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May 2, 2013

Sam Weyers Nelcon, Inc. PO Box 5370 Kalispell, MT 59903

Dear Mr. Weyers:

Montana Air Quality Permit #3351-05 is deemed final as of May 2, 2013, by the Department of Environmental Quality (Department). This permit is for a 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,

Julis A Merkel

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

JM:SJ Enclosure

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

Montana Department of Environmental Quality Permitting and Compliance Division

Montana Air Quality Permit #3351-05

Nelcon, Inc. PO Box 5370 Kalispell, MT 59903

May 2, 2013



### MONTANA AIR QUALITY PERMIT

Issued To: Nelcon, Inc. P.O. Box 5370 Kalispell, MT 59903 MAQP: #3351-05 Application Complete: 2/22/2013 Preliminary Determination Issued: 3/29/2013 Department's Decision Issued: 4/16/2013 Permit Final: 5/2/2013 AFS: 777-3351

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 rock crushing and screening facility. MAQP #3351-05 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality-approved permitting program and those areas considered tribal lands. Those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas are subject to MAQP #3351-05 and additional and/or more stringent conditions of the Addendum. *A Missoula County air quality permit will be required for locations within Missoula County*.

MAQP #3351-05 and Addendum #4 apply to the Nelcon facility while operating at any location in or within 10 km of certain  $PM_{10}$  nonattainment areas during the summer season (April 1 – September 30) and at sites approved by the Department during the winter season (October 1 – March 31), including the Nelcon home pit location in Section 36, Township 30 North, Range 21 West, in Flathead County. A complete list of permitted equipment can be found in Section I.A of the Permit Analysis.

B. Current Permit Action

On February 22, 2013, the Department of Environmental Quality – Air Resources Management Bureau (Department) received from Nelcon a modification application to add a small generator engine with a maximum rated capacity of 225 horsepower (hp) to the current permit. The current permit action updates the permit to reflect the new engine, updates hour of operation limitations as necessary to limit emissions, updates the emissions inventory, and updates the permit to reflect the current permit to reflect the current permit.

SECTION II: Conditions and Limitations

- A. Emission Limitations
  - 1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS)-affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 Code of Federal Regulations (CFR) 60, Subpart OOO).
    - a. For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity.

- b. For crushers that commence construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 15% opacity.
- 2. All visible emissions from any other NSPS-affected equipment, such as screens or conveyor transfers, 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).
  - a. For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity.
  - b. For equipment that commences construction, modification, or reconstruction after August 31, 1983, but before April 22, 2008: 10% opacity.
- 3. All visible emissions from any non-NSPS affected equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).
- 4. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 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 and ARM 17.8.752).
- 7. Nelcon shall not operate, or have on site, more than three crushers simultaneously at any given time and the total combined maximum rated design capacity of the crushers shall not exceed 1,200 tons per hour (TPH) (ARM 17.8.749).
- 8. Nelcon shall not operate, or have on site, more than four screening units simultaneously at any given time and the total combined maximum rated design capacity of the screens shall not exceed 1,200 TPH (ARM 17.8.749)
- 9. Nelcon shall not operate or have on-site more than two diesel generator engines. The maximum rated design capacity of generator engine 1 shall not exceed 1,502 hp, and the maximum rated design capacity of generator engine 2 shall not exceed 225 hp (ARM 17.8.749).
- 10. The 1,502 hp diesel generator engine (diesel generator engine 1) shall be compliant with EPA non-road compression-ignition engine Tier 2 (at minimum) emission standards for all pollutants for the same model year and maximum engine power, as tabulated in Table 1 of 40 Code of Federal Regulations (CFR) 89.112 (ARM 17.8.749).
- 11. Operation of diesel generator engine 1, with a maximum rated hp of 1,502, shall not exceed 3,950 hours during any rolling 12-month time period (ARM 17.8.749).
- 12. Operation of diesel generator engine 2, with a maximum rated hp of 225, shall not exceed 2,000 hours during any rolling 12-month time period (ARM 17.8.749).

- 13. 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).
- 14. Nelcon 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).
- 15. Nelcon shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, 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 Part 60.675 must be performed on all NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). Additional testing may be required by 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
  - 2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
  - 3. The Department may require further testing (ARM 17.8.105).
- C. Operational Reporting Requirements
  - 1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
  - 2. 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. 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. 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 diesel generator engine 1 and diesel generator engine 2. By the 25<sup>th</sup> day of each month, Nelcon shall calculate the hours of operation for the diesel generator engines for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitations in Section II.A.11 and II.A.12. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

### SECTION III: Addendum

Nelcon shall comply with all conditions in MAQP #3351-05 *and* Addendum #4, as applicable, when operating in approved locations in or within 10 km of  $PM_{10}$  nonattainment areas. Where the conditions of Addendum #4 are applicable and are more stringent, the condition(s) of the addendum apply (ARM 17.8.749).

#### SECTION IV: 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 such as continuous emission monitoring systems (CEMS) or continuous emission rate monitoring systems (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 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.

# Addendum #4 Nelcon, Inc. Montana Air Quality Permit (MAQP) #3351-05

An addendum to MAQP #3351-05 is hereby granted to Nelcon, Inc. (Nelcon) pursuant to Section 75-2-204 and 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:

Nelcon owns and operates a portable rock crushing and screening facility consisting of:

- Three (3) crushers with a total combined maximum rated capacity of 1,200 tons per hour (TPH)
  - o two crushers include screens
- Two (2) stand-alone screens, which when combined with the two screens associated with the crushers have a total combined rated capacity of 1,200 TPH
- One (1) 1,502 horsepower (hp) diesel generator engine
- One (1) 225 hp diesel generator engine
- 18 conveyors/stackers and
- Other associated equipment (feeders, pugmill, etc.)
- II. Seasonal and Site Restrictions

MAQP #3351-05 and 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 ( $PM_{10}$ ) nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1 March 31) The only location in or within 10 km of a PM<sub>10</sub> nonattainment area where Nelcon may operate is:
  - 1. Columbia Falls/Kalispell/Whitefish PM<sub>10</sub> nonattainment Area Section 36, Township 30 North, Range 21 West (Jellison Road); and
  - 2. Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).
- B. 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 PM<sub>10</sub> nonattainment areas.
- C. Nelcon shall comply with the limitations and conditions contained in MAQP #3351-05 and Addendum #4 to MAQP #3351-05 while operating in or within 10 km of any of the previously identified PM<sub>10</sub> nonattainment areas. Where conditions in the Addendum are more stringent, the conditions of the Addendum shall apply. The Department reserves the authority to modify the Addendum 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 All Operations in PM<sub>10</sub> Nonattainment Areas
  - 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 to maintain compliance with the opacity limitations found in Section III.A.2, III.A.3, and III.A.4 (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, including pile forming, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749). For any Standards of Performance for New Stationary Source (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).
  - 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).
- B. Operational Limitations and Conditions Operations in PM<sub>10</sub> Nonattainment Areas Additional requirements during the Winter Season (October 1 – March 31)
  - 1. Nelcon shall limit the total combined daily tons of material crushed to 11,640 pounds per day or less (ARM 17.8.749).
  - 2. Nelcon shall limit the total combined daily tons of material screened to 11,640 pounds per day or less (ARM 17.8.749).
  - 3. Nelcon shall limit the daily tons of material conveyed through each conveyor to 11,640 pounds per day or less (ARM 17.8.749).
  - 4. Nelcon shall limit the total hours of operation of diesel generator engine 1 (maximum capacity of 1,502 hp) to 9.5 hours per day or less (ARM 17.8.749).
  - 5. Nelcon shall limit the total hours of operation of diesel generator engine 2 (maximum capacity of 225 hp) to 9.5 hours per day or less (ARM 17.8.749).
- C. 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. Daily tons of material crushed by each crusher at each site (including amount of recirculated/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 daily crushing throughput limitation
- b. Daily tons of material screened by each screen at each site (including amount of recirculated/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 daily screening throughput limitation
- c. Daily tons of bulk material loaded at each site (production)
- d. Daily hours of operation at each site
- e. Daily hours of operation and the horsepower rating for each generator engine at each site
- f. Fugitive dust information consisting of the daily total miles driven on unpaved roads within the operating site for all plant vehicles

# Montana Air Quality Permit (MAQP) Analysis Nelcon, Inc. MAQP #3351-05

### I. Introduction/Process Description

A. Permitted Equipment

Nelcon, Inc. (Nelcon) owns and operates a portable rock crushing and screening facility consisting of:

• Three (3) crushers with a total combined maximum rated capacity of 1,200 tons per hour (TPH)

o two crushers include screens

- Two (2) stand-alone screens, which when combined with the two screens associated with the crushers have a total combined rated capacity of 1,200 TPH
- One (1) 1,502 horsepower (hp) diesel generator engine
- One (1) 225 hp diesel generator engine
- 18 conveyors/stackers and
- Other associated equipment (feeders, pugmill, etc.)
- B. Source Description

Nelcon proposes to use this crushing/screening plant and associated equipment to crush sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the crushing/screening plant by a feeder, transferred by conveyor to a scalping screen, and passed through the crushers. Materials are crushed by the crushers and sent to the screens. Materials are screened, separated, and sent to stockpile for sale and use in construction operations.

C. Permit History

The Department of Environmental Quality (Department) issued **MAQP #3351-00** to Nelcon on October 5, 2004. MAQP #3351-00 allowed the operation of a portable crushing and screening facility consisting of a portable 1985 EL-Jay 45-inch Cone Crusher (up to 400 TPH) with an EL-Jay (5 foot (ft) x 14 ft) screen (up to 400 TPH), a 1990 Homemade (6 ft x 20 ft) 3-deck screen (up to 400 TPH), a diesel engine/generator (up to 650 kilowatts (kW)), and associated equipment.

On March 16, 2006, the Department received a request from Nelcon for an administrative amendment to MAQP #3351-00 to allow for winter season operations (October 1 – March 31) and summer season operations (April 1 – September 30) in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less ( $PM_{10}$ ) nonattainment areas. The Department administratively amended the MAQP with an addendum to allow for both winter season and summer season operations at certain locations in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish  $PM_{10}$  nonattainment areas. **MAQP #3351-01** replaced MAQP #3351-00 and established **Addendum #1**.

On March 3, 2010, the Department received a partial application to update MAQP #3351-01 with additional equipment. This equipment consisted of three crushers, three screens, and two diesel engines/generators. In addition to adding the new equipment, Nelcon requested to remove one existing crusher, two existing screens, and one existing engine/generator from the MAQP. On March 24, 2010, the Department responded to Nelcon in an email that incorporating the additional equipment into the MAQP would require a permit modification in accordance with ARM 17.8.748 because the potential emissions from the additional equipment would exceed the de minimis threshold. A subsequent letter sent April 29, 2010 further illustrated the Department's conclusion, described the additional items required, and set a deadline for when the additional materials needed to be received. The Department received the remaining items to complete the MAQP application on May 24, 2010 and June 11, 2010. The permit action updated the equipment lists in the MAQP and Addendum, revised the emission inventories, and adjusted the synthetic minor production and hourly limitations to reflect the new operational capacity. **MAQP #3351-02** replaced MAQP #3351-01 and **Addendum #2** replaced Addendum #1.

On October 21, 2010, the Department received an application for an administrative amendment to MAQP #3351-02. The application identified updates to the equipment list contained in MAQP #3351-02. On October 29, 2010, the Department responded to Nelcon that incorporating the additional equipment into the MAQP would require a permit modification in accordance with Administrative Rules of Montana (ARM) 17.8.748 because the potential emissions from the additional equipment would exceed the de minimis threshold. As such, MAQP #3351-03 was never issued.

On May 12, 2011, the Department received a permit application for a modification to MAQP #3351-02. An updated list of equipment at the Nelcon plant was included in the permit application that showed that the following equipment listed in MAQP #3351-02 was removed or replaced: three crushers, two screens, one 605 hp generator engine and two 210 hp generator engines. MAQP 3351-04 includes the following equipment: three crushers, four screens, 18 conveyors, a 1,502 hp diesel engine/generator and other associated equipment.

The permit action updated the equipment lists in the MAQP and Addendum, revised the emission inventories, adjusted hourly limitations to reflect the new operational capacity, and updated the permit to reflect current permit language and rule references used by the Department. MAQP #3351-04 replaced MAQP #3351-02 and Addendum #3 replaced Addendum #2.

### D. Current Permit Action

On February 22, 2013, the Department received from Nelcon a modification application to add a small generator engine with a maximum rated hp of 225 to the current permit. The current permit action updates the permit to reflect the new engine, updates hour of operation limitations as necessary to limit emissions, updates the emissions inventory, and updates the permit to reflect the current permit language used by the Department. **MAQP #3351-05** replaces MAQP **#3351-04** 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. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. 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. <u>ARM 17.8.106 Source Testing Protocol</u>. 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. <u>ARM 17.8.110 Malfunctions</u>. (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. <u>ARM 17.8.111 Circumvention</u>. (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. <u>ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter</u>
  - 5. <u>ARM 17.8.221 Ambient Air Quality Standard for Visibility</u>
  - 6. <u>ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub></u>

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. <u>ARM 17.8.304 Visible Air Contaminants</u>. 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. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (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. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. 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. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. 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. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
  - 6. <u>ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products</u>. (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.
  - <u>ARM 17.8.340 Standard of Performance for New Stationary Sources</u>. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Nelcon is considered an NSPS-affected facility under 40 CFR Part 60 and is potentially subject to the requirements of the following subparts.
    - a. <u>40 CFR 60, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NSPS Subpart as listed below:
    - b. <u>40 CFR 60, Subpart OOO Standards of Performance for Nonmetallic Mineral</u> <u>Processing Plants</u>. 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, some of the portable crushing and screening equipment to be used under MAQP #3351-05 is subject to this subpart because of the size and date of manufacture of the equipment.
    - c. <u>40 CFR 60, Subpart IIII Standards of Performance for Stationary</u> <u>Compression Ignition (CI) Internal Combustion Engines (ICE)</u>. As it applies to an owner or operator, this subpart applies to stationary compression ignition internal combustion engines which:

- commence construction (the date the engine is ordered by the owner or operator) after July 11, 2005.
- are manufactured after April 1, 2006, and are not fire pump engines,
- are manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.
- are modified or reconstructed after July 11, 2005
- <u>ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source</u> <u>Categories</u>. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Nelcon is considered a NESHAP-affected facility under 40 CFR Part 63 and is potentially subject to the requirements of the following subparts.
  - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to a NESHAPs Subpart as listed below:
  - b. <u>40 CFR 63, Subpart ZZZZ NESHAPs for Stationary Reciprocating Internal</u> <u>Combustion Engines (RICE)</u>. 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.
- D. ARM 17.8, Subchapter 5 Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
  - 1. <u>ARM 17.8.504 Air Quality Permit Application Fees</u>. 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. Nelcon submitted the appropriate permit application fee for the current permit action.
  - 2. <u>ARM 17.8.505 Air Quality Operation Fees</u>. 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. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

- 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. 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 particulate matter (PM), PM<sub>10</sub> and oxides of nitrogen (NO<sub>x</sub>); therefore, an air quality permit is required.
- 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
- 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes</u>. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
- 5. <u>ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements</u>. (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. Nelcon submitted an affidavit of publication of public notice for the February 13, 2013 issue of the *Daily Interlake*, a newspaper of general circulation in the Town of Kalispell in Flathead County, as proof of compliance with the public notice requirements.
- 6. <u>ARM 17.8.749 Conditions for Issuance or Denial of Permit</u>. 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. <u>ARM 17.8.752 Emission Control Requirements</u>. 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. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
- 9. <u>ARM 17.8.756 Compliance with Other Requirements</u>. 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. <u>ARM 17.8.759 Review of Permit Applications</u>. 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. <u>ARM 17.8.762 Duration of Permit</u>. 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. <u>ARM 17.8.763 Revocation of Permit</u>. 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. <u>ARM 17.8.764 Administrative Amendment to Permit</u>. 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. <u>ARM 17.8.765 Transfer of Permit</u>. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 Prevention of Significant Deterioration of Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.801 Definitions</u>. This rule is a list of applicable definitions used in this subchapter.
  - 2. <u>ARM 17.8.818 Review of Major Stationary Sources and Major Modification--Source</u> <u>Applicability and Exemptions</u>. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

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

- G. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (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  $PM_{10}$  in a serious  $PM_{10}$  nonattainment area.

- <u>ARM 17.8.1204 Air Quality Operating Permit Program Applicability</u>. (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 #3351-04 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  $PM_{10}$  nonattainment area.
  - d. This facility is potentially subject to current NSPS (40 CFR 60, Subpart OOO and Subpart IIII).
  - e. This facility is potentially subject to a current NESHAP (40 CFR 63, Subpart ZZZZ).
  - f. This source is neither a Title IV affected source nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Nelcon will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Nelcon will be required to obtain a Title V Operating Permit.

### 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. Diesel Generator Engine

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 standards, with no additional requirements, constitutes BACT for these engines.

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

# IV. Emission Inventory

MAQP #3351-05								
	Nelcon, Inc.							
Potential	To Emit	in Tons Po	er Year					
Source	PM	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	NOx <sup>a</sup>	СО	VOC		
Storage Piles	40.58	19.19	2.9					
Conveyors	13.25	4.35	1.23					
Screening	18.92	11.56	7.09					
Crushing	15.77	6.31	0.37					
Loading	1.31	0.53	0.03					
Unloading		0.08						
1,502 hp Diesel Generator Engine: 900 kW Generator	0.95	0.95	0.95	32.22	17.57	32.22		
225 hp Diesel Generator Engine	0.50	0.50	0.50	6.98	1.49	0.57		
Haul Roads	5.68	1.57	0.16					
TOTAL Emissions	96.95	45.03	13.22	39.19	19.07	32.78		

a. Emissions are limited to keep  $NO_X$  emissions below 40 TPY.

MAQP #3351-05			
Nelcon, Inc.			
Wintertime Potential To Emit i	n pounds per day		
Source	PM <sub>10</sub>		
Storage Piles	17.04		
Conveyors	9.64		
Screening	25.61		
Crushing	13.97		
Loading	1.16		
Unloading	0.19		
1,502 bhp Diesel Generator Engine: 900 kW Generator	4.70		
225 hp Diesel Generator			
Engine	4.80		
Haul Roads	4.30		
TOTAL	81.41		

PM = particulate emissions

 $PM_{10} =$  particulate emissions with an

aerodynamic diameter of 10 microns or less

 $PM_{2.5} = particulate emissions with an$ 

aerodynamic diameter of 2.5 microns or less

NOx = oxides of nitrogenCO = carbon monoxide

VOC = volatile organic compounds

hp = horsepower TPY = tons per year

hp = horsepower

hr = hour

yr = year

lb = pound

VMT = vehicle miles traveled

# **Conveyor Emissions**

Number of Conveyors	18	
Maximum Throughput	1200	tons/hr
Hours of Operation	8760	hr/yr

# **PM Emissions**

Emissions Factor:	0.00014	lb/ton		
Calculations:	0.00014lb/ton*12	200tons/hr=	0.168	lb/hr
	0.168lb/hr*8760h	nr/yr*0.0005 ton/lb *18=	13.25	ton/yr

# PM<sub>10</sub> Emissions

	0.05521b/1r*0.05521b/ton*1200tons/1r=*0.0005 ton/lb * 18 -	1 35	ton/vr
Calculations:	0.000046lb/ton*1200tons/hr=	0.0552	lb/hr
Emissions Factor:	0.000046 lb/ton		

# PM<sub>2.5</sub> Emissions

	ton/lb *18=	1.23	ton/yr
Calculations.	0.0156lb/hr*0.0156lb/ton*1200tons/hr=*0.0005	0.0150	ib/nr
Calculations	0 0000121h/top*1200tops/hr-	0.0156	lh/hr
Emissions Factor:	0.000013 lb/ton		

# **Screening**

Maximum Throughput	1200	tons/hr
Hours of Operation	8760	hr/yr

#### **PM Emissions**

Emissions Factor:	0.0036	lb/ton		
Calculations:	0.0036lb/ton*120	)0tons/hr=	4.32	lb/hr
	4.32lb/hr*8760hr	/yr*0.0005 ton/lb =	18.92	ton/yr

# PM<sub>10</sub> Emissions

Emissions Factor:	0.0022 lb/ton		
Calculations:	0.0022lb/ton*1200tons/hr=	2.64	lb/hr
	2.64lb/hr*8760hr/yr*0.0005	11.56	ton/yr

# PM<sub>2.5</sub> Emissions

Emissions Factor:	0.001349774	lb/ton	(See table - AP-42 india are linear)	cates logarithm	ic charts
Calculations:	0.0013497744391	12449lb/ton	*1200tons/hr=	1.619729	lb/hr
	1.6197293269493	39lb/hr*876	0hr/yr*0.0005 ton/lb =	7.09	ton/yr
Crushing					
Maximum Throughput	1200	tons/hr			
Hours of Operation	8760	hr/yr			
PM Emissions					
Emissions Factor	0.003	lb/ton			
Calculations:	0.003lb/ton*1200	)tons/hr=		3.6	lb/hr
	3.6lb/hr*8760hr/	yr*0.0005 to	on/lb =	15.77	ton/yr
PM <sub>10</sub> Emissions					
Emissions Factor	0.0012	lb/ton			
Calculations:	0.0012lb/ton*120	00tons/hr=		1.44	lb/hr
	1.44lb/hr*8760hr	r/yr*0.0005 1	ton/lb =	6.31	ton/yr
PM <sub>2.5</sub> Emissions					
Emissions Factor	0.00007	lb/ton			
Calculations:	0.00007lb/ton*12	200tons/hr=		0.084	lb/hr
	0.084lb/hr*8760h	nr/yr*0.0005	iton/lb =	0.37	ton/yr
Loading					
PM <sub>10</sub> Emissions					
Emissions Factor:	0.0001	lb/ton			
Calculations:	0.0001lb/ton*120	00tons/hr=		0.12	lb/hr
	0.12lb/hr*8760hr	/yr*0.0005	ton/lb =	0.53	ton/yr
Utilize the same PM/PM10	)/PM2.5 ratios as t **This is loading o	he conveyor of finished p	emissions factors base roduct from product pil	d on AP-42 le to truck	

<u>Unloading</u>

# PM<sub>10</sub> Emissions

Emissions Factor:	0.000016 lb/ton		
Calculations:	0.000016lb/ton*1200tons/hr=	0.0192	lb/hr
	0.0192lb/hr*8760hr/yr*0.0005 ton/lb =	0.08	ton/yr
1,502 hp Diesel Genera	tor Engine 1 - Tier II Emissions Standards - 40 CFR 89.11	2 Table 1	
Maximum Pating:	1502 bp		
Hours of Operation:	3 950 br/vr		
nours of operation.	5,550 117 91		
NOx Emissions			
Emissions Factor:	0.011 lb/hp*hr		
Calculations:	0.011lb/hp*1502 hp=	16.522	lb/hr
	16.522lb/hr*3950hr/yr*0.0005 ton/lb =	32.63	ton/yr
CO Emissions			
Emissions Factor:	0.006 lb/hp*hr		
Calculations:	0.006lb/hp* 1502 hp=	9.012	lb/hr
	9.012lb/hr*3950hr/yr*0.0005 ton/lb =	17.57	ton/yr
VOC Emissions			
Emissions Factor:	0.011 lb/hp*hr		
Calculations:	0.011lb/hp*1502 hp=	16.522	lb/hr
	16.522lb/hr*3950hr/yr*0.0005 ton/lb =	32.22	ton/yr
PM Emissions			
Emissions Factor:	0.0003228 lb/hp*hr		
Calculations:	0.0003228lb/hp*1502 hp=	0.484846	lb/hr
	0.4848456lb/hr*3950hr/yr*0.0005 ton/lb =	0.95	ton/yr
225 hp Diesel Generato maximum 225 hp	or Engine 2-		
Maximum Rating:	225 hp		
Hours of Operation:	2000 hr/yr		

# **NOx Emissions**

Emissions Factor:	0.031	lb/hp	o*hr			
Calculations:	0.031lb/hp*225h	p=			6.975	lb/hr
	6.975lb/hr*2000h	nr/yr*(	0.0005	5 ton/lb =	6.98	ton/yr
CO Emissions						
Emissions Factor:	0.00663	lb/hp	o*hr			
Calculations:	0.00663lb/hp*22	5hp=			1.49175	lb/hr
	1.49175lb/hr*200	0hr/y	r*0.00	)05 ton/lb =	1.49	ton/yr
VOC Emissions						
Emissions Factor:	0.0025141	lb/hp	o-hr			
Calculations:	0.0025141lb/hp-h	nr*225	5hp=		0.565673	lb/hr
	0.5656725lb/hr*2	2000h	r/yr*0	.0005 ton/lb	= 0.57	ton/yr
PM Emissions						
Emissions Factor:	0.0022	lb/hr	o-hr			
Calculations:	0.0022lb/hp-hr*2	25hp=	=		0.495	lb/hr
	0.495lb/hr*2000h	nr/yr*(	0.0005	5 ton/lb =	0.50	ton/yr
Haul Roads						
Vehicle Miles Traveled (VM	1T) per Day =		5	VMT/day		
PM Emissions						
Predictive equation for em AP 42, Ch. 13.2.2, 11/06	ission factor for ur	ipaveo	d road	s at industria	l sites provided per	
Emission Factor = k*(s/12)	^a*(W/3)^b					
	k = constant =		4.9	lb/VMT	(AP-42 Table 13.2.2-2, 1	.1/06)
	s = surface silt =		7.1	%		
	wght		54	tons		
	a = constant		0.7			
	b = constant		0.45			
Control Efficiency =	50%					
PM Emissions =	5.68	ТРҮ				

	k = constant =	1.5 lb/VMT	(AP-42 Table 13.2.2-2, 11/06)
PM <sub>10</sub> Emissions =	1.57 TPY		
PM <sub>2.5</sub> Emissions			
	k = constant =	0.15 lb/VMT	(AP-42 Table 13.2.2-2, 11/06)
PM <sub>2.5</sub> Emissions =	0.16 TPY		
Cold Aggrega	ate Storage Piles		
		$\left(\frac{1}{5}\right)^{1.3}$	
Emissions_	$Factor := k \cdot 0.0032 \cdot $	$\left(\frac{M}{2}\right)^{1.4}$	
k – n	article size multiplier (A	P-42)	
U = r	nean wind speed in mile	es/hr = 9.1 mph	www.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html
M = r	material moisture conte	nt (%) = 1.5% -	note b of AP-42, Table 11.19.2-1 (8/2004)

$\frac{\text{PM Emissions}}{k \coloneqq 0.74} \qquad U \coloneqq 9.1$	1   M := 1.5	
$Emissions\_Factor := k \cdot$	$0.0032 \cdot \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(M\right)^{1.4}} \cdot \frac{lb}{ton}$	$Emissions\_Factor = 0.008 \frac{lb}{ton}$
$Maximum_Rate \coloneqq 1200$	$\frac{ton}{hr}$ $(2)$	
$PM \coloneqq Maximum\_Rate$	$\cdot Emissions\_Factor$	$PM = 40.582 \frac{ton}{yr}$

PM<sub>10</sub> Emissions



\*\*For nonattainment operations, piles were assumed to have 2.88% moisture content (AP-42 Table 11.19.2.1- note b). The PM<sub>10</sub> Emissions Factor becomes 0.001 lb/ton. Increased moisture content is assumed to assure compliance with more stringent requirements of the addendum.

### V. 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, the 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 identified these sources to be the major contributors to  $PM_{10}$  emissions.

MAQP #3351-05 and Addendum #4 are for a portable crushing/screening plant that will locate at sites in or within 10 km of certain  $PM_{10}$  nonattainment areas. Screen modeling indicates that the Nelcon crushing/screening plant, operating within permit conditions, will have minor potential impacts on the  $PM_{10}$  nonattainment areas and will not cause or contribute to a violation of the NAAQS. 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.

### VI. Air Quality Impacts

MAQP #3351-05 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 and those areas that are tribal lands.

Addendum #4 will cover the operations of this portable crushing and screening plant, while operating in or within 10 km of the Columbia Falls/Kalispell/Whitefish  $PM_{10}$  nonattainment area (Jellison Road Nelcon home pit) during the winter season (October 1 – March 31). Additionally, the facility will also be allowed to operate in or within 10 km of  $PM_{10}$  nonattainment areas during the summer season (April 1 – September 30).

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					
Λ		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?					
		6. Does the action have a severe impact on the value of the property? (consider economic					
	X	impact, investment-backed expectations, character of government action)					
	Х	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	/a. Is the impact of government action direct, peculiar, and significant?					
	Х	7b. Has government action resulted in the property becoming practically inaccessible,					
		waterlogged or flooded?					
	X	/c. 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?					
	*7	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in					
	X	response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b,					
		/c; 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.

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

# FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Nelcon, Inc.

Montana Air Quality Permit number: 3351-05

Preliminary Determination Issued: 3/29/2013 Department Decision Issued: 4/16/2013 Permit Final: 5/2/2013

- Legal Description of Site: The Nelcon facility would operate at various locations throughout Montana. MAQP #3351-05 applies while operating in areas designated as attainment or unclassified for all NAAQS; excluding those counties that have a Department-approved permitting program, and those areas considered Tribal Lands. Operation in areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas are subject to MAQP #3351-05 and additional and/or more stringent conditions of Addendum #4. A Missoula County air quality permit would be required for locations within Missoula County, Montana. MAQP #3351-05 and Addendum #4 applies to the Nelcon facility while operating at any location in or within 10 km of certain PM<sub>10</sub> nonattainment areas during the summer season (April 1 – September 30) and at sites approved by the Department during the winter season (October 1 – March 31), including the home pit location in Section 36, Township 30 North, Range 21 West, in Flathead County, Montana.
- 2. *Description of Project*: Nelcon operates a portable rock crushing and screening facility with a maximum potential production capacity of 1,200 ton per hour at various locations throughout Montana. The project consists of adding a 225 hp generator engine to MAQP #3351-05 and Addendum #4. The proposed permit action would update the equipment authorized by MAQP #3351-05, allowing the construction and operation of the plant in locations across the state.
- 3. *Objectives of Project*: The objective of the construction and operation of the rock crushing and screening facility would be to produce business and revenue by selling aggregate to support construction projects. The issuance of MAQP #3351-05 and Addendum #4 would allow Nelcon to operate the permitted equipment at various locations throughout Montana, including the home pit location.
- 4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "noaction" alternative. The "no-action" alternative would deny issuance of the MAQP to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Nelcon 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 BACT analysis, would be included in MAQP #3351-05.
- 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. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
Α	Terrestrial and Aquatic Life and Habitats			X			Yes
В	Water Quality, Quantity, and Distribution			X			Yes
С	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
Е	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			Х			Yes
Н	Demands on Environmental Resource of Water, Air and Energy			Х			Yes
Ι	Historical and Archaeological Sites			X			Yes
J	Cumulative and Secondary Impacts			X			Yes

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

A. Terrestrial and Aquatic Life and Habitats

MAQP #3351-05 would result in a minor increase in allowable emissions from an annual emissions standpoint. No more than a minor impact to terrestrial and aquatic life and habitats would be expected from the addition of the 225 hp generator engine.

B. Water Quality, Quantity and Distribution

MAQP #3351-05 would result in a minor increase in allowable emissions from an annual emissions standpoint. Use of water for control of particulate emissions would continue to be required. No additional water using equipment is being permitted in this action. No more than a minor impact would be expected from the addition of the 225 hp generator engine.

C. Geology and Soil Quality, Stability and Moisture

MAQP #3351-05 would result in a minor increase in allowable emissions from an annual emissions standpoint. Use of water for control of particulate emissions would continue to be required. No additional water using equipment is being permitted in this action. No change in the areas this plant is allowed to operate in is being permitted. No more than a minor impact would be expected from the addition of the 225 hp generator engine.

D. Vegetation Cover, Quantity, and Quality

There are six known plant species of concern within the project area which includes the Section of the home pit area and an additional one-mile buffer surrounding the area. The overall footprint of the facility would not change as a result of this permitting action. The facility would be considered a minor source of emissions by industrial standards and would typically operate in areas previously designated and used for this type of operation. No more than a minor impact would be expected from the addition of the 225 hp generator engine.

# E. Aesthetics

The diesel generator engine would be visible and audible during operation. However, the equipment performs the same function using the same technology as the previous equipment operated under the MAQP. MAQP #3351-05 would include conditions which limit visible emissions from the operation. The hours of operation of the diesel generator engine are limited. The generator engine is being added to an operation which already includes the operation of a large diesel generator engine. No more than a minor impact would be expected from the addition of the 225 hp generator engine to this operation.

# F. Air Quality

MAQP #3351-05 would limit operation hours such that only a minor increase in emissions from an annual emissions standpoint is permitted. Further, these operational limits keep emissions below the thresholds which require more rigorous quantitative analysis. The Department would expect a minor impact from the addition of a 225 hp generator engine.

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

In an effort to assess any potential impacts to any unique endangered, fragile, or limited environmental resources, the Department previously contacted the Montana National Heritage Program (MNHP). Search results concluded there are nine known animal and plant species of concern located within the search area. The search area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. The MNHP concluded that the threatened bird species of Bald Eagle has had recorded sightings to the south and southeast of the project area. The threatened fish species of Bull Trout and sensitive fish species of Westslope Cutthroat Trout have recorded sightings in the Whitefish and Flathead Rivers located to the west and east of the site location. Sensitive plant species of concern sighted to the northeast of the site are the Latah Tule Pea and Small Yellow Lady's-slipper. Other plant species of concern sighted northeast of the site are the Aloina Moss, Short-styled Thistle, Deer Indian Paintbrush, and Maidenhair Spleenwort.

Given the fact that most of the species of concern would not likely be located within the operational area of the project, any effects on the local populations would be expected to be minimal. The current permit action adds a small generator engine to an existing crushing and screening operation. No more than a minor impact would be expected from the addition of the 225 hp generator engine.

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

The addition of a 225 hp generator engine would increase demands on air and energy. From an annual emissions standpoint, the current permit allows only a minor increase in allowable emissions. A small increase in energy requirements via diesel fuel required to run the generator engine would be expected to occur, however, no more than a minor impact would be expected from the addition of a 225 hp generator engine.

I. Historical and Archaeological Sites

The Department previously contacted the Montana Historical Society – State Historical Preservation Office (SHPO) in an effort to identify any historical and archaeological sites that may be present in the proposed area of operation. Search results concluded that there were no previously recorded historical or archaeological resources of concern within the Nelcon home pit area. According to correspondence from the SHPO, there would be a low likelihood of

adverse disturbance to any known archaeological or historic site given previous industrial disturbance to the area. Therefore, no impacts upon historical or archaeological sites would be expected as a result of operating the equipment. However, if cultural materials are discovered during this project, or any future project location, the Montana Historical Society should be contacted.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts from this project on the physical and biological environment in the immediate area would be minor due to the relatively small size and potential environmental impact of the operation. The Department believes that this facility would be expected to operate in compliance with all applicable rules and regulations as outlined in MAQP #3351-05 and the associated Addendum #4.

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

		Major	Moderate	Minor	None	Unknown	Comments Included
Α	Social Structures and Mores			Х			Yes
В	Cultural Uniqueness and Diversity			Х			Yes
С	Local and State Tax Base and Tax Revenue			Х			Yes
D	Agricultural or Industrial Production			Х			Yes
Е	Human Health			Х			Yes
F	Access to and Quality of Recreational and Wilderness Activities			Х			Yes
G	Quantity and Distribution of Employment			Х			Yes
Н	Distribution of Population			Х			Yes
Ι	Demands for Government Services			Х			Yes
J	Industrial and Commercial Activity			Х			Yes
К	Locally Adopted Environmental Plans and Goals			Х			Yes
L	Cumulative and Secondary Impacts			X			Yes

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

A. Social Structures and Mores

No more than a minor impact would be expected from the addition of the 225 hp generator engine.

B. Cultural Uniqueness and Diversity

No increase in the number of employees required for operation would be expected to occur as the result of this permitting action. No more than a minor impact would be expected from the addition of the 225 hp generator engine.

C. Local and State Tax Base and Tax Revenue

No more than a minor impact would be expected from the addition of the 225 hp generator engine.

D. Agricultural or Industrial Production

No more than a minor impact would be expected from the addition of a 225 hp generator engine.

E. Human Health

Conditions would be incorporated into MAQP #3351-05 to ensure that the crushing and screening facility would operate in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities

Access to recreational opportunities would not be affected by the operation of the proposed equipment. The equipment would be initially and typically located within a preexisting industrial site. All recreational opportunities, if available in the area, would still be accessible. Noise from the equipment would be similar to the previous activity occurring within the Nelcon home pit. The pit is on private land and the Department has determined that the project would be a minor industrial source of emissions. Therefore, any changes in the quality of recreational and wilderness activities would be expected to be very minor.

G. Quantity and Distribution of Employment

Nelcon is not expected to require any additional employees to operate the proposed equipment. Therefore, there is no expected impact to the quantity and distribution of employment, and any actual impact would be expected to be very minor.

H. Distribution of Population

The proposed equipment is not expected to affect the distribution of population in the Nelcon home pit area. No employees would be expected to be relocated to the area as part of this permit action.

I. Demands for Government Services

Government services would continue to be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. However, demands for government services would be minor.

J. Industrial and Commercial Activity

The operation would continue to be a small industrial source and be portable and temporary in nature. No more than a minor impact would be expected from the addition of a 225 hp generator engine.

K. Locally Adopted Environmental Plans and Goals

Nelcon would be allowed by MAQP #3351-05 and the associated Addendum #4 to operate in areas designated by EPA as attainment or unclassified for ambient air quality and in or within 10 km of certain  $PM_{10}$  nonattainment areas, including the Columbia Falls/Kalispell/Whitefish  $PM_{10}$  nonattainment area where the Nelcon home pit is located. MAQP #3351-05 and Addendum #4 would contain production and opacity limits for protecting air quality. No more than a minor impact would be expected from the addition of a 225 hp generator engine.

L. Cumulative and Secondary Impacts

Overall, the proposed project would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation. Furthermore, no other industrial operations are expected to result from this permitting action.

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: MAQP #3351-05 and Addendum #4 would include conditions and limitations to protect air quality. No more than minor impacts would be expected from the addition of a 225 hp generator engine.

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Resources Management Bureau

EA prepared by: Shawn Juers Date: 3/4/2013