



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

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March 2, 2009

Mr. Martyn Salusso
Centennial Concrete, Inc.
701 Centennial Ave.
Butte, MT 59701

Dear Mr. Salusso:

Air Quality Permit #2598-02 is deemed final as of March 2, 2009, by the Department of Environmental Quality (Department). This permit is for Centennial Concrete, Inc. at various locations in Montana. 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
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-3490

John Raudsep
Air Quality Specialist
Air Resources Management Bureau
(406) 444-0283

VW:JR
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Air Quality Permit #2598-02

Centennial Concrete Inc.
701 Centennial Avenue
Butte, MT 59701

March 2, 2009



AIR QUALITY PERMIT

Issued To: Centennial Concrete, Inc.
701 Centennial Avenue
Butte, Montana 59701

Permit #2598-02
Administrative Amendment (AA)
Request Received: 01/24/08
Department's Decision on AA: 2/11/09
Permit Final: 3/2/09
AFS #777-2598

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Centennial Concrete, Inc. (Centennial), pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Centennial operates a portable crushing/screening operation originally located in the SE½ of Section 25, Township 13 North, Range 15 East, in Fergus County, Montana. However, MAQP #2598-02 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program or areas considered tribal lands. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

B. Current Permit Action

On January 24, 2008, the Department received a request from Centennial to include an Addendum for operation of their facility while at locations in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. The current permit action removed the 4000 hour operational restriction on the generator making giving the unit unrestricted hours for operation. The current action also updates the permit to reflect current permit language and rule references used by the Department and changes the permit to a de minimis-friendly format.

Section II: Limitations and Conditions

A. Operational Limitations and Conditions

1. Centennial shall not cause or authorize to be discharged into the atmosphere from any Standards of Performance for New Stationary Sources (NSPS) affected crusher, any visible emissions that exhibit an opacity of 15% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart 000).
2. Centennial shall not cause or authorize to be discharged into the atmosphere from any other NSPS-affected equipment, such as screens or conveyor transfers, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart 000).
3. Centennial shall not cause or authorize to be discharged into the atmosphere, from any non-NSPS affected equipment, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304 and ARM 17.8.752).

4. Water and spray bars shall be available on site and used, 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. Centennial shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
6. Centennial 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 17.8.752).
7. Total crushing production from the four crushers shall be limited to 6,482,400 tons during any rolling 12-month time period (ARM 17.8.749).
8. Centennial shall not operate more than four crushers at any given time and the combined maximum rated design capacity shall not exceed 1,200 tons per hour (TPH) (ARM 17.8.749).
9. Total screening production from the three screens shall be limited to 4,861,800 tons during any rolling 12-month time period (ARM 17.8.749).
10. Centennial shall not operate more than three screens at any given time and the combined maximum rated design capacity shall not exceed 900 TPH (ARM 17.8.749).
11. Centennial shall not operate more than one diesel generator at any given time and the maximum rated design capacity of the diesel engine shall not exceed 660 horsepower (hp) (ARM 17.8.749).
12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Centennial, 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 time period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
13. Centennial 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*, as appropriate (ARM 17.8.340 and 40 CFR 60, Subpart OOO).
14. Centennial 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* (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 the maximum production rate, but no later than 180 days after initial startup, 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 emissions limitations contained in Section II.A.1 and II.A.2 (ARM 17.8.340, 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. In addition, a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The Intent to Transfer Form and the proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.765).
2. Centennial 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 Centennial as a permanent business record for at least 5 years following the date of the measurement, shall be available at the plant site for inspection by the Department, and shall be submitted to the Department upon request (ARM 17.8.749).
3. Centennial shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in the most recent emission inventory report and sources identified in Section I.A of 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 units, as required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

4. Centennial shall notify the Department of any construction or improvement project conducted, pursuant to ARM 17.8.745(1), that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emission unit.

The notice must be submitted to the Department, in writing, 10 days prior to 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).

5. Centennial shall document, by month, the total crusher production for the facility. By the 25th day of each month, Centennial shall total the crusher production during the previous 12 months to verify compliance with the limitation in Section II.A.7. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Centennial shall document, by month, the total screen production for the facility. By the 25th day of each month, Centennial shall total the screen production during the previous 12 months to verify compliance with the limitation in Section II.A.9. A written report of the compliance verification shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. Centennial shall document, by month, the hours of operation of the diesel generator.. By the 25th day of each month, Centennial shall total the hours of operation of the diesel generator during the previous 12-months. A written report of the hours of operation must be submitted upon request by the Department (ARM 17.8.749).

Section III: General Conditions

- A. Inspection – Centennial 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 (CEMS, 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 Centennial fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving Centennial 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.* (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 decision until the 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. 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).
- H. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay by Centennial of an annual operation fee may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- 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. Centennial shall comply with the conditions contained in this permit while operating at any location in Montana, except within those areas having a Department approved permitting program or areas considered tribal lands.

PERMIT ANALYSIS
Centennial Concrete, Inc.
Permit Number 2598-02

I. Introduction/Process Description

Centennial Concrete, Inc. (Centennial) owns and operates a portable crushing/screening facility initially located in the SE½ of Section 25, Township 13 North, Range 15 East, in Fergus County, Montana. However, Montana Air Quality Permit (MAQP) #2598-02 applies while operating at any location in Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program or areas considered tribal lands. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

A. Permitted Equipment

Centennial's portable crushing/screening facility consists of the following equipment:

- a 1988 EL-Jay (5'x16') horizontal 3-deck screen (maximum capacity up to 300 tons per hour (TPH)),
- a 1997 JCI cone crusher (maximum capacity up to 300 TPH) with an attached (6'x16') 2-deck screen (maximum capacity up to 300 TPH),
- a 1982 Eagle jaw crusher (maximum capacity up to 300 TPH),
- two crushers (maximum combined capacity up to 300 TPH),
- a screen (maximum capacity up to 300 TPH), and
- a diesel generator (up to 660 horsepower (hp)).

B. Process Description

Centennial proposes to use this crushing/screening plant to crush and sort sand and gravel materials for use in various construction operations. For a typical operational setup, unprocessed materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor and passed through the crushers. Materials are crushed and sent to the screens, where materials are screened, separated, and conveyed to stockpile.

C. Permit History

On August 10, 1989, Centennial was issued Permit #2598-00 to operate a portable crushing/screening facility. The crushing/screening operation consisted of a 1952 Cedar Rapids Master Tandem (10"x36") Jaw and (40"x22") Rolls crusher, and associated equipment. The original location for the facility was identified as the NE ¼ of the SE ¼ of Section 26, Township 4 North, Range 10 West, in Deer Lodge County, Montana.

On May 21, 2003, Centennial submitted a complete MAQP application to remove a 1952 Cedar Rapids Master Tandem 10"x36" jaw and 40"x22" Rolls Crusher and add a 1988 EL-Jay (5'x16') horizontal 3-deck screen (maximum capacity up to 300 TPH), a 1997 JCI cone crusher (maximum capacity up to 300 TPH) with an attached (6'x16') 2-deck screen (maximum capacity up to 300 TPH), a 1982 Eagle jaw crusher (maximum capacity up to 300 TPH), two crushers (maximum capacity up to 300 TPH), a screen (maximum capacity up to 300 TPH), to MAQP #2598-01. The equipment will be powered by a diesel generator (up to 660 hp) and Centennial requested that the hours of operation be limited to 4,000 hours during any rolling 12-month time period. The permit was also requested to be generalized, by removing the references to specific pieces of equipment to allow additional operational flexibility for this facility. In addition, the permit was also updated to reflect the current language and rule references used by the Department.

D. Current Permit Action

On January 24, 2008, the Department received a request from Centennial to include an Addendum for operation of their facility while at locations in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. The current permit action removed the 4000 hour operational restriction on the generator making giving the unit unrestricted hours for operation. The current action also updates the permit to reflect current permit language and rule references used by the Department and changes the permit to a de minimis-friendly format.

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, unless otherwise stated.

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 or copies where appropriate.

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

1. ARM 17.8.101 Definitions. This rule is 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).

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

4. 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 which, without resulting in reduction in 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 that a public nuisance is created.

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

1. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide (SO₂)
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide (NO_x)
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide (CO)
4. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Centennial must comply 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 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter. (2) Under this rule, Centennial 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 rule.
4. ARM 17.8.310 Particulate Matter, Industrial Processes. This rule requires that no person shall cause or allow to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
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 rule.
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. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). The owner or operator of any stationary source or modification, as defined and applied in 40 CFR Part 60, NSPS, shall comply with the standards and provisions of 40 CFR Part 60.

- a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below.
 - b. 40 CFR 60, Subpart OOO, Standards of Performance for Nonmetallic Mineral Processing Plants, indicates that NSPS requirements apply to portable crushing/screening facilities with capacities greater than 150 tons per hour and that were constructed after August 31, 1983. The Centennial facility has a capacity in excess of 150 tons per hour and was constructed after August 31, 1983; therefore, NSPS requirements apply to the facility.
 - c. 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE), indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine. Since this permit is written in a de minimis-friendly manner, this regulation may apply to engines at the facility.
8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below:
- a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPs) Subpart as listed below:
 - b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, the diesel RICE at Centennial will be subject to this rule. However, although diesel RICE engines are an affected source, per 40 CFR 63.6590(b)(3) they do not have any requirements unless they are new or reconstructed after June 12, 2006. Any diesel RICE engine operated by Centennial that is new or reconstructed after June 12, 2006 will be subject to this Maximum Available Control Technology (MACT) standard 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 facility engines.
- D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
- 1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
 - 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit,

issued by the Department. This 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 facility to obtain an air quality permit or permit modification if they construct, modify, or use any asphalt plant, crusher, or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Centennial has the PTE more than 15 tons per year of total particulate matter (PM), PM₁₀, and 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 are not subject to 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. No BACT analysis was required for the current permit action because the permit change is considered an administrative permit change.
 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 Centennial 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 required 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, including a Transfer of Location notice and an affidavit of publication from a newspaper of general circulation in the area to be affected. (2) This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.
- F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:
1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.
 2. ARM 17.8.818 Review of Major Stationary Sources and Major 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 since it is not a listed source and the facility's potential to emit is less than 250 tons per year (excluding fugitive emissions) of any air pollutant.

- 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 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one Hazardous Air Pollutant (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 PM₁₀ in a serious PM₁₀ nonattainment area.
 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204(1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2598-02 for the Centennial facility, 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 of any one HAP and less than 25 tons/year of all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to a current NSPS standard (40 CFR 60, Subpart IIII and 40 CFR 60, Subpart OOO);
 - e. This facility is subject to current National Emission Standards for Hazardous Air Pollutants (NESHAP) standard (40 CFR 63, Subpart ZZZZ);
 - f. This source is not a Title IV affected source or a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

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

III. BACT Analysis

A BACT determination is required for each new or modified source. Centennial 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. However, a BACT analysis is not required for the current permit action because it is an administrative amendment.

IV. Emission Inventory

Source	PM	PM ₁₀	Tons/Yr			
			NO _x	VOC	CO	SO _x
Crushers (4 crushers up to a combined 1,200 TPH)	6.31	2.84				
Screens (3 screens up to a combined total of 900 TPH)	8.67	2.92				
Truck Loading/Unloading	0.21	0.02				
Material Transfer	3.31	1.09				
Pile Forming	12.69	6.03				
Engine/Generator (up to 660 hp)	6.36	6.36	89.61	7.14	19.31	5.93
Haul Roads	12.68	3.60				
Total	50.23	22.83	89.61	7.14	19.31	5.93

Crushers (4 crushers up to a combined 1,200 TPH)

Individual Maximum Process Rate: 300 TPH
 Combined Maximum Process Rate: 1,200 TPH
 Operational Hours: 24 hours per day

PM Emissions:

Emission Factor: 0.0012 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Hourly Calculations: 0.0012 lbs/ton * 1,200 ton/hr = 1.44 lb/hr
 Daily Calculations: 1.44 lb/hr * 24 hours/day = 34.56 lb/day
 Annual Calculations: 1.44 lb/hr * 8760 hours/year * 1ton/2000 lbs = 6.31 tons/year

PM₁₀ Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, Controlled Emissions, 8/04)
 Hourly Calculations: 0.00054 lbs/ton * 1,200 ton/hr = 0.65 lb/hr
 Daily Calculations: 0.65 lb/hr * 24 hours/day = 15.55 lbs/day
 Annual Calculations: 0.65 lb/hr * 8760 hours/year * 1ton/2000 lbs = 2.84 tons/year

Screens (3 screens up to a combined total of 900 TPH)

Individual Maximum Process Rate: 300 TPH
 Combined Maximum Process Rate: 900 TPH
 Operational Hours: 24 hours per day

PM Emissions:

Emission Factor: 0.0022 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Hourly Calculations: 0.0022 lbs/ton * 900 ton/hr = 1.98 lb/hr
 Daily Calculations: 1.98 lbs/hr * 24 hours/day = 47.52 lbs/day
 Annual Calculations: 1.98 lb/hr * 8760 hours/year * 1ton/2000 lbs = 8.67 tons/year

PM₁₀ Emissions:

Emission Factor: 0.00074 lbs/ton (AP-42, Table 11.19.2-2, Controlled Emissions, 8/04)
 Hourly Calculations: 0.00074 lbs/ton * 900 ton/hr = 0.67 lb/hr
 Daily Calculations: 0.67 lb/hr * 24 hours/day = 15.98 lbs/day
 Annual Calculations: 0.67 lb/hr * 8760 hours/year * 1ton/2000 lbs = 2.92 tons/year

Material Transfer

Process Rate: 300 ton/hr
 Number of Transfers: 19 transfers
 Hours of operation: 24 hours per day

PM Emissions:

Emission Factor: 0.00014 lbs/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Calculations: 0.00014 lbs/ton * 300 ton/hr * 19 transfers = 0.80 lb/hr

Annual Calculations: $0.80 \text{ lb/hr} * 24 \text{ hr/day} = 18.14 \text{ lb/day}$
 $0.80 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 3.31 \text{ tons/year}$

PM₁₀ Emissions:

Emission Factor: 0.000046 lbs/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Calculations: $0.00014 \text{ lbs/ton} * 300 \text{ ton/hr} * 19 \text{ transfers} = 0.26 \text{ lb/hr}$
 $0.26 \text{ lb/hr} * 24 \text{ hr/day} = 5.96 \text{ lb/day}$
 Annual Calculations: $0.26 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 1.09 \text{ tons/year}$

Pile Forming (3 Pile)

Process Rate: 300 ton/hr
 Hours of operation: 24 hours per day

PM Emissions:

Emission Factor: 0.0032 lbs/ton (AP-42 Section 13.2.4.3, 11/2006 - controlled)
 Calculations: $0.0032 \text{ lbs/ton} * 300 \text{ ton/hr} * 3 \text{ piles} = 2.88 \text{ lb/hr}$
 $2.88 \text{ lb/hr} * 15 \text{ hr/day} = 69.55 \text{ lb/day}$
 Annual Calculations: $2.88 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 12.69 \text{ tons/year}$

PM₁₀ Emissions:

Emission Factor: 0.0015 lbs/ton (AP-42 Section 13.2.4.3, 11/2006 - controlled)
 Calculations: $0.0015 \text{ lbs/ton} * 300 \text{ ton/hr} * 3 \text{ piles} = 1.35 \text{ lb/hr}$
 $1.35 \text{ lb/hr} * 24 \text{ hr/day} = 33.05 \text{ lb/day}$
 Annual Calculations: $1.35 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 6.03 \text{ tons/year}$

Truck Loading/Unloading

Process Rate: 300 ton/hr
 Hours of operation: 24 hours per day
 Number of Loads: 1 load(s) (Estimated)

PM Emissions:

Emission Factor: 0.00016 lbs/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)
 Calculations: $0.00016 \text{ lbs/ton} * 300 \text{ ton/hr} * 24 \text{ hr/day} * 1 \text{ load} = 1.15 \text{ lb/day}$
 Annual Calculations: $1.15 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 0.21 \text{ tons/year}$

PM10 Emissions

Emission Factor: 0.000016 lbs/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)
 Calculations: $0.00016 \text{ lbs/ton} * 300 \text{ ton/hr} * 24 \text{ hrs/day} * 1 \text{ load} = 0.12 \text{ lb/day}$
 Annual Calculations: $0.12 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 0.02 \text{ tons/year}$

Haul Roads

Vehicle Miles Traveled (VMT): 5 VMT/day (Estimated)
 Control Efficiency: 50% watering
 Rated Load Capacity: <50 tons
 Daily Operation: 24 hours per day

PM Emissions

Emission Factor: 13.90 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006 - controlled)
 Calculations: $13.90 \text{ lbs/VMT} * 5 \text{ VMT/day} = 69.50 \text{ lbs/day}$
 Annual Calculations: $69.50 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 12.68 \text{ tons/year}$

PM10 Emissions

Emission Factor: 3.95 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006 - controlled)
 Calculations: $3.95 \text{ lbs/VMT} * 5 \text{ VMT/day} = 19.75 \text{ lbs/day}$
 Annual Calculations: $1.44 \text{ lb/hr} * 8760 \text{ hours/year} * 1\text{ton}/2000 \text{ lbs} = 3.60 \text{ tons/year}$

Diesel Generator (Up to 660 hp)

Operating Hours: 24 hours per day
Engine Size: 660 hp

PM Emissions:

Emission Factor:	0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)	
Calculations:	$0.0022 \text{ lb/hp-hr} * 660 \text{ hp} * 24 \text{ hr/day} =$	34.85 lbs/day
Annual Calculations:	$0.0022 \text{ lb/hp-hr} * 660 \text{ hp} * 8760 \text{ hours/year} * 1 \text{ ton}/2000 \text{ lbs} =$	6.36 tons/year

PM10 Emissions:

Emission Factor:	0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)	
Calculations:	$0.0022 \text{ lb/hp-hr} * 660 \text{ hp} * 24 \text{ hr/day} =$	34.85 lbs/day
Annual Calculations:	$0.0022 \text{ lb/hp-hr} * 660 \text{ hp} * 8760 \text{ hours/year} * 1 \text{ ton}/2000 \text{ lbs} =$	6.36 tons/year

NOx Emissions:

Emission Factor:	0.031 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)	
Calculations:	$0.031 \text{ lb/hp-hr} * 660 \text{ hp} * 24 \text{ hr/day} =$	491.04 lb/day
Annual Calculations:	$0.031 \text{ lb/hp-hr} * 660 \text{ hp} * 8760 \text{ hours/year} * 1 \text{ ton}/2000 \text{ lbs} =$	89.61 tons/year

VOC Emissions:

Emission Factor:	0.00251 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)	
Calculations:	$0.00251 \text{ lb/hp-hr} * 660 \text{ hp} * 24 \text{ hr/day} =$	39.12 lb/day
Annual Calculations:	$0.00251 \text{ lb/hp-hr} * 660 \text{ hp} * 8760 \text{ hours/year} * 1 \text{ ton}/2000 \text{ lbs} =$	7.14 tons/year

CO Emissions:

Emission Factor:	0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)	
Calculations:	$0.00668 \text{ lb/hp-hr} * 660 \text{ hp} * 24 \text{ hr/day} =$	105.81 lbs/day
Annual Calculations:	$0.00668 \text{ lb/hp-hr} * 660 \text{ hp} * 8760 \text{ hours/year} * 1 \text{ ton}/2000 \text{ lbs} =$	19.31 tons/year

SOx Emissions:

Emission Factor:	0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)	
Calculations:	$0.00205 \text{ lb/hp-hr} * 660 \text{ hp} * 24 \text{ hr/day} =$	32.47 lbs/day
Annual Calculations:	$0.00205 \text{ lb/hp-hr} * 660 \text{ hp} * 8760 \text{ hours/year} * 1 \text{ ton}/2000 \text{ lbs} =$	5.93 tons/year

V. Existing Air Quality

MAQP #2598-02 is issued for the operation of a portable crushing/screening facility to operate at various locations throughout Montana. This facility would be allowed to operate at any area designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding those counties that have a Department-approved permitting program, those areas considered tribal lands, or those areas in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.* Addendum #1 of MAQP#2598-02 would cover this portable crushing/screening plant while operating at specified locations in or within 10 km of a PM₁₀ nonattainment area during the winter season (October 1 through March 31). Addendum #1 of MAQP#2598-02 would also allow for summertime operations (April 1 through September 30) at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM₁₀ nonattainment areas.

VI. Ambient Air Quality Impact Analysis

Based on the information provided and the conditions established in MAQP #2598-02, the Department believes that the amount of controlled emissions generated by this facility will not exceed any ambient air quality standard established for any of Montana's attainment or unclassified ambient air quality

areas. Additionally, the limitations and conditions established in Addendum #1 would further reduce the facility emissions generated while operating in the nonattainment areas and would also be protective of corresponding ambient air quality standards. In addition, this source is portable and any air quality impacts will be minimal. The conditions in MAQP #2598-02 will be protective of air quality while operating at locations not located in or within 10 km of certain PM₁₀ nonattainment areas.

VII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting 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.

VIII. 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.

Addendum #1
Centennial Concrete, Inc.
Permit #2598-02

An addendum to Montana Air Quality Permit (MAQP) #2598-02 is issued to Centennial Concrete, Inc. (Centennial), pursuant to Sections 75-2-204 and 75-2-211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment

Centennial owns and operates a portable crushing/screening facility consisting of a 1988 EL-Jay (5'x16') horizontal 3-deck screen (maximum capacity up to 300 tons per hour (TPH)), a 1997 JCI cone crusher (maximum capacity up to 300 TPH) with an attached (6'x16') 2-deck screen (maximum capacity up to 300 TPH), a 1982 Eagle jaw crusher (maximum capacity up to 300 TPH), two crushers (maximum capacity up to 300 TPH), a screen (maximum capacity up to 300 TPH), and a diesel generator (up to 660 horsepower (hp)), and associated material handling and processing equipment.

II. Seasonal and Site Restrictions – **Winter and Summer Seasons**

Addendum #1 applies to the Centennial facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

A. During the winter season (October 1 through March 31) – The only location(s) in or within 10 km of a PM₁₀ nonattainment area where Centennial may operate is:

- NE ¼ of Section 22, Township 3 North, Range 8 West (Manganese Ore Crushing Pit);
- N ½ of Section 23 and NW¼ of Section 24, Township 3 North, Range 8 West (Centennial Concrete Home Pit); and
- Any other site that may be approved, in writing, by the Department of Environmental Quality (Department).

B. During the summer season (April 1 through September 30) – Centennial may operate at any location in or within 10 km of the Butte, Columbia Falls, Libby, Kalispell, Thompson Falls, and Whitefish PM₁₀ nonattainment areas.

C. Centennial shall comply with the limitations and conditions contained in Addendum #1 to MAQP #2598-02 while operating in or within 10 km of any of the previously identified PM₁₀ nonattainment areas. Addendum #1 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum #1 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 – **Winter Season (October 1 – March 31)**

1. Water spray bars must be operated, as necessary, on the crushers, screens, and all transfer points to maintain compliance with the opacity limitations contained in Section III.A.2 and Section III.A.3 (ARM 17.8.749).
2. All visible emissions from the crushing/screening plant may not exhibit an opacity of

- 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
3. Centennial shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
4. Centennial 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 averaged over 6 consecutive minutes (ARM 17.8.749).
5. Centennial shall treat all unpaved portions of the haul roads, 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).
6. Centennial shall not operate more than 4 crushers at any one time. Total crusher production shall not exceed 18,000 tons per day (ARM 17.8.749).
7. Centennial shall not operate more than 3 screens at any one time. Total screen production shall not exceed 13,500 tons per day (ARM 17.8.749).
8. Centennial shall not operate more than one diesel generator at any given time and the maximum rated engine design capacity shall not exceed 660 hp. Total hours of operation shall not exceed 15 hours per day (ARM 17.8.749).

B. Operational Limitations and Conditions – Summer Season (April 1 – September 30)

1. Water spray bars must be operated, as necessary, on the crushers, screens, and all transfer points to maintain compliance with the opacity limitations contained in Section III.B.2 and Section III.B.3 (ARM 17.8.749).
2. All visible emissions from the crushing/screening plant may not exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
3. Centennial shall not cause or authorize to be discharged into the atmosphere from any other equipment, such as transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).
4. Centennial 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 averaged over 6 consecutive minutes (ARM 17.8.749).
5. Centennial shall treat all unpaved portions of the haul roads, 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).
6. Centennial shall not operate more than 4 crushers at any one time. Total crusher production shall not exceed 28,800 tons per day (ARM 17.8.749).
7. Centennial shall not operate more than 3 screens at any one time. Total screen production shall not exceed 21,600 tons per day (ARM 17.8.749).
8. Centennial shall not operate more than one diesel generator at any given time and the

maximum rated engine design capacity shall not exceed 660 hp (ARM 17.8.749).

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another nonattainment location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).
2. Production information for the sites covered by this addendum must be maintained for five years and submitted to the Department upon request. The information must include (ARM 17.8.749):
 - a. Tons of material crushed by each crusher at each site (including amount of recirculated/rerun material),
 - b. Tons of material screened by each screen at each site (including amount of recirculated/rerun material),
 - c. Tons of bulk material loaded at each site (production),
 - d. Daily hours of operation at each site,
 - e. Gallons of diesel used by each generator at each site,
 - f. Hours of operation and sizes for each generator at each site, and
 - g. Fugitive dust information consisting of the total miles driven on unpaved roads for all plant vehicles.
4. Centennial shall document, by day, the total crushing production. Centennial shall sum the total crushing production during the previous day to verify compliance with the limitations in Sections III.A.6 and III.B.6. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
5. Centennial shall document, by day, the combined total screening production. Centennial shall sum the combined total screening production during the previous day to verify compliance with the limitations in Sections III.A.7 and III.B.7. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Centennial shall document, by day, the hours of operation of the diesel engine/generator. Centennial shall total the hours of operation of the diesel engine/generator during the previous day to verify compliance with the limitations in Sections III.A.8. A written report of compliance verification and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted along with the annual emission inventory (ARM 17.8.749).

Addendum #1 Analysis
Centennial Concrete, Inc.
Permit #2598-02

I. Permitted Equipment

Centennial Concrete, Inc. (Centennial) owns and operates a portable crushing/screening facility consisting of four portable crushers (up to 1200 tons per hour (TPH)), three screens (up to 900 TPH), one diesel generator/engine (up to 660 hp), and associated equipment. Centennial operates at various locations throughout Montana, including in or within 10 kilometers (km) of the following particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) nonattainment areas: Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish.

II. Source Description

Centennial proposes to use this crushing/screening plant and associated equipment to crush sand and gravel materials for use in various construction operations. For a typical operational setup, materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor and passed through the crusher. Materials are crushed, by the crusher and sent to the two screens. Materials are screened, separated, and sent to stockpile for sale and use in 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. ARM 17.8.749 Conditions for Issuance of Permit. This rule requires that the source demonstrate compliance with applicable rules and standards before a permit can be issued. Also, a permit may be issued with such conditions as are necessary to assure compliance with all applicable rules and standards. Centennial demonstrated compliance with all applicable rules and standards as required for permit issuance.
- B. ARM 17.8.764 Administrative Amendemnt 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 which do not result in an increase in emissions because of the changed conditions. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.
- C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:
 - 1. Written notice of Intent to Transfer location and proof of public notice are sent to the Department;
 - 2. The source will operate in the new location for a period of less than 1 year; and

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

Centennial must submit proof of compliance with the transfer and public notice requirements when Centennial transfers to any of the locations covered by this addendum and will only be allowed to stay in the new location for a period of less than 1 year. Also, the conditions and limitations in Addendum #1 to MAQP #2598-02 will prevent Centennial from having a significant impact on PM₁₀ nonattainment areas.

IV. Emission Inventory

A. Emission inventory for winter season.

Source	Lb/Day					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Crushers (4 crushers up to a combined 1200 TPH)	21.60	9.72				
Screens (3 screens up to a combined total of 900 TPH)	29.70	9.99				
Truck Loading/Unloading	0.72	0.07				
Material Transfer	11.97	3.93				
Pile Forming	43.20	20.25				
Engine/Generator (up to 660 hp)	21.78	21.78	306.90	24.45	66.13	20.30
Haul Roads	43.44	12.34				
Total	172.41	78.09	306.90	24.45	66.13	20.30

Crushers (4 crushers up to a combined 1200 TPH)

Individual Maximum Process Rate: 300 TPH
 Combined Maximum Process Rate: 1,200 TPH
 Operational Hours: 15 hours per 24 hour rolling period

PM Emissions:

Emission Factor: 0.0012 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Hourly Calculations: 0.0012 lbs/ton * 1,200 ton/hr = 1.44 lb/hr
 Daily Calculations: 1.44 lb/hr * 15 hours/day = 21.60 lb/day

PM₁₀ Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, Controlled Emissions, 8/04)
 Hourly Calculations: 0.00054 lbs/ton * 1,200 ton/hr = 0.65 lb/hr
 Daily Calculations: 0.65 lb/hr * 15 hours/day = 9.72 lbs/day

Screens (3 screens up to a combined total of 900 TPH)

Individual Maximum Process Rate: 300 TPH
 Combined Maximum Process Rate: 900 TPH
 Operational Hours: 15 hours per 24 hour rolling period

PM Emissions:

Emission Factor: 0.0022 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Hourly Calculations: 0.0022 lbs/ton * 900 ton/hr = 1.98 lb/hr
 Daily Calculations: 1.98 lbs/hr * 15 hours/day = 29.70 lbs/day

PM₁₀ Emissions:

Emission Factor: 0.00074 lbs/ton (AP-42, Table 11.19.2-2, Controlled Emissions, 8/04)
 Hourly Calculations: 0.00074 lbs/ton * 900 ton/hr = 0.67 lb/hr
 Daily Calculations: 0.67 lb/hr * 15 hours/day = 9.99 lbs/day

Material Transfer

Process Rate: 300 ton/hr
Number of Transfers: 19 transfers
Hours of operation: 15 hr/24 hour period

PM Emissions:

Emission Factor: 0.00014 lbs/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
Calculations: $0.00014 \text{ lbs/ton} * 300 \text{ ton/hr} * 19 \text{ transfers} = 0.80 \text{ lb/hr}$
 $0.80 \text{ lb/hr} * 15 \text{ hr/day} = 11.97 \text{ lb/day}$

PM₁₀ Emissions:

Emission Factor: 0.000046 lbs/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
Calculations: $0.00014 \text{ lbs/ton} * 300 \text{ ton/hr} * 19 \text{ transfers} = 0.26 \text{ lb/hr}$
 $0.26 \text{ lb/hr} * 15 \text{ hr/day} = 3.93 \text{ lb/day}$

Pile Forming (3 Pile)

Process Rate: 300 ton/hr
Hours of operation: 15 hr/24 hour period

PM Emissions:

Emission Factor: 0.0032 lbs/ton (AP-42 Section 13.2.4.3, 11/2006 - controlled)
Calculations: $0.0032 \text{ lbs/ton} * 300 \text{ ton/hr} * 3 \text{ piles} = 2.88 \text{ lb/hr}$
 $2.88 \text{ lb/hr} * 15 \text{ hr/day} = 43.20 \text{ lb/day}$

PM₁₀ Emissions:

Emission Factor: 0.0015 lbs/ton (AP-42 Section 13.2.4.3, 11/2006 - controlled)
Calculations: $0.0015 \text{ lbs/ton} * 300 \text{ ton/hr} * 3 \text{ piles} = 1.35 \text{ lb/hr}$
 $1.35 \text{ lb/hr} * 15 \text{ hr/day} = 20.25 \text{ lb/day}$

Truck Loading/Unloading

Process Rate: 300 ton/hr
Hours of operation: 15 hours per 24 hour period
Number of Loads: 1 load(s) (Estimated)

PM Emissions:

Emission Factor: 0.00016 lbs/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)
Calculations: $0.00016 \text{ lbs/ton} * 300 \text{ ton/hr} * 15 \text{ hr/day} * 1 \text{ load} = 0.72 \text{ lb/day}$

PM₁₀ Emissions

Emission Factor: 0.000016 lbs/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)
Calculations: $0.00016 \text{ lbs/ton} * 300 \text{ ton/hr} * 15 \text{ hrs/day} * 1 \text{ load} = 0.07 \text{ lb/day}$

Haul Roads

Vehicle Miles Traveled (VMT): 5 VMT/day (Estimated)
Control Efficiency: 50% watering
Rated Load Capacity: <50 tons
Daily Operation: 0.625 of one day (15 hours per 24 hour period)

PM Emissions

Emission Factor: 13.90 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006 - controlled)
Calculations: $13.90 \text{ lbs/VMT} * 5 \text{ VMT/day} * .625 \text{ days/day} = 43.44 \text{ lbs/day}$

PM₁₀ Emissions

Emission Factor: 3.95 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006 - controlled)

Calculations: 3.95 lbs/VMT * 5 VMT/day * .625 days/day = 12.34 lbs/day

Diesel Generator (Up to 660 hp)

Operating Hours: 15 hrs/24 hour period
 Engine Size: 660 hp

PM Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
 Calculations: 0.0022 lb/hp-hr * 660 hp * 15 hr/day = 21.78 lbs/day

PM10 Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
 Calculations: 0.0022 lb/hp-hr * 660 hp * 15 hr/day = 21.78 lbs/day

NOx Emissions:

Emission Factor: 0.031 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
 Calculations: 0.031 lb/hp-hr * 660 hp * 15 hr/day = 306.9 lb/day

VOC Emissions:

Emission Factor: 0.00251 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
 Calculations: 0.00251 lb/hp-hr * 660 hp * 15 hr/day = 24.45 lb/day

CO Emissions:

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
 Calculations: 0.00668 lb/hp-hr * 660 hp * 15 hr/day = 66.13 lbs/day

SOx Emissions:

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
 Calculations: 0.00205 lb/hp-hr * 660 hp * 15 hr/day = 20.30 lbs/day

B. Emission inventory for summer season.

Source	Lb/Day					
	PM	PM ₁₀	NO _x	VOC	CO	SO _x
Crushers (4 crushers up to a combined 1200 TPH)	34.56	15.55				
Screens (3 screens up to a combined total of 900 TPH)	47.52	15.98				
Truck Loading/Unloading	1.15	0.12				
Material Transfer	18.14	5.96				
Pile Forming	69.55	33.05				
Engine/Generator (up to 660 hp)	34.85	34.85	491.05	39.12	105.81	32.47
Haul Roads	69.50	19.75				
Total	275.28	125.26	491.04	39.12	105.81	32.47

Crushers (3 crushers up to a combined 1200 TPH)

Individual Maximum Process Rate: 300 TPH
 Combined Maximum Process Rate: 1,200 TPH
 Operational Hours: 24 hours per day

PM Emissions:

Emission Factor: 0.0012 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
 Hourly Calculations: 0.0012 lbs/ton * 1,200 ton/ hr = 1.44 lb/hr
 Daly Calculations: 1.44 lb/hr * 24 hours/day = 34.56 lb/day

PM₁₀ Emissions:

Emission Factor: 0.00054 lbs/ton (AP-42, Table 11.19.2-2, Controlled Emissions, 8/04)
 Hourly Calculations: 0.00054 lbs/ton * 1,200 ton/hr = 0.65 lb/hr
 Daly Calculations: 0.65 lb/hr * 24 hours/day = 15.55 lbs/day

Screens (3 screens up to a combined total of 900 TPH)

Individual Maximum Process Rate: 300 TPH
Combined Maximum Process Rate: 900 TPH
Operational Hours: 24 hours per day

PM Emissions:

Emission Factor: 0.0022 lb/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
Hourly Calculations: 0.0022 lbs/ton * 900 ton/hr = 1.98 lb/hr
Daly Calculations: 1.98 lbs/hr * 24 hours/day = 47.52 lbs/day

PM₁₀ Emissions:

Emission Factor: 0.00074 lbs/ton (AP-42, Table 11.19.2-2, Controlled Emissions, 8/04)
Hourly Calculations: 0.00074 lbs/ton * 900 ton/hr = 0.67 lb/hr
Daly Calculations: 0.67 lb/hr * 24 hours/day = 15.98 lbs/day

Material Transfer

Process Rate: 300 ton/hr
Number of Transfers: 19 transfers
Hours of operation: 24 hours per day

PM Emissions:

Emission Factor: 0.00014 lbs/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
Calculations: 0.00014 lbs/ton * 300 ton/hr * 19 transfers = 0.80 lb/hr
0.80 lb/hr * 24 hr/day = 18.14 lb/day

PM₁₀ Emissions:

Emission Factor: 0.000046 lbs/ton (AP-42 Table 11.19.2-2, 8/2004 - controlled)
Calculations: 0.00014 lbs/ton * 300 ton/hr * 19 transfers = 0.26 lb/hr
0.26 lb/hr * 24 hr/day = 5.96 lb/day

Pile Forming (3 Pile)

Process Rate: 300 ton/hr
Hours of operation: 24 hours per day

PM Emissions:

Emission Factor: 0.0032 lbs/ton (AP-42 Section 13.2.4.3, 11/2006 - controlled)
Calculations: 0.0032 lbs/ton * 300 ton/hr * 3 piles = 2.88 lb/hr
2.88 lb/hr * 15 hr/day = 69.55 lb/day

PM₁₀ Emissions:

Emission Factor: 0.0015 lbs/ton (AP-42 Section 13.2.4.3, 11/2006 - controlled)
Calculations: 0.0015 lbs/ton * 300 ton/hr * 3 piles = 1.35 lb/hr
1.35 lb/hr * 24 hr/day = 33.05 lb/day

Truck Loading/Unloading

Process Rate: 300 ton/hr
Hours of operation: 24 hours per day
Number of Loads: 1 load(s) (Estimated)

PM Emissions:

Emission Factor: 0.00016 lbs/ton (AP-42, Table 11.19.2-2, 08/2004 - controlled)
Calculations: 0.00016 lbs/ton * 300 ton/hr * 24 hr/day * 1 load = 1.15 lb/day

PM10 Emissions

Emission Factor: 0.000016 lbs/ton (AP-42, Table 11.19.2-2, 08/2004 – controlled)
Calculations: 0.00016 lbs/ton * 300 ton/hr * 24 hrs/day * 1 load = 0.12 lb/day

Haul Roads

Vehicle Miles Traveled (VMT): 5 VMT/day (Estimated)
Control Efficiency: 50% watering
Rated Load Capacity: <50 tons
Daly Operation: 24 hours per day

PM Emissions

Emission Factor: 13.90 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006 - controlled)
Calculations: 13.90 lbs/VMT * 5 VMT/day = 69.50 lbs/day

PM10 Emissions

Emission Factor: 3.95 lbs/VMT (AP-42 Chapter 13.2.2, 11/2006 - controlled)
Calculations: 3.95 lbs/VMT * 5 VMT/day = 19.75 lbs/day

Diesel Generator (Up to 660 hp)

Operating Hours: 24 hours per day
Engine Size: 660 hp

PM Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
Calculations: 0.0022 lb/hp-hr * 660 hp * 24 hr/day = 34.85 lbs/day

PM10 Emissions:

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
Calculations: 0.0022 lb/hp-hr * 660 hp * 24 hr/day = 34.85 lbs/day

NOx Emissions:

Emission Factor: 0.031 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
Calculations: 0.031 lb/hp-hr * 660 hp * 24 hr/day = 491.04 lb/day

VOC Emissions:

Emission Factor: 0.00251 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
Calculations: 0.00251 lb/hp-hr * 660 hp * 24 hr/day = 39.12 lb/day

CO Emissions:

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
Calculations: 0.00668 lb/hp-hr * 660 hp * 24 hr/day = 105.81 lbs/day

SOx Emissions:

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, diesel fuel - 10/96)
Calculations: 0.00205 lb/hp-hr * 660 hp * 24 hr/day = 32.47 lbs/day

V. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for PM₁₀. Due to exceedances of the national standards for PM₁₀, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM₁₀. As a result of this designation, the EPA required the Department and the City-County

Health Departments to submit PM₁₀ State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies identified these sources to be the major contributors to PM₁₀ emissions.

MAQP #2598-02 and Addendum #1 are for a portable crushing/screening plant that will locate at sites in or within 10 km of certain PM₁₀ nonattainment areas. The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the NAAQS. Also, this facility is a portable source that would operate on an intermittent and temporary basis and any effects on air quality will be minor and short-lived.

VI. Air Quality Impacts

MAQP #2598-02 and Addendum #1 will cover the Centennial crushing/screening plant while operating at any location within Montana, excluding those counties that have a Department-approved permitting program and those areas considered tribal lands. Based on the information provided, the amount of controlled emissions generated by this facility will not exceed any ambient air quality standard. In addition, this source is portable and any air quality impacts will be minimal.

VII. Taking or Damaging Implication Analysis

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

YES	NO	
X		1. Does the action pertain to land or water management or environmental regulation affecting 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.

VIII. Environmental Assessment

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

Analysis Prepared By: John Raudsep

Date: January 15, 2009