Montana Department of
ENVIRONMENTAL QUALITY
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March 14, 2014

Andy Strattman
Nickelback Mobile LLC
P.O. Box 522288
Salt Lake City, UT 84152

Dear Mr. Strattman:

Montana Air Quality Permit #5005-01 is deemed final as of March 14, 2014, by the Department of Environmental Quality (Department). This permit is for a non-metallic mineral/crushing operation. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Craig Henrikson, P.E.
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

JM:CPH
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #5005-01

Andy Strattman
Nickelback Mobile LLC
P.O. Box 522288
Salt Lake City, UT 84152

March 14, 2014

MONTANA AIR QUALITY PERMIT

Issued To: Nickelback Mobile LLC
P.O. Box 522288
Salt Lake City, UT 84152

Montana Air Quality Permit #5005-01
Administrative Amendment (AA)
Request Received: 2/7/14
Department Decision on AA: 2/26/14
Permit Final: 3/14/14
AFS #: 777-5005

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Nickelback Mobile LLC. (Nickelback) 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

MAQP #5005-01 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of nonattainment areas for particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}). *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* Nickelback will be required to obtain an addendum to this air quality permit to operate at locations in or within 10 km of any PM_{10} nonattainment area.

Nickelback's initial operating site is in Section 24, Township 4 South, Range 18 East, in Stillwater County, Montana.

B. Current Permit Action

On February 7, 2014, the Department received a request from Blue Mountain Crushing that MAQP #5005-00 be amended to change the name of the company to Nickelback Mobile LLC and change the company address. The current permit action is an administrative amendment. The current permit action also updates the permit to reflect current permit language and rule references used by the Department.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Sources (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, other than a crusher (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).

   - For equipment that commences construction, modification, or reconstruction on or after April 22, 2008: 7% opacity

   - 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 17.8.752).

5. Nickelback shall not cause or authorize to be discharged into the atmosphere from any street, road, or parking lot any visible fugitive emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.308 and ARM 17.8.752).

6. Nickelback shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).

7. Nickelback shall not operate more than two crushers at any given time and the total combined maximum rated design capacity for the crushers shall not exceed 1000 tons per hour (TPH) (ARM 17.8.749).

8. Nickelback shall not operate more than two screens at any given time and the total combined maximum rated design capacity for the screens shall not exceed 1000 TPH (ARM 17.8.749).

9. The combined rating of the diesel-fired engines (directly driving crushers, screens, conveyors, etc.) shall not exceed 1,150 bhp at any time and shall be certified as United States Environmental Protection Agency (EPA) Tier II or equivalent (ARM 17.8.749).

10. The total hours of each diesel-fired engine that may be used under this permit shall be limited to 5,000 hours of operation during any rolling 12-month time period (ARM 17.8.749).

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

12. Nickelback 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).

13. Nickelback shall comply with all applicable standards and limitations, and the 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).

B. Testing Requirements

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

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

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

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer Form must be sent to the Department 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. Nickelback 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. Nickelback 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 start-up 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(1)(d) (ARM 17.8.745).

4. Nickelback 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 Nickelback as a permanent business record for at least 5 years following the date of the measurement, must be available for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

5. Nickelback shall document, by month, the hours of operation of each diesel engine/generator. By the 25th of each month, Nickelback shall calculate the hours of operation of each diesel engine/generator. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

Nickelback shall provide the Department with written notification of the actual start-up date of the facility postmarked within 15 days after the actual start-up date (ARM 17.8.749).

SECTION III: General Conditions

A. Inspection – Nickelback 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 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 Nickelback fails to appeal as indicated below.

C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Nickelback 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 the Department 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 Nickelback 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. Nickelback 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
Nickelback Mobile LLC
MAQP #5005-01

I. Introduction/Process Description

Nickelback Mobile LLC (Nickelback) owns and operates a portable non-metallic mineral processing plant.

A. Permitted Equipment

MAQP #5005-01 allows the operation of a jaw crushing plant with feeder and cone crusher, two independent screens, associated conveyors and up to 1,150 total brake horsepower (bhp) as determined by all diesel-fired engines on site. A limit was taken on total facility operating hours to keep the total oxides of nitrogen ($NO_{x)}$ emissions below the modeling threshold. The main permitted equipment is listed below: This permit is written de minimis friendly to allow Nickelback to use alternate diesel-fired engines as long as the total bhp rating of the units does not exceed that noted below.

- Feed Hopper
- Jaw Crusher with associated integral vibrating screen rated up to 500 tons per hour (tph)
- Cone Crusher rated up to 500 tph
- Two Screens each rated up to 500 tph
- Up to 1,150 bhp as rated by all diesel-fired engines certified EPA Tier II or equivalent
- Up to a total of 9 conveyors and stackers

B. Source Description

Nickelback proposes to use this crushing/screening plant and associated equipment to crush and screen rock material for use as a raw material. For a typical operational setup, materials are first loaded into the feed hopper, screened at the inlet to the crusher, with larger material recycled for additional crushing with product transferred to storage piles. Diesel-fired engines provide the on-site power for all permitted equipment.

Nickelback's initial location is the home pit and is located at 45.474 latitude and 109.456 West longitude. The township, range, section description is Township 4 South, Range 18 East in Section 24 in Stillwater County, Montana.

C. Permit History

On January 13, 2014, Blue Mountain Crushing was issued **MAQP #5005-00** to operate a portable crushing and screening facility. The original permit was issued with a jaw and cone crusher, two screens, diesel-fired engines up to 1,150 bhp and associated conveying equipment.

D. Current Permit Action

On February 7, 2014, the Department received a request that MAQP #5005-00 be amended to change the name of the company to Nickelback Mobile LLC and change the company address. The current permit action is an administrative amendment. The current permit action also updates the permit to reflect current permit language and rule references used by the Department. **MAQP #5005-01** replaces MAQP #5005-00.

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   Nickelback shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Quality Monitoring
2. ARM 17.8.210 Ambient Air Quality Standard for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standard for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standard for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter

8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

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

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

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Nickelback shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank truck or trailer is equipped with a vapor loss control device as described in (1) of this rule.

7. ARM 17.8.340 Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by Nickelback, the portable crushing/screening operation is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

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

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified

after August 31, 1983. Based on the information submitted by Nickelback, the portable crushing equipment to be used under MAQP #5005-01 is subject to this subpart because the facility is beginning operation after August 31, 1983.

c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary compression ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. As the permit is written in a de minimis-friendly manner, the CI ICE equipment to be used by Nickelback under MAQP #5005-01 is potentially subject to this Subpart if it stays in a location for twelve consecutive months. Engines that are added in the future may also be subject to this subpart.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Source Categories. Based on the information submitted by Nickelback, the associated diesel-fired engine(s) are applicable to 40 CFR Part 63, as follows:

a. 40 CFR 63, Subpart A – General Provisions apply to all equipment of facilities subject to a NESHAP Subpart(s) as listed below:

b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. A RICE is considered stationary if it remains or will remain at the permitted location for more than 12 months, or a shorter period of time for an engine located at a seasonal source. A seasonal source remains at a single location on a permanent basis (at least 2 years) and operates 3 months or more each year. Based on the information submitted by Nickelback, the RICE equipment to be used under this permit may be subject to this subpart because they are an area source of HAP emissions and the engine may remain at the same home pit location for more than 12 consecutive months.

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

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

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open

burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify or use any asphalt concrete plant, mineral crusher, or mineral screen that has the potential to emit (PTE) greater than 15 tons per year (TPY) of any pollutant. Nickelback has a PTE greater than 15 TPY of NO_x; therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit Program.

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of public notice was not required for the current permit action because the permit change is considered an administrative permit change.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this Permit Analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Nickelback of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

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

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

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

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

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

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

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

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

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

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

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

   a. PTE > 100 TPY of any pollutant;

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

   c. PTE > 70 TPY of PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #5005-01 for Nickelback, 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 area source provisions of a current National Emissions Standard for Hazardous Air Pollutants (NESHAP) (40 CFR 63, Subpart ZZZZ).

   e. This facility is subject to current NSPS standards (40 CFR 60, Subpart OOO and potentially subject to Subpart IIII).

   f. This source is not a Title IV affected source.

   g. This source is not a solid waste combustion unit.

   h. This source is not an EPA designated Title V source.

   Based on these facts, the Department has determined that Nickelback will be a minor source of emissions as defined under Title V. While Nickelback has accepted federally-enforceable limits on annual hours of operation which result in reduced potential emissions, the primary function of these limits is to reduce

potential emissions to a level that eliminates the need for the facility to quantitatively demonstrate compliance with ambient air quality standards based on Department policy. By taking these federally-enforceable conditions into account when analyzing the PTE, Nickelback is a true minor source with regards to Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Nickelback will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT determination is required for each new or modified source. Nickelback 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. The current permit action is an administrative amendment; and therefore, a BACT analysis is not required.

IV. Emission Inventory

	Emissions Tons/Year [PTE]							
Emission Source	PM	PM_{10}	$PM_{2.5}$	$PM_{Cond.}$	CO	NO_x	SOx	VOC
Two Crushers	3.00	1.35	0.25					
Truck Unloading (Assume all material is unloaded that can be processed in crusher)	0.04	0.04	--					
Screens (Two Vibrating)	5.50	1.85	0.13					
Transfer Points (Assume 7 Transfer Points)	1.27	0.42	0.12					
Pile Formation	8.08	3.82	0.58					
Truck Loading (Assume all material is eventually loaded)	0.35	0.12	0.12					
Diesel Generators (Total 1150 hp)	0.47	0.47	0.63	0.15	0.69	16.47	5.89	7.22
Unpaved Roadways (Haul Roads)	5.39	1.49	0.15					
EMISSIONS (Excluding Haul Roads)	18.72	8.07	1.82	0.15	0.69	16.47	5.89	7.22

a. Emission Inventory reflects enforceable limits on hours of operation							
CO, carbon monoxide							
NO_X, oxides of nitrogen							
PM, particulate matter							
PM_{10}, particulate matter with an aerodynamic diameter of 10 microns or less							
$PM_{2.5}$, particulate matter with an aerodynamic diameter of 2.5 microns or less							
PM_{Cond}, Condensable particulate matter							
SO_2, oxides of sulfur							
TPY, tons per year							
VOC, volatile organic compounds							

Crusher Capacity

Process Rate:	1000	ton/hr	(Two Crushers)		
Operating Hours	5000	hours/year			
PM Emissions:					
Emission Factor	0.0012	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.0012 lbs/ton) * (1,000.00 ton/hour) =			1.20	lbs/hr
	(1.20 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			3.00	TPY
PM_{10} Emissions:					
Emission Factor	0.00054	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00054 lbs/ton) * (1,000.00 ton/hour) =			0.54	lbs/hr
	(0.54 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			1.35	TPY
$PM_{2.5}$ Emissions:					
Emission Factor	0.0001	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.0001 lbs/ton) * (1,000.00 ton/hour) =			0.10	lbs/hr
	(0.10 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			0.25	TPY

Truck Unloading (Assume all material is unloaded that can be processed in the crusher)

Process Rate:	1000.0	ton/hr (Assumes each crusher operates independently)	
Operating Hours	5000	hours/year	
PM_{10} Emissions:			
Emission	0.000016	lbs/ton	[AP-42 Table 11.19.2-2 8/04]

Factor Calculations	(0.000016 lbs/ton) * (1,000.00 ton/hour) =			0.02	lbs/hr
	(0.02 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			0.04	TPY

Screening

Process Rate:	1000	ton/hr	(Two Screens)
Operating Hours	5000	hours/year	

PM Emissions: (Screening controlled)

Emission Factor	0.00220	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.0022 lbs/ton) * (1,000.00 ton/hour) =			2.20	lbs/hr
	(2.20 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			5.50	TPY

PM_{10} Emissions:

Emission Factor	0.00074	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00074 lbs/ton) * (1,000.00 ton/hour) =			0.74	lbs/hr
	(0.74 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			1.85	TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.00005	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00005 lbs/ton) * (1,000.00 ton/hour) =			0.05	lbs/hr
	(0.05 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			0.13	TPY

Transfer Points (Assume 5 Transfer Point that are Controlled)

Process Rate:	5000	ton/hr (total of stacker and conveyors each handling 500 tph)
Operating Hours	3640	hours/year

PM Emissions: (Conveyor Transfer Points)

Emission Factor	0.00014	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00014 lbs/ton) * (5,000.00 ton/hour) =			0.70	lbs/hr
	(0.70 lbs/hr) * (3640 hrs/yr) *(0.0005 tons/lb) =			1.27	TPY

PM_{10} Emissions:

Emission Factor	0.000046	lbs/ton [AP-42 Table 11.19.2-2 8/04]			
Calculations	(0.000046 lbs/ton) * (5,000.00 ton/hour) =			0.23	lbs/hr
	(0.23 lbs/hr) * (3640 hrs/yr) *(0.0005 tons/lb) =			0.42	TPY

$PM_{2.5}$ Emissions:						
Emission Factor	0.000013	lbs/ton [AP-42 Table 11.19.2-2 8/04]				
Calculations	(0.000013 lbs/ton) * (5,000.00 ton/hour) =				0.07	lbs/hr
	(0.07 lbs/hr) * (3640 hrs/yr) *(0.0005 tons/lb) =				0.12	TPY

Pile Formation (Assume equipment thru- put is crusher total capacity)

Process Rate:	1000	ton/hr	Equation 1 from AP-42 Sec 13.2.4.3 11/06			
Operating Hours	5000	hrs/year	U = wind speed miles per hour	8.15	(Typical Value)	
			k = particle size multiplier	0.74	AP-42 Sec 13.2.4-3 11/06	
PM Emissions:			M = Moisture content %	2.52	(Typical Value)	
Emission Factor	0.003233753	lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4			
Calculations	(0.00323 lbs/ton) * (1,000.00 ton/hour) =				3.23	lbs/hr
	(3.23 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =				8.08	TPY

			Equation 1 from AP-42 Sec 13.2.4.3 11/06			
			U = wind speed miles per hour	8.15	8.15	(Typical Value)
			k = particle size multiplier	0.35	0.35	AP-42 Sec 13.2.4-3 11/06
PM_{10} Emissions:			M = Moisture content %	2.52	2.52	(Typical Value)
Emission Factor	0.001529478	lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4			
Calculations	(0.00153 lbs/ton) * (1,000.00 ton/hour) =				1.53	lbs/hr
	(1.53 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =				3.82	TPY

$PM_{2.5}$ Emissions:			Equation 1 from AP-42 Sec 13.2.4.3 11/06			
			U = wind speed miles per hour	8.15	8.15	(Typical Value)
			k = particle size multiplier	0.053	0.35	AP-42 Sec 13.2.4-3 11/06
			M = Moisture content %	2.52	2.52	(Typical Value)
Emission Factor	0.000231607	lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4			
Calculations	(0.00023 lbs/ton) * (1,000.00 ton/hour) =				0.23	lbs/hr
	(0.23 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =				0.58	TPY

Truck Loading (Assume all material is eventually loaded)

Modeled as Truck Loading Conveyor

Process Rate:	1000	ton/hr			
Operating Hours	5000	hours/year			
PM Emissions:					
Emission Factor	0.00014	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00014 lbs/ton) * (1,000.00 ton/hour) =			0.14	lbs/hr
	(0.14 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			0.35	TPY
PM_{10} Emissions:					
Emission Factor	0.000046	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000046 lbs/ton) * (1,000.00 ton/hour) =			0.05	lbs/hr
	(0.05 lbs/hr) * (5000 hrs/yr) *(0.0005 tons/lb) =			0.12	TPY

Diesel Fired Engines (Total 1150 hp)

Engine Rating:	1150	hp			
Operating Hours:	5000	hrs/yr			
Fuel Input	8.05	MMbtu/hr	BSFC = 7,000 BTU/hp-hr (AP42 Table 3.3-1 10/96)		
	58.759	gallons/hr (137,000 BTU/gal)			

Particulate Emissions:

PM Emissions:					
Emission Factor	0.000165	lb/hp-hr	[CAT Spec Sheet]		
Calculations	(0.000165 lb/hp-hr) * (1150 hp) =			0.19	lbs/hr
	(0.19 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.47	TPY
PM_{10} Emissions:					
Emission Factor	0.000165	lb/hp-hr	[Cat Spec Sheet]		
Calculations	(0.0001652 lb/hp-hr) * (1150 hp) =			0.19	lbs/hr
	(0.19 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.47	TPY

$PM_{2.5}$ Emissions (filterable):

Emission Factor	0.0001650	lb/hp-hr	[Cat Spec Sheet]		
Calculations	(0.000165 lb/hp-hr) * (1150 hp) =			0.19	lbs/hr
	(0.19 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.47	TPY

$PM_{2.5}$ Emissions (condensable):

Emission Factor	0.0077	MMBtu	[AP-42 3.4-1, 10/96]		
Calculations	(0.0077 lb/MMBtu) * (8.05 MMBtu/hr) =			0.06	lbs/hr
	(0.06 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.15	TPY

CO Emissions:

Emission Factor	0.00024	lb/hp-hr	[Cat Spec Sheet]		
Calculations	(0.00024 lb/hp-hr) * (1150 hp) =			0.28	lbs/hr
	(0.28 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			0.69	TPY

NOx Emissions:

Emission Factor	0.0057	lb/hp-hr	[Cat Spec Sheet]		
Calculations	(0.00573 lb/hp-hr) * (1150 hp) =			6.59	lbs/hr
	(6.59 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			16.47	TPY

SO_x Emissions:

Emission Factor	0.00205	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0021 lb/hp-hr) * (1150 hp) =			2.36	lbs/hr
	(2.36 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			5.89	TPY

VOC Emissions:

Emission Factor	0.00251	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0025 lb/hp-hr) * (1150 hp) =			2.89	lbs/hr
	(2.89 lbs/hr) * (5000 hrs/yr) * (0.0005 tons/lb) =			7.22	TPY

Unpaved Roadways (Haul Roads)

Emission Factor: $EF = k(s/12)^{a} * (W/3)^{b}$ [AP-42 13.2.2.2, 11/06]

EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)

k, Empirical Constant PM =	4.9	[AP-42 Table 13.2.2-2, 11/06]
k, Empirical Constant PM_{10} =	1.5	[AP-42 Table 13.2.2-2, 11/06]
k, Empirical Constant $PM_{2.5}$ =	0.15	[AP-42 Table 13.2.2-2, 11/06]
s, Surface Material Silt Content (%) =	7.1	[AP-42 Table 13.2.2-1, 11/06]
W, Mean Vehicle Weight (tons) =	48	[Estimated]
a, Empirical Constant PM =	0.7	[AP-42 Table 13.2.2-2, 11/06]
a, Empirical Constant PM_{10} and $PM_{2.5}$ =	0.9	[AP-42 Table 13.2.2-2, 11/06]
b, Empirical Constant PM , PM10 and $PM_{2.5}$ =	0.45	[AP-42 Table 13.2.2-2, 11/06]

PM Emissions(uncontrolled): PM30

Emission Factor	EF = 4.9 * (7.1/12)^0.7 * (48/3)^0.45 =	11.82	lbs/VMT		
Calculations	(11.82 lbs/VMT) * (5 miles/day) =			59.08	lbs/day
	(59.08 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =			10.78	TPY
	50% Control Efficiency			5.39	TPY

PM_{10} Emissions(uncontrolled):

Emission Factor	EF = 1.5 * (7.1/12)^0.9 * (48/3)^0.45 =	3.26	lbs/VMT		
Calculations	(3.26 lbs/VMT) * (5 miles/day) =			16.28	lbs/day
	(16.28 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =			2.97	TPY
	50% Control Efficiency			1.486	TPY

$PM_{2.5}$ Emissions(uncontrolled):

Emission Factor	EF = 0.15 * (7.1/12)^0.9 * (48/3)^0.45 =	0.33	lbs/VMT		
Calculations	(0.33 lbs/VMT) * (5 miles/day) =			1.63	lbs/day
	(1.63 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =			0.30	TPY
	50% Control Efficiency			0.15	TPY

V. Existing Air Quality

This permit is for a portable facility to be located in Township 4 South, Range 18 East, in Section 24 in Stillwater County, Montana, and in those areas which have been designated unclassified/attainment with all ambient air quality standards. MAQP #5005-01 applies while operating at any location in Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM_{10} 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_{10} nonattainment areas.

VI. Air Quality Impacts

The Department determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action. Therefore, the Department believes this action will not cause or contribute to a violation of any ambient air quality standard.

VII. Ambient Air Impact Analysis

The Department determined, based on this permitting action being an administrative amendment that the impacts will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

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

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

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

IX. Environmental Assessment

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

Analysis Prepared By: Craig Henrikson
Date: February 14, 2014