



Montana Department of
ENVIRONMENTAL QUALITY

Steve Bullock, Governor
Tracy Stone-Manning, Director

P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

February 3, 2014

Sam Weyers
Nelcon, Inc.
P.O. Box 5370
Kalispell, MT 59903

Dear Mr. Weyers:

Montana Air Quality Permit #4713-03 is deemed final as of February 1, 2014, by the Department of Environmental Quality (Department). This permit is for a portable gravel crushing and screening facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Ed Warner
Lead Engineer – Air Permitting Section
Air Resources Management Bureau
(406) 444-2467

JM:EW
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #4713-03

Nelcon, Inc.
P.O. Box 5370
Kalispell, MT 59903

February 1, 2014



MONTANA AIR QUALITY PERMIT

Issued To: Nelcon, Inc.
Box 5370
Kalispell, MT 59903

MAQP: #4713-03
Administrative Amendment (AA) Request
Received: 1/14/14
Department's Decision on AA: 1/16/14
Permit Final: 2/1/14
AFS #: 777-4713

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

Nelcon operates a portable crushing/screening operation. The legal description of the facility's home pit is in Section 26, Township 30 North, Range 21 West, Flathead County, Montana. However, MAQP #4713-03 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.*

Addendum #4 and MAQP #4713-03 apply while operating at any location in or within 10 km of certain PM₁₀ nonattainment areas during the summer season (April 1 – September 30) and at approved locations in or within 10 km of certain PM₁₀ nonattainment areas during the winter season (October 1 – March 31).

B. Current Permit Action

On January 14, 2014, the Department received a request from Nelcon for approval to operate the equipment associated with this permit in the Nickelback Pit located in Section 30, Township 31 North, Range 31 West, in Lincoln County. This pit is within the Libby PM₁₀ nonattainment area. The current permit action is an administrative permit action in accordance with ARM 17.8.764 that updates the addendum with winter season operating conditions and establishes the Nickelback Pit as an approved location for winter season operation.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 Code of Federal Regulations (CFR) 60, Subpart OOO):
 - 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 6 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 spray bars, water, and/or chemical dust suppressant 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. Nelcon 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. Nelcon 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. Nelcon shall not operate more than two (2) crushers at any given time and the maximum combined rated capacity of the crushers shall not exceed 1,800 tons per hour (TPH) (ARM 17.8.749).
 8. Nelcon shall not operate more than two (2) screens at any given time and the maximum rated combined capacity of the screens shall not exceed 1,800 TPH (ARM 17.8.749).
 9. Nelcon shall not operate more than two (2) diesel engine driven generators at any given time and the combined maximum rated capacity of the engines shall not exceed 1,628 brake-horsepower (bhp) (ARM 17.8.749).
 10. Operation of the individual diesel engines driving the generators shall not exceed 3,100 hours each during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
 11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Nelcon, 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. Nelcon shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

13. Nelcon 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 (CI ICE)* 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). 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. 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. Nelcon 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. Nelcon 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 or the addition of a new emission unit. 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(I)(d) (ARM 17.8.745).

4. Nelcon 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 Nelcon 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. Nelcon shall document, by month, the hours of operation of the diesel engine/generator. By the 25th day of each month, Nelcon shall calculate the hours of operation for the diesel engine/generator for the previous month. The monthly information will be used to verify 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. Nelcon shall annually certify that its emissions are less than those that would require the facility 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 – Nelcon 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 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 Nelcon fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Nelcon 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 Nelcon 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. Nelcon 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
Nelcon, Inc.
MAQP #4713-03

I. Introduction/Process Description

Nelcon, Inc. (Nelcon) owns and operates a portable crushing and screening operation.

A. Permitted Equipment

Nelcon owns and operates a portable crushing/screening facility consisting of one cone crusher, one jaw crusher, two screens, two 814 brake-horsepower (bhp) diesel-fired generator engines, and associated equipment.

B. Source Description

For a typical operational set-up, material is fed into the feed hopper with the loaders. Material is transferred via conveyors to screens and crushers for crushing, sorting and stockpiling.

C. Permit History

On December 22, 2011, Nelcon submitted a complete permit application to operate a portable crushing/screening operation. Equipment included two crushers with a combined maximum material throughput capacity of 1,800 tons per hour (TPH), two screens with a combined maximum material throughput capacity of 1,800 TPH, one diesel engine/generator with a maximum rated capacity of 425 bhp, and multiple conveyors. In addition, Nelcon also requested an addendum to operate in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. The application was assigned **MAQP #4713-00** and **Addendum #1** was established. The facility homepit was located in Section 28, Township 21 North, Range 58 East, Richland County, Montana.

On October 5, 2012, the Montana Department of Environmental Quality (Department) received a permit application from Nelcon for a modification to replace the 425 bhp diesel engine/generator with an 814 bhp diesel engine/generator. The addition of the new engine, included limits on its annual hours of operation in order to keep the potential facility emissions below major source thresholds. The permit action reflected the change to the diesel engine/generator and updated the homepit location. **MAQP #4713-01** replaced MAQP #4713-00 and **Addendum #2** replaced Addendum #1.

On February 19, 2013, the Department received a permit application for modification from Nelcon for the addition of an 814 bhp diesel engine powering a generator to the permit. **MAQP #4713-02** replaced MAQP #4713-01 and **Addendum #3** replaced Addendum #2.

D. Current Permit Action

On January 14, 2014, the Department received a request from Nelcon for approval to operate the equipment associated with this permit in the Nickelback Pit located in Section 30, Township 31 North, Range 31 West, in Lincoln County. This pit is within the Libby PM₁₀ nonattainment area. The current permit action is an administrative permit action in accordance with Administrative Rules of Montana (ARM) 17.8.764 that updates the addendum with winter season operating conditions and establishes the Nickelback Pit as an approved location for winter season operation. **MAQP #4713-03** replaces MAQP #4713-02 and **Addendum #4** replaces Addendum #3.

E. Additional Information

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

II. Applicable Rules and Regulations

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

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

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

Nelcon 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 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO₂)
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
4. ARM 17.8.213 Ambient Air Quality Standards for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter (PM)
6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Nelcon must maintain compliance with the applicable ambient air quality standards.

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions are taken to control emissions of airborne particulate matter. (2) Under this rule, Nelcon 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) 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR 60, NSPS, shall comply with the standards and provisions of 40 CFR 60.
 - 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 Nelcon, the portable crushing equipment to be used under MAQP #4713-03 is subject to this subpart because the date of manufacture of the equipment was after August 31.
- 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.

Based on the information submitted by Nelcon, the CI ICE equipment to be used under MAQP #4713-03 is potentially subject to his 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. Nelcon is potentially a NESHAP-affected facility under 40 CFR Part 63 and could be 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. Based on the information submitted by Nelcon, the RICE equipment to be used under MAQP #4713-03 may potentially be subject to this subpart because it operates compression ignition RICE at an area source of HAP emissions. Because the RICE are intended to be portable, Nelcon does not have to comply with the applicable emission limitations and operating limitations of 40 CFR 63, subpart ZZZZ. However, this subpart would become applicable if a RICE remains in a location for more than 12 months.

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

- 1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. 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; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

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

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year (TPY) of any pollutant. Nelcon has a PTE greater than 15 TPY of PM, PM₁₀, CO, and oxides of nitrogen (NO_x); therefore, an air quality permit is required.
3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.
(1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Nelcon 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. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an 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 Nelcon 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 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 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 #4713-03 for Nelcon, 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 subject to current NSPS (40 CFR 60, Subpart OOO) and potentially subject to 40 CFR 60, Subpart IIII.
 - e. This facility is potentially subject to the area source provisions of a current NESHAP standard (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.

Nelcon 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 United States Environmental Protection Agency (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.

- i. 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.
 - ii. 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.
 - iii. 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 by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

III. BACT Determination

A BACT determination is required for each new or modified source. Nelcon 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

| Emissions Inventory | tons/year | | | | | | |
|------------------------------------|--------------|------------------|-------------------|-----------------|--------------|-------------|-----------------|
| | PM | PM ₁₀ | PM _{2.5} | NO _x | CO | VOC | SO ₂ |
| Crushing (1,800 tph) | 9.46 | 4.26 | 0.79 | -- | -- | -- | -- |
| Screening (1,800 tph) | 17.34 | 5.83 | 0.39 | -- | -- | -- | -- |
| Diesel Fired Engine Generator Sets | 5.55 | 5.55 | 5.55 | 78.23 | 16.86 | 6.33 | 5.17 |
| Material Transfer | 6.62 | 2.18 | 0.61 | -- | -- | -- | -- |
| Pile Forming/Bulk Loading | 50.99 | 24.60 | 0.38 | -- | -- | -- | -- |
| Truck Unloading | 1.10 | 0.13 | 0.10 | -- | -- | -- | -- |
| Haul Roads | 5.39 | 1.49 | 0.15 | -- | -- | -- | -- |
| Total Emissions | 96.45 | 44.03 | 7.98 | 78.23 | 16.86 | 6.33 | 5.17 |

Note: Inventory reflects enforceable limits on hours of operation of the diesel generator to keep facility emissions below the Title V threshold and 80 TPY.

Crushing

Hours of Operation 8,760 hrs/yr
 Process Rate 1,800 ton/hr
 (AP 42, Table 11.19.2-2, 8/04) Tertiary Crushing Controlled

PM Emissions:

Emission Factor 0.0012 lb/ton
 Calculation: (1800 ton/hr) * (8760 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) = 9.46 ton/yr
9.46 ton/yr

PM₁₀ Emissions:

Emission Factor 0.00054 lb/ton
Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.00054 lb/ton) * (ton/2000 lb) = **4.26** ton/yr

PM_{2.5} Emissions:

Emission Factor 0.0001 lb/ton
Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.0001 lb/ton) * (ton/2000 lb) = **0.79** ton/yr

Screening

Hours of Operation 8,760 hrs/yr
Process Rate 1,800 ton/hr
(AP 42, Table 11.19.2-2, 8/04 Screening (Controlled))

Total PM Emissions:

Emission Factor 0.0022 lb/ton
Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) = **17.34** ton/yr

Total PM₁₀ Emissions:

Emission Factor 0.00074 lb/ton
Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.00074 lb/ton) * (ton/2000 lb) = **5.83** ton/yr

Total PM_{2.5} Emissions:

Emission Factor 0.00005 lb/ton
Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.00005 lb/ton) * (ton/2000 lb) = **0.39** ton/yr

Diesel Fired Engine Generator Sets

Generator Size 1,628 Hp
Hours of Operation 3,100 hrs/yr
(AP-42, Sec. 3.3, Table 3.3-1, 10/96)

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

Emission Factor (Assume PM = PM-10) 2.20E-03 lbs/hp-hr
Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = **5.55** ton/yr

PM₁₀ Emissions (filterable + condensable):

Emission Factor 2.20E-03 lbs/hp-hr
Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = **5.55** ton/yr

PM_{2.5} Emissions (filterable):

Emission Factor 2.20E-03 lbs/hp-hr
Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = **5.55** ton/yr

NO_x Emissions:

Emission Factor 0.031 lbs/hp-hr
Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.031 lbs/hp-hr) * (ton/2000 lb) = **78.23** ton/yr

CO Emissions:
 Emission Factor 6.68E-03 lbs/hp-hr
 Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = **16.86** ton/yr
 16.86 ton/yr

VOC Emissions:
 Emission Factor 2.51E-03 lbs/hp-hr
 Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.00251 lbs/hp-hr) * (ton/2000 lb) = **6.33** ton/yr
 6.33 ton/yr

SO₂ Emissions:
 Emission Factor 2.05E-03 lbs/hp-hr
 Calculation: (1,628 hp) * (3,100 hrs/yr) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = **5.17** ton/yr
 5.17 ton/yr

Material Transfer

Process Rate 1,800 ton/hr
 Hours of Operation 8,760 hrs/yr
 Number of Transfers 6 Transfer
 (AP 42, Table 11.19.2-2, 8/04)

Total PM Emissions:
 Emission Factor 0.00014 lb/ton
 Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (6 transfer) = 6.62 ton/yr
6.62 ton/yr

Total PM₁₀ Emissions:
 Emission Factor 4.60E-05 lb/ton
 Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (6 transfer) = 2.18 ton/yr
2.18 ton/yr

Total PM_{2.5} Emissions:
 Emission Factor 1.30E-05 lb/ton
 Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.000013 lb/ton) * (ton/2000 lb) * (6 transfer) = 0.61 ton/yr
0.61 ton/yr

Pile Forming/Bulk Loading

Process Rate 1,800 ton/hr
 Hours of Operation 8,760 hrs/yr
 Number of Piles 4 Piles
 (AP 42, Sec. 13.2.4.3, 11/06)

PM Emissions:
 Emission Factor = $k (U/5)^{1.3} (M / 2)^{-1.4} = 0.00323$ lb/ton 0.00323 lb/ton
 Where: k = particle size multiplier 0.74
 U = mean wind speed 9.33 Mph
 M = material moisture content 2.10 %
 Control Efficiency 50 %

Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.00323 lb/ton) * (ton/2000 lb) * (4 piles) = 101.98 ton/yr
 Calculation: (1,800 ton/hr) * (8760 hrs/yr) * (0.00323 lb/ton) * (ton/2000 lb) * (4 piles) * (1 - 50/100) = 50.99 ton/yr
50.99 ton/yr

PM₁₀ Emissions:

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00156 \text{ lb/ton}$ 0.00156 lb/ton

Where: k = particle size multiplier 0.35
U = mean wind speed 9.33 Mph
M = material moisture content 2.10 %

Control Efficiency 50 %

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00156 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (4 \text{ piles}) = 49.20 \text{ ton/yr}$ 49.20 ton/yr

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00156 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (4 \text{ piles}) * (1 - 50/100) = 24.60 \text{ ton/yr}$ 24.60 ton/yr

PM_{2.5} Emissions:

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00002 \text{ lb/ton}$ 0.00002 lb/ton

Where: k = particle size multiplier 0.053
U = mean wind speed 9.33 Mph
M = material moisture content 2.10 %

Control Efficiency 50 %

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00002 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (4 \text{ piles}) = 0.76 \text{ ton/yr}$ 0.76 ton/yr

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00002 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (4 \text{ piles}) * (1 - 50/100) = 0.38 \text{ ton/yr}$ 0.38 ton/yr

Truck Unloading

Process Rate 1,800 ton/hr

Hours of Operation 8,760 hrs/yr

Number of Loads 1 Loads

(AP 42, Table 11.19.2-2, 8/04)

Total PM Emissions:

Emission Factor 0.00014 lb/ton

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ Loads}) = 1.10 \text{ ton/yr}$ (AP 42, Table 11.19.2-2, 8/04) 1.10 ton/yr

Total PM₁₀ Emissions:

Emission Factor 1.60E-05 lb/ton

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.000016 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ Loads}) = 0.13 \text{ ton/yr}$ Used Truck unloading Fragmented Stone 0.13 ton/yr

Total PM_{2.5} Emissions:

Emission Factor 1.30E-05 lb/ton

Calculation: $(1,800 \text{ ton/hr}) * (8760 \text{ hrs/yr}) * (0.000013 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ Loads}) = 0.10 \text{ ton/yr}$ (AP 42, Table 11.19.2-2, 8/04) 0.10 ton/yr

Haul Roads

Vehicle Miles Traveled 5 VMT/day

VMT per Hour 0.21 VMT/hr

Hours of Operation 8,760 hrs/yr

AP42, Table 13.2.2-2, 11/06)

| | |
|--|---------------------|
| PM Emissions: | 11.82 lb/VMT |
| Emission Factor = $k * (s / 12)^a * (W / 3)^b = 11.82 \text{ lb/VMT}$ | 4.9 lbs/VMT |
| Where: k = constant | 7.1 % |
| s = surface silt content | 48 Tons |
| W = mean vehicle weight | 0.7 |
| a = constant | 0.45 |
| b = constant | 50 % |
| Control Efficiency | 10.78 tons/yr |
| Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (11.82 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 10.78 \text{ tons/yr}$ | 5.39 tons/yr |
| Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (11.82 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 5.39 \text{ tons/yr}$ | |
| PM ₁₀ Emissions: | 3.26 lb/VMT |
| Emission Factor = $k * (s / 12)^a * (W / 3)^b = 3.26 \text{ lb/VMT}$ | 1.5 lbs/VMT |
| Where: k = constant | 7.1 % |
| s = surface silt content | 48 Tons |
| W = mean vehicle weight | 0.9 |
| a = constant | 0.45 |
| b = constant | 50 % |
| Control Efficiency | 2.97 tons/yr |
| Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.26 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 2.97 \text{ tons/yr}$ | 1.49 tons/yr |
| Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.26 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 1.49 \text{ tons/yr}$ | |
| PM _{2.5} Emissions: | 0.33 lb/VMT |
| Emission Factor = $k * (s / 12)^a * (W / 3)^b = 0.33 \text{ lb/VMT}$ | 0.15 lbs/VMT |
| Where: k = constant | 7.1 % |
| s = surface silt content | 48 Tons |
| W = mean vehicle weight | 0.9 |
| a = constant | 0.45 |
| b = constant (Water spray or chemical suppressant) | 50 % |
| Control Efficiency | 0.30 tons/yr |
| Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (0.33 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) = 0.30 \text{ tons/yr}$ | 0.15 tons/yr |
| Calculation: $(8760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (0.33 \text{ lb/VMT}) * (\text{ton}/2000 \text{ lb}) * (1-50/100) = 0.15 \text{ tons/yr}$ | |

V. Existing Air Quality

The Department determined that the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standard. MAQP #4713-03 covers the operation of this facility in areas that have been designated unclassified/attainment with all ambient air quality standards. Addendum #4 to MAQP #4713-03 set conditions and limitations that allow for this portable crusher plant to be located in or within 10 km of PM₁₀ nonattainment areas that the Department considers to be protective of further degradation of the ambient PM₁₀ levels in those areas. In addition, this source is portable and will operate on an intermittent and temporary basis at any given location, so any air quality impacts will be minimal.

VI. Air Quality Impacts

MAQP #4713-03 regulates the crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department-approved permitting program. In the view of the Department, the allowable emissions generated by this facility are not expected exceed any set ambient standard. In addition, this source is portable and any air quality impacts are expected to be minimal and short-lived.

If the source locates and operates in or within 10 km of a PM₁₀ nonattainment area, Nelcon will be required to operate in accordance with MAQP #4713-03 and Addendum #4, which includes more stringent limits and conditions to ensure that the proposed operation does not result in additional degradation of air quality in the affected nonattainment area. A more detailed discussion and analysis of ambient impacts from operations locating in or within 10 km of certain PM₁₀ nonattainment areas is contained in the Addendum Analysis to Addendum #4 of MAQP #4713-03.

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 standard.

VIII. Taking or Damaging Implication Analysis

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

| YES | NO | |
|-----|----|---|
| X | | 1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights? |
| | X | 2. Does the action result in either a permanent or indefinite physical occupation of private property? |
| | X | 3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property) |
| | X | 4. Does the action deprive the owner of all economically viable uses of the property? |
| | X | 5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)]. |
| | | 5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests? |
| | | 5b. Is the government requirement roughly proportional to the impact of the proposed use of the property? |
| | X | 6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action) |
| | X | 7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally? |
| | X | 7a. Is the impact of government action direct, peculiar, and significant? |
| | X | 7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded? |
| | X | 7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question? |
| | X | Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas) |

Based on this analysis, the Department determined there are no taking or damaging implications associated with this permit action.

IX. Environmental Assessment

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: Ed Warner
Date: January 13, 2014

Addendum #4
Nelcon, Inc.
Montana Air Quality Permit (MAQP) #4713-03

An addendum to MAQP #4713-03 is issued to Nelcon, Inc. (Nelcon), 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:

I. Permitted Equipment

The facility is permitted to operate two crushers with a combined maximum material throughput capacity not to exceed 1,800 tons per hour (TPH), two screens with a combined maximum material throughput capacity not to exceed 1,800 TPH, two diesel-fired generator engines with a combined maximum rated capacity not to exceed 1,628 brake-horsepower (bhp), and multiple conveyors.

II. Seasonal and Site Restrictions

Addendum #4 applies to the Nelcon facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the summer season (April 1 – September 30), Nelcon may operate at any location in or within 10 km of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM₁₀ nonattainment areas.
- B. During the winter season (October 1 – March 31), the only locations in or within 10 km of a PM₁₀ nonattainment area where Nelcon may operate are:
 - 1. Libby – Nickelback Pit – Section 30, Township 31 North, Range 31 West, in Lincoln County; and
 - 2. Any other site that may be approved, in writing, by the Montana Department of Environmental Quality (Department).
- C. Nelcon shall comply with the limitations and conditions contained in Addendum #4 to MAQP #4713-03 while operating in or within 10 km of any of the previously identified PM₁₀ 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

A. Operational Limitations and Conditions – **Summer Season**

- 1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.749 and ARM 17.8.752).
- 2. Nelcon shall not cause or authorize to be discharged into the atmosphere from any 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). 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 (ARM17.8.340 and 40 CFR 60, Subpart OOO).

3. Nelcon 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 (ARM 17.8.749).
4. Nelcon 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 (ARM 17.8.749 and ARM 17.8.752).
5. Nelcon shall not operate, or have on-site, more than two (2) crushers at any one time. Total combined crusher production shall not exceed 43,200 tons per day (ARM 17.8.749).
6. Nelcon shall not operate, or have on-site, more than two (2) screens at any one time. Total combined screen production shall not exceed 43,200 tons per day (ARM 17.8.749).
7. Nelcon shall not operate, or have on-site more than two (2) diesel-fired generator engines. The combined maximum capacity of the engines that drive the generators shall not exceed 1,628 bhp (ARM 17.8.749).

B. Operational Limitations and Conditions – Winter Season

1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.749 and ARM 17.8.752).
2. Nelcon shall not cause or authorize to be discharged into the atmosphere from any 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). 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 (ARM17.8.340 and 40 CFR 60, Subpart OOO).
3. Nelcon 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 (ARM 17.8.749).
4. Nelcon 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 (ARM 17.8.749 and ARM 17.8.752).
5. Nelcon shall not operate, or have on-site, more than two (2) crushers at any one time. Total combined crusher production shall not exceed 16,200 tons per day (ARM 17.8.749).

6. Nelcon shall not operate, or have on-site, more than two (2) screens at any one time. Total combined screen production shall not exceed 16,200 tons per day (ARM 17.8.749).
7. Nelcon shall not operate, or have on-site more than two (2) diesel-fired generator engines. The combined maximum capacity of the engines that drive the generators shall not exceed 1,628 bhp (ARM 17.8.749).
8. The diesel-fired generator engines shall not be operated for more than a combined 14,652 horsepower-hours (hp-hr) during any rolling 24-hour period (ARM 17.8.749).

Hp-hr is determined by multiplying the maximum rated hp of an engine by the number of hours that it has operated. See the following table for some example scenarios:

| Number of Engines | # of Hours per Rolling 24-hr Period | Maximum Rated Engine Hp | Combined or Total hp-hr |
|----------------------|-------------------------------------|-------------------------|-------------------------|
| Engine 1 | 9 | 1,628 | 14,652 |
| Engine 1 Engine 2 | 9 9 | 814 814 | 14,652 |
| Engine 1 | 18 | 814 | 14,652 |

NOTE: (# of Hours per Rolling 24-hr Period)*(Maximum Rated Engine Hp) = hp-hr

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another nonattainment 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. Production information for the sites covered by this addendum must be maintained for five years and submitted to the Department upon request. The information must include (ARM 17.8.749):
 - a. Daily tons of material crushed by each crusher at each site (including amount of re-circulated/rerun material). Nelcon shall document, by day, the total crushing production. Nelcon shall sum the total crushing production for the previous day to demonstrate compliance with the limitations in Sections III.A.5 and III.B.5.
 - b. Daily tons of material screened by each screen at each site (including amount of re-circulated/rerun material). Nelcon shall document, by day, the total screening production. Nelcon shall sum the total screening production for the previous day to demonstrate compliance with the limitations in Sections III.A.6 and III.B.6.
 - c. Daily hours of operation at each site.
 - d. Daily hours of operation and the hp for each engine at each site.

- e. Daily tons of bulk material loaded at each site (production).
- f. Fugitive dust information consisting of the daily total miles driven on unpaved roads within the operating site for all plant vehicles.

Addendum #4 Analysis
Nelcon, Inc.
Montana Air Quality Permit (MAQP) #4713-03

I. Permitted Equipment

Nelcon, Inc. (Nelcon) owns and operates a portable non-metallic mineral processing operation consisting of two (2) crushers with a maximum capacity of 1,800 tons per hour (TPH) combined, two (2) screens with a maximum capacity of 1,800 TPH combined, two (2) diesel-fired generator engines with a combined maximum capacity rating of 1,628 brake-horsepower (bhp), multiple conveyors and handling equipment.

II. Source Description

Nelcon proposes to use this crushing/screening plant to crush, screen, and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant via a hopper and transferred by conveyor to the crushers. From the crusher, materials are sent to the screen, where they are separated and conveyed to stockpiles.

III. Applicable Rules and Regulations

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

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

- A. ARM 17.8.749 Conditions for Issuance 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.
- B. 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. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
 - 1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;
 - 2. The source will operate in the new location for a period of less than 1 year; and

3. The source will not have any significant impact on any nonattainment area or any Class I area.

IV. Emission Inventory

| Source (Summer Season operation) | Emissions in lbs/day | | | | | | |
|--|----------------------|------------------|-------------------|-----------------|------|-------|-----------------|
| | PM | PM ₁₀ | PM _{2.5} | NO _x | VOC | CO | SO ₂ |
| 2 Crushers (up to 1800 TPH combined) | 51.84 | 23.33 | 4.32 | | | | |
| 2 Screens (up to 1800 TPH combined) | 95.04 | 31.97 | 2.16 | | | | |
| Truck Unloading | 3.46 | 0.35 | 0.05 | | | | |
| Material Transfers | 33.26 | 10.93 | 0.05 | | | | |
| Pile Forming (2 Piles) controlled 50% water sprays | 69.12 | 32.40 | 3.09 | | | | |
| Engines/Generators (up to 1,628 bhp) | 85.9 | 85.9 | 85.9 | 1211.24 | 96.5 | 261.0 | 80.1 |
| Haul Roads | 69.50 | 19.75 | 1.70 | | | | |
| Total Emissions | 408.12 | 204.63 | 97.27 | 1211.24 | 96.5 | 261 | 80.1 |

NOTE: Summer Season operation reflects restrictions on daily operating hours or daily production, if necessary, to maintain facility PM₁₀ emissions to less than 547 lbs/day as per Department policy.

| Source (Winter Season operation) | Emissions in lbs/day | | | | | | |
|--|----------------------|------------------|-------------------|-----------------|-------|-------|-----------------|
| | PM | PM ₁₀ | PM _{2.5} | NO _x | VOC | CO | SO ₂ |
| 2 Crushers (up to 1800 TPH combined) | 19.44 | 8.75 | 1.62 | | | | |
| 2 Screens (up to 1800 TPH combined) | 35.64 | 11.99 | 0.81 | | | | |
| Truck Unloading | 1.30 | 0.13 | 0.02 | | | | |
| Material Transfers | 12.47 | 4.10 | 1.16 | | | | |
| Pile Forming (2 Piles) controlled 50% water sprays | 25.92 | 12.15 | 1.94 | | | | |
| Engines/Generators (up to 1,628 bhp) | 32.23 | 32.23 | 32.23 | 454.22 | 36.20 | 97.88 | 30.03 |
| Haul Roads | 26.06 | 7.41 | 0.64 | | | | |
| Total Emissions | 153.06 | 76.76 | 38.42 | 454.22 | 36.20 | 97.88 | 30.03 |

NOTE: Winter Season operation reflects restrictions on daily operating hours or daily production, if necessary, to maintain facility PM₁₀ emissions to less than 82 lbs/day as per Department policy. In addition, point source emissions are analyzed with air dispersion modeling software (EPA SCREEN3) to verify that ambient impacts do not exceed 5 micrograms per cubic meter (µg/m³) of PM₁₀ on a 24-hr basis.

Crusher - controlled

2 Crushers (up to 1800 TPH combined)

Maximum Process Rate:: 1800 ton/hr
 Adjusted Process Rate: 1800 ton/hr
 Summer Hours of operation: 24.00 hr/day or 43,200 tons/day
 Winter Hours of operation: 9.00 hr/day or 16,200 tons/day

PM Emissions:

Emission Factor: 0.0012 lb/ton (AP-42, Section 11.19.2-2, 8/04)
 Hourly Calculations: 0.0012 lb/ton * 1800 ton/hr = 2.16 lb/hr
 Daily Calculations (summer): 2.16 lb/hr * 24 hr/day = 51.84 lb/day
 Daily Calculations (winter): 2.16 lb/hr * 9 hr/day = 19.44 lb/day

PM-10

Emissions:

| | | | |
|------------------------------|--------------------------------|----------------------------------|--------|
| Emission Factor: | 0.00054 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.00054 lb/ton * 1800 ton/hr = | 0.97 | lb/hr |
| Daily Calculations (summer): | 0.972 lb/hr * 24 hr/day= | 23.33 | lb/day |
| Daily Calculations (winter): | 0.972 lb/hr * 9 hr/day= | 8.75 | lb/day |

PM-2.5

Emissions:

| | | | |
|------------------------------|--|----------------------------------|--------|
| Emission Factor: | 0.00010 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.0001 lb/ton * 2.16 lb/hr * 24 hr/day = = | 0.18 | lb/hr |
| Daily Calculations (summer): | 0.18 lb/hr * 24 hr/day = | 4.32 | lb/day |
| Daily Calculations (winter): | 0.18 lb/hr * 9 hr/day = | 1.62 | lb/day |

Screen - controlled

2 Screens (up to 1800 TPH combined)

| | | | |
|----------------------------|-------|--------|--------------------|
| Maximum Process Rate: | 1800 | ton/hr | |
| Adjusted Process Rate: | 1800 | ton/hr | |
| Summer Hours of operation: | 24.00 | hr/day | or 43,200 tons/day |
| Winter Hours of operation: | 9.00 | hr/day | or 16,200 tons/day |

PM Emissions:

| | | | |
|------------------------------|-------------------------------|----------------------------------|--------|
| Emission Factor: | 0.0022 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.0022 lb/ton * 1800 ton/hr = | 3.96 | lb/hr |
| Daily Calculations (summer): | 3.96 lb/hr * 24 hr/day = | 95.04 | lb/day |
| Daily Calculations (winter): | 3.96 lb/hr * 9 hr/day = | 35.64 | lb/day |

PM-10

Emissions:

| | | | |
|------------------------------|--------------------------------|----------------------------------|--------|
| Emission Factor: | 0.00074 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.00074 lb/ton * 1800 ton/hr = | 1.33 | lb/hr |
| Daily Calculations (summer): | 1.332 lb/hr * 24 hr/day= | 31.97 | lb/day |
| Daily Calculations (winter): | 1.332 lb/hr * 9 hr/day= | 11.99 | lb/day |

PM-2.5

Emissions:

| | | | |
|------------------------------|---|----------------------------------|--------|
| Emission Factor: | 0.00005 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.00005 lb/ton * 3.96 lb/hr * 24 hr/day = = | 0.09 | lb/hr |
| Daily Calculations (summer): | 0.09 lb/hr * 24 hr/day= | 2.16 | lb/day |
| Daily Calculations (winter): | 0.09 lb/hr * 9 hr/day= | 0.81 | lb/day |

Material Transfer - controlled

Truck Unloading

| | | | |
|---|------|--------|-----------------|
| Maximum Process Rate: | 900 | ton/hr | |
| Adjusted Process Rate: | 900 | ton/hr | |
| Number of Material Transfer Hours of operation: | 1 | Load | |
| | 8760 | hr/yr | or 24.00 hr/day |

PM Emissions:

| | | | |
|------------------------------|---------------------------------------|----------------------------------|--------|
| Emission Factor: | 0.00016 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.00016 lb/ton * 900 ton/hr * 1 Load= | 0.14 | lb/hr |
| Daily Calculations (summer): | 0.144 lb/hr * 24 hr/day= | 3.46 | lb/day |
| Daily Calculations (winter): | 0.144 lb/hr * 9 hr/day= | 1.30 | lb/day |

PM-10**Emissions:**

| | | | |
|------------------------------|---|----------------------------------|-------------|
| Emission Factor: | 1.6E-05 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.000016 lb/ton * 900 ton/hr * 1 Load = | | 0.01 lb/hr |
| Daily Calculations (summer): | 0.0144 lb/hr * 24 hr/day= | | 0.35 lb/day |
| Daily Calculations (winter): | 0.0144 lb/hr * 9 hr/day= | | 0.13 lb/day |

PM-2.5**Emissions:**

| | | | |
|------------------------------|--|----------------------------------|--------------|
| Emission Factor: | 2.4E-06 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.0000024 lb/ton * 900 ton/hr * 900 ton/hr = | | 0.002 lb/hr |
| Daily Calculations (summer): | 0.00216 lb/hr * 24 hr/day= | | 0.052 lb/day |
| Daily Calculations (winter): | 0.00216 lb/hr * 9 hr/day= | | 0.02 lb/day |

Material Transfers

| | | | |
|-----------------------------|------------------------|----|-----------------|
| Maximum Process Rate: | 900 ton/hr | | |
| Adjusted Process Rate: | 900 ton/hr | | |
| Number of Material Transfer | 11 number of Transfers | | |
| Summer Hours of operation: | 24.00 hr/day | or | 43,200 tons/day |
| Winter Hours of operation: | 9.00 hr/day | or | 16,200 tons/day |

PM Emissions:

| | | | |
|------------------------------|---|----------------------------------|--------------|
| Emission Factor: | 0.00014 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.00014 lb/ton * 900 ton/hr * 11 number of Transfers= | | 1.39 lb/hr |
| Daily Calculations (summer): | 1.386 lb/hr * 24 hr/day= | | 33.26 lb/day |
| Daily Calculations (winter): | 1.386 lb/hr * 9 hr/day= | | 12.47 lb/day |

PM-10**Emissions:**

| | | | |
|------------------------------|---|----------------------------------|--------------|
| Emission Factor: | 4.6E-05 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.000046 lb/ton * 900 ton/hr * 11 number of Transfers = | | 0.46 lb/hr |
| Daily Calculations (summer): | 0.4554 lb/hr * 24 hr/day= | | 10.93 lb/day |
| Daily Calculations (winter): | 0.4554 lb/hr * 9 hr/day= | | 4.10 lb/day |

PM-2.5**Emissions:**

| | | | |
|------------------------------|---|----------------------------------|-------------|
| Emission Factor: | 1.3E-05 lb/ton | (AP-42, Section 11.19.2-2, 8/04) | |
| Hourly Calculations: | 0.000013 lb/ton * 900 ton/hr * 900 ton/hr = | | 0.13 lb/hr |
| Daily Calculations (summer): | 0.1287 lb/hr * 24 hr/day= | | 3.09 lb/day |
| Daily Calculations (winter): | 0.1287 lb/hr * 9 hr/day= | | 1.16 lb/day |

Pile Forming (2 Piles) controlled 50% water sprays

| | | | |
|----------------------------|--------------|----|-----------------|
| Maximum Process Rate: | 900 ton/hr | | |
| Adjusted Process Rate: | 900 ton/hr | | |
| Number of Piles | 2 Piles | | |
| Summer Hours of operation: | 24.00 hr/day | or | 43,200 tons/day |
| Winter Hours of operation: | 9.00 hr/day | or | 16,200 tons/day |

PM Emissions:

| | | | | |
|------------------------------|--|-------------------------------|-------|--------|
| Emission Factor: | 0.0032 lb/ton | (AP-42, Section 13.2.4, 1/95) | | |
| Hourly Calculations: | 0.0032 lb/ton * 900 ton/hr * 2 Piles*50%"= | | 2.88 | lb/hr |
| Daily Calculations (summer): | 2.88 lb/hr * 24 hr/day= | | 69.12 | lb/day |
| Daily Calculations (winter): | 2.88 lb/hr * 9 hr/day= | | 25.92 | lb/day |

PM-10

Emissions:

| | | | | |
|------------------------------|---|-------------------------------|-------|--------|
| Emission Factor: | 0.0015 lb/ton | (AP-42, Section 13.2.4, 1/95) | | |
| Hourly Calculations: | 0.0015 lb/ton * 900 ton/hr * 2 Piles*50%" = | | 1.35 | lb/hr |
| Daily Calculations (summer): | 1.35 lb/hr * 24 hr/day= | | 32.40 | lb/day |
| Daily Calculations (winter): | 1.35 lb/hr * 9 hr/day= | | 12.15 | lb/day |

PM-2.5

Emissions:

| | | | | |
|------------------------------|--|-------------------------------|------|--------|
| Emission Factor: | 0.00024 lb/ton | (AP-42, Section 13.2.4, 1/95) | | |
| Hourly Calculations: | 0.00024 lb/ton * 900 ton/hr * 2 Piles**50%"= | | 0.22 | lb/hr |
| Daily Calculations (summer): | 0.216 lb/hr * 24 hr/day= | | 5.18 | lb/day |
| Daily Calculations (winter): | 0.216 lb/hr * 9 hr/day= | | 1.94 | lb/day |

Engine/Generator (up to 1,628 hp)

Horsepower rating= 1628 hp

Summer Hours of Operation: 3100 hr/yr or 24 hr/day

Winter Hours of Operation: 3100 hr/yr or 9 hr/day

PM/PM₁₀/PM_{2.5} (assume all PM = PM_{2.5})

| | | | | |
|-----------------------------|---|---------------------------|-------|--------|
| Emission Factor | 0.0022 lb/hp-hr | (AP-42 Table 3.3-1,10/96) | | |
| Hourly Calculations | 1628 hp * 0.0022 lb/hp-hr = | | 3.58 | lb/hr |
| Daily Calculations (summer) | 1628 hp * 0.0022 lb/hp-hr * 24 hr/day = | | 85.9 | lb/day |
| Daily Calculations (winter) | 1628 hp * 0.0022 lb/hp-hr * 9 hr/day = | | 32.23 | lb/day |

NO_x

Emissions:

| | | | | |
|-----------------------------|--|---------------------------|---------|--------|
| Emission Factor | 0.031 lb/hp-hr | (AP-42 Table 3.3-1,10/96) | | |
| Hourly Calculations | 1628 hp * 0.031 lb/hp-hr = | | 50.46 | lb/hr |
| Daily Calculations (summer) | 1628 hp * 0.031 lb/hp-hr * 24 hr/day = | | 1211.23 | lb/day |
| Daily Calculations (winter) | 1628 hp * 0.031 lb/hp-hr * 9 hr/day = | | 454.22 | lb/day |

VOC

Emissions:

| | | | | |
|-----------------------------|--|---------------------------|-------|--------|
| Emission Factor | 0.00247 lb/hp-hr | (AP-42 Table 3.3-1,10/96) | | |
| Hourly Calculations | 1628 hp * 0.00247 lb/hp-hr = | | 4.02 | lb/hr |
| Daily Calculations (summer) | 1628 hp * 0.00247 lb/hp-hr * 24 hr/day = | | 96.50 | lb/day |
| Daily Calculations (winter) | 1628 hp * 0.00247 lb/hp-hr * 9 hr/day = | | 36.20 | lb/day |

CO Emissions:

| | | | | |
|-----------------------------|--|---------------------------|--------|--------|
| Emission Factor | 0.00668 lb/hp-hr | (AP-42 Table 3.3-1,10/96) | | |
| Hourly Calculations | 1628 hp * 0.00668 lb/hp-hr = | | 10.88 | lb/hr |
| Daily Calculations (summer) | 1628 hp * 0.00668 lb/hp-hr * 24 hr/day = | | 261.00 | lb/day |
| Daily Calculations (winter) | 1628 hp * 0.00668 lb/hp-hr * 9 hr/day = | | 97.88 | lb/day |

SO₂ Emissions:

| | | | | |
|-----------------------------|--|---------------------------|-------|--------|
| Emission Factor | 0.00205 lb/hp-hr | (AP-42 Table 3.3-1,10/96) | | |
| Hourly Calculations | 1628 hp * 0.00205 lb/hp-hr = | | 3.34 | lb/hr |
| Daily Calculations (summer) | 1628 hp * 0.00205 lb/hp-hr * 24 hr/day = | | 80.10 | lb/day |
| Daily Calculations (winter) | 1628 hp * 0.00205 lb/hp-hr * 9 hr/day = | | 30.03 | lb/day |

Haul Roads

| | | | |
|-------------------------|---|---------|-------------|
| Vehicle miles traveled: | 5 | VMT/day | {Estimated} |
|-------------------------|---|---------|-------------|

PM Emissions:

| | | | |
|---|-------|---------|--------------------------------|
| PM Emission Factor (Rated Load Capacity <50 tons): | 13.90 | Lbs/VMT | (AP-42, Section 13.2.2, 12/03) |
| PM= (5 VMT/day)(13.90 Lbs/VMT)* 24 hrs/24 hrs/day=" | 69.5 | Lbs/day | (summer) |
| PM= (5 VMT/day)(13.90 Lbs/VMT)* 9 hrs/24 hrs/day=" | 26.06 | Lbs/day | (winter) |

PM₁₀

Emissions:

| | | | |
|--|-------|---------|--------------------------------|
| PM ₁₀ Emission Factor (Rated Load Capacity <50 tons): | 3.95 | Lbs/VMT | (AP-42, Section 13.2.2, 12/03) |
| PM= (5 VMT/day)(3.95 Lbs/VMT)* 24 hrs/24 hrs/day=" | 19.75 | Lbs/day | (summer) |
| PM= (5 VMT/day)(3.95 Lbs/VMT)* 9 hrs/24 hrs/day=" | 7.41 | Lbs/day | (winter) |

PM_{2.5}

Emissions:

| | | | |
|---|------|---------|--------------------------------|
| PM _{2.5} Emission Factor (Rated Load Capacity <50 tons): | 0.34 | Lbs/VMT | (AP-42, Section 13.2.2, 12/03) |
| PM= (5 VMT/day)(0.34 Lbs/VMT)* 24 hrs/24 hrs/day=" | 1.70 | Lbs/day | (summer) |
| PM= (5 VMT/day)(0.34 Lbs/VMT)* 9 hrs/24 hrs/day=" | 0.64 | Lbs/day | (winter) |

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedance of the national standards for PM₁₀, 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 PM₁₀. As a result of this designation, the EPA required the Department and the City-County Health Departments to submit PM₁₀ 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 identified these sources to be the major contributors to PM₁₀ emissions.

MAQP #4713-03 and Addendum #4 are for a portable crushing/screening plant that will potentially operate at sites in or within 10 km of certain PM₁₀ nonattainment areas. 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 operate on an intermittent and temporary basis and any effects on air quality will be minor and short-lived.

V. Air Quality Impacts

MAQP #4713-03 and Addendum #4 will cover the operations of this portable crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program. Addendum #4 will cover the operations of this portable crushing/screening plant, while operating in or within 10 km of PM₁₀ nonattainment areas. This permit and addendum contain conditions and limitations that would protect air quality for the site and surrounding area. Furthermore, this facility is a portable source that would operate on an intermittent and temporary basis, so any effects to air quality will be minor and of limited duration.

VI. Ambient Air Impact Analysis

As per Department policy based on the Memo titled "Modeling for Portable Sources In or Near Nonattainment Areas" dated October 14, 2005, the Department conducted a screening level air dispersion modeling analysis on point source emissions to verify that the maximum combined 24-hour impact would be less than 5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) while operating during winter months in PM₁₀ nonattainment areas. The only point sources of emissions at the facility are the two 814-bhp diesel generator engines. An EPA SCREEN3 screening air dispersion model was used with the following inputs for one of the 814-bhp diesel generator engines based on the information provided in the MAQP #4713-02 application:

SIMPLE TERRAIN INPUTS:

SOURCE TYPE = POINT
EMISSION RATE (G/S) = 0.84E-01 (based on 24 hr impact from 9 hrs/day)
STACK HEIGHT (M) = 3.6576
STK INSIDE DIAM (M) = 0.2042
STK EXIT VELOCITY (M/S) = 68.1818
STK GAS EXIT TEMP (K) = 778.1500
AMBIENT AIR TEMP (K) = 293.0000
RECEPTOR HEIGHT (M) = 0.0000
URBAN/RURAL OPTION = RURAL
BUILDING HEIGHT (M) = 0.0000
MIN HORIZ BLDG DIM (M) = 0.0000
MAX HORIZ BLDG DIM (M) = 0.0000

THE REGULATORY (DEFAULT) MIXING HEIGHT OPTION WAS SELECTED.
THE REGULATORY (DEFAULT) ANEMOMETER HEIGHT OF 10.0 METERS WAS ENTERED.

STACK EXIT VELOCITY WAS CALCULATED FROM
VOLUME FLOW RATE = 2.2332532 (M**3/S)

BUOY. FLUX = 4.346 M**4/S**3; MOM. FLUX = 18.250 M**4/S**2.

*** FULL METEOROLOGY ***

The model result was a maximum 1-hr impact of 11.94 $\mu\text{g}/\text{m}^3$ at a distance of 102 meters. In accordance with 40 CFR 51 Appendix S, this 1-hr maximum impact is multiplied by 0.1 for an estimate of a corresponding maximum 24-hr impact concentration. In this instance the estimated maximum 24-hr impact is 1.194 $\mu\text{g}/\text{m}^3$ from each engine. Therefore, the combined impacts from the operation of two engines would be $(1.194 \mu\text{g}/\text{m}^3) * 2 = 2.39 \mu\text{g}/\text{m}^3$, which is less than 5 $\mu\text{g}/\text{m}^3$. Operating a single 814-bhp diesel-fired generator engine for 18 hours per day would result in the same impact. Based on this result and in accordance with Department policy, the operation of the point sources at the facility is not expected to cause or contribute to further degradation of the ambient concentrations of PM₁₀.

VII. Taking or Damaging Analysis

As required by 2-10-101 through 105, MCA, the Department conducted a private property taking and damaging assessment (see Section VIII of the Permit Analysis for MAQP #4713-03) and determined there are no taking or damaging implications.

VIII. Environmental Assessment

The current permit action is an administrative amendment and does not constitute a state action; therefore, an environmental assessment is not required for the proposed project.

Addendum Analysis Prepared By: Ed Warner

Date: January 14, 2014