January 30, 2018

Frank Tabish
LHC, Inc.
P.O. Box 7338
Kalispell, MT 59904

Dear Mr. Tabish:

Montana Air Quality Permit #3860-03 is deemed final as of January 27, 2018, by the Department of Environmental Quality (Department). This permit is for LHC, Inc's portable crushing and screening operation. 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
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

Shawn Juers
Environmental Engineer
Air Quality Bureau
(406) 444-2049

JM:SJ
Enclosure

MONTANA AIR QUALITY PERMIT

Issued To: LHC, Inc.
P.O. Box 7338
Kalispell, MT 59904

MAQP: #3860-03
Application Complete: 11/24/2017
Preliminary Determination Issued: 12/11/2017
Department's Decision Issued: 1/11/2018
Permit Final: 1/27/2018

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

The LHC "home-pit" where the permitted portable facility will initially operate is located approximately 5 kilometers (km) north of Kalispell, MT, in the Northeast ¼ of Section 26 and the Northwest ¼ of Section 25, Township 29 North, Range 22 West, Flathead County, MT. However, MAQP #3860-03 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department) approved permitting program or areas considered tribal lands. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* This permit in conjunction with the additional and more stringent conditions of Addendum #4 will apply while operating at any locations in or within 10 km of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. A complete list of permitted equipment is contained in Section I.A of the permit analysis to this permit.

B. Current Permit Action

On November 24, 2017, the Department received an application to modify the MAQP. LHC seeks to maintain flexibility in operating scenarios, while increasing crushing and screening capacity allowed by this permit. The current permit action increases allowable crushing and screening capacity to a combined maximum rated throughput of 1,000 tons per hour (vs. the previously permitted 450). Because available emissions factors are different for engines greater than 600 horsepower, at LHC's request, the action also requires that LHC use engines that are greater than 600 horsepower to validate utilizing the Environmental Protection Agency's emissions factors for large diesel fired engines. The overall change with respect to the generator engine(s) is that given the limitations, the allowable emissions are demonstrated to be below 80 tons per year of oxides of nitrogen, the pollutant emitted in the highest amount for this permit.

Section II: Conditions and Limitations

A. Emission Limitations and Operational Conditions

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 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).

5. LHC 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. LHC 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. LHC crushing operations shall be limited to a combined maximum rated material throughput capacity of 1,000 tons per hour (TPH) (ARM 17.8.749).

8. LHC screening operations shall be limited to a combined maximum rated material throughput capacity of 1,000 TPH (ARM 17.8.749).

9. The combined maximum rated horsepower rating of engine(s) driving generator(s) shall not exceed 1,700 hp. Each generator engine shall be greater than 600 hp in capacity (ARM 17.8.749).

10. Operation of each of the generator engine(s) shall not exceed 3,800 hours during any rolling 12-month time period (ARM 17.8.1204).

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

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

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

B. Testing Requirements

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

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

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

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, 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 Intent to Transfer form and 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. LHC 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, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. LHC 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, 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. LHC shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by LHC 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. LHC shall document, by month, the hours of operation of the diesel generator engine(s). By the 25th day of each month, LHC shall total the hours of operation for the diesel generator engine(s) for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. LHC 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).

Section III: General Conditions

A. Inspection – LHC 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 such as Continuous Monitoring Systems (CEMS) or Continuous Emissions Rate Monitoring System (CERMS), or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

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

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving LHC 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 LHC 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 in 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. LHC 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.

K. LHC shall comply with this permit and the more stringent requirements of the addendum when operating in or within 10 kilometers of a PM_{10} nonattainment area.

Montana Air Quality Permit (MAQP) Analysis
LHC, Inc.
MAQP #3860-03

I. Introduction/Process Description

LHC, Inc. (LHC) owns and operates a portable non-metallic mineral processing plant which is initially located in the Northeast ¼ of Section 26 and the Northwest ¼ of Section 25, Township 29 North, Range 22 West, of Flathead County, MT.

A. Permitted Equipment

The permitted equipment includes crusher(s) with a combined maximum material throughput capacity of 1,000 tons per hour (TPH), screen(s) with a combined maximum rated material throughput capacity of 1,000 TPH, and diesel generator engines with a combined maximum rated design capacity to not exceed 1,700 horsepower (hp). Each generator engine shall be greater than 600 hp. Up to 25 conveyor transfer points are assumed.

B. Source Description

Typical operations begin by loading material to be processed into the crusher. From the crusher, materials are sent to the screen for sizing and ultimately conveyed to product stockpile(s) for use in various construction activities.

LHC's crushing and screening plant will initially be located within the Northeast ¼ of Section 26 and the Northwest ¼ of Section 25, Township 29 North, Range 22 West, of Flathead County, MT *(48.252899, -114.354029)*.

C. Permit History

On September 6, 2006, the Department of Environmental Quality (Department) issued **MAQP #3860-00** and **Addendum #1** for the operation of a portable crushing/screening plant.

On March 7, 2008, the Department received a request from Bison Engineering on behalf of LHC to modify MAQP #3860-00 to replace the originally permitted generator (maximum design capacity up to 545 kilowatts (kW)) with a larger generator (maximum design capacity of 1,081 hp). LHC also requested the use of federally-enforceable manufacturer-guaranteed emission rates to determine potential emissions from the generator. **MAQP #3860-01** and **Addendum #2** replaced MAQP #3860-00 and Addendum #1.

On June 22, 2017, the Department received a request to modify MAQP #3860-01 to request de minimis-friendly conditions with operational limitations. LHC proposed that up to two generators may be used, not to exceed 1700 horsepower (hp) and operation limits of 3800 hours per year. The Department made the requested change and updated the permit to reflect current language and rule references used by the Department. **MAQP #3860-02** and **Addendum #3** replaced MAQP #3860-01 and Addendum #2.

D. Current Permit Action

On November 24, 2017, the Department received an application to modify the MAQP. LHC seeks to maintain flexibility in operating scenarios, while increasing crushing and screening capacity allowed by this permit. The current permit action increases allowable crushing and screening capacity to a combined maximum rated throughput of 1,000 ton per hour (vs. the previously permitted 450). Because available emissions factors are different for engines greater than 600 horsepower, at LHC's request, the action also requires that LHC use engines that are greater than 600 horsepower to validate utilizing the Environmental Protection Agency's emissions factors for large diesel fired engines. The overall change with respect to the generator engine(s) is that given the limitations, the allowable emissions are demonstrated to be below 80 tons per year of oxides of nitrogen, the pollutant emitted in the highest amount for this permit. **MAQP #3860-03** and **Addendum #3** replace MAQP #3860-02 and Addendum #2.

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).

LHC 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 four 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 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide;
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide;
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide;
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter; and
5. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}.

LHC 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, LHC 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 CFR Part 60, New Source Performance Standards (NSPS). LHC is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

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

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by LHC the portable crushing equipment to be used under MAQP #3860-03 is subject to this subpart as it meets the definition of an affected facility constructed after August 31, 1983.

   c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. A CI ICE is considered stationary if it remains or will remain at a location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. As the permit is written in a de minimis-friendly manner, the CI ICE equipment to be used by LHC under MAQP #3860-03 are potentially subject to this Subpart depending upon the construction/manufacture date and the location, nature, and duration of operation.

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. LHC is potentially a NESHAP-affected facility under 40 CFR Part 63 and is potentially subject to the requirements of the following subparts.

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

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

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

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. LHC submitted the appropriate permit application fee for the current permit action.

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

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher, or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. LHC has a PTE greater than 15 tons per year of particulate matter (PM), particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}), 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. LHC 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. LHC submitted an affidavit of publication of public notice for the November 5, 2017, issue of the *Daily Inter Lake*, a newspaper of general circulation in the Town of Kalispell in Flathead County, Montana, 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 LHC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

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

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

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

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

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

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

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

2. ARM 17.8.818 Review of Major Stationary Sources and Major 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 since it is not a listed source and the facility's PTE is less than 250 tons per year of any regulated air pollutant (excluding fugitive emissions).

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

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

   a. PTE > 100 tons/year of any pollutant;

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

   c. PTE > 70 tons/year of 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 Air Quality Permit #3860-03 for LHC, the following conclusions were made:

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

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

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

   d. This facility is subject to an NSPS under 40 CFR 60, Subpart OOO and potentially Subpart IIII.

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

f. This source is not a Title IV affected source, nor a solid waste combustion unit.

g. This source is not an Environmental Protection Agency (EPA) designated Title V source.

LHC requested federally-enforceable permit 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.

h. 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 facility 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 PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

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

III. BACT Determination

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

Pursuant to ARM 17.8.752, the owner or operator of a new or modified facility or emitting unit for which a MAQP is required shall install on the new or modified facility or emitting unit the maximum air pollution control capability that is technically practicable and economically feasible. Pursuant to ARM 17.8.740(2), in no case may application of BACT result in emissions of any regulated air pollutant that would exceed the emissions allowable by any applicable standard under ARM Title 17, Chapter 8, Subchapter 3.

Particulate Matter emissions are created by crushing, screening, and conveying equipment. The potential uncontrolled emissions of particulate matter emissions from these operations are significant. The moisture content of the material processed can have a substantial effect on emissions. Surface wetness causes fine particles to agglomerate on or to adhere to the faces of larger stones, with a resulting dust suppression effect. However, as new fine particles are created by crushing and attrition and as the moisture content is reduced by evaporation, this suppressive effect diminishes. Plants that use wet suppression systems (spray nozzles) to maintain material moisture as needed throughout the process can effectively control Particulate Matter emissions throughout the process.

Pursuant to ARM 17.8.740(2), if the department determines that technological or economic limitations on the application of measurement methodology to a particular class of emitting units would make the imposition of an emission standard infeasible, it may instead prescribe a design, equipment, work practice, or operational standard or combination thereof, to require the application of BACT. Such standard must, to the degree possible, set forth the emission reduction achievable by implementation of such design, equipment, work practice, or operation and must provide for compliance by means that achieve equivalent results.

No measurement methodology exists to directly measure particulate emissions coming from crushing and screening operations which do not utilize a capture and control system. In accord with ARM 17.8.740(2), a visible emissions standard (opacity) may serve as a surrogate in defining the maximum degree of reduction required by BACT. Further, NSPS OOO requires that crushing and screening operations meet certain Opacity standards, is applicable to this operation, and incorporated by reference in ARM 17.8 Subchapter 3. Therefore, these standards serve as the floor for determining the maximum degree of reduction achievable, while meeting BACT.

The Department has determined that the limitations of NSPS OOO meets BACT for this source. LHC shall install and utilize water spray bars throughout the process, using spraybar design and placement and water in amounts as necessary, to meet the opacity limitations of NSPS OOO.

Fugitive Emissions from haul roads, access roads, parking lots, material storage:

Particulate Matter can occur from haul roads, access roads, parking lots, material storage and handling, and the general plant area. LHC is subject to the general opacity requirements of Subchapter 3. These requirements limit opacity to no more than 20%, average over six consecutive minutes. The Department has determined that utilization of water or chemical dust suppressant, used as necessary to meet this limit, constitutes BACT for this source.

Diesel Generator Engine(s):

Any new diesel-fired engine would likely be required to comply with federal engine emission limitations including, for example, EPA Tiered 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). The Department has determined that compliance with any applicable federal emissions limits and standards, with no additional requirements, constitutes BACT for these engines.

IV. Emission Inventory [a.]

	Permitted Emissions in Tons Per Year							
Emissions Source	PM (fil)	PM_{10} (fil)	$PM_{2.5}$ (fil)	PM (cond)	NO_X	CO	VOC	SO_X
Crushing	13.14	5.26	0.31	0.00				
Screening	31.54	19.27	11.82	0.00				
Conveyor Transfer Points	15.33	5.04	1.10	0.00				
Piles	46.98	16.44	2.49	0.00				
Loading	1.33	0.44	0.10	0.00				
Unloading	0.07	0.07	0.00	0.00				
Haul Roads and Unpaved Areas	4.85	1.29	0.13	0.00				
Diesel Generator Engine(s)	2.01	2.01	2.01	0.25	77.48	17.77	1.89	0.04
TOTAL	115.25	49.28	17.95	0.25	77.48	17.77	1.89	0.04

Footnote a:

LHC has requested limitations to keep NO_X emissions to less than 80% of the 100 TPY Title V Major Source threshold. Course particulate (PM) emissions do not count against Title V.

Crushing http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf

Maximum Throughput: 1000 ton/hr (maximum rated throughput for any configuration)
Hours of Operation: 8760 hr/yr

PM Emissions

Emissions Factor: 0.003 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations: 0.003lb/ton*1000ton/hr= 3 lb/hr
3lb/hr*8760hr/yr*0.0005 ton/lb = **13.14 ton/yr**

PM10 Emissions

Emissions Factor: 0.0012 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations 0.0012lb/ton*1000ton/hr= 1.2 lb/hr
1.2lb/hr*8760hr/yr*0.0005 ton/lb = **5.26 ton/yr**

PM2.5 Emissions

Emissions Factor: 0.00007 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calcualtions: 0.00007lb/ton*1000ton/hr= 0.07 lb/hr
0.07lb/hr*8760hr/yr*0.0005 ton/lb = **0.31 ton/yr**

Screening http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf

Maximum Throughput: 1000 ton/hr (maximum rated throughput for any configuration)
Hours of Operation: 8760 hr/yr

PM Emissions

Emissions Factor: 0.0036 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations: 0.0036lb/ton*1000ton/hr= 3.6 lb/hr
3.6lb/hr*8760hr/yr*0.0005 ton/lb = **15.77 ton/yr**

PM10 Emissions

Emissions Factor: 0.0022 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations: 0.0022lb/ton*1000ton/hr= 2.2 lb/hr
2.2lb/hr*8760hr/yr*0.0005 ton/lb = **9.64 ton/yr**

PM2.5 Emissions

Emissions Factor: 0.001349774 lb/ton (See table - AP-42 indicates logarithmic charts are linear)
Calculations: 0.00134977443912449lb/ton*1000ton/hr= 1.34977444 lb/hr
1.34977443912449lb/hr*8760hr/yr*0.0005 ton/lb = **5.91 ton/yr**

Conveyor Transfers http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf

Maximum Throughput: 1000 ton/hr
Hours of Operation: 8760 hr/yr
Number of Conveyor Transfers: 25 conveyor transfers

PM Emissions

Emissions Factor: 0.00014 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations: 0.00014lb/ton*1000ton/hr*25conveyor transfers= 3.5 lb/hr
3.5lb/hr*8760hr/yr*0.0005 ton/lb = **15.33 ton/yr**

PM10 Emissions

Emissions Factor: 0.000046 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations: 0.000046lb/ton*1000ton/hr*25conveyor transfers= 1.15 lb/hr
1.15lb/hr*8760hr/yr*0.0005 ton/lb = **5.04 ton/yr**

PM2.5 Emissions

Emissions Factor: 0.00001 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)
Calculations: 0.00001lb/ton*1000ton/hr*25conveyor transfers= 0.25 lb/hr
0.25lb/hr*8760hr/yr*0.0005 ton/lb = **1.10 ton/yr**

Piles http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0204.pdf

From a mass balance standpoint, one pile at maximum capacity can be assumed
Material handling from loading and unloading helps cover piles reformed outside the process

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

where:
E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

K = 1 for PM
0.35 for PM10
0.053 for PM2.5

U = 9.3 www.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html
(See Guidance - wind data for Statewide Average)

M = 1.5 % - see guidance - based on moisture contents assumed for crushing and screening operations.

PM Emissions

Emissions Factor: 0.010726 lb/ton
Calculations: 0.0107lb/ton*1000ton/hr= 10.73 lb/hr
10.7258lb/hr*8760hr/yr*0.0005 ton/lb = **46.98 ton/yr**

PM10 Emissions

Emissions Factor: 0.003754 lb/ton
Calculations: 0.0038lb/ton*1000ton/hr= 3.75 lb/hr
3.754lb/hr*8760hr/yr*0.0005 ton/lb = **16.44 ton/yr**

PM2.5 Emissions

Emissions Factor: 0.000568 lb/ton
Calculations: 0.0006lb/ton*1000ton/hr= 0.57 lb/hr
0.5685lb/hr*8760hr/yr*0.0005 ton/lb = **2.49 ton/yr**

Loading http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf
These operations typically involve truck loading operations. Limited emissions factor data is available
Assume steady stockpiling for PTE purposes (i.e - what's made is sold and pile sizes stay relatively the same)

Maximum Capacity: 1000 ton/hr
Hours per year: 8760 hr/yr

PM10 Emissions

Emissions Factor: 0.0001 lb/ton
Calculations: 0.0001lb/ton*1000ton/hr= 0.1 lb/hr
0.1lb/hr*8760hr/yr*0.0005 ton/lb = **0.44 ton/yr**

With no other data, utilize the same PM/PM10/PM2.5 ratios as the conveyor emissions factors
**This is loading of finished product from product pile to truck

Unloading http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf
These operations typically involve on-site truck unloading.
Limited emissions factor data is available

PM10 Emissions

Emissions Factor: 0.000016 lb/ton
Calculations: 0.000016lb/ton*1000ton/hr= 0.016 lb/ton
0.016lb/ton*8760hr/yr*0.0005 ton/lb = **0.07 ton/yr**

With no other data, and no other similar emissions, no futher calculations can be made
**This is unloading of fragmented stone for processing, for example

Haul Roads, Unpaved Area Traffic http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0202.pdf

These calculations account for emissions from travel on unpaved surfaces. Because emissions can vary greatly, and this source category is permitted in a flexible manner, the Department normally uses default values for this calculation.

For permit determination purposes, these emissions are omitted from consideration

The Department usually assumes truck weights of 50 tons, and an average of 5 miles traveled per day

$$E = k\,(s/12)^a (W/3)^b$$

PM Emissions

k =	4.9	
a =	0.7	
b =	0.45	
s =	5.95	<-- average of sand and gravel
W =	50	tons (Department history)
VMT =	5	miles traveled per day
E =	10.63562512	lb/mile

Calculations

10.6356251207538lb/mile*5miles traveled per day=	53.17813 lb/day
53.178125603769lb/day*365 day/yr * 0.0005 ton/lb =	**9.71 ton/yr**
50% control efficieny:	**4.85 ton/yr**

PM10 Emissions

k =	1.5	
a =	0.9	
b =	0.45	
s =	5.95	<-- average of sand and gravel
W =	50	tons (Department history)
VMT =	5	miles traveled per day
E =	2.829601937	lb/mile

Calculations

2.82960193695703lb/mile*5miles traveled per day=	14.14801 lb/day
14.1480096847851lb/day*365 day/yr * 0.0005 ton/lb =	**2.58 ton/yr**
50% control efficiency:	**1.29 ton/yr**

PM2.5 Emissions

k =	0.15	
a =	0.9	
b =	0.45	
s =	5.95	<-- average of sand and gravel
W =	50	tons (Department history)
VMT =	5	miles traveled per day
E =	0.282960194	lb/mile

Calculations

0.282960193695703lb/mile*5miles traveled per day=	1.414801 lb/day
1.41480096847851lb/day*365 day/yr * 0.0005 ton/lb =	**0.26 ton/yr**
50% Control Efficiency:	**0.13 ton/yr**

Diesel Generator Engine							
Engine Rating:	1268	kW					
	1700	hp					
Hours of Operation:	3800	hr/yr					
NOX Emissions							
Emissions Factor	14.6	g/kW*hr	AP-42 Table 3.4-1 converted to g/kW*hr				
Calculations	14.6g/kW*hr*1268kW*3800hr/yr=					70348640.00	g/yr
	70348640g/yr* 1/454 gm/lb =					154952.95	lb/yr
	154952.95154185lb/yr/2000 lb/ton =					77.48	ton/yr
VOC Emissions							
Emissions Factor	0.429	g/kW*hr	AP-42 Table 3.4-1 converted to g/kW*hr				
Calculations	0.429g/kW*hr*1268kW*3800hr/yr *0.91 =					1881055.18	g/yr
	1881055.176g/yr* 1/454 gm/lb * 0.91 =					3770.40	lb/yr
	3770.39693867841lb/yr/2000 lb/ton * 0.91 =					1.89	ton/yr
PM (fil) Emissions							
Emissions Factor	0.37914	g/kW*hr	AP-42 Table 3.4-1 converted to g/kW*hr				
Calculations	0.37914g/kW*hr*1268kW*3800hr/yr=					1826848.18	g/yr
	1826848.176g/yr* 1/454 gm/lb =					4023.89	lb/yr
	4023.89466079295lb/yr/2000 lb/ton =					2.01	ton/yr
PM Condensable Emissions							
Emissions Factor	0.04686	g/kW*hr	AP-42 Table 3.4-1 converted to g/kW*hr				
Calculations	0.04686g/kW*hr*1268kW*3800hr/yr=					225790.22	g/yr
	225790.224g/yr* 1/454 gm/lb =					497.34	lb/yr
	497.335295154185lb/yr/2000 lb/ton =					0.25	ton/yr
SO2 Emissions							
Emissions Factor	0.000012135	lb/hr-hr	AP-42 Table 3.4-1 assuming 0.0015% sulfur by weight				
Calculations	0.000012135lb/hr-hr*1700hp=					0.0206295	lb/hr
	0.0206295lb/hr*3800hr/yr*0.0005 ton/lb =					0.04	ton/yr
CO Emissions							
Emissions Factor	0.0055	lb/hp-hr	AP-42 Table 3.4-1				
Calculations	0.0055lb/hp-hr*1700hp=					9.35	lb/hr
	9.35lb/hr*3800hr/yr*0.0005 ton/lb =					17.77	ton/yr

V. Existing Air Quality

MAQP#3860-03 is issued for the operation of a portable crushing/screening plant to operate at various locations throughout Montana. This facility would be allowed to operate at the proposed initial site and any other areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding those counties that have a Department-approved permitting program, those areas considered Tribal Lands, or those areas in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* MAQP #3860-03 in conjunction with the additional and more stringent requirements of Addendum #4 applies to the LHC facility while operating at any location in or within 10 km of certain PM_{10} nonattainment areas, including the initial site location, the Northeast ¼ of Section 26 and the Northwest ¼ of Section 25, Township 29 North, Range 22 West, of Flathead County, MT.

VI. Air Quality Impacts

MAQP #3860-03 and Addendum #4 represent a minor source of emissions with respect to the prevention of significant deterioration program. Further, the Department has provided additional protections to air quality through issuance of an addendum, to ensure the allowable PM_{10} emissions associated with this permit are below significant emissions rates and below significant impact levels during winter operations. In the view of the Department, no more than minor impacts would be expected to air quality, including in PM_{10} nonattainment areas.

In accord with current Department policy, the Addendum was constructed to ensure the following:

a. Ensure less than 547 lb/day of PM_{10} emissions during the 'summer' season (daily emissions rate corresponding to 100 tons per year), and

b. Ensure less than 82 lb/day of PM_{10} emissions during the 'winter' season (daily emissions rate corresponding to 15 tons per year, the significant emissions rate for PM_{10}.)

c. PM_{10} emissions from generator engines, utilizing screening level models, are less than 5 micrograms per cubic meter (the significant impact level for PM_{10}).

Further, in addition to being a minor source with respect to the prevention of significant deterioration program and the additional conditions of the addendum, this permit limits emissions to below 80% of Title V major source thresholds.

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: Shawn Juers
Date: 12/4/2017

Addendum #4
LHC, Inc.
Montana Air Quality Permit (MAQP) #3860-03

An addendum to air quality MAQP #3860-03 is issued to LHC, Inc. (LHC), pursuant to Section 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

MAQP #3860-03 in conjunction with Addendum #4 allow for the operation of a portable crushing/screening plant to be located in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter less than or equal to 10 microns (PM_{10}) nonattainment areas including but not limited to: Libby, Thompson Falls, Kalispell (and the nearby Evergreen area), Whitefish, Columbia Falls, and Butte. The equipment allowed for operation within this addendum is the same as in the permit. The permitted equipment includes crusher(s) with a combined maximum material throughput capacity of 1,000 tons per hour (TPH), screen(s) with a maximum rated material throughput capacity of 1,000 TPH, and diesel generator engines with a combined maximum rated design capacity to not exceed 1,700 horsepower (hp), with each generator engine greater than 600 hp. Up to 25 conveyor transfer points are assumed.

II. Seasonal and Site Restrictions

MAQP #3860-03 in conjunction with the more stringent requirements of Addendum #4 applies to the LHC facility while operating at any location in or within 10 km of certain PM_{10} nonattainment areas. Seasonal and site restrictions apply as follows:

A. Winter Season (October 1-March 31). During the winter season, the only location(s) in or within 10 km of certain PM_{10} nonattainment area(s) where LHC may operate is:

1. Northeast ¼ of Section 26 and the Northwest ¼ of Section 25, Township 29 North, Range 22 West, Flathead County, MT (LHC Home Pit) (Kalispell PM_{10} nonattainment area).

2. Any other site in or within 10 km of certain PM_{10} nonattainment areas that may be approved, in writing, by the Department of Environmental Quality (Department).

B. Summer Season (April 1-September 30). LHC may operate at any location in or within 10 km of the Libby, Thompson Falls, Kalispell (and the nearby Evergreen area), Whitefish, Columbia Falls, and Butte PM_{10} nonattainment areas.

C. LHC shall comply with the additional limitations and conditions contained in Addendum #4 while operating in or within 10 km of any of the previously listed PM_{10} nonattainment areas. Addendum #4 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum #4 at any time based on local conditions of any future site. These conditions may include, but are not limited to: local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

Operational and Emission Limitations:

1. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749). For NSPS-affected equipment constructed after April 22, 2008 for which an opacity limitation of 7% applies (such as screens and conveyors), that 7% limit shall apply to the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

2. LHC shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

3. Water and water spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections III.A.1 and III.A.2 (ARM 17.8.749).

4. LHC shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

5. LHC shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation in Section II.A.4 (ARM 17.8.749).

6. During the 'winter season' (October 1st through March 31st), crushing production from the LHC facility shall be limited to 8,300 tons per day (ARM 17.8.749).

7. During the 'winter season' (October 1st through March 31st), screening production from the LHC facility shall be limited to 8,300 tons per day (ARM 17.8.749).

8. The generator engine(s) shall each be limited to no more than 10 hours of operation per calendar day (ARM 17.8.749).

Operational Reporting Requirements

1. Production information for the sites covered by this addendum must be maintained for 5 years and submitted to the Department upon request. The information must include (ARM 17.8.749):

    a. Tons of material crushed by each crusher at each site (including amount of recirculated/rerun material);

    b. Tons of material screened by each screen at each site (including amount of recirculated/rerun material);

    c. Tons of bulk material loaded at each site (production);

d. Daily hours of operation at each site;

e. Gallons of diesel used by each generator at each site;

f. Hours of operation and sizes for each generator at each site; and

g. Fugitive dust information consisting of the total miles driven on unpaved roads for all plant vehicles.

2. LHC shall document, by day, the total crushing production. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.749).

3. LHC shall document, by day, the total screening production. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.749).

4. LHC shall document, by day, the hours of operation of each diesel generator engine. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.749).

Addendum #4 Analysis
LHC, Inc.
Montana Air Quality Permit (MAQP) #3860-03

I. Permitted Equipment

LHC, Inc. (LHC) owns and operates a portable non-metallic mineral processing plant to be operated at various locations within Montana. The allowable equipment for operation within the addendum is the same as in the permit. The permitted equipment includes crusher(s) with a combined maximum material throughput capacity of 1,000 tons per hour (TPH), screen(s) with a maximum rated material throughput capacity of 1,000 TPH, and diesel generator engines with a combined maximum rated design capacity to not exceed 1,700 horsepower (hp), with each generator engine greater than 600 hp. Up to 25 conveyor transfer points are assumed.

II. Source Description

LHC operates a portable crushing/screening plant to be operated at various locations within Montana. Typical operations begin by loading material to be processed into the crusher. From the crusher, materials are sent to the screen for sizing and ultimately conveyed to product stockpile(s) for use in various construction activities.

III. Emission Inventory

This emissions inventory reflects the permitted emissions in pounds per day given the winter operations conditions of the addendum. The wintertime conditions are based on approximately 10 hours per day of operation assuming full capacity operations allowed by the permit.

Permitted Emissions in lb/day				
Emissions Source	PM (fil)	PM_{10} (fil)	$PM_{2.5}$ (fil)	PM (cond)
Crushing	24.90	9.96	0.58	0.00
Screening	29.88	18.26	11.20	0.00
Conveyor Transfer Points	29.05	9.55	11.20	0.00
Piles	89.02	31.16	4.72	0.00
Loading	2.51	0.83	0.19	
Unloading		0.13		
Diesel Generator Engine	10.59	10.59	10.59	1.31
TOTAL	185.95	80.48	38.48	1.31

IV. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM_{10}. Due to exceedances of the national standards for PM_{10}, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM_{10}. As a result of this designation, EPA required the Department and the City-County Health Departments to submit PM_{10} State Implementation Plans (SIP). The

SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to PM_{10} emissions.

Addendum #4 and MAQP #3860-03 is for a portable crushing/screening plant to be located in or within 10 km of certain PM_{10} nonattainment areas during the summer season (April 1 through September 30) and winter season (October 1 through March 31). Operating locations under Addendum #4 may include areas in or within 10 km of certain PM_{10} nonattainment areas, including, but not limited to Libby, Kalispell (and the nearby Evergreen area), Columbia Falls, Whitefish, Thompson Falls, and Butte.

The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would be expected to operate on an intermittent and temporary basis and any effects on air quality would be expected to be minor and short-lived.

V. Air Quality Impacts

MAQP #3860-03 and Addendum #4 represent a minor source of emissions with respect to the prevention of significant deterioration program. Further, the Department has provided additional protections to air quality through issuance of an addendum, to ensure the allowable PM_{10} emissions associated with this permit are below significant emissions rates and below significant impact levels during winter operations. In the view of the Department, no more than minor impacts would be expected to air quality, including in PM_{10} nonattainment areas.

In accord with current Department policy, the Addendum was constructed to ensure the following:

a. Ensure less than 547 lb/day of PM_{10} emissions during the 'summer' season (daily emissions rate corresponding to 100 tons per year), and

b. Ensure less than 82 lb/day of PM_{10} emissions during the 'winter' season (daily emissions rate corresponding to 15 tons per year, the significant emissions rate for PM_{10}.)

c. PM_{10} emissions from generator engines, utilizing screening level models, are less than 5 micrograms per cubic meter (the significant impact level for PM_{10}).

Further, in addition to being a minor source with respect to the prevention of significant deterioration program and the additional conditions of the addendum, this permit limits emissions to below 80% of Title V major source thresholds.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a 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)

VII. Environmental Assessment

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

Addendum Analysis Prepared by: Shawn Juers
Date: 12/4/2017

DEPARTMENT OF ENVIRONMENTAL QUALITY
Air, Energy & Mining Division
Air Quality Bureau
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ENVIRONMENTAL ASSESSMENT (EA)

Issued To: LHC, Inc.
P.O. Box 7338
Kalispell, MT 59904

Montana Air Quality Permit (MAQP) number: 3860-03

EA Draft: 12/11/2017
EA Final: 1/11/2018
Permit Final: 1/27/2018

1. *Legal Description of Site*: MAQP #3860-03 would apply while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM_{10} nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* MAQP #3860-03 in conjunction with Addendum #4 would apply while operating at any locations in or within 10 km of certain PM_{10} nonattainment areas. The LHC "home-pit", where the permitted portable facility would initially operate, is located approximately 5 km north of Kalispell, MT, in the Northeast ¼ of Section 26 and the Northwest ¼ of Section 25, Township 29 North, Range 22 West, in Flathead County, MT.

2. *Description of Project:* On November 24, 2017, the Department received an application to modify the MAQP. LHC seeks to maintain flexibility in operating scenarios, while increasing crushing and screening capacity allowed by this permit. The current permit action increases allowable crushing and screening capacity to a combined maximum rated throughput of 1,000 ton per hour (vs. the previously permitted 450). Because available emissions factors are different for engines greater than 600 horsepower, at LHC's request, the action also requires that LHC use engines that are greater than 600 horsepower to validate utilizing the Environmental Protection Agency's emissions factors for large diesel fired engines. The overall change with respect to the generator engine(s) is that given the limitations, the allowable emissions are demonstrated to be below 80 tons per year of oxides of nitrogen, the pollutant emitted in the highest amount for this permit.

3. *Objectives of Project*: Provide crushed and sized aggregate material for varied construction activity requiring sand and gravel materials, state-wide, in compliance with all air quality requirements.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. The "no-action" alternative would mean the LHC would have more limited crushing and screening potential resulting in the loss of revenue for LHC. However, the Department does not consider the "no-action"

alternative to be appropriate because LHC has 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 list of enforceable conditions, including a Best Available Control Technology (BACT) analysis and determination, would be included in MAQP #3860-03.

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

7. *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*

   The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Minor impacts of this operation would be expected.

   B. *Water Quality, Quantity, and Distribution*

   The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Use of water as a means of dust suppression is required. Minor impacts of this operation would be expected.

   C. *Geology and Soil Quality, Stability, and Moisture*

   The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Use of water as a means of dust suppression is required. Minor impacts of this operation would be expected.

   D. *Vegetation Cover, Quantity, and Quality*

   The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. LHC is required by rule and permit to limit emissions. Minor impacts of this operation would be expected.

E. *Aesthetics*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. LHC is required by rule and permit to limit opacity. Significant noise, as previously present at this location, would be expected. Any impacts to aesthetics as a result of issuance of a Montana Air Quality Permit to LHC would be expected to be minor.

F. *Air Quality*

MAQP #3860-03 and Addendum #4 would represent a minor source of emissions with respect to the prevention of significant deterioration program. Further, the Department has provided additional protections to air quality through issuance of an addendum. In the view of the Department, no more than minor impacts would be expected to air quality, including in PM_{10} nonattainment areas.

G. *Unique Endangered, Fragile, or Limited Environmental Resources*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Given the nature of the existing site and previous operations, the issuance of a permit to LHC would not be expected to have any more than a minor impact to any unique endangered, fragile, or limited environmental resources.

H. *Sage Grouse Executive Order*

The Department recognizes the site location is not within the Greater Sage Grouse Habitat Area as defined by Executive Order No. 12-20158.

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

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Use of water as a means of dust suppression is expected. Use of diesel fuel for electrical generator engine use is expected. A limited amount of allowable air impacts are expected. Minor impacts from this operation would be expected to water, air, and energy resources.

J. *Historical and Archaeological Sites*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Any impacts to historical and archaeological sites would not be expected.

K. *Cumulative and Secondary Impacts*

The Department found no more than minor impacts to the individual physical and biological considerations above. From a cumulative and secondary impacts standpoint, no more than minor impacts would be expected.

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

A. *Social Structures and Mores*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. No change to the general nature of the site is expected. Any impacts to social structures and mores would be expected to be minor.

B. *Cultural Uniqueness and Diversity*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. No change to the general nature of the site is expected. Any impacts to cultural uniqueness and diversity would be expected to be minor.

C. *Local and State Tax Base and Tax Revenue*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. LHC would be obtaining a new permit for operations in the State of Montana. A very small, if any discernable impact at all, to local and state tax base and tax revenue would be expected.

D. *Agricultural or Industrial Production*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Operations would be limited as to allowable air quality impact. Deposition of dust on surrounding areas would be expected. Minor impacts would be expected as a result of permit issuance.

E. *Human Health*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. LHC would be required to obtain a Montana Air Quality permit which would limit the amount of allowable emissions from the operation. These limitations would be derived from rules designed to protect human health.

F. *Access to and Quality of Recreational and Wilderness Activities*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Any impacts to access to or quality of recreational and wilderness activities would be expected to be minor.

G. *Quantity and Distribution of Employment*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. LHC would utilize two to eight employees for crushing and screening operations at this location.

H. *Distribution of Population*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. LHC would utilize two to eight employees for crushing and screening operations at this location. This operation is expected to operate in a temporary and intermittent nature. Any impacts to distribution of population would be expected to be minor.

I. *Demands of Government Services*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. An active open cut permit is already issued. LHC would require a Montana Air Quality Permit, requiring DEQ services to maintain the permit and associated compliance and permit upkeep.

J. *Industrial and Commercial Activity*

The initial location for this facility is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Any impacts to industrial and commercial activity as a result of issuance of a Montana Air Quality Permit to LHC would be expected to be minor.

K. *Locally Adopted Environmental Plans and Goals*

The Department is not aware of any locally adopted environmental plans and goals which would be impacted by issuance of a Montana Air Quality Permit to LHC. The permit would contain conditions derived from rules designed to protect public health.

L. *Cumulative and Secondary Impacts*

The Department found no more than minor impacts to the individual economic and social considerations made above. Cumulative and secondary impacts would be expected to be minor.

Recommendation: An Environmental Impact Statement (EIS) is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable non-metallic mineral processing facility. MAQP #3860-03 and Addendum #4 include conditions and limitations to ensure the facility will 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 Department of Environmental Quality – Air, Energy & Mining Division, Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society)

Individuals or groups contributing to this EA: Montana Department of Environmental Quality (Air Quality Bureau), Montana State Historic Preservation Office (Montana Historical Society)

EA prepared by: Shawn Juers
Date: 12/4/2017