 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 HK Contractors, this subpart is applicable.
 - 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. As HK Contractors operates compression ignition internal combustion engine(s) constructed and/or manufactured after the established date(s) these sources are potentially subject to this subpart.

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 HK Contractors 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 (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 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. As HK Contractors is considered an area source of HAP emissions and operates RICE equipment the engine(s) are potentially subject to this subpart.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires 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. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
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 (tpy) of any pollutant. HK Contractors has a PTE greater than 15 tpy of PM, PM₁₀, oxides of nitrogen, 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. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (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. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered and administrative permit change.
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 HK Contractors 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 one HAP, PTE > 25 tpy of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tpy of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ nonattainment area.
2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #4613-00 for HK Contractors, the following conclusions were made:

- a. The facility's PTE is less than 100 tpy for any pollutant.
- b. The facility's PTE is less than 10 tpy for any one HAP and less than 25 tpy of all HAPs.
- c. This source is not located in a serious PM₁₀ nonattainment area.
- d. This facility is potentially subject to current NSPS (40 CFR 60, Subpart OOO and Subpart IIII).
- e. This facility is potentially subject to current NESHAP standards (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 HK Contractors will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, HK Contractors may be required to obtain a Title V Operating Permit.

III. BACT Determination

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

A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory

Emission Source	Emissions Tons/Year [PTE]						
	PM	PM ₁₀	PM _{2.5}	CO	NO _x	SO ₂	VOC
Impact Crusher	1.84	0.83	0.15	--	--	--	--
Vibrating Grizzly Feed Hopper	3.37	1.13	0.08	--	--	--	--
3 Deck Screen Box	6.37	2.14	0.14	--	--	--	--
≤ 650 hp Diesel Fired Engine/Generator(s)	0.94	0.94	0.94	16.32	30.13	5.84	7.16
Material Handling	41.78	19.25	3.31	--	--	--	--
Unpaved Roadways (Haul Roads)	10.98	3.03	0.30	--	--	--	--
TOTAL EMISSIONS ►	65.29	27.32	4.93	16.32	30.13	5.84	7.16
CO, carbon monoxide g, grams NO _x , oxides of nitrogen PM, particulate matter PM ₁₀ , particulate matter with an aerodynamic diameter of 10 microns or less PM _{2.5} , particulate matter with an aerodynamic diameter of 2.5 microns or less [Sum of condensable and filterable] SO ₂ , oxides of sulfur TPY, tons per year VOC, volatile organic compounds							

Portable Crushing & Screening Plant

Production Rate:

Crushers	350	tons/hour (Maximum)	3066000	tons/year (Maximum)
Screens	1011	tons/hour (Maximum)	8856360	tons/year (Maximum)

Material Processing:

Material Impact Crusher [SCC 3-05-030-03]

Process Rate: 350 tons/hour
Operating Hours: 8760 hours/year

Particulate Emissions:

PM Emissions (controlled):

Emission Factor	0.0012	lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0012 lbs/ton) * (350 tons/hr) =			0.42 lbs/hr
	(0.42 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			1.84 TPY

PM₁₀ Emissions (controlled):

Emission Factor	0.00054	lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00054 lbs/ton) * (350 tons/hr) =			0.19 lbs/hr
	(0.189 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			0.83 TPY

PM_{2.5} Emissions (controlled):

Emission Factor	0.0001	lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0001 lbs/ton) * (350 tons/hr) =			0.04 lbs/hr
	(0.035 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			0.15 TPY

Vibrating Grizzly Screen [SCC 3-05-020-02,03]

Process Rate: 350 tons/hour
Operating Hours: 8760 hours/year

Particulate Emissions:

PM Emissions (controlled):

Emission Factor	0.0022	lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.0022 lbs/ton) * (350 tons/hr) =			0.77 lbs/hr
	(0.77 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			3.37 TPY

PM₁₀ Emissions (controlled):

Emission Factor	0.00074	lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00074 lbs/ton) * (350 tons/hr) =			0.26 lbs/hr
	(0.259 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			1.13 TPY

PM_{2.5} Emissions (controlled):

Emission Factor	0.00005	lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	(0.00005 lbs/ton) * (350 tons/hr) =			0.02 lbs/hr
	(0.0175 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =			0.08 TPY

3 Deck Screen Box [SCC 3-05-020-02,03]

Process Rate: 661 tons/hour
Operating Hours: 8760 hours/year

Particulate Emissions:

PM Emissions (controlled):

Emission Factor 0.0022 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations $(0.0022 \text{ lbs/ton}) * (350 \text{ tons/hr}) = 1.45 \text{ lbs/hr}$
 $(1.4542 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 6.37 \text{ TPY}$

PM₁₀ Emissions (controlled):

Emission Factor 0.00074 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations $(0.00074 \text{ lbs/ton}) * (350 \text{ tons/hr}) = 0.49 \text{ lbs/hr}$
 $(0.48914 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 2.14 \text{ TPY}$

PM_{2.5} Emissions (controlled):

Emission Factor 0.00005 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations $(0.00005 \text{ lbs/ton}) * (350 \text{ tons/hr}) = 0.03 \text{ lbs/hr}$
 $(0.03305 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 0.14 \text{ TPY}$

Material Handling:

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

Process Rate: 350 tons/hour [Trakpactor 1412 Capacity]
Operating Hours: 8760 hours/year

Particulate Emissions:

PM Emissions:

Emission Factor 0.00016 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations $(0.00016 \text{ lbs/ton}) * (350 \text{ tons/hr}) = 0.06 \text{ lbs/hr}$
 $(0.056 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 0.25 \text{ TPY}$

PM₁₀ Emissions:

Emission Factor 0.00016 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations $(0.00016 \text{ lbs/ton}) * (350 \text{ tons/hr}) = 0.06 \text{ lbs/hr}$
 $(0.056 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 0.25 \text{ TPY}$

PM_{2.5} Emissions:

Emission Factor 0.00016 lbs/ton processed [AP-42 Table 11.19.2-2, 8/04]
Calculations $(0.00016 \text{ lbs/ton}) * (350 \text{ tons/hr}) = 0.06 \text{ lbs/hr}$
 $(0.056 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) = 0.25 \text{ TPY}$

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

Process Rate: 661 tons/hour [Powerscreen 1700 Maximum Capacity]
Operating Hours: 8760 hours/year
Total Transfers: 11 Transfers [Based on Process Flow Diagram]

Particulate Emissions:

PM Emissions (controlled):

Emission Factor	0.00014 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	$(0.00014 \text{ lbs/ton}) * (661 \text{ tons/hr}) * (11 \text{ Transfers}) =$		1.02 lbs/hr
	$(1.01794 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$		4.46 TPY

PM₁₀ Emissions (controlled):

Emission Factor	0.000046 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	$(0.000046 \text{ lbs/ton}) * (661 \text{ tons/hr}) * (11 \text{ Transfers}) =$		0.33 lbs/hr
	$(0.334 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$		1.46 TPY

PM_{2.5} Emissions(controlled):

Emission Factor	0.000013 lbs/ton processed	[AP-42 Table 11.19.2-2, 8/04]	
Calculations	$(0.000013 \text{ lbs/ton}) * (661 \text{ tons/hr}) * (11 \text{ Transfers}) =$		0.09 lbs/hr
	$(0.095 \text{ lbs/hr}) * (8760 \text{ hrs/yr}) * (0.0005 \text{ tons/lb}) =$		0.41 TPY

Storage Pile Load-In & Load-Out

Process Rate:	1101 tons/hour	[Total Maximum Capacity - Stand Alone Rate]
Operating Hours:	8760 hours/year	
Pile Transfers:	2	[2 piles→Initial Pile Formation & Pile Load-Out to Trucks]

Particulate Emissions:

Emission Factor	$EF = k (0.0032) * [(U/5)^{1.3} / (M / 2)^{1.4}]$	[AP-42 13.2.4, 11/06]
where:	EF, Emission Factor = lbs Emitted / ton Processed	
	k, Dimensionless Particle Size Multiplier PM = 0.74	[AP-42 13.2.4, 11/06]
	k, Dimensionless Particle Size Multiplier PM ₁₀ = 0.35	[AP-42 13.2.4, 11/06]
	k, Dimensionless Particle Size Multiplier PM _{2.5} = 0.053	[AP-42 13.2.4, 11/06]
	U, Mean Wind Speed (mph) = 9.33	[ASOS/AWOS - MT 10 yr Ave.]
	M, Material Moisture Content (%) = 2.53	[AP-42 13.2.4.3, 11/06]

PM Emissions:

Emission Factor	$EF = 0.74 * (0.0032) * [(9.33/5)^{1.3} / (2.525/ 2)^{1.4}] =$	0.0038 lbs/ton
Calculations	$(0.0038 \text{ lbs/ton}) * (1101 \text{ tons/hr}) * (2 \text{ pile transfers}) =$	8.47 lbs/hr
	$(8.47 \text{ lbs/hr}) * (8760 \text{ hours/yr}) * (0.0005 \text{ tons/lb}) =$	37.08 TPY

PM₁₀ Emissions:

Emission Factor	$EF = 0.35 * (0.0032) * [(9.33/5)^{1.3} / (2.525/ 2)^{1.4}] =$	0.0018 lbs/ton
Calculations	$(0.0018 \text{ lbs/ton}) * (1101 \text{ tons/hr}) * (2 \text{ piles}) =$	4.00 lbs/hr
	$(4.00 \text{ lbs/hr}) * (8760 \text{ hours/yr}) * (0.0005 \text{ tons/lb}) =$	17.54 TPY

PM_{2.5} Emissions:

Emission Factor	$EF = 0.053 * (0.0032) * [(9.33/5)^{1.3} / (2.525/ 2)^{1.4}] =$	0.0003 lbs/ton
Calculations	$(0.0003 \text{ lbs/ton}) * (1101 \text{ tons/hr}) * (2 \text{ piles}) =$	0.61 lbs/hr
	$(0.61 \text{ lbs/hr}) * (8760 \text{ hours/yr}) * (0.0005 \text{ tons/lb}) =$	2.66 TPY

Diesel Engine(s): Tier 2 certified 40 CFR Part 89.112(a)

Engine Rating:	≤ 650 hp
Fuel Input:	4.55 MMBtu/hr
	33.2 gallons/hour [Estimated]
Hours of Operation:	8760 hours/year

Particulate Emissions:

PM Emissions:

Emission Factor	0.15 g/bhp-hr	[40 CFR 89.112 - Table 1]	
Calculations	(0.15 g/bhp-hr) * (650 hp) * (0.002205 lbs/gram) =		0.21 lbs/hr
	(0.21 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.94 TPY

PM₁₀ Emissions:

Emission Factor	0.15 g/bhp-hr	[40 CFR 89.112 - Table 1]	
Calculations	(0.15 g/bhp-hr) * (650 hp) * (0.002205 lbs/gram) =		0.21 lbs/hr
	(0.21 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.94 TPY

PM_{2.5} Emissions (total):

Emission Factor	0.15 g/bhp-hr	[40 CFR 89.112 - Table 1]	
Calculations	(0.15 g/bhp-hr) * (650 hp) * (0.002205 lbs/gram) =		0.21 lbs/hr
	(0.21 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.94 TPY

CO Emissions:

Emission Factor	2.6 g/bhp-hr	[40 CFR 89.112 - Table 1]	
Calculations	(2.6 g/bhp-hr) * (650 hp) * (0.002205 lbs/gram) =		3.73 lbs/hr
	(3.73 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		16.32 TPY

NOx Emissions:

Emission Factor	4.8 g/bhp-hr	[40 CFR 89.112 - Table 1]	
Calculations	(4.8 g/bhp-hr) * (650 hp) * (0.002205 lbs/gram) =		6.88 lbs/hr
	(6.88 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		30.13 TPY

SO₂ Emissions:

Emission Factor	0.00205 lb/hp-hr	[AP-42 3.3-1, 10/96]	
Calculations	(0.0021 lb/hp-hr) * (650 hp) =		1.33 lbs/hr
	(1.33 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		5.84 TPY

VOC Emissions:

Emission Factor	0.002514 lb/hp-hr	[AP-42 3.3-1, 10/96]	
Calculations	(0.0025 lb/hp-hr) * (650 hp) =		1.63 lbs/hr
	(1.63 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		7.16 TPY

Unpaved Roadways (Haul Roads)

Miles Travelled: 5 Miles/Day [Estimate]
 Vehicle Weight: < 50 Tons

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

b, Empirical Constant PM - PM_{2.5} = 0.45 [AP-42 Table 13.2.2-2, 11/06]

PM Emissions:

Emission Factor	$EF = 4.9 * (7.1/12)^{0.7} * (50/3)^{0.45} =$	12.04	lbs/VMT	
Calculations	$(12.04 \text{ lbs/VMT}) * (5 \text{ miles/day}) =$			60.18
	$(60.18 \text{ lbs/day}) * (365 \text{ days/yr}) * (0.0005 \text{ tons/lb}) =$			10.98

PM₁₀ Emissions:

Emission Factor	$EF = 1.5 * (7.1/12)^{0.9} * (50/3)^{0.45} =$	3.32	lbs/VMT	
Calculations	$(3.32 \text{ lbs/VMT}) * (5 \text{ miles/day}) =$			16.59
	$(16.59 \text{ lbs/day}) * (365 \text{ days/yr}) * (0.0005 \text{ tons/lb}) =$			3.03

PM₁₀ Emissions:

Emission Factor	$EF = 0.15 * (7.1/12)^{0.9} * (50/3)^{0.45} =$	0.33	lbs/VMT	
Calculations	$(0.33 \text{ lbs/VMT}) * (5 \text{ miles/day}) =$			1.66
	$(1.66 \text{ lbs/day}) * (365 \text{ days/yr}) * (0.0005 \text{ tons/lb}) =$			0.30

V. Existing Air Quality

The initial location of this portable operation is to be located in an area designated as attainment/unclassifiable for all criteria pollutants.

VI. Air Quality Impacts

MAQP #4613-01 authorizes HK Contractors to operate this crushing and screening plant while operating at any location within Montana, excluding those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas. Allowable emissions generated by this facility are not expected to exceed any set ambient standard. In addition, this source is portable and any air quality impacts are expected to be minimal and short-lived.

VII. Ambient Air Impact Analysis

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

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?
	✓	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	✓	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	✓	4. Does the action deprive the owner of all economically viable uses of the property?

	✓	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?
	✓	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	✓	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?
	✓	7a. Is the impact of government action direct, peculiar, and significant?
	✓	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	✓	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?
	✓	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

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared by: D. Kuenzli
Date: August 1, 2011