Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

May 3, 2011

Mr. Scott Farrow
Capital Concrete, Inc.
P.O. Box 1156
East Helena, MT 59635

Dear Mr. Farrow:

Montana Air Quality Permit #3190-01 is deemed final as of May 3, 2011 by the Department of Environmental Quality (Department). This permit is for a portable concrete batch plant and associated equipment. 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) 444-9741

Doug Kuenzli
Environmental Science Specialist
Air Resources Management Bureau
(406) 444-4267

VW:DCK
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3190-01

Capital Concrete, Inc.
P.O. Box 1156
East Helena, MT 59635

May 3, 2011

MONTANA AIR QUALITY PERMIT

Issued To: Capital Concrete, Inc.
P.O. Box 1156
East Helena, MT 59635

Permit #3190-01
Administrative Amendment (AA) Request Received: 02/17/2011
Department Decision on AA: 04/15/2011
Permit Final: 05/03/2011
AFS #777-3190

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Capital Concrete, Inc. (Capital), 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:

Capital operates a 2001 McNeilus Batchmaster 12 portable concrete batch plant and associated equipment. The original location of the concrete batch plant was in the southwest (SW) ¼ of the SW ¼ of Section 35, Township 10 North, Range 2 West, Lewis and Clark County, Montana. MAQP #3190-01 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_{10}) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM_{10} nonattainment areas. A complete list of permitted equipment is contained in Section I.A. of the Permit Analysis to MAQP #3190-01.

B. Current Permit Action:

On February 17, 2011, the Department received correspondence from Pioneer Concrete and Fuel, Inc. indicating that a division of corporate assets had occurred in which ownership of the portable concrete batch plant was transferred to Capital effective January 1, 2011. Current permit action changes the name on MAQP #3190-01 to reflect current ownership of the concrete plant. In addition, updated permit language and rule references used by the Department and current emission inventory data are incorporated.

Section II: Conditions and Limitations

A. Emission Limitations

1. Capital shall not cause or authorize to be discharged into the atmosphere from the 2001 McNeilus Batchmaster 12 portable concrete batch plant any emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

2. Capital shall not cause or authorize to be discharged into the atmosphere from any other associated equipment, used in conjunction with this facility, 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).

3. Capital 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).

4. Capital 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.3 (ARM 17.8.752).

5. 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 III.A.3 (ARM 17.8.749 and ARM 17.8.752).

6. Capital shall not operate more than one (1) diesel engine/generator. The maximum design capacity of the engine that drives the generator shall not exceed 109 horsepower (hp) (ARM 17.8.749).

7. If the permitted equipment is used in conjunction with any other equipment owned or operated by Capital, 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).

8. Capital shall limit production to 3000 hours for any rolling 12-month time period (ARM 17.8.710).

9. Capital shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, *Standards of Performance for Stationary Compression Ignition Internal Combustion Engines* and 40 CFR 63, Subpart ZZZZ, *National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines*, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. All compliance tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

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

C. Operational Reporting Requirements

1. If this truck mix concrete batch 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 17.8.749 and ARM 17.8.765).

2. Capital shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with

this permit shall be maintained by Capital 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. Capital 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. Capital 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. Capital shall document, by month, the concrete production from the facility. By the 25th day of each month, Capital shall calculate the concrete production from the facility for the previous month. The monthly information will be used to demonstrate compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

Section III: General Conditions

A. Inspection – Capital shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (Continuous Emissions Monitoring System (CEMS), Continuous Emissions Rate Monitoring System (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Capital fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Capital 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 action as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Capital 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. Capital shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Montana Air Quality Permit (MAQP) Analysis
Capital Concrete, Inc.
MAQP #3190-01

I. Introduction/Process Description

A. Permitted Equipment

Capital Concrete, Inc. (Capital) owns and operates a portable truck-mix concrete batch plant with a maximum production capacity of 54 cubic yards per hour (yd^3/hr). Equipment located at the plant includes, but is not limited to the following;

- 2001 McNeilus Batchmaster 12 Portable truck-mix Concrete Plant with a maximum production capacity of 54 yd^3/hr - controlled by a CPJ-5 Filling Filter
- 65 Ton Aggregate Storage Bin
- 600 Barrel 60/40 Cement Storage Silo controlled by (2) CJP-270 Filling Filter(s)
- 1988 Caterpillar diesel-fired engine/generator 3114 DITA 109 horsepower (hp)
- Associated equipment and operations (conveyors, transfer points, 6- yd^3 hopper)

B. Source Description

Capital will utilize this truck-mix concrete batch plant operation and associated equipment to process aggregate and cement for the production of concrete mix for various projects. In a typical batch operation, the cement silos are filled pneumatically with 4-inch feed pipes with particulate matter captured by filling filters. The cement is gravity fed into a cement weigh hopper and then gravity fed into the mixer trucks with aggregate and water. The aggregate storage bins are filled with washed sand or washed gravel. The aggregates are gravity fed into the aggregate weigh hopper, then fed via a conveyor into the mixer trucks with cement and water. Water is metered from on-site water well located and pumped into the mixer trucks with cement and aggregate.

C. Permit History

On June 18, 2002, Pioneer Concrete and Fuel, Inc. (Pioneer) was issued **MAQP #3190-00** for the construction and operation of a portable truck-mix concrete batch plant, diesel-fired generator, and associated equipment. At the request of the Pioneer, this permit was written in a de minimis friendly manner.

D. Current Permit Action

On February 17, 2011, the Montana Department of Environmental Quality (Department) received a notice of ownership transfer and a request to change the permittee name on MAQP # 3190-00 from Pioneer to Capital. Effective January 1, 2011, Pioneer's assets were divided and Capital became an independently owned entity with no affiliation to Pioneer. The current permit action is an administrative amendment pursuant to Administrative Rules of Montana (ARM) 17.8.764 which changes the permittee name as requested. In addition to accounting for this name change, the permit updates the rule references, permit format, and emissions inventory. **MAQP #3190-01** replaces MAQP #3190-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control

Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARM and are available, upon request, from the Department. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. 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).

   Capital 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 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 17.8.223 Ambient Air Quality Standard for PM_{10}

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

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

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

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

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

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

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions.

6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) 60, Standards of Performance for New Stationary Sources (NSPS). Based on the information submitted by Capital the portable concrete batch plant and associated equipment are subject to NSPS (40 CFR 60), as follows:

   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 F – Standards of Performance for Portland Cement Plants. This subpart does not apply because the truck-mix plant does not meet the definition of a Portland Cement Plant.

   c. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. This subpart does not apply because Capital does not crush or grind nonmetallic minerals, and therefore does not meet the definition of a nonmetallic mineral processing plant.

d. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition (CI) Internal Combustion Engines (ICE). NSPS requirements apply to owners or operators or stationary CI ICE that commence construction, modification, or reconstruction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2006, and is not a fire pump engine.

The permitted 109hp diesel-fired engine is a CI ICE manufactured before April 1, 2006, and is not a fire pump engine; therefore this engine is not subject to NSPS. Since this permit is written in a de minimis friendly manner, this regulation may apply to engines in the future.

7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 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 (NESHAP) 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 will be subject to this rule. However, although diesel RICE engines are an affected source, per 40 CFR 63.5490(b)(3) they do not have any requirements unless they are new or reconstructed after June 12, 2006.

The permitted 109hp diesel-fired engine is a CI RICE manufactured before June 12, 2006; therefore this engine is not subject to this subpart. Since this permit is written in a de minimis-friendly manner, area source provisions of the MACT may apply to future 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 section 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.

An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such

conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

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

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

2. ARM 17.8.743 Montana Air Quality Permits – When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter, or use any air contaminant sources that have the Potential to Emit (PTE) greater than 15 tons per year (TPY) of any pollutant. Capital has a PTE greater than 15 TPY of particulate matter (PM); therefore, an air quality permit is required.

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

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

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of 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. 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 Capital of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

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

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

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

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

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an 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. 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 sub-chapter would otherwise allow.

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

G. ARM 17.8, Subchapter 12 - Operating Permit Program, 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 lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #3190-01 for Capital, 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_{10} nonattainment area.

   d. This facility is subject to any current NSPS (but may become subject to 40 CFR 60, Subpart IIII depending on the engine/generator that may be used).

   e. This facility not subject to any current NESHAP standards (but may become subject to area source provisions of 40 CFR 63, Subpart ZZZZ depending on the engine/generator that may be used).

   f. This source is not a Title IV affected source

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

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

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

III. BACT Determination

A BACT determination is required for each new or modified source. Capital shall install on the

new or modified source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

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

IV. Emission Inventory

Inventory reflects maximum potential emissions for all pollutants based on current emission factors, maximum production rate and year round operation (8760 hours) in order to demonstrate minor source permit status. However, actual production limits established within Section II.A.8 shall remain in effect. Permit limitations and conditions cannot be altered through administrative amendment permit action.

	Emissions Tons/Year [PTE]						
Emission Source	PM	PM_{10}	$PM_{2.5}$	CO	NOx	SOx	VOC
Aggregate Delivery - Ground Storage	1.51	0.73					
Sand Delivery - Ground Storage	0.35	0.17					
Aggregate Transfer to Conveyor	1.51	0.73					
Sand Transfer to Conveyor	0.35	0.17					
Aggregate Transfer to Elevated Storage	1.51	0.73					
Sand Transfer to Elevated Storage	0.35	0.17					
Cement Delivery - Unloading to Storage Silo	0.05	0.02					
Supplement Delivery - Unloading to Silo	0.07	0.05					
Weigh Hopper - Sand/Aggregate Loading	1.87	0.90					
Truck Mix Loading	46.64	12.52					
1988 Diesel Generator (109 hp)	1.05	1.05	1.05	3.19	14.80	0.98	1.20
Unpaved Roadways (Haul Roads)	10.98	3.03	0.30				
TOTAL EMISSIONS >	66.26	20.26	1.35	3.19	14.80	0.98	1.20

2001 McNeilus Batchmaster 12 Concrete Batch Plant

Production Rate: 54 cubic yards/hour (Maximum) 473040 cubic yards/year (Maximum)
108.6 tons/hour (Maximum) 951756 tons/year (Maximum)

Supplemental Power Plant: 109 hp 1988 Caterpillar Diesel Generator [3114 DITA; S/N 5Nf00693]

Material Handling - Aggregate

Process Rate: 54.0 cu. yards/hour
Operating Hours: 8760 hours/year

Aggregate Delivery to Ground Storage

PM Emissions:

Emission Factor 0.0064 lbs/cu. yard produced [AP-42 Table 11.12-5, 6/06]
Calculations (0.0064 lbs/cu. yard) * (54.00 cu. yard/hour) = 0.35 lbs/hr
(0.35 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) = 1.51 TPY

PM_{10} Emissions:

Emission Factor	0.0031	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0031 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.17	lbs/hr
	(0.17 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.73	TPY

Aggregate Transfer to Conveyor

PM Emissions:

Emission Factor	0.0064	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0064 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.35	lbs/hr
	(0.35 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		1.51	TPY

PM_{10} Emissions (controlled):

Emission Factor	0.0031	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0031 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.17	lbs/hr
	(0.17 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.73	TPY

Aggregate Transfer to Elevated Storage

PM Emissions:

Emission Factor	0.0064	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0064 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.35	lbs/hr
	(0.35 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		1.51	TPY

PM_{10} Emissions (controlled):

Emission Factor	0.0031	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0031 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.17	lbs/hr
	(0.17 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.73	TPY

Material Handling - Sand

Process Rate:	54.0	cu. yards/hour
Operating Hours:	8760	hours/year

Aggregate Delivery to Ground Storage

PM Emissions:

Emission Factor	0.0015	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0015 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.08	lbs/hr
	(0.08 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.35	TPY

PM_{10} Emissions:

Emission Factor	0.0007	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0007 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.04	lbs/hr
	(0.04 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.17	TPY

Aggregate Transfer to Conveyor

PM Emissions:

Emission Factor	0.0015	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0015 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.08	lbs/hr
	(0.08 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.35	TPY

PM_{10} Emissions:

Emission Factor	0.0007	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0007 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.04	lbs/hr
	(0.04 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.17	TPY

Aggregate Transfer to Elevated Storage

PM Emissions:

Emission Factor	0.0015	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0015 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.08	lbs/hr
	(0.08 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.35	TPY

PM_{10} Emissions:

Emission Factor	0.0007	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0007 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.04	lbs/hr
	(0.04 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.17	TPY

Material Handling - Cement & Cement Supplement

Process Rate:	54.0	cu. yards/hour
Operating Hours:	8760	hours/year

Cement Delivery to Silo

PM Emissions(controlled):

Emission Factor	0.0002	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0002 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.01	lbs/hr
	(0.01 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.05	TPY

PM_{10} Emissions(controlled):

Emission Factor	0.0001	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0001 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.01	lbs/hr
	(0.01 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.02	TPY

Cement Supplement (Fly Ash) Delivery to Silo

PM Emissions(controlled):

Emission Factor	0.0003	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0003 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.02	lbs/hr
	(0.02 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) =		0.07	TPY

PM_{10} Emissions(controlled):

Emission Factor	0.0002	lbs/cu. yard produced	[AP-42 Table 11.12-5, 6/06]	
Calculations	(0.0002 lbs/cu. yard) * (54.00 cu. yard/hour) =		0.01	lbs/hr

(0.01 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) = 0.05 TPY

Weigh Hopper Loading

Process Rate: 54.0 cu. yards/hour
Operating Hours: 8760 hours/year

PM Emissions(controlled):

Emission Factor 0.0079 lbs/cu. yard produced [AP-42 Table 11.12-5, 6/06]
Calculations (0.0079 lbs/cu. yard) * (54.00 cu. yard/hour) = 0.43 lbs/hr
(0.43 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) = 1.87 TPY

PM_{10} Emissions(controlled):

Emission Factor 0.0038 lbs/cu. yard produced [AP-42 Table 11.12-5, 6/06]
Calculations (0.0038 lbs/cu. yard) * (54.00 cu. yard/hour) = 0.21 lbs/hr
(0.21 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) = 0.90 TPY

Truck Mix Loading

Process Rate: 54.0 cu. yards/hour
108.65 tons/hour
Operating Hours: 8760 hours/year

PM Emissions:

Emission Factor 0.0980 lbs/ton material loaded [AP-42 Table 11.12-2, 6/06]
Calculations (0.098 lbs/ton) * (108.65 tons/hour) = 10.65 lbs/hr
(10.65 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) = 46.64 TPY

PM_{10} Emissions(controlled):

Emission Factor 0.0263 lbs/ton material loaded [AP-42 Table 11.12-2, 6/06]
Calculations (0.0263 lbs/ton) * (108.65 tons/hour) = 2.86 lbs/hr
(2.86 lbs/hr) * (8760 hrs/yr) *(0.005 tons/lb) = 12.52 TPY

Diesel Generator

Engine Rating: 109 hp
Operating Hours: 8760 hours/year

Particulate Emissions:

PM Emissions:

Emission Factor 0.0022 lb/hp-hr [AP-42 3.3-1, 10/96]
Calculations (0.0022 lb/hp-hr) * (109 hp) = 0.24 lbs/hr
(0.24 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 1.05 TPY

PM_{10} Emissions:

Emission Factor 0.0022 lb/hp-hr [AP-42 3.3-1, 10/96]
Calculations (0.0022 lb/hp-hr) * (109 hp) = 0.24 lbs/hr
(0.24 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) = 1.05 TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.0022 lb/hp-hr	[AP-42 3.3-1, 10/96]		
Calculations	(0.0022 lb/hp-hr) * (109 hp) =		0.24	lbs/hr
	(0.24 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		1.05	TPY

CO Emissions:

Emission Factor	0.00668 lb/hp-hr	[AP-42 3.3-1, 10/96]		
Calculations	(0.00668 lb/hp-hr) * (109 hp) =		0.73	lbs/hr
	(0.73 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		3.19	TPY

NOx Emissions:

Emission Factor	0.031 lb/hp-hr	[AP-42 3.3-1, 10/96]		
Calculations	(0.031 lb/hp-hr) * (109 hp) =		3.38	lbs/hr
	(3.38 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		14.80	TPY

SOx Emissions:

Emission Factor	0.0021 lb/hp-hr	[AP-42 3.3-1, 10/96]		
Calculations	(0.0021 lb/hp-hr) * (109 hp) =		0.22	lbs/hr
	(0.22 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		0.98	TPY

VOC Emissions:

Emission Factor	0.0025 lb/hp-hr	[AP-42 3.3-1, 10/96]		
Calculations	(0.0025 lb/hp-hr) * (109 hp) =		0.27	lbs/hr
	(0.27 lbs/hr) * (8760 hrs/yr) * (0.0005 tons/lb) =		1.20	TPY

Unpaved Roadways (Haul Roads)

Emission Factor	EF = k(s/12)^a * (W/3)^b	[AP-42 13.2.2.2, 11/06]	
	where: EF, Emission Factor = lbs Emitted Per Vehicle Mile Traveled (VMT)		
	k, Empirical Constant PM =	4.9	[AP-42 Table 13.2.2-2, 11/06]
	k, Empirical Constant PM_{10} =	1.5	[AP-42 Table 13.2.2-2, 11/06]
	k, Empirical Constant $PM_{2.5}$ =	0.15	[AP-42 Table 13.2.2-2, 11/06]
	s, Surface Material Silt Content (%) =	7.1	[AP-42 Table 13.2.2-1, 11/06]
	W, Mean Vehicle Weight (tons) =	50	[Capital Concrete Provided Data]
	a, Empirical Constant PM =	0.7	[AP-42 Table 13.2.2-2, 11/06]
	a, Empirical Constant $PM_{10}/PM_{2.5}$ =	0.9	[AP-42 Table 13.2.2-2, 11/06]
	b, Empirical Constant PM - $PM_{2.5}$ =	0.45	[AP-42 Table 13.2.2-2, 11/06]

PM Emissions(uncontrolled):

Emission Factor	EF = 4.9 * (7.1/12)^0.7 * (50/3)^0.45 =	12.04 lbs/VMT		
Calculations	(12.04 lbs/VMT) * (5 miles/day) =		60.18	lbs/day
	(60.18 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		10.98	TPY

PM_{10} Emissions(uncontrolled):

Emission Factor	EF = 1.5 * (7.1/12)^0.9 * (50/3)^0.45 =	3.32 lbs/VMT		
Calculations	(3.32 lbs/VMT) * (5 miles/day) =		16.59	lbs/day
	(16.59 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =		3.03	TPY

PM_{10} Emissions(uncontrolled):

Emission Factor	EF = 0.15 * (7.1/12)^0.9 * (50/3)^0.45 = 0.33 lbs/VMT		
Calculations	(0.33 lbs/VMT) * (5 miles/day) =	1.66	lbs/day
	(1.66 lbs/day) * (365 days/yr) * (0.0005 tons/lb) =	0.30	TPY

V. Existing Air Quality

MAQP #3190-01 is issued for the operation of a portable truck mix concrete batch plant that is originally located in the SW ¼ of the SW ¼ of Section 35, Township 10 North, Range 2 West, Lewis and Clark County, Montana. This facility would be allowed to operate at this proposed site and any other areas designated as attainment or unclassified for all National Ambient Air Quality Standards (NAAQS); excluding counties that have a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM_{10} nonattainment areas. The permit contains operational conditions and limitations that would protect air quality for this site and the surrounding area. Also, this facility is a portable source that would operate on an intermittent and temporary basis, so any effects to air quality will be minor and short-lived.

VI. Air Quality Impacts

This permit is for a portable truck mix concrete batch plant to be located in various locations around Montana. The amount of controlled particulate emissions generated by this project is not expect to generate concentrations of PM_{10} in the ambient air that exceed any set standard. In addition, this source is portable and any air quality impacts will be short-lived.

VII. Ambient Air Quality Impacts

The Department has determined that impacts 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 2-10-101 through 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 pubic generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

IX. Environmental Assessment

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

Analysis Prepared By: Doug Kuenzli
March 15, 2011