Brian Schweitzer, Governor

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March 23, 2012

Ms. Jana McDonald CPM Development Corporation d.b.a. Central Washington Concrete, Inc. P.O. Box 3366 Spokane, WA 99212

Dear Ms. McDonald:

Montana Air Quality Permit #3212-01 is deemed final as of March 23, 2012, by the Department of Environmental Quality (Department). This permit is for a portable crushing/screening 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,

Vickie Walsh

Vickie Walsh

Air Permitting Program Supervisor Air Resources Management Bureau

(406) 444-9741

Deanne Fischer, P.E.

Environmental Engineer Air Resources Management Bureau

(406) 444-3403

VW:DF Enclosure

# Montana Department of Environmental Quality Permitting and Compliance Division

Montana Air Quality Permit #3212-07

CPM Development Corporation d.b.a. Central Washington Concrete, Inc. P.O. Box 3366 Spokane, WA. 99212

March 23, 2012



### MONTANA AIR QUALITY PERMIT

Issued To: CPM Development Corporation d.b.a. Central Washington Concrete, Inc. P.O. Box 3366

Spokane, WA. 99212

MAQP: #3212-01

Administrative Amendment (AA) Request

Received: 02/03/2012

Department's Decision on AA: 03/07/2012

MAQP Final: 03/23/2012

AFS: #777-3212

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to CPM Development Corporation d.b.a. Central Washington Concrete, Inc. (CWC) 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

CWC owns and operates a portable crushing/screening plant located at various locations throughout Montana. MAQP #3212-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 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*.

MAQP #3212-01 and Addendum 2 apply to the CWC facility while operating at any location in or within 10 km of certain  $PM_{10}$  nonattainment areas during the summer months (April 1 – September 30).

#### B. Current Permit Action

On February 3, 2012, the Department received a request to administratively amend MAQP #3212-00 to change existing federally enforceable limits. CWC's request was made as part of a project undertaken by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below the 100 ton per year (TPY) major source Title V Operating Permit thresholds. The Department offered these "synthetic minor" sources the opportunity to take new permit limits to further reduce emissions from just below 100 TPY to below 80 TPY. The permit limit change will consequently alter the oversight category for this facility to a level that is only subject to the State Compliance Monitoring Strategy. This permitting action amends MAQP #3212-00 to further limit hours of operation to a level that results in potential emissions below 80 TPY. In addition, the permit updates the rule references, permit format, and the emissions inventory.

#### 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, ARM 17.8.752, 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 ARM 17.8.752, 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 and ARM 17.8.752).
- 4. All visible emissions from the generator may not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).
- 5. CWC 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 and ARM 17.8.752).
- 6. CWC 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. Water 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).
- 8. CWC shall not operate or have on site more than four crushers at any given time, and the total combined maximum design capacity of the crushers shall not exceed 875 tons per hour (TPH) (ARM 17.8.749).

- 9. CWC shall not operate or have on site more than three screens at any given time and the total combined maximum design capacity of the screens shall not exceed 700 TPH (ARM 17.8.749).
- 10. CWC shall not operate or have on site more than one diesel engine/generator at any given time. The maximum capacity of the engine that drives the generator shall not exceed 2,012 brake horsepower (bhp) (ARM 17.8.749).
- 11. Operation of the 2,012 bhp diesel engine driving the generator shall not exceed 2,500 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
- 12. If the permitted equipment is used in conjunction with any other equipment owned or operated by CWC, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons of any pollutant during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
- 13. CWC 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).
- 14. CWC shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

# B. Testing Requirements

- 1. Within 60 days after achieving maximum production, but no later than 180 days after initial start-up, an Environmental Protection Agency (EPA) Method 9 opacity test and/or other methods and procedures as specified in 40 CFR 60.675 must be performed on any NSPS-affected equipment to demonstrate compliance with the emission limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340 and 40 CFR 60, Subpart A and Subpart OOO). Additional testing may be required by 40 CFR 60, Subpart OOO (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
- 2. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures manual (ARM 17.8.106).
- 3. The Department may require further testing (ARM 17.8.105).

## C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of

publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

- 2. CWC shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. All records compiled in accordance with this permit shall be maintained by CWC as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).
- 3. CWC 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, and/or to verify compliance with permit limitations (ARM 17.8.505).

- 4. CWC 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. CWC shall document, by month, the hours of operation of the diesel engine/generator. By the 25<sup>th</sup> day of each month, CWC shall total the hours of operation of the diesel engine/generator during the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.11. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 6. CWC shall annually certify that its emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

## Section III: Addendum

CWC shall comply with all of the conditions contained in Addendum 2 to MAQP #3212-01, as appropriate (ARM 17.8.749).

#### Section IV: General Conditions

- A. Inspection CWC 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) or continuous emissions rate monitoring system (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if the CWC fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving CWC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq*. (ARM 17.8.756).
- D. Enforcement Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.
- E. Appeals Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.
- F. Permit Inspection As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.
- G. Permit Fees Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by CWC 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. CWC shall comply with the conditions contained in this permit while operating at 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 CPM Development Corporation d.b.a. Central Washington Concrete, Inc. MAQP# 3212-01

### I. Introduction/Process Description

CPM Development Corporation d.b.a Central Washington Concrete, Inc. (CWC) owns and operates a portable crushing/screening facility.

# A. Permitted Equipment

Equipment used at the facility includes, but is not limited to the following:

- 1. (4) crushers (up to 875 tons per hour (TPH) combined maximum capacity);
- 2. (3) screens (up to 700 TPH combined maximum capacity);
- 3. (1) diesel engine/generator (up to 2,012 brake horsepower (bhp)); and
- 4. Associated equipment (conveyors and transfer points).

# B. Source Description

The crushing/screening plant will be used to crush and sort sand and gravel materials for sale and use in construction operations. For a typical operational setup, the raw materials will initially be dumped into a hopper and conveyed to a primary crusher. Rejected material from the primary crusher is conveyed to the scalp pile. Crushed material is conveyed to the primary screen and then conveyed to the secondary crusher. Material is again crushed and sent by conveyor to additional screens. The tertiary screens select and convey product-sized material to loadout bunkers and return over-sized material to be recrushed in tertiary crushers until product-sized material is produced. The materials will be used for various construction operations.

## C. Permit History

On July 24, 2002, **MAQP** #3212-00 and **Addendum 1** were issued to CWC for the operation of a portable crushing/screening facility including four portable crushers (one with a capacity of no greater than 400 TPH, one with a capacity of no greater than 275 TPH, and two with capacities of no greater than 100 TPH), three portable screens (one with a capacity of no greater than 400 TPH and two with capacities of no greater than 150 TPH), one diesel generator (with a capacity of no greater than 1,500 kilowatt (kW)), and associated equipment. The permit allowed operation at various locations throughout the state of Montana. Addendum 1 allowed CWC to operate in or within 10 kilometers (km) of the Kalispell, Libby, Whitefish, Columbia Falls, Butte, and Thompson Falls particulate matter with an aerodynamic diameter of 10 microns or less ( $PM_{10}$ ) nonattainment areas (NAA) during the summer months (APRIC III) through September 30).

#### D. Current Permit Action

On February 3, 2012, the Montana Department of Environmental Quality (Department) received a request to administratively amend MAQP #3212-00 to change existing federally enforceable limits. CWC's request was made as part of a project undertaken by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below the 100 tons per year (TPY) major

source Title V Operating Permit thresholds. The Department offered these "synthetic minor" sources the opportunity to take new permit limits to further reduce emissions from just below 100 TPY to below 80 TPY. The permit limit change will consequently alter the oversight category for this facility to a level that is only subject to the State Compliance Monitoring Strategy.

This permitting action amends MAQP #3212-00 to further limit hours of operation of the engine/generator to maintain potential emissions of oxides of nitrogen ( $NO_x$ ) below 80 TPY. In addition, the emission inventory calculations were updated to include current emission factors and to more accurately reflect the process rate of the equipment associated with this facility. The total plant crushing and screening rate limits were omitted from the permit because they were found to be unnecessary to keep  $PM_{10}$  emissions below 80 TPY.

The emission inventory calculations in Addendum 2 were also updated to include current emission factors and to more accurately reflect the process rate of the equipment associated with this facility. Total daily plant production limits were omitted because they are unnecessary to keep  $PM_{10}$  emission below the NAA  $PM_{10}$  threshold of 547 pounds per day (lbs/day).

The current permit action updates the rule references, permit format, and the emissions inventory. **MAQP** #3212-01 replaces MAQP #3212-00 and **Addendum 2** replaces Addendum 1.

#### E. Additional Information

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

# II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. Upon request, the Department will provide references for 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. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.105 Testing Requirements</u>. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment and shall conduct tests, emission or ambient, for such periods of time as may be necessary, using methods approved by the Department.

- 3. <u>ARM 17.8.106 Source Testing Protocol</u>. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq.*, Montana Code Annotated (MCA).
  - CWC shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including, but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.
- 4. <u>ARM 17.8.110 Malfunctions</u>. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.
- 5. <u>ARM 17.8.111 Circumvention</u>. (1)No person shall cause or permit the installation or use of any device or any means that, without resulting in reduction of the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner as to create a public nuisance.
- B. ARM 17.8, Subchapter 2, Ambient Air Quality, including, but not limited to:
  - 1. ARM 17.8.204 Ambient Air Monitoring
  - 2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
  - 3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
  - 4. ARM 17.8.212 Ambient Air Quality Standards 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 17.8.222 Ambient Air Quality Standard for Lead
  - 10. ARM 17.8.223 Ambient Air Quality Standard for PM<sub>10</sub>
  - 11. ARM 17.8.230 Fluoride in Forage

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

- C. ARM 17.8, Subchapter 3, Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. This rule requires that no person may cause or authorize emissions to be discharged into the outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.
  - 2. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, CWC shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

- 3. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this section.
- 4. <u>ARM 17.8.310 Particulate Matter, Industrial Processes</u>. This rule requires that no person shall cause or authorize to be discharged into the atmosphere particulate matter in excess of the amount set forth in this section.
- 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.
- ARM 17.8.340 Standard of Performance for New Stationary Sources and
   Emission Guidelines for Existing Sources.
   This rule incorporates, by reference,
   40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS).
   CWC is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.
  - a. <u>40 CFR 60, Subpart A General Provisions</u> apply to all equipment or facilities subject to an NSPS Subpart as listed below:
  - b. 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 previously submitted by CWC in the original application, the portable crushing equipment to be used under MAQP #3212-01 is subject to this subpart because it meets the definition of an affected facility and was constructed or modified after August 31, 1983.
  - c. 40 CFR 60, Subpart IIII Standards of Performance for Stationary

    Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. Based on the information submitted by CWC, the CI ICE equipment to be used under MAQP #3212-01 is not subject to this subpart because the engine was manufactured before April 1, 2006. As this permit is written in a de minimis friendly manner, future engines may be subject to this subpart.
- 7. 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. CWC is considered a NESHAP-affected facility under 40 CFR Part 63 and is subject to the requirements of the following subparts.
  - a. <u>40 CFR 63, Subpart A General Provisions</u> apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

- b. 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 an existing, new or reconstructed 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. A diesel RICE engine operated by CWC will be subject to this Maximum Available Control Technology (MACT) standard as a stationary source if the engine 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. Since the permit is written in a de minimis friendly manner, area source provisions of the MACT requirements may apply to the facility engines.
- 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. A permit fee was not required for the current permit action because the permit action is considered an administrative permit change.
  - 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 TPY of any pollutant. CWC has a PTE greater than 15 TPY of PM<sub>10</sub>, NO<sub>x</sub>, and, Carbon Monoxide (CO); therefore, an air quality permit is required.
  - 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.

- 4. <u>ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes</u>. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
- 5. 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 publication of public
  notice was not required for the current permit action because the permit change is
  considered an administrative permit change
- 6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
- 7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
- 8. <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 CWC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.
- 10. <u>ARM 17.8.759 Review of Permit Applications</u>. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.
- 11. <u>ARM 17.8.762 Duration of Permit</u>. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.
- 12. <u>ARM 17.8.763 Revocation of Permit</u>. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

- 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 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. 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 TPY of any pollutant (excluding fugitive emissions).

- G. ARM 17.8, Subchapter 12, Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
    - a. PTE > 100 tons/year of any pollutant;
    - b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or a lesser quantity as the Department may establish by rule; or
    - c. PTE > 70 tons/year of  $PM_{10}$  in a serious  $PM_{10}$  nonattainment area.
  - 2. <u>ARM 17.8.1204 Air Quality Operating Permit Program Applicability</u>. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP#3212-01 for CWC, the following conclusions were made:

- a. The facility's PTE is less than 100 tons/year for any pollutant.
- b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
- c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
- d. This facility is subject to a current NSPS standard (40 CFR 60, Subpart OOO).
- e. This facility is potentially subject to a current NESHAP standard (40 CFR 63, Subpart ZZZZ).
- f. This source is not a Title IV affected source
- g. This source is not a solid waste combustion unit.
- h. This source is not an EPA designated Title V source.

CWC requested federally-enforceable permit limitations to remain a minor source of emissions with respect to Title V. Based on these limitations, the Department determined that this facility is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program

- i. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.
  - i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.
  - ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit
- 3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

#### III. BACT Determination

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

A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

# IV. Emission Inventory

	tons/year						
Emission Source	PM	PM10	PM2.5	NOx	CO	VOC	SO2
Engine Generator (up to 2,012 bhp)	5.53	5.53	5.53	77.95	16.80	6.32	5.15
Crushers (4) (875 TPH total)	4.60	2.07	0.38				
Screens (3) (700 TPH total)	6.75	2.27	0.15				
Haul Roads	11.37	3.13	0.31				
Conveyor Transfer Point (controlled)	8.83	2.90	0.82				
Pile Forming	8.90	4.21	0.64				
Bulk Loading	0.18	0.18	0.18				
<b>Total Emissions</b>	46.15	20.29	8.01	77.95	16.80	6.32	5.15

#### Footnotes:

 $HAPs = hazardous \ air \ pollutants$ 

bhp = brake horsepower

lb = pound

N/A = not applicable

ND = no data available

NO<sub>X</sub> = oxides of nitrogen

PM = particulate matter

PM<sub>10</sub> = particulate matter with an aerodynamic diameter of 10 microns or less

PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter of 2.5 microns or less

 $SO_X = oxides of sulfur$ 

TPH = tons per hour

TPY = tons per year

VOC = volatile organic compounds

yr = year

Engine Generator: (2,012 bhp)		
Operational Capacity of Engine = 1,500 kW x 1.34 bhp/kW =	2,012	bhp
Engine applicant's info	1,500	kW
Hours of Operation	2,500	hours/yr
	24.00	hrs/day
PM Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96) (Assume PM = PM10= PM2.5) Emission Factor =	2.20E-03	lbs/hp-hr
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0022 lbs/hp-hr) * (ton/2,000 lb) =	5.53	TPY
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0022 lbs/hp-hr) =	11,063.25	lbs/yr
Daily Calculation: (2,012 bhp) * (24 hrs/day) * (0.0022 lbs/hp-hr) =	106.21	lbs/day
NOx Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Emission Factor =	3.10E-02	lbs/hp-hr
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0310 lbs/hp-hr) * (ton/2,000 lb) =	77.95	TPY
Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.0310 lbs/hp-hr) =	155,891.25	lbs/yr
Daily Calculation: (2,012 bhp) * (24 hrs/day) * (0.0310 lbs/hp-hr) =	1,496.56	lbs/day
CO Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Emission Factor = Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00668 lbs/hp-hr) * (ton/2,000 lb) =	6.68E-03 <b>16.80</b>	lbs/hp-hr TPY

a. Inventory reflects enforceable limits on the diesel engine/generator hours of operation (2,500 hrs/yr) to keep allowable emissions ( $NO_x$ ) below the Title V threshold AND 80 TPY.

b. Operating limits for the crushers, screens and material handling equipment were eliminated because they were found to be unnecessary to keep  $PM_{10}$  emissions below 80 TPY.

<sup>\*\*</sup> CO = carbon monoxide

VOC Emissions: (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust + Crankcase, 10, Emission Factor = Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00251 lbs/hp-hr) * (ton/2,000 lb) * Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00251 lbs/hp-hr) = Daily Calculation: (2,012 bhp) * (24 hrs/day) * (0.00251 lbs/hp-hr) =		2.51E-03	
SOx Emissions: (AP-42, Sec. 3.3, Table 3.3-1, 10/96)			
Emission Factor = Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00205 lbs/hp-hr) * (ton/2,000 lb) Calculation: (2,012 bhp) * (2,500 hours/yr) * (0.00205 lbs/hp-hr) = Daily Calculation: (2,012 bhp) * (24 hrs/day) * (0.00205 lbs/hp-hr) =	2.05E-03 = <b>5.15</b> 10,308.94 98.97		lbs/hp-hr TPY lbs/yr lbs/day
Crushers (4): (875 TPH)			
Hours of Operation	8,760	hrs/yr	
Process Rate	24 875	hr/yr TPH	
PM Emissions: (AP 42, Table 11.19.2-2, 8/04, controlled) Emission Factor Calculation: (875 TPH) * (8,760 hrs/yr) * (0.0012 lb/ton) * (ton/2,000 lb) = Daily Calculation: (875 TPH) * (0.0012 lb/ton) * (24 hr/day) =	0.0012 <b>4.60</b> <b>25.20</b>	lb/ton TPY lb/day	
PM <sub>10</sub> Emissions: (AP 42, Table 11.19.2-2, 8/04, controlled) Emission Factor Calculation: (875 TPH) * (8,760 hrs/yr) * (0.00054 lb/ton) * (ton/2,000 lb) = Daily Calculation: (875 TPH) * (0.00054 lb/ton) * (24 hr/day) =	0.00054 2.07 11.34	lb/ton TPY lb/day	
PM <sub>2.5</sub> Emissions: (AP 42, Table 11.19.2-2, 8/04, controlled) Emission Factor Calculation: (875 TPH) * (8,760 hrs/yr) * (0.0001 lb/ton) * (ton/2,000 lb) = Daily Calculation: (875 TPH) * (0.0001 lb/ton) * (24 hr/day) =	0.0001 0.38 2.10	lb/ton TPY lb/day	
Screens (3): (700 TPH)			
Hours of Operation Process Rate		8,760 24 700	hrs/yr hr/yr TPH
<b>Total PM Emissions:</b> ( <b>AP 42, Table 11.19.2-2, 8/04, controlled</b> ) Emission Factor Calculation: (700 TPH) * (8,760 hrs/yr) * (0.0022 lb/ton) * (ton/2,000 lb) = Daily Calculation: (700 TPH) * (0.0022 lb/ton) * (24 hr/day) =	(	0.0022 6.75 36.96	lb/ton TPY lb/day
<b>Total PM</b> <sub>10</sub> <b>Emissions:</b> (AP 42, Table 11.19.2-2, 8/04, controlled) Emission Factor Calculation: (700 TPH) * (8,760 hrs/yr) * (0.00074 lb/ton) * (ton/2,000 lb) = Daily Calculation: (700 TPH) * (0.00074 lb/ton) * (24 hr/day) =	0.	00074 2.27 12.43	lb/ton TPY lb/day
<b>Total PM</b> <sub>2.5</sub> <b>Emissions:</b> ( <b>AP 42, Table 11.19.2-2, 8/04, controlled</b> ) Emission Factor Calculation: (700 TPH) * (8,760 hrs/yr) * (0.00005 lb/ton) * (ton/2,000 lb) = Daily Calculation: (700 TPH) * (0.00005 lb/ton) * (24 hr/day) =	0.	00005 <b>0.15</b> <b>0.84</b>	lb/ton TPY lb/day

Haul Roads		
Vehicle Miles Traveled	5	VMT/day
VMT per Hour	0.21	VMT/day VMT/hr
Hours of Operation	8,760	hrs/yr
1	365	days/yr
PM Emissions: (AP 42, Ch. 13.2.2, 11/06)		
Emission Factor = $k * (s / 12)^a * (W / 3)^b = 12.46 \text{ lb/VMT}$	12.46	lb/VMT
Where: $k = constant$ (Value for PM30/TSP, Table 13.2.2-2)	4.9	lbs/VMT
s=surface silt content (sand/gravel processing, material storage area, Table 13.2.2-1)	7.1	%
W = mean vehicle weight (1994 average loaded/unloaded or a 40 ton truck)	54	tons
a = constant (Value for PM30/TSP, Table 13.2.2-2)	0.7	
b = constant (Value for PM30/TSP, Table 13.2.2-2)	0.45	
Control Efficiency	0	%
Calculation: $(8,760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (ton/2,000 \text{ lb}) =$	11.37	TPY
Calculation: (8,760 hrs/yr) * (0.21 VMT/hr) * (12.46 lb/VMT) * (ton/2,000 lb) * (1-0/100)	11.05	TDX
= Deile Calculations (5.00 VMT/Jan) * (12.46 lk VMT)	11.37	TPY
Daily Calculation: (5.00 VMT/day) * (12.46 lb/VMT) =	62.30	lbs/day
PM <sub>10</sub> Emissions: (AP 42, Ch. 13.2.2, 11/06)		
Emission Factor = $k * (s / 12)^a * (W / 3)^b = 3.43 \text{ lb/VMT}$	3.43	lb/VMT
Where: $k = constant$ (Value for PM30/TSP, Table 13.2.2-2)	1.5	lbs/VMT
s=surface silt content (sand/gravel processing, material storage area, Table 13.2.2-1)	7.1	%
W = mean vehicle weight (1994 average loaded/unloaded or a 40 ton truck)	54	tons
a = constant (Value for PM30/TSP, Table 13.2.2-2)	0.9	
b = constant (Value for PM30/TSP, Table 13.2.2-2)	0.45	
Control Efficiency	0	%
Calculation: (8,760 hrs/yr) * (0.21 VMT/hr) * (3.43 lb/VMT) * (ton/2,000 lb) =	3.13	TPY
Calculation: $(8,760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (ton/2,000 \text{ lb}) * (1-0/100) =$	3.13	TPY
Daily Calculation: (5.00 VMT/day) * (3.43 lb/VMT) =	17.17	lbs/day
PM <sub>2.5</sub> Emissions: (AP 42, Ch. 13.2.2, 11/06)		
Emission Factor = $k * (s / 12)^a * (W / 3)^b = 0.34 \text{ lb/VMT}$	0.34	lb/VMT
Where: $k = constant$ (Value for PM30/TSP, Table 13.2.2-2)	0.34	lbs/VMT
s=surface silt content (sand/gravel processing, material storage area, Table 13.2.2-1)	7.1	%
W = mean vehicle weight (1994 average loaded/unloaded or a 40 ton truck)	54	tons
a = constant (Value for PM30/TSP, Table 13.2.2-2)	0.9	20115
b = constant (Value for PM30/TSP, Table 13.2.2-2)	0.45	
Control Efficiency	0	%
Calculation: (8,760 hrs/yr) * (0.21 VMT/hr) * (0.34 lb/VMT) * (ton/2,000 lb) =	0.31	TPY
Calculation: $(8,760 \text{ hrs/yr}) * (0.21 \text{ VMT/hr}) * (0.34 \text{ lb/VMT}) * (ton/2,000 \text{ lb}) * (1-0/100) =$	0.31	TPY
Daily Calculation: (5.00 VMT/day) * (0.34 lb/VMT) =	1.72	lbs/day
Conveyor Transfer Points (36 transfers) (controlled)		
Process Rate	40	00 TPH
Hours of Operation	8,76	
1		24 hr/yr
Number of Transfers		6 transfer
Total DM Emissions, (AD 42 Told, 11 10 2 2 9/04)		
Total PM Emissions: (AP 42, Table 11.19.2-2, 8/04)		
Emission Factor	0.0001	4 lb/ton

Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00014 lb/ton) * (ton/2,000 lb) * (36 transfer) = Daily Calculation: (400 TPH) * (0.00014 lb/ton) * (36 transfer)* (24 hr/day) =	8.83 48.38	TPY lb/day
<b>Total PM</b> <sub>10</sub> <b>Emissions:</b> ( <b>AP 42, Table 11.19.2-2, 8/04</b> ) Emission Factor Calculation: (400 TPH) * (8,760 hrs/yr) * (0.000046 lb/ton) * (ton/2,000 lb) * (36 transfer) = Daily Calculation: (400 TPH) * (0.000046 lb/ton) * (36 transfer)* (24 hr/day) =	4.60E-05 2.90 15.90	lb/ton TPY lb/day
<b>Total PM</b> <sub>2.5</sub> <b>Emissions:</b> (AP 42, Table 11.19.2-2, 8/04) Emission Factor Calculation: (400 TPH) * (8,760 hrs/yr) * (0.000013 lb/ton) * (ton/2,000 lb) * (36 transfer) = Daily Calculation: (400 TPH) * (0.000013 lb/ton) * (36 transfer)* (24 hr/day) =	1.30E-05 0.82 4.49	lb/ton TPY lb/day
Pile Forming (3 piles)		
Process Rate Hours of Operation Number of Piles	400 8,760 24 3	TPH hrs/yr hrs/day piles
PM Emissions: (AP 42, Sec. 13.2.4.3, 11/06)		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00169 lb/ton  Where: k = particle size multiplier (value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)  U = mean wind speed (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)  M = material moisture content (from previous permit version)  Control Efficiency  Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00169 lb/ton) * (ton/2,000 lb) * (3 piles) =  Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00169 ) * (ton/2,000 lb) * (3 piles) * (1-0/100) =  Daily Calculation: (400 TPH) * (0.00169 lb/ton) * (3 piles) * (24 hr/day) =	0.00169 0.74 8.15 4.00 0 8.90 8.90 48.77	mph % TPY TPY lb/day
PM <sub>10</sub> Emissions: (AP 42, Sec. 13.2.4.3, 11/06)		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00080 lb/ton  Where: k = particle size multiplier (value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)  U = mean wind speed (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)  M = material moisture content (from previous permit version)	0.00080 0.35 8.15 4.00	lb/ton mph %
Control Efficiency	4.00	%
Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00080 lb/ton) * (ton/2,000 lb) * (3 piles) = Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00080 ) * (ton/2,000 lb) * (3 piles) * (1-0/100)= Daily Calculation: (400 TPH) * (0.00080 lb/ton) * (3 piles) * (24 hr/day) =	4.21 <b>4.21</b> <b>23.07</b>	TPY TPY lb/day
PM <sub>2.5</sub> Emissions: (AP 42, Sec. 13.2.4.3, 11/06)		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00012 lb/ton  Where: k = particle size multiplier (value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)  U = mean wind speed (Average from values provided in AP 42, Sec. 13.2.4.3, 11/06)  M = material moisture content (from previous permit version)  Control Efficiency  Calculation: (400 TPH) * (8.760 brs/yr) * (0.00012 lb/top) * (top/2,000 lb) * (3 pilos) =	0.00012 0.053 8.15 4.00 0	lb/ton mph % TDV
Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00012 lb/ton) * (ton/2,000 lb) * (3 piles) = Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00012 ) * (ton/2,000 lb) * (3 piles) * (1-0/100)= Daily Calculation: (400 TPH) * (0.00012 lb/ton) * (3 piles) * (24 hr/day) =	0.64 <b>0.64</b> <b>3.49</b>	TPY TPY lb/day

## **Bulk Loading**

Process Rate Hours of Operation	400 8,760 24	TPH hrs/yr hrs/day
Number of Loads	1	load
PM Emissions: (AP 42, Sec. 11.19.2-2, 8/2004)		
Emission Factor	1.00E-04	lb/ton
Control Efficiency	0	%
Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00010 lb/ton) * (ton/2,000 lb) * (1 load) =	0.18	TPY
Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00010 lb/ton) * (ton/2,000 lb) * (1 load) * (1 - 0/100) =	0.18	TPY
Daily Calculation: (400 TPH) * (0.00010 lb/ton) * (1 load) * (24 hr/day)=	0.96	lb/day
PM <sub>10</sub> Emissions: (AP 42, Sec. 11.19.2-2, 8/2004)		
Emission Factor	1.00E-04	lb/ton
Control Efficiency	0	%
Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00010 lb/ton) * (ton/2,000 lb) * (1 load) =	0.18	TPY
Calculation: $(400 \text{ TPH}) * (8,760 \text{ hrs/yr}) * (0.00010 \text{ lb/ton}) * (ton/2,000 \text{ lb}) * (1 \text{ load}) * (1 - 0/100) = 0.00010 \text{ lb/ton}$	0.18	TPY
Daily Calculation: (400 TPH) * (0.00010 lb/ton) * (1 load) * (24 hr/day)=	0.96	lb/day
PM <sub>2.5</sub> Emissions: (AP 42, Sec. 11.19.2-2, 8/2004)		
Emission Factor = $k (0.0032) * (U/5)^1.3 * (M/2)^-1.4 =$	1.00E-04	lb/ton
Control Efficiency	0	%
Calculation: (400 TPH) * (8,760 hrs/yr) * (0.00010 lb/ton) * (ton/2,000 lb) * (1 load) =	0.18	TPY
Calculation: $(400 \text{ TPH}) * (8,760 \text{ hrs/yr}) * (0.00010 \text{ lb/ton}) * (ton/2,000 \text{ lb}) * (1 \text{ load}) * (1 - 0/100) = 0.00010 \text{ lb/ton}$	0.18	TPY
Daily Calculation: (400 TPH) * (0.00010 lb/ton) * (1 load) * (24 hr/day)=	0.96	lb/day

## V. Existing Air Quality

MAQP #3212-01 and Addendum 2 are issued for the operation of a portable crushing and screening plant to be located in various locations throughout Montana and while operating at any location in or within 10 km of certain  $PM_{10}$  nonattainment areas during the summer months (April 1 – September 30). The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would be expected to operate on an intermittent and temporary basis and any effects on air quality would be expected to be minor and short-lived.

# VI. Air Quality Impacts

The Department determined that there will be minor impacts from this permitting action because this permitting action is considered an administrative action and the permit action resulted in a reduction of potential emissions. 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

Based on the information provided and the conditions established in MAQP #3212-01, the Department determined that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

# VIII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting
71		private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private
	21	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
	2 \$	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
	21	or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the
	21	physical taking of adjacent property or property across a public way from the property in question?
		Takings or damaging implications? (Taking or damaging implications exist if YES is checked in
	X	response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 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: Deanne Fischer

Date: February 29, 2012

# Addendum 2 CPM Development Corporation d.b.a. Central Washington Concrete, Inc. MAQP#3212-01

An addendum to MAQP #3212-01 is hereby granted to CPM Development Corporation d.b.a. Central Washington Concrete, Inc. (CWC), pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.749, as amended, for the following:

## I. Permitted Equipment

CWC owns and operates a portable non-metallic mineral processing facility consisting of 4 crushers (up to 875 tons per hour (TPH) combined maximum capacity), 3 screens (up to 700 TPH combined maximum capacity), a diesel engine/generator (with a rated capacity up to 2,012 brake horsepower (bhp)), and associated material handling and processing equipment (conveyors and transfer points).

#### II. Seasonal and Site Restrictions

Addendum 2 applies to the CWC facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less ( $PM_{10}$ ) nonattainment areas (NAAs). Additionally, seasonal and site restrictions apply to the facility as follows:

- A. During the winter season (October 1-March 31) CWC is not allowed to operate in or within 10 km of any  $PM_{10}$  NAA.
- B. During the summer season (April 1-September 30) CWC may operate at any location in or within 10 kilometers of certain PM<sub>10</sub> NAAs, including, but not limited to Libby, Thompson Falls, Kalispell, Whitefish, Columbia Falls, and Butte.
- C. CWC shall comply with the limitations and conditions contained in MAQP#3212-01 and Addendum 2 while operating in or within 10 km of any of the previously listed PM<sub>10</sub> NAAs. Addendum 2 shall be valid until revoked or modified. The Department of Environmental Quality (Department) reserves the authority to modify Addendum 2 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

#### III. Limitations and Conditions

- A. Operational Limitations and Conditions Summer Season Only
  - 1. Water spray bars must be available and operated, as necessary, on the crushers, screens, and all transfer points whenever the crushing/screening plant is in operation (ARM 17.8.749).
  - 2. CWC shall not cause or authorize to be discharged into the atmosphere from any equipment, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749). For NSPS-affected equipment constructed after April 22, 2008, for which an opacity limitation of 7% applies (such as screens and conveyors), that 7% limit shall apply to the affected equipment (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

- 3. CWC shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater (ARM 17.8.749).
- 4. CWC shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).
- 5. CWC shall not operate, or have on site, more than 4 crushers at any one time with a maximum combined rated design capacity of up to 875 TPH (ARM 17.8.749).
- 6. CWC shall not operate, or have on site, more than 3 screens at any one time with a maximum combined rated design capacity of up to 700 TPH (ARM 17.8.749).
- 7. CWC shall not operate or have on-site more than one diesel engine/generator. The maximum capacity of the engine that drives the generator shall not exceed 2,012 brake horsepower (bhp) at any given time. The engine/generator may be operated 24 hours per day, but shall not exceed 2,500 hours per year, in accordance with the conditions in MAQP #3212-01 (ARM 17.8.749).

# B. Operational Reporting Requirements

- 1. If this crushing/screening plant is moved to another nonattainment location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
- 2. Production information for the sites covered by this addendum must be maintained for five years and submitted to the Department upon request. The information must include (ARM 17.8.749):
  - a. Daily tons of material crushed by each crusher at each site (including amount of recirculated/rerun material). Interstate shall document, by day, the total crushing production.
  - b. Daily tons of material screened by each screen at each site (including amount of recirculated/rerun material). Interstate shall document, by day, the total screening production.
  - c. Daily tons of bulk material loaded at each site (production).
  - d. Daily hours of operation at each site.
  - e. Daily hours of operation and the bhp for each engine at each site
  - f. Fugitive dust information consisting of the daily total miles driven on unpaved roads within the operating site for all plant vehicles.

# Addendum 2 Analysis CPM Development Corporation d.b.a. Central Washington Concrete, Inc. MAQP#3212-01

## I. Permitted Equipment

CPM Development Corporation d.b.a. Central Washington Concrete, Inc. (CWC) owns and operates a portable crushing/screening facility to be operated at various locations within Montana. Equipment used at this facility includes, but is not limited to:

- (4) crushers (up to 875 tons per hour (TPH) combined maximum capacity);
- (3) screens (up to 700 TPH combined maximum capacity);
- (1) diesel engine/generator (up to 2,012 brake horsepower (bhp) maximum capacity); and
- Associated equipment (conveyors and transfer points).

## II. Source Description

The crushing/screening plant will be used to crush and sort sand and gravel materials for sale and use in construction operations. For a typical operational setup, the raw materials will initially be dumped into a hopper and conveyed to a primary crusher. Rejected material from the primary crusher is conveyed to the scalp pile. Crushed material is conveyed to the primary screen and then conveyed to the secondary crusher. Material is again crushed and sent by conveyor to additional screens. The tertiary screens select and convey product-sized material to loadout bunkers and return over-sized material to be recrushed in tertiary crushers until product-sized material is produced. The materials will be used for various construction operations.

## III. Applicable Rules and Regulations

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

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

- A. <u>ARM 17.8.749 Conditions for Issuance 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.
- B. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

- C. <u>ARM 17.8.765 Transfer of Permit</u>. An air quality permit may be transferred from one location to another if:
  - 1. Written notice of intent to transfer location and proof of public notice are sent to the Department;
  - 2. The source will operate in the new location for a period of less than 1 year; and
  - 3. The source will not have any significant impact on any nonattainment area or any Class I area.

## IV. Emission Inventory

	lbs/day						
<b>Emission Source</b>	PM	PM10	PM2.5	NOx	CO	VOC	SO2
Engine Generator: (2,012 bhp)	106.21	106.21	106.21	1496.56	322.48	121.37	98.97
Primary Crusher: (875 TPH total)	25.20	11.34	2.10				
Screen: (700 TPH total)	36.96	12.43	0.84				
Haul Roads	62.30	17.17	1.72				
Conveyor Transfer Point (controlled)	48.38	15.90	4.49				
Pile Forming	48.77	23.07	3.49				
Bulk Loading	0.96	0.96	0.96				
<b>Total Emissions</b>	328.78	187.08	119.81	1496.56	322.48	121.37	98.97

Footnotes: PM<sub>10</sub> emissions are less than 547 pounds per day.

The engine/generator may be operated 24 hours/ day, but not more than 2,500 hrs/yr in accordance with the conditions and limitations in MAOP#3212-01

A complete emission inventory for Permit Addendum 2 is included in the MAQP#3212-01 permit analysis.

\*\* CO = carbon monoxide

HAPs = hazardous air pollutants

bhp = brake horsepower

lb = pound

N/A = not applicable

ND = no data available

 $NO_X$  = 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

 $SO_X = oxides of sulfur$ 

TPH = tons per hour

TPY = tons per year

VOC = volatile organic compounds

yr = year

#### V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for  $PM_{10}$ . Due to exceedances of the national standards for  $PM_{10}$ , the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for  $PM_{10}$ . As a result of this designation, EPA required the Department and the City-County Health Departments to submit  $PM_{10}$  State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies determined these sources to be the major contributors to  $PM_{10}$  emissions.

MAQP #3212-01 and Addendum 2 are for a portable crushing/screening plant to be located at sites in or within 10 km of certain PM<sub>10</sub> nonattainment areas during the summer season (April 1 through September 30). Summertime operations (April 1 through September 30) may include areas in or within 10 km of certain PM<sub>10</sub> nonattainment areas, including, but not limited to Libby, Kalispell, Columbia Falls, Whitefish, Thompson Falls, and Butte. The more stringent operating

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

# VI. Air Quality Impacts

MAQP# 3212-01 will cover the operations of this portable crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program and those areas that are tribal lands.

MAQP# 3212-01 and Addendum 2 will cover the operations of this portable crushing/screening plant, while operating in or within 10 km of PM<sub>10</sub> nonattainment areas during the summer months only (April 1 through September 30).

# VII. Taking or Damaging Implication Analysis

As required by 2-10-101 through 105, MCA, the Department conducted the following private property taking and damaging assessment.

NO	
	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?
$\mathbf{v}$	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal
Λ	of property)
X	4. Does the action deprive the owner of all economically viable uses of the property?
v	5. Does the action require a property owner to dedicate a portion of property or to grant an
Λ	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?
v	6. Does the action have a severe impact on the value of the property? (consider economic impact,
Λ	investment-backed expectations, character of government action)
v	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?
X	7a. Is the impact of government action direct, peculiar, and significant?
v	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged
Λ	or flooded?
Y	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?
	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in
X	response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c;
	or if NO is checked in response to questions 5a or 5b; the shaded areas)
	x x x x x x x x

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

## VIII. Environmental Assessment

The current permit action is considered an administrative action; therefore an environmental assessment is not required for the proposed project.

Addendum Analysis prepared by: Deanne Fischer

Date: February 29, 2012