

October 18, 2016

Jennifer Rather Kenyon Noble Ready-Mix P.O. Box 1387 Bozeman, MT 59771-1387

Dear Ms. Rather:

Montana Air Quality Permit #2715-05 is deemed final as of October 18, 2016, by the Department of Environmental Quality (Department). This permit is for a Portable Crushing/Screening Facility and Concrete Batch Plant. 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 Permitting Services Section Supervisor Air Quality Bureau (406) 444-3626

JM:JP Enclosure

Jon Part Prost

John P. Proulx Environmental Science Specialist Air Quality Bureau (406) 444-5391

Montana Department of Environmental Quality Air, Energy & Mining Division

Montana Air Quality Permit #2715-05

Kenyon Noble Rady-Mix P.O. Box 1387 Bozeman, MT 59771-1387

October 18, 2016



#### MONTANA AIR QUALITY PERMIT

Issued To: Kenyon Noble Ready-Mix P.O. Box 1387 Bozeman, MT 59771-1387 MAQP: #2715-05 Application Complete: 08/23/2016 Preliminary Determination Issued: 09/12/2016 Department Decision Issued: 09/30/2016 Permit Final: 10/18/2016 AFS: #777-2715

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Kenyon Noble Ready-Mix (Kenyon Noble) 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

Kenyon Noble operates a portable non-metallic mineral processing plant initially located in Southwest <sup>1</sup>/<sub>4</sub> of the Southwest <sup>1</sup>/<sub>4</sub> of Section 23, Township 1 South, Range 4 East, in Gallatin County, Montana. However, MAQP #2715-05 applies while operating at any location in Montana, except those areas having a Montana Department of Environmental Quality (Department) approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

B. Current Permit Action

On August 11, 2016, the Department of Environmental Quality (Department) received an application from Kenyon Noble to modify Montana Air Quality Permit (MAQP) #2715-05. The permit modification adds new equipment to the existing MAQP. A detailed list of the new equipment can be seen in Section I.A. of the permit analysis.

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 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 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. Kenyon Noble 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. Kenyon Noble 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. Kenyon Noble shall not cause or authorize to be discharged into the atmosphere from the portable concrete batch plant:
  - Any vent emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752)
  - Any fugitive emissions from the source or from any material transfer operations, including, but not limited to, truck loading or unloading, which exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752)
- 8. Kenyon Noble shall install, operate, and maintain a fabric filter baghouse to control particulate emissions from the cement and cement supplement silo ventilation openings (ARM 17.8.752).
- 9. Kenyon Noble shall install, operate, and maintain a rubber boot load-out spout to control particulate emissions from the product load-out opening(s) on the portable concrete plant, where cementations and aggregate materials are transferred for mixing (ARM 17.8.752).

- 10. Kenyon Noble shall not operate more than two (2) crushers at any given time and the maximum rated design capacity of the crushers shall not exceed 590 tons per hour (TPH) (ARM 17.8.749).
- Kenyon Noble shall not operate more than one (1) screen at any given time and the maximum rated design capacity of the screen shall not exceed 250 TPH (ARM 17.8.749).
- 12. Total concrete production shall be limited to 525,600 cubic yards of concrete during any rolling 12-month time period (ARM 17.8.749).
- 13. Kenyon Noble shall not have on site more than one (1) diesel fired generator and may only use the generator as a backup source of electricity during periods when utility power is unavailable. The generator's maximum rated design capacity shall not exceed 150 horsepower (hp) and shall be limited to 500 hours of operation per year, to include operation and maintenance (ARM 17.8.749).
- 14. If the permitted equipment is used in conjunction with any other equipment owned or operated by Kenyon Noble, 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).
- Kenyon Noble 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).
- 16. Kenyon Noble shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).
- B. Testing Requirements
  - 1. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
  - 2. The Department may require further testing (ARM 17.8.105).

- C. Operational Reporting Requirements
  - 1. If this non-metallic mineral processing 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 Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
  - 2. If this truck-mix concrete 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 Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
  - 3. Kenyon Noble 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 is not limited to, all sources of emissions identified in the emission inventory contained 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).
  - 4. Kenyon Noble 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).
  - 5. Kenyon Noble 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 Kenyon Noble as a permanent business record for at least 5 years following the date of the measurement, shall be submitted to the Department upon request, and shall be available at the plant site for inspection by the Department (ARM 17.8.749).

- 6. Kenyon Noble shall document, by month, the concrete production from the facility. By the 25<sup>th</sup> day of each month, Kenyon Noble shall total the crushing production from the facility for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.12. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 7. Kenyon Noble shall document, by month, the hours of operation of the diesel engine/generator. By the 25th day of each month, Kenyon Noble shall total the hours of operation for the diesel engine/generator for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.13. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

#### Section III: General Conditions

- A. Inspection Kenyon Noble shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emissions Monitoring System (CEMS), Continuous Emissions Rate Monitoring System (CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Kenyon Noble fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Kenyon Noble 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 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 Kenyon Noble 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. Kenyon Noble 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 Kenyon Noble Ready-Mix MAQP #2715-05

#### I. Introduction/Process Description

Kenyon Noble Ready-Mix (Kenyon Noble) owns and operates a portable nonmetallic mineral processing plant with a maximum rated design capacity of 590 tons per hour (TPH) crushing production and 250 TPH screening production, as well as a portable truck-mix concrete batch plant with a maximum rated design capacity of 60 cubic yards per hour (yd<sup>3</sup>/hr).

A. Permitted Equipment

The following list of permitted equipment is based on information provided within the initial application and is provided for reference. MAQP #2715-05 is de minimis friendly, whereby operational flexibility is allowed and alternate equipment may be utilized as long as maximum capacities are not exceeded. See Section II of the MAQP for specific equipment limitations and/or conditions. Equipment permitted under this action consists of the following;

Non-Metallic Mineral Processing Plant

- 1989 Torgerson Horizontal Shaft Impact Crusher [250 TPH]
- 1998 Cedar Rapids Jaw Crusher [340 TPH]
- 1999 JCI 6'x20' 3-Deck Screen [250 TPH]
- 1995 Westec Wash Plant [180 TPH]
- Associated material handling equipment (6) transfer conveyors, (3) field conveyors, and (1) stacking conveyor, (1) 125 horsepower backup generator

Portable Truck-Mix Concrete Batch Plant

- Aggregate Batcher (60 yd<sup>3</sup>/hr)
- 9' x 14' Aggregate Hopper
- Aggregate Storage Bins
- Aggregate Conveyer
- 2 Cement Conveyers/Augers
- Cement Silo Filtration/Dust Collector
- Cement Weigh Hopper Filter Vent
- 10,000 Gallon Water Tank
- Radial Arm Stacker
- Backup Generator (150 horsepower (hp))
- B. Source Description

Kenyon Noble will utilize this portable wash plant to wash and sort sand and small diameter materials for use in various construction projects. For a typical operational setup, unprocessed materials are loaded into the feed hoper where the materials are then fed into the water filled reservoir where a bucket wheel provides agitation to remove silts, slimes, and clays from saleable sand.

A fines screen and centrifugal action is employed to separate materials. Sand exiting the system is stockpiled while undesirable material is entrained in wash water and discharged to a settling pond.

Kenyon Noble will use a portable concrete truck-mix batch plant to produce concrete for local construction operations. Aggregate, which consists of rock and sand, along with Portland cement are loaded into separate hopper bins. While the plant is in operation, proportioned amounts of sand and rock are dumped from the hopper bins onto a conveyor belt and transported to a holding silo. As the sand and rock are dumped from the holding silo into a rotating cement mixing truck, Portland cement is added to the mixture. After the predetermined amount of sand, rock, and cement is loaded into the truck, water is added to mixture and continued to mix until it is delivered to the appropriate location. A backup diesel generator is available for use in the event of a power outage when utility power is unavailable.

The home pit location of this mineral processing operation is located at the Southwest <sup>1</sup>/<sub>4</sub> of the Southwest <sup>1</sup>/<sub>4</sub> of Section 23, Township 1 South, Range 4 East, in Gallatin County, Montana.

C. Permit History

Portable Inc. was issued **MAQP #2715-00** on October 6, 1992, for the operation of a portable 1989 Torgerson Horizontal Shaft Impactor crusher (maximum capacity 250 TPH) and associated equipment including a feeder (maximum capacity 250 TPH); six transfer conveyers; three field conveyers; a stacking conveyer; and a 74 kW generator.

On August 11, 1995, **MAQP #2715-01** was issued to Portable Inc. to change the serial number of the Torgerson crusher (from BX-108 to MCX-135).

On August 8, 2002, Portable Inc. was issued a permit alteration for the addition of a JCI 16x20, 3 deck, screening plant. **MAQP #2715-02** replaced MAQP #2715-01.

On November 30, 2011, the Department of Environmental Quality (Department) received a request from Portable Inc. that MAQP #2715-02 be amended in order to be consolidated with MAQP #3132-00, as the equipment associated with these sources do not operate independently and outside of the designated location. The permit action was an administrative amendment to incorporate the separate equipment into a single MAQP. In addition this permit action updated the permit to the current permit language and rule references used by the Department. **MAQP** #2715-03 replaced MAQP #2715-02.

On October 23, 2015, the Department received a request from Kenyon Noble Ready-Mix to change the name from Portable Inc., to the current legal name of Kenyon Noble Ready-Mix and to update contact information. The permit action reflected this change and updated the permit language to reflect permit language and references. **MAQP #2715-04** replaced MAQP #2715-03.

## D. Current Permit Action

On August 11, 2016, the Department received an application from Kenyon Noble to modify MAQP #2715-04. The permit modification adds new equipment associated with a portable 60 yd<sup>3</sup>/hr concrete truck-mix batch plant to the existing MAQP. The permit modification also adds a 150 horsepower diesel fired generator for the purpose of backup power in the event that utility power fails. **MAQP #2715-05** replaces MAQP #2715-04.

## 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 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 Department. Upon request, the Department will provide references for locations 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 is a list of applicable definitions used in this subchapter, 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 Codes annotated (MCA).

Kenyon Noble shall comply with all 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>. 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>. No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant which would otherwise violate an air pollution control regulation. No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.
- B. ARM 17.8, Subchapter 2 Ambient Air Quality, including, but not limited to:
  - 1. <u>ARM 17.8.204 Ambient Air Monitoring</u>
  - 2. <u>ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide</u>
  - 3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
  - 4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
  - 5. ARM 17.8.213 Ambient Air Quality Standards for Ozone
  - 6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
  - 7. <u>ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter</u> (PM)
  - 8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
  - 9. ARM 17.8.222 Ambient Air Quality Standards for Lead
  - 10. <u>ARM 17.8.223 Ambient Air Quality Standards for Particulate Matter with an</u> <u>Aerodynamic Diameter of 10 microns or less (PM<sub>10</sub>)</u>

Kenyon Noble must comply with the appropriate 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 to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, emissions 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 20% for all fugitive emissions and that reasonable precautions be taken to control airborne particulate matter. (2) Under this rule, Kenyon Noble shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emission of airborne particulate matter.
  - 3. <u>ARM 17.8.310 Particulate Matter, Industrial Processes</u>. This section requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

- 4. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions.
- 5. <u>ARM 17.8.340 Standard of Performance for New Stationary Sources</u>. This rule incorporates, by reference, 40 CFR 60, Standards of Performance for New Stationary Sources (NSPS). This facility is an NSPS-affected source because some of the equipment meet the definition of an NSPS-affected emissions unit as defined in 40 CFR 60.
  - 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</u> <u>Nonmetallic Mineral 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 Kenyon Noble, the portable crushing equipment to be used under MAQP #2705-05 is subject to this subpart as it meets the definition of an affected facility constructed after August 31, 1983.
  - 40 CFR 60, Subpart IIII Standards of Performance for Stationary c. 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 Kenyon Noble, the CI ICE to be used under MAQP #2715-05 is a non-road CI ICE associated with a portable facility and therefore may not be subject to this regulation for stationary CI ICE. However, a non-road engine would become regulated as a stationary engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. Therefore, this subpart would become applicable if Kenyon Noble operated the CI ICE at a single location for more than 12 months or a shorter period of time for an engine located at a seasonal source.
- 6. <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. This facility may be a NESHAP-affected source because some of the equipment could meet the definition of a NESHAP-affected emissions unit as defined in 40 CFR Part 63.
  - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

- 40 CFR 63, Subpart ZZZZ National Emissions Standards for b. Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary 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 Kenyon Noble, the RICE to be used under MAQP #2715-05 is a non-road RICE associated with a portable facility and therefore may not be subject to this regulation for stationary RICE. However, a non-road engine would become regulated as a stationary engine if it remains or will remain at a location for more than 12 consecutive months or a shorter period of time for an engine located at a seasonal source. Therefore, this subpart would become applicable if Kenyon Noble operated the RICE at a single location for more than 12 months or a shorter period of time for an engine located at a seasonal source.
- 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. Kenyon Noble submitted the appropriate 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.

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. Kenyon Noble has a PTE greater than 15 tpy of PM, PM<sub>10</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</u> <u>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</u> <u>Requirements</u>. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. Kenyon Noble 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. Kenyon Noble submitted an affidavit of publication of public notice for the August 9, 2016 issue of the *Bozeman Daily Chronicle*, a newspaper of general circulation in the Town of Bozeman, in Gallatin 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 Kenyon Noble 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 Additional Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those 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 Modifications-Source 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 Federal Clean Air Act (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 does not have the potential to emit more than 250 tpy or more of any air pollutant.

- 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. Potential To Emit (PTE) > 100 tpy of any pollutant;
    - b. PTE > 10 tpy of any single hazardous air pollutant (HAP), PTE > 25 tpy of combined HAPs, or a lesser quantity as the Department may establish by rule; or
    - c. Sources with the PTE > 70 tpy of  $PM_{10}$  in a serious  $PM_{10}$  nonattainment area.
  - 2. <u>ARM 17.8.1204 Air Quality Operating Permit Program Applicability</u>. Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2715-05 for Kenyon Noble, the following conclusions were made:
    - a. The facility's PTE is less than 100 tpy for all criteria pollutants.
    - b. The facility's PTE is less than 10 tpy of any single HAP and less than 25 tpy of combined HAPs.
    - c. This source is not located in a serious  $PM_{10}$  nonattainment area.
    - d. This facility is subject to a current NSPS (40 CFR 60, Subpart A, Subpart OOO, and potentially Subpart IIII).
    - e. This facility is potentially subject to a current NESHAP (40 CFR 63, Supbart A and Subpart ZZZZ).
    - f. This source is not 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 determined that Kenyon Noble 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, Kenyon Noble will be required to obtain a Title V Operating Permit.

#### III. BACT Determination

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

# Fugitive Emissions

All visible emissions from any cement or cement supplement silo (or vent), truck loading or unloading operations, or any material transferring operations shall meet corresponding emission limitations in Section II.A. of the permit.

Kenyon Noble has proposed to use a fabric filter baghouse and a rubber boot load-out spout for the control of  $PM_{10}$  from the displaced air from the cement silo. Because Kenyon Noble proposes to use a control technology that is capable of achieving the highest level of control efficiency, no further economic analysis is needed.

The Department determined that operating and maintaining a fabric filter baghouse and a rubber boot load-out spout to reduce airborne particulate emissions to meet corresponding emission limitations in Section II.A.3. constitutes BACT for the concrete batch plant operation.

		E	missions	Tons/Y	Year [PT	Έ]			
Emission Source	PM	$PM_{10}$	PM <sub>2.5</sub>	СО	NOx	$SO_2$	VOC		
Torgerson Impact Crusher [250									
TPH]	1.31	0.59	0.11						
Cedar Rapids Jaw Crusher [340									
TPH]	1.79	0.80	0.15						
JCL 3-Deck Screen [250 TPH]	2.41	0.81	0.05						
Material Handling	41.99	19.81	3.43						
Unpaved Roadways (Haul Roads)	10.98	3.03	0.30						
TOTAL									
EMISSIONS ►	58.49	25.05	4.05	0.00	0.00	0.00	0.00		
CO, carbon monoxid	e								
lbs, pounds									
NO <sub>x</sub> , oxides of nitro	0								
PM, particulate matte									
PM <sub>10</sub> , particulate ma	tter with	an aero	dynamic	diamete	er of 10 :	microns	or		
less									
	PM <sub>2.5</sub> , particulate matter with an aerodynamic diamet						s or		
E E	less [Sum of condensable and filterable]								
	SO <sub>2</sub> , sulfur dioxide								
TPH, tons per hour									
- 1 5	TPY, tons per year								
VOC, volatile organi	c compo	unds							

# IV. Emission Inventory

	Emssions			
Emission Source	Controlled			
	PM	PM10		
1. Aggregate delivery to ground storage	1.38	0.67		
2. Sand delivery to ground storage	0.32	0.15		
3. Aggregate transfer to conveyor	1.38	0.67		
4. Sand transfer to conveyor	0.32	0.15		
5. Aggregate transfer to elevated storage	1.38	0.67		
6. Sand transfer to elevated storage	0.32	0.15		
7. Cement delivery to Silo	0.04	0.02		
8. Cement supplement delivery to Silo	0.06	0.04		
9. Weigh hopper loading	1.70	0.82		
10. Truck mix loading (AP 42, Table 11.12-2)	40.18	10.78		
Total Emissions from New Equipment	47.09	14.12		

150 hp Backup Generator							
	tons/year						
PM	<b>PM</b> <sub>10</sub>	PM <sub>2.5</sub>	NO <sub>X</sub>	СО	VOC	SO <sub>2</sub>	<b>Total HAPs</b>
0.08	0.08	0.08	1.16	0.25	0.09	0.08	0.05

Calculations:

PM														
1.	49.2	tons/hr	Х	0.0064	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	1.38	ton/yr
2.	31.2	tons/hr	х	0.0015	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.20	ton/yr
3.	49.2	tons/hr	Х	0.0064	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	1.38	ton/yr
4.	31.2	tons/hr	Х	0.0015	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.20	ton/yr
5.	49.2	tons/hr	Х	0.0064	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	1.38	ton/yr
6.	31.2	tons/hr	Х	0.0015	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.20	ton/yr
7.	13.2	tons/hr	Х	0.0002	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.01	ton/yr
8.	13.2	tons/hr	Х	0.0003	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.02	ton/yr
9.	13.2	tons/hr	Х	0.0079	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.46	ton/yr
10.	93.6	tons/hr	Х	0.098	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	40.18	ton/yr
PM <sub>10</sub>														
1.	49.2	tons/hr	Х	0.0031	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.67	ton/yr
2.	31.2	tons/hr	Х	0.0007	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.10	ton/yr
3.	49.2	tons/hr	Х	0.0031	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.67	ton/yr
4.	31.2	tons/hr	Х	0.0007	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.10	ton/yr
5.	49.2	tons/hr	Х	0.0031	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.67	ton/yr
6.	31.2	tons/hr	Х	0.0007	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.10	ton/yr
7.	13.2	tons/hr	Х	0.0001	lb/ton	Х	8760	hr/yr	х	0.0005	lb/ton	=	0.01	ton/yr
8.	13.2	tons/hr	Х	0.0002	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.01	ton/yr
9.	13.2	tons/hr	Х	0.0038	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	0.22	ton/yr
10.	93.6	tons/hr	Х	0.0263	lb/ton	Х	8760	hr/yr	Х	0.0005	lb/ton	=	10.78	ton/yr

<b>Diesel Engine Generator</b> Note: Emissions are based on the power output of the engine (150 hp). Operational Capacity of Engine = 150 hp Hours of Operation = 500 hours	150 500	hp hours
PM Emissions:		
PM Emissions = 0.08 ton/yr (Assume all PM < 1.0 um) PM Emissions = 165.00 lbs/yr (Assume all PM < 1.0 um)	0.08 165.00	ton/yr lbs/yr
PM-10 Emissions:	2 205	11 /
Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	2.20E- 03	lbs/hp- hr
Calculation: (500 hours) * (150 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = 0.08 ton/yr Calculation: (500 hours) * (150 hp) * (0.0022 lbs/hp-hr) = 165.00 lbs/yr	0.08 165.00	ton/yr lbs/yr
PM2.5 Emissions	2 205	11 /1
Emission Factor = $0.0022$ lbs/hp-hr (Assume all PM < $1.0$ um) Calculation: (500 hours) * (150 hp) * ( $0.0022$ lbs/hp-hr) * (ton/2000 lb) = $0.08$ ton/yr (Assume all PM < $1.0$ um)	2.20E- 03 <b>0.08</b>	lbs/hp- hr ton/yr
Calculation: $(500 \text{ hours}) * (150 \text{ hp}) * (0.0022 \text{ lbs/hp-hr}) = 165.00 \text{ lbs/yr}$	165.00	lbs/yr
NOx Emissions:		
NOX Emissions: Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr	0.031 <b>1.16</b>	lbs/hp- hr ton/yr
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96)		hr
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr	1.16 2325.0	hr ton/yr
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b>	1.16 2325.0 0 6.68E-	hr ton/yr lbs/yr lbs/hp-
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr	1.16 2325.0 0	hr ton/yr lbs/yr
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96)	<b>1.16</b> <b>2325.0</b> <b>0</b> 6.68E- 03	hr ton/yr lbs/yr lbs/hp- hr
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 0.25 ton/yr	1.16 2325.0 0 6.68E- 03 0.25	hr ton/yr lbs/yr lbs/hp- hr ton/yr
Emission Factor = $0.031 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = $0.00668 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 0.25 ton/yr Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) = 501.00 lbs/yr <b>VOC Emissions:</b> Emission Factor = $0.0024511 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96) Calculation: (500 hours) * (150 hp) * (0.0024511 lbs/hp-hr) * (ton/2000 lb) = 0.09 ton/yr	1.16 2325.0 0 6.68E- 03 0.25 501.00 2.45E-	hr ton/yr lbs/yr lbs/hp- hr ton/yr lbs/yr
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 0.25 ton/yr Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) = 501.00 lbs/yr <b>VOC Emissions:</b> Emission Factor = 0.0024511 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)	1.16 2325.0 0 6.68E- 03 0.25 501.00 2.45E- 03	hr ton/yr lbs/yr lbs/hp- hr ton/yr lbs/yr lbs/hp- hr
Emission Factor = $0.031 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = $0.00668 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 0.25 ton/yr Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) = 501.00 lbs/yr <b>VOC Emissions:</b> Emission Factor = $0.0024511 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96) Calculation: (500 hours) * (150 hp) * (0.0024511 lbs/hp-hr) * (ton/2000 lb) = 0.09 ton/yr	1.16 2325.0 0 6.68E- 03 0.25 501.00 2.45E- 03 0.09 183.83	hr ton/yr lbs/yr lbs/hp- hr ton/yr lbs/hp- hr ton/yr lbs/yr
Emission Factor = $0.031 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = $0.00668 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.4, Table 3.4-1, 10/96) Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 0.25 ton/yr Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) = 501.00 lbs/yr <b>VOC Emissions:</b> Emission Factor = $0.0024511 \text{ lbs/hp-hr}$ (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96) Calculation: (500 hours) * (150 hp) * (0.0024511 lbs/hp-hr) * (ton/2000 lb) = 0.09 ton/yr Calculation: (500 hours) * (150 hp) * (0.0024511 lbs/hp-hr) = 183.83 lbs/yr	1.16 2325.0 0 6.68E- 03 0.25 501.00 2.45E- 03 0.09	hr ton/yr lbs/yr lbs/hp- hr ton/yr lbs/yr lbs/hp- hr ton/yr
Emission Factor = $0.031 \text{ lbs/hp-hr} (AP-42, Sec. 3.4, Table 3.4-1, 10/96)$ Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = 1.16 ton/yr Calculation: (500 hours) * (150 hp) * (0.031 lbs/hp-hr) = 2,325.00 lbs/yr <b>CO Emissions:</b> Emission Factor = $0.00668 \text{ lbs/hp-hr} (AP-42, Sec. 3.4, Table 3.4-1, 10/96)$ Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = 0.25 ton/yr Calculation: (500 hours) * (150 hp) * (0.00668 lbs/hp-hr) = 501.00 lbs/yr <b>VOC Emissions:</b> Emission Factor = $0.0024511 \text{ lbs/hp-hr} (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)Calculation: (500 hours) * (150 hp) * (0.0024511 lbs/hp-hr) * (ton/2000 lb) = 0.09 ton/yrCalculation: (500 hours) * (150 hp) * (0.0024511 lbs/hp-hr) = 183.83 lbs/yrSOx Emissions:$	1.16 2325.0 0 6.68E- 03 0.25 501.00 2.45E- 03 0.09 183.83 2.05E-	hr ton/yr lbs/yr lbs/hp- hr ton/yr lbs/hp- hr ton/yr lbs/yr

# V. Existing Air Quality and Impacts

MAQP #2715-05 is issued for the operation of a portable crushing/screening plant as well as a portable concrete batch plant, to be located in the SW ¼ of the SW ¼ of Section 23, Township 1 South, Range 4 East, in Gallatin County, Montana. MAQP #2715-05 will cover the operation when operating at any location in Montana, excluding those counties that have a Department approved permitting program. The initial location and those areas for which this facility is permitted to operate under MAQP #2715-05 have been designated unclassified/attainment with all ambient air quality standards and there are no major air pollution sources in the surrounding area.

#### VI. Air Quality Impacts

This permit contains 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.

## VII. Ambient Air Impact Analysis

Based on the information provided and the conditions established in MAQP #2715-05, the Department determined that the impact from this permitting action will be minor.

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	
Х		1. Does the action pertain to land or water management or environmental regulation affecting
Λ		private real property or water rights?
	Х	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	Х	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	Х	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?
	Х	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
	Λ	property in excess of that sustained by the public generally?
	Х	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged
	Λ	or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical
	Λ	taking of adjacent property or property across a public way from the property in question?

YES	NO	
	Х	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

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

### DEPARTMENT OF ENVIRONMENTAL QUALITY Air, Energy & Mining Division Air Quality Bureau P.O. Box 200901, Helena, MT 59620 (406) 444-3490

#### FINAL ENVIRONMENTAL ASSESSMENT (EA)

*Issued To*: Kenyon Noble Ready Mix Bozeman, MT 59771-1387 P.O. Box 1387

Montana Air Quality Permit number (MAQP): 2715-05

Preliminary Determination Issued: September 12, 2016 Department Decision Issued: September 30, 2016 Permit Final: October 18, 2016

- 1. *Legal Description of Site*: Southwest <sup>1</sup>/<sub>4</sub> of the Southwest <sup>1</sup>/<sub>4</sub> of Section 23, Township 1 South, Range 4 East, in Gallatin County, Montana.
- 2. *Description of Project*: Kenyon Noble Ready Mix (Kenyon Noble) proposes to operate a portable concrete truck-mix batch plant in an existing location.
- 3. *Objectives of Project*: Kenyon Noble plans to make concrete cement for construction operations in the Gallatin County area.
- 4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The no action alternative would mean the portable truck-mix concrete facility would not operate in the location described above, resulting in loss of revenue for Kenyon Noble and loss of concrete for construction operations in the local area. Possible jobs created from the portable truck-mix concrete facility would also be lost. Therefore, the "no-action" alternative was eliminated from further consideration. Other alternatives considered were discussed in the BACT analysis, Section III in the MAQP Analysis.
- 5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #2715-05.
- 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 section summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

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

A. Terrestrial and Aquatic Life and Habitats

The concrete batch plant operations would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial and aquatic life and habitats would be expected as a result of equipment operations or from pollutant deposition from the portable concrete batch plant. Impacts on aquatic life could result from storm water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be required to be used for pollution control. Since only a minor amount of air emissions would be generated as a result of pollution control technology described in the MAQP Analysis, Section III, only minor deposition (see Section 7.F of this EA) would occur.

B. Water Quality, Quantity and Distribution

There would be little, if any impacts on water quality, quantity, and distribution because of the relatively small size and temporary nature of the operation. Water would be used for making the concrete and for dust suppression on the surrounding roadways and areas of operation. However, water use would only cause a minor disturbance to these areas, because only relatively small amounts of water would be needed. Overall, the concrete batch plant operations would result in only minor impacts to water quality, quantity, and distribution.

C. Geology and Soil Quality, Stability and Moisture

There would be minor impacts to the geology and soil quality, stability, and moisture near the plant's operational area due to facility construction, increased vehicle traffic, the use of water to control dust, and deposition from pollutants from concrete batch operations. As explained in Section 7.F. of this EA, the relatively small size and temporary nature of the operation, dispersion characteristics of particles and the area, and conditions placed in MAQP #2715-05 would minimize the impacts from deposition.

D. Vegetation Cover, Quantity, and Quality

Because the plant would operate at a previously disturbed/abandoned industrial/commercial site and because the plant would be a relatively minor source of emissions, impacts from the emissions leaving the site and depositing on vegetation would be minor. As described in Section 7.F of this EA, the amount of emissions from the plant would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal (as described in Section 7.B.) and the associated soil disturbance is minimal (as described in 7.C.) corresponding vegetative impacts would be minor.

## E. Aesthetics

The proposed operation would be visible and would create additional noise while operating in this area. However, MAQP #2715-05 would include conditions to control emissions, including visible emissions, from the plant. Also, because the proposed operation would be portable, would operate on an intermittent and seasonal basis, any visual and noise impacts would be minor and short-lived.

## F. Air Quality

The air quality impacts from the proposed concrete batch plant would be minor because MAQP #2715-05 would include conditions limiting the opacity from the plant, as well as require a fabric filter dust collector and a rubber boot load-out spout to control facility emissions. MAQP #2715-05 would require water spray as necessary and other means to control air pollution. Furthermore, MAQP #2715-05 would limit total emissions from the proposed equipment, and any additional equipment owned and operated by Kenyon Noble at the site, to 250 tons per year or less at any given operating site, excluding fugitive emissions.

G. Unique Endangered, Fragile, or Limited Environmental Resources

According to the Montana Natural Heritage Program (MNHP), there are five species of concern within the initial proposed area of operation. The search area, in this case, is defined by the township and range of the proposed site, with an additional one-mile buffer. The species of concern are the Great Blue Heron (fauna), Bald Eagle (fauna), Bobolink (fauna), Alberta Snofly (fauna), and the Small Dropseed (flora). However, the total property disturbance for the concrete batch plant will be approximately 2 acres and would be located in a previously disturbed/abandoned industrial/commercial site. Therefore, only minor impacts to any unique endangered, fragile, or limited environmental resources would be expected to occur.

H. Sage Grouse Executive Order

The Department recognizes the site location in not within Greater Sage Grouse Habitat Area as defined by Executive Order No. 12-2015.

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

Due to the relatively small size of the facility and relatively low potential to emit regulated air pollutants, the concrete batch plant would result in only minor demands on the environmental resources of water, air, and energy during normal operations. Small quantities of water, approximately 20 gallons per cubic yard of concrete, would be used for concrete batching operations. Water used for dust suppression would control particulate emissions generated through equipment operation and vehicle traffic at the site. Electrical energy requirements would be provided by the local utility power provider. A small portable diesel generator would be available to provide electricity in the event of a power failure. In addition, the concrete batch plant would operate on an intermittent and seasonal basis, thereby minimizing energy demands.

Further, impacts to air resources from the new equipment would be minor because the source would remain small by industrial standards, would operate on an intermittent and seasonal basis, and would generate relatively minor amounts of regulated pollutants through normal operations. Ambient concentrations of air contaminants would comply with ambient standards.

J. Historical and Archaeological Sites

The proposed project is to operate within a previously disturbed industrial site. According to the Montana Historical Society – State Historical Preservation Office (SHPO), there have been no previously recorded sites within the designated area. Furthermore, SHPO has stated that there is a low likelihood that cultural properties will be impacted. Therefore, given the previous industrial activity for this site, the Department believes that no impacts upon historical or archaeological sites would be expected as a result of operating the proposed concrete batch plant.

K. Cumulative and Secondary Impacts

The proposed concrete batch plant would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment because the facility would generate emissions of regulated air pollutants and noise would be generated from equipment operations. Emissions and noise would cause minor disturbance to the surrounding environment because the equipment is relatively small by industrial standards and the facility would be expected to operate in areas designated and typically used for such operations. Additionally, this facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

Overall, any cumulative or secondary impacts to the above-cited physical and biological aspects of the human environment would be minor because the proposed concrete batch plant would typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

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

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

A. Social Structures and Mores

The concrete batch plant operation would cause no disruption to the social structures and mores in the area because the source would be a minor industrial source of emissions, would be located in a previously disturbed industrial site, and would only have temporary and intermittent operations. Additionally, the equipment would be required to operate according to the conditions placed in MAQP #2715-05. Thus, no impacts upon social structures or mores are expected to result.

B. Cultural Uniqueness and Diversity

The cultural uniqueness and diversity of this area would not be impacted by the proposed operation because this site is a previously disturbed industrial site. Additionally, the facility would be considered a portable/temporary source with seasonal and intermittent operations. Therefore the predominant use of the surrounding areas would not change as a result of this project and the cultural uniqueness and diversity of the area would not change as a result of this project and the cultural uniqueness and diversity of the area would not change as a result of this project and the cultural uniqueness and diversity of the area would not change as a first of the area would not be affected.

C. Local and State Tax Base and Tax Revenue

The operation would have little, if any impact on the local and state tax base and tax revenue because the facility would be a relatively small industrial source (minor source) and would have seasonal and intermittent operations. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would also be portable and the money generated for taxes would be widespread.

D. Agricultural or Industrial Production

The concrete batch operations would have only a minor impact on local industrial productions because the facility would be a relatively small industrial source of concrete production and air emissions. Minor impacts to industrial production are expected as the facility described in the proposed action produces construction materials. However, the proposed operation remains relatively small by industrial standards. Overall, potential impacts to agricultural and industrial production are expected to be minor.

E. Human Health

MAQP #2715-05 would include limits and conditions to ensure that the concrete batch plant would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health. The air emissions from this facility would be minimized by the use of a fabric filter dust collector, a rubber boot load-out spout, water and water spray. Therefore, only minor impacts would be expected on human health from the proposed concrete plant.

F. Access to and Quality of Recreational and Wilderness Activities

Noise from the facility would be minor because the concrete batch plant would be small by industrial standards and would initially and typically operate in areas used for such operations. As a result, the amount of noise generated from the concrete batch plant operation would be minimal for the area. Any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived. Similarly, because the concrete batch plant would initially and typically operate within areas designated for such operations, impacts to access to recreational and wilderness areas are expected to be minor or insignificant. Overall potential impacts to access to and quality of recreational and wilderness activities are expected to be minor. G. Quantity and Distribution of Employment

The concrete batch plant operation would likely require the existing employees (up to 6) to operate and would have seasonal and intermittent operations. No individuals would be expected to permanently relocate to this area of operation as a result of operating the proposed facility. Therefore, only minor effects upon the quantity and distribution of employment in the area would be expected.

H. Distribution of Population

The proposed concrete batch plant operation is small and would likely require existing employees to operate. No individuals would be expected to permanently relocate to this area of operation as a result of operating the concrete batch plant facility, which would have only intermittent and seasonal operations, and is a portable source. Therefore, the proposed facility would not disrupt the normal population distribution.

I. Demands for Government Services

Minor increases would be seen in traffic on existing roadways in the area while the concrete batch plant operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, any demands for government services would be minor.

J. Industrial and Commercial Activity

The concrete batch plant would represent only a minor increase in the industrial activity in the proposed initial or any future area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Very little, if any, additional industrial or commercial activity would be expected as a result of the proposed operation.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans or goals in the initial area of operation or any future operating site.

L. Cumulative and Secondary Impacts

The concrete batch plant would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the source is a portable and temporary source. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and would operate on a temporary and intermittent basis, only minor economic impacts to the local economy would be expected from operating the facility.

Overall, the proposed concrete batch plant operation would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the initially proposed and any future operating site.

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

- If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of a portable concrete truck-mix batch plant. MAQP #2715-05 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.
- Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program
- Individuals or groups contributing to this EA: Department of Environmental Quality Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: John P. Proulx Date: September 12, 2016