August 23, 2017

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

Dear Mr. Chatriand:

Montana Air Quality Permit #2626-08 is deemed final as of August 23, 2017, by the Department of Environmental Quality (Department). All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-3626

Craig Henrikson P.E.
Environmental Engineer
Air Quality Bureau
(406) 444-6711

JM:CH
Enclosure

Montana Department of Environmental Quality
Air, Energy & Mining Division

Montana Air Quality Permit #2626-08

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

August 23, 2017

MONTANA AIR QUALITY PERMIT

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

MAQP: #2626-08
Application Complete: 6/16/2017
Preliminary Determination Issued: 7/20/2017
Department Decision Issued: 8/7/2017
Permit Final: 8/23/2017

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

Section I: Permitted Facilities

A. Plant Location

Capital operates a portable crushing/screening facility currently located in Section 17, Township 8N, Range 1E in Broadwater County. However, MAQP #2626-08 applies while operating at any location in Montana, except within 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.

B. Current Permit Action

On June 16, 2017, the Department received an application from Capital requesting changes to the crushers, screens, and permitted engines. The request also includes the addition of a plant-wide annual hourly operating limit on the generator engine to stay below major source thresholds. In addition, updated permit language and rule references used by the Department and current emission inventory data are incorporated.

Section II: Limitations and Conditions

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):

   - For crushers that commence construction, modification, or reconstruction on or after April 22, 2008: 12% opacity

- For crushers that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 15% opacity

2. All visible emissions from any other NSPS-affected equipment (such as screens and conveyors) shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart OOO):

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

   - For equipment that commence construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008: 10% opacity

3. All visible emissions from any non-NSPS affected emission sources, including aggregate piles, shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

4. Water and/or chemical dust suppressant and spray bars shall be available on site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.1, II.A.2, and II.A.3 (ARM 17.8.749 and ARM 17.8.752).

5. 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).

6. Capital 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 reasonable precautions limitation in Section II.A.5 (ARM 17.8.749 and ARM 17.8.752).

7. Capital shall not operate more than three crushers at any given time and the total combined maximum rated design capacity of the crushers shall not exceed 615 tons per hour (TPH) (ARM 17.8.749).

8. Crushing production is limited to 4,941,525 tons during any rolling 12-month time period (ARM 17.8.749).

9. Capital shall not operate more than three screens at any given time and the total combined maximum rated design capacity of the screens shall not exceed 750 TPH (ARM 17.8.749).

10. Screening production is limited to 6,026,250 tons during any rolling 12-month time period (ARM 17.8.749).

11. Capital shall not operate or have on-site more than one diesel engine/generator. The maximum capacity of the engine that drives the generator shall not exceed 749 horsepower (hp) and the engine that drives the generator shall be equipped with a non-resettable hour meter. The engine shall not operate more than 8,035 hours per rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

12. If the permitted equipment is used in conjunction with any other equipment owned or operated by , 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. Capital shall comply with all applicable standards and limitations, monitoring, reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart OOO, *Standards of Performance for Nonmetallic Mineral Processing Plants* (ARM 17.8.340 and 40 CFR 60, Subpart OOO).

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

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

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

C. Operational Reporting Requirements

1. If this crushing/screening plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. 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).

3. 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).

4. 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 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).

5. Capital shall document, by month, the crushing production from the facility. By the 25th day of each month, Capital shall calculate the crushing production from the facility for the previous month. The monthly information will be used to demonstrate compliance with the combined crushing 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).

6. Capital shall document, by month, the screening production from the facility. By the 25th day of each month, Capital shall calculate the screening production from the facility for the previous month. The monthly information will be used to demonstrate compliance with the combined crushing limitation in Section II.A.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

7. Capital shall maintain on-site records showing monthly hours of operation of the engine operation over the last 12 months. Each month's record shall also include the total hours of engine operation over the previous 12 months. The monthly information will be used to demonstrate compliance with the 12-month rolling limitation in Section II.A.11. The records compiled in

accordance with this permit shall be maintained by Capital as a permanent business record for at least five 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).

8. Capital shall annually certify that its emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204(3)(b). The annual certification shall comply with the certification requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emissions inventory information (ARM 17.8.749 and ARM 17.8.1204).

D. Notification

Capital shall provide the Department with written notification of the actual start-up date of the first new piece of equipment authorized to operate under this permit, postmarked within 15 days after the actual start-up date (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 such as continuous emission monitoring systems (CEMS) or continuous emission rate monitoring systems (CERMS), 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 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 #2626-08

I. Introduction/Process Description

Capital Concrete Inc. (Capital) proposes to modify its existing permit by increasing the size of the crushers, screens and engine.

A. Permitted Equipment

Equipment permitted under this action includes, but is not limited to the following:

- Up to three crushers with a total combined capacity of 615 tons/hour.
- Up to three screens (3-decks per screen) with a total combined capacity of 750 tons/hour.
- A diesel-fired engine and associated generator with the engine rated for 749 horsepower.
- And associated equipment including a wash plant.

B. Source Description

Capital owns and operates a crushing and screening plant which crushes and screens material at the site. For a typical operational setup, materials are loaded into the crushing/screening plant by a hopper and transferred by conveyor to and passed through the crushers. Crushed materials are then sent to the screens where materials are screened, separated, and stockpiled for sale and use in construction operations.

C. Permit History

On March 12, 1990, Pioneer Concrete and Fuel, Inc. (Pioneer) was issued **MAQP #2626-00** to operate a portable 1948 jaw crusher, a 1948 cone crusher, and a generator. The original location was the NW¼ of the NE¼ of Section 27, Township 4 North, Range 10 West, in Deer Lodge County, Montana.

On April 17, 1991, Pioneer was issued MAQP #2626-01 to operate a portable 1948 Cedar Rapids jaw crusher, a 1986 El-Jay cone crusher, and associated equipment. The original location was the NW¼ of the NE¼ of Section 27, Township 4 North, Range 10 West, in Deer Lodge County, Montana. **MAQP #2626-01** replaced MAQP #2626-00.

On February 7, 1992, Pioneer was issued MAQP #2626-02 to operate a portable 1992 (20"x36") jaw crusher, a 1982 (45") cone crusher, a 1986 (45") cone crusher, and associated equipment. The original location was the NW ¼ of the NE ¼ of Section 27, Township 4 North, Range 10 West, in Deer Lodge County, Montana. **MAQP #2626-02** replaced MAQP #2626-01.

On April 21, 1995, Pioneer was issued MAQP #2626-03, a modification, to reflect that the capacity of equipment was limited to 145 TPH, and relieving Pioneer from any requirements of 40 Code of Federal Regulations (CFR) 60, Subpart OOO. **MAQP #2626-03** replaced MAQP #2626-02.

On April 26, 2002, Pioneer was issued a permit to replace a portable 320 kilowatt (kW) diesel generator with a 455 kW diesel generator. The Department of Environmental Quality (Department) updated the permit to reflect the change and updated the permit with the current permit language. Sections I.A.9 and I.A.10 were removed from this permit. Because updated emissions factors indicated that no such limitations upon the facility were necessary to comply with current ambient air quality standards, Section I.A.8 was replaced with a rolling 12-month production limit on the facility. **MAQP #2626-04** replaced MAQP #2626-03.

On May 5, 2003, Pioneer submitted a request to generalize their permit, to allow additional operational flexibility for their facility. In addition, the permit was updated to reflect the current language and rule references used by the Department. **MAQP #2626-05** replaced MAQP #2626-04.

On December 10, 2003, Pioneer submitted a complete permit application to add a 1965 Nordberg Gyradisc 36" crusher with maximum capacity up to 145 TPH and a 1989 Fabtec 4'x14' 2-deck screen with maximum capacity up to 145 TPH. The Department incorporated the new equipment into the permit with the current permit action. In addition, the permit was updated to reflect the current language and rule references used by the Department. **MAQP #2626-06** replaced MAQP #2626-05.

On February 17, 2011, the Department received correspondence from Pioneer indicating that a division of corporate assets had occurred in which ownership of the portable crushing/screening facility was transferred to Capital effective January 1, 2011. This permit action changed the name to reflect current ownership of the crushing/screening plant. In addition, updated permit language and rule references used by the Department and current emission inventory data were incorporated. **MAQP #2626-07** replaced MAQP #2626-06.

D. Current Permit Action

On June 16, 2017, the Department received an application from Capital requesting changes to the crushers, screens, and permitted engines. The request also includes the addition of a plant-wide annual hourly operating limit on the generator engine to stay below major source thresholds. In addition, updated permit language and rule references used by the Department and current emission inventory data are incorporated. **MAQP #2626-08** replaces MAQP #2626-07.

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 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).

   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 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 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide

7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}
11. ARM 17.8.230 Fluoride in Forage

Capital 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 less than 20% for all fugitive emission sources and that reasonable precautions are 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. This rule requires that no person shall burn liquid, solid, or gaseous fuel in excess of the amount set forth in this section.

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

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

   a. 40 CFR 60, Subpart A – General Provisions. This subpart applies to all equipment or facilities subject to an NSPS subpart as listed below.

b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a nonmetallic mineral plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Capital, the portable equipment to be used under MAQP #2626-08 is subject to this subpart because the facility has at least one crusher and three screens constructed after August 31, 1983.

c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines. Owners and operators of stationary compression ignition internal combustion engines (CI ICE) that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. As the permit is written in a de minimis-friendly manner, the CI ICE equipment to be used by Capital under MAQP #2626-08 is potentially subject to this Subpart if it stays in a location for twelve consecutive months and if the existing engine were reconstructed. Engines that are added in the future may also be subject to this subpart.

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

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

b. 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of a stationary reciprocating internal combustion engine (RICE) at a major or area source of HAP emissions is subject to this rule except if the stationary RICE is being tested at a stationary RICE test cell/stand. An area source of HAP emissions is a source that is not a major source. Based on the information submitted by Capital, the RICE equipment to be used under this permit may be subject to this subpart because they are an area source of HAP emissions and the engine may remain at the same home pit location for more than 12 consecutive months.

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

1. ARM 17.8.504 Air Quality Permit Application Fees. Capital shall 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. Capital submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department. 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 person to obtain an MAQP or permit modification to construct, modify, 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), particulate matter equal to or less than ten microns (PM_{10}), carbon monoxide (CO) and oxides of nitrogen (NOx); therefore, an MAQP 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 MAQP program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. This rule requires that a permit application be submitted prior to installation, modification or use of a source. Capital submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a

newspaper of general circulation in the area affected by the application for a permit. Capital submitted an affidavit of publication of public notice for the June 18, 2017 issue of the *Independent Record*, a newspaper of general circulation in the city of Helena, Lewis and Clark County, Montana.

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 MAQP 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 MAQP 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 MAQP 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 MAQP may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

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

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

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

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

   a. PTE > 100 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 PM_{10} in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. 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 #2626-08 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 TPY for any single HAP and less than 25 TPY of combined HAPs.

c. This source is not located in a serious PM_{10} nonattainment area.

d. This facility is subject to a current NSPS (40 CFR 60, Subpart A and 40 CFR 60, Subpart OOO and may be subject to 40 CFR 60, Subpart IIII).

e. This facility may be subject to current NESHAP, 40 CFR 63, Subpart A and 40 CFR 63, Subpart ZZZZ.

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

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

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

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

i. ARM 17.8.1204(3). The Department may exempt a source from the requirement to obtain an air quality operating permit by establishing federally enforceable limitations which limit that source's PTE.

   i. In applying for an exemption under this section the owner or operator of the facility shall certify to the Department that the source's PTE does not require the source to obtain an air quality operating permit.

   ii. Any source that obtains a federally enforceable limit on PTE shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit.

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal required by ARM 17.8.1204(3)(a) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Based on these facts, the Department determined that this facility is a minor source of emissions and therefore, is not subject to the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit; this source may be subject to the Title V Operating Permit Program.

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. Capital provided the following information for the BACT analysis.

A. Crushing and Screening Particulate Matter

For particulate matter fugitive emissions, Capital has indicated that either chemical dust suppressant or water as dust suppressant are equally effective for fugitive control. Currently, Capital uses water to control fugitive emissions and proposes to water for crushing and screening operations. For non-NSPS affected equipment, Capital uses water to stay below the 20% opacity limit required by ARM 17.8.304 and proposes to additionally use water to meet the more stringent opacity limits required under NSPS Subpart OOO. Proposed BACT limits by equipment and the associated regulatory reference are shown in the table.

Emission Unit	Year Constructed	Opacity Limit	Reference
Pioneer Jaw Crusher	1976	20%	ARM 17.8.304(2)
Cedarapids MVP280 Cone Crusher	2016	12%	40 CFR 60, Table 3 to Subpart OOO
Symons 3' short Head Cone Crusher	1965	20%	MAQP #2626-08, condition II.A.3
JCI (6'x16') 3-Deck Screen	2003	10%	40 CFR 60, Table 3 to Subpart OOO
Cedarapids (6'x20') 3-Deck Wet Screen	2010	7%	40 CFR 60, Table 3 to Subpart OOO
Thunderbird (5'x16') 3-Deck Screen	1986	10%	40 CFR 60, Table 3 to Subpart OOO

B. Diesel-Fired Engine

The proposed new portable diesel-fired engine will emit criteria pollutants including nitrogen oxides (NO_x), carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter, particulate matter equal to or less than 10 microns, particulate matter equal to or less than 2.5 microns (PM, PM_{10}, $PM_{2.5}$) as well as volatile organic compounds (VOCs). Emissions of SO_2 are limited by the sulfur content in the fuel. Capital proposes to restrict the fuel to only ultra-low sulfur diesel fuel (S is less than or equal to 15 ppm).

For the remaining pollutants (NO_x, CO, PM, PM_{10}, $PM_{2.5}$, VOCs), Capital proposes that due to the costs involved with retrofitting for pollution controls, the nature of the operation and in keeping with similar operations reviewed by the Department, that operating and maintaining the engine in accordance with good air pollution control techniques constitutes BACT.

C. Fugitive Haul Road Emissions

Capital must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking lots, and the general plant area. Reasonable precautions include treating 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. Using water and/or chemical dust suppressant to comply with the reasonable precautions limitation will be considered BACT.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

IV. Emission Inventory

	Emissions Tons/Year [PTE]							
Emission Source	PM	PM_{10}	$PM_{2.5}$	$PM_{Cond.}$	CO	NO_x	SO_2	VOC
Crushers	2.96	1.33	0.25					
Truck Unloading (Assume all material is unloaded that can be processed in crusher)	0.04	0.04	--					
Screens	6.63	2.23	0.15					
Transfer Points (Assume 5 Transfer Points)	10.12	3.33	0.94					
Pile Formation	53.39	25.25	3.82					
Truck Loading (Assume all material is eventually loaded)	0.35	0.11	0.11					
Diesel Generator (749 hp)	6.62	6.62	6.62	0.16	20.10	93.28	6.17	7.56
Unpaved Roadways (Haul Roads)	5.49	1.51	0.15					
EMISSIONS (Excluding Haul Roads)	80.12	38.92	11.90	0.16	20.10	93.28	6.17	7.56

a. Emission Inventory reflects enforceable limits on hours of operation

CO, carbon monoxide

NO_X, oxides of nitrogen

PM, particulate matter

PM_{10}, particulate matter with an aerodynamic diameter of 10 microns or less

$PM_{2.5}$, particulate matter with an aerodynamic diameter of 2.5 microns or less

PM_{Cond}, Condensable particulate matter

SO_2, oxides of sulfur

TPY, tons per year

VOC, volatile organic compounds

Capital City Concrete Inc.

Crusher Capacity						
Process Rate:	615	ton/hr	(Three Crushers)			
Operating Hours	8035	hours/year		Crushing Limit	4941525	ton/yr
PM Emissions:						
Emission Factor	0.0012	lbs/ton	[AP-42 Table 11.19.2-2 8/04]			
Calculations	(0.0012 lbs/ton) * (615.00 ton/hour) =				0.74	lbs/hr
	(0.74 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =				2.96	TPY
PM_{10} Emissions:						
Emission Factor	0.00054	lbs/ton	[AP-42 Table 11.19.2-2 8/04]			
Calculations	(0.00054 lbs/ton) * (615.00 ton/hour) =				0.33	lbs/hr
	(0.33 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =				1.33	TPY
$PM_{2.5}$ Emissions:						
Emission Factor	0.0001	lbs/ton	[AP-42 Table 11.19.2-2 8/04]			
Calculations	(0.0001 lbs/ton) * (615.00 ton/hour) =				0.06	lbs/hr
	(0.06 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =				0.25	TPY
Truck Unloading (Assume all material is unloaded that can be processed in the crusher)						
Process Rate:	615.0	ton/hr (Assumes each crusher operates independently)				
Operating Hours	8035	hours/year				
PM_{10} Emissions:						
Emission Factor	0.000016	lbs/ton	[AP-42 Table 11.19.2-2 8/04]			
Calculations	(0.000016 lbs/ton) * (615.00 ton/hour) =				0.01	lbs/hr
	(0.01 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =				0.04	TPY
Screening						
Process Rate:	750	ton/hr	(Three Screens)			
Operating Hours	8035	hours/year		Screening Limit	6026250	ton/yr
PM Emissions:			(Screening controlled)			

Emission Factor	0.00220	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.0022 lbs/ton) * (750.00 ton/hour) =			1.65	lbs/hr
	(1.65 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			6.63	TPY

PM_{10} Emissions:

Emission Factor	0.00074	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00074 lbs/ton) * (750.00 ton/hour) =			0.56	lbs/hr
	(0.56 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			2.23	TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.00005	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00005 lbs/ton) * (750.00 ton/hour) =			0.04	lbs/hr
	(0.04 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			0.15	TPY

Conveyor Transfer Points (Assume 5 Transfer Point that are Controlled)

Process Rate:	18000	ton/hr (Per application assuming 60 transfer pts)
Operating Hours	8035	hours/year

PM Emissions: (Conveyor Transfer Points)

Emission Factor	0.00014	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00014 lbs/ton) * (18,000.00 ton/hour) =			2.52	lbs/hr
	(2.52 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			10.12	TPY

PM_{10} Emissions:

Emission Factor	0.000046	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000046 lbs/ton) * (18,000.00 ton/hour) =			0.83	lbs/hr
	(0.83 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			3.33	TPY

$PM_{2.5}$ Emissions:

Emission Factor	0.000013	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000013 lbs/ton) * (18,000.00 ton/hour) =			0.23	lbs/hr
	(0.23 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			0.94	TPY

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

			# Piles (4 per application)			
Process Rate:	615	ton/hr	Equation 1 from AP-42 Sec 13.2.4.3 11/06			
Operating Hours	8760	hrs/year	U = wind speed miles per hour	9.3	(Application)	
			k = particle size multiplier	0.74	AP-42 Sec 13.2.4-3 11/06	
PM Emissions:			M = Moisture content %	2.1	Application, Ap-42, Table 13.2.4-1)	
Emission Factor	0.004955455	lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4			
Calculations	(0.00496 lbs/ton) * (615.00 ton/hour) =				3.05	lbs/hr
	(3.05 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =				13.35	TPY
			# of Piles	4	53.39	TPY

			Equation 1 from AP-42 Sec 13.2.4.3 11/06			
			U = wind speed miles per hour	9.3	9.3	(Application)
			k = particle size multiplier	0.35	0.35	AP-42 Sec 13.2.4-3 11/06
PM_{10} Emissions:			M = Moisture content %	2.1	2.1	Application, Ap-42, Table 13.2.4-1)
Emission Factor	0.002343796	lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4			
Calculations	(0.00234 lbs/ton) * (615.00 ton/hour) =				1.44	lbs/hr
	(1.44 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =				6.31	TPY
			# of Piles	4	25.25	TPY

$PM_{2.5}$ Emissions:			Equation 1 from AP-42 Sec 13.2.4.3 11/06			
			U = wind speed miles per hour	9.3	8.15	(Typical Value)
			k = particle size multiplier	0.053	0.35	AP-42 Sec 13.2.4-3 11/06
			M = Moisture content %	2.1	2.1	Application, Ap-42, Table 13.2.4-1)
Emission Factor	0.000354918	lbs/ton	E=k*(0.0032)*(U/5)^1.3/(M/2)^1.4			
Calculations	(0.00035 lbs/ton) * (615.00 ton/hour) =				0.22	lbs/hr
	(0.22 lbs/hr) * (8760 hrs/yr) *(0.0005 tons/lb) =				0.96	TPY
			# of Piles	4	3.82	TPY

Truck Loading (Assume all material is eventually loaded)

			Modeled as Truck Loading Conveyor
Process Rate:	615	ton/hr	
Operating Hours	8035	hours/year	
PM Emissions:			

Emission Factor	0.00014	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.00014 lbs/ton) * (615.00 ton/hour) =			0.09	lbs/hr
	(0.09 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			0.35	TPY

PM_{10} Emissions:

Emission Factor	0.000046	lbs/ton	[AP-42 Table 11.19.2-2 8/04]		
Calculations	(0.000046 lbs/ton) * (615.00 ton/hour) =			0.03	lbs/hr
	(0.03 lbs/hr) * (8035 hrs/yr) *(0.0005 tons/lb) =			0.11	TPY

Diesel Generator (749 hp)

Engine Rating:	749	hp	
Operating Hours:	8035	hrs/yr	
Fuel Input	5.243	MMbtu/hr	BSFC = 7,000 BTU/hp-hr (AP42 Table 3.3-1 10/96)
	38.270	gallons/hr (137,000 BTU/gal)	

Particulate Emissions:

PM Emissions:

Emission Factor	0.0022	lb/hp-hr	[AP-42 Table 3.3-1]		
Calculations	(0.0022 lb/hp-hr) * (749 hp) =			1.65	lbs/hr
	(1.65 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			6.62	TPY

PM_{10} Emissions:

Emission Factor	0.002200	lb/hp-hr	[AP42 Table 3.3-1]		
Calculations	(0.0022 lb/hp-hr) * (749 hp) =			1.65	lbs/hr
	(1.65 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			6.62	TPY

$PM_{2.5}$ Emissions (filterable):

Emission Factor	0.0022000	lb/hp-hr	[AP42 Table 3.3-1]		
Calculations	(0.0022 lb/hp-hr) * (749 hp) =			1.65	lbs/hr
	(1.65 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			6.62	TPY

$PM_{2.5}$ Emissions (condensable):

Emission Factor	0.0077	MMBtu	[AP-42 3.4-1, 10/96]		
Calculations	(0.0077 lb/MMBtu) * (5.243 MMBtu/hr) =			0.04	lbs/hr
	(0.04 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			0.16	TPY

CO

Emissions:

Emission Factor	0.00668	lb/hp-hr	[AP-42 Table 3.3-1]		
Calculations	(0.00668 lb/hp-hr) * (749 hp) =			5.00	lbs/hr
	(5.00 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			20.10	TPY

NOx Emissions:

Emission Factor	0.0310	lb/hp-hr	(AP-42 Table 3.3-1)		
Calculations	(0.031 lb/hp-hr) * (749 hp) =			23.22	lbs/hr
	(23.22 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			93.28	TPY

SO_x Emissions:

Emission Factor	0.00205	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0021 lb/hp-hr) * (749 hp) =			1.54	lbs/hr
	(1.54 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			6.17	TPY

VOC Emissions:

Emission Factor	0.00251	lb/hp-hr	[AP-42 3.3-1, 6/06]		
Calculations	(0.0025 lb/hp-hr) * (749 hp) =			1.88	lbs/hr
	(1.88 lbs/hr) * (8035 hrs/yr) * (0.0005 tons/lb) =			7.56	TPY

Unpaved Roadways (Haul Roads)

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

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

k, Empirical Constant PM =	4.9	[AP-42 Table 13.2.2-2, 11/06]
k, Empirical Constant PM_{10} =	1.5	[AP-42 Table 13.2.2-2, 11/06]
k, Empirical Constant $PM_{2.5}$ =	0.15	[AP-42 Table 13.2.2-2, 11/06]
s, Surface Material Silt Content (%) =	7.1	[AP-42 Table 13.2.2-1, 11/06]
W, Mean Vehicle Weight (tons) =	50	[Estimated]
a, Empirical Constant PM =	0.7	[AP-42 Table 13.2.2-2, 11/06]
a, Empirical Constant PM_{10} and $PM_{2.5}$ =	0.9	[AP-42 Table 13.2.2-2, 11/06]
b, Empirical Constant PM , PM10 and $PM_{2.5}$ =	0.45	[AP-42 Table 13.2.2-2, 11/06]

PM Emissions(uncontrolled): PM30

Emission Factor	EF = 4.9 * (7.1/12)^0.7 * (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
	50% Control Efficiency		5.49	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
	50% Control Efficiency	1.5135	TPY

$PM_{2.5}$ 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
	50% Control Efficiency	0.15	TPY

V. Existing Air Quality

MAQP #2626-08 is issued for the operation of a crushing, screening and wash plant with associated equipment currently located in Broadwater County. As the source currently holds an MAQP for operating similar equipment at the same site, and no air quality issues are known, operation of the proposed equipment is not expected to degrade future air quality.

VI. Ambient Air Quality Impact Analysis

MAQP #2626-08 allows operation of a crushing, screening and wash plant. The Department determined that the impacts from this permitting analysis will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

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?

YES	NO	
	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

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

Permit Analysis Prepared By: Craig Henrikson
Date: June 29, 2017

MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY
Air, Energy & Mining Division
Air Quality Bureau
1520 East Sixth Avenue
P.O. Box 200901
Helena, Montana 59620-0901
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ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Capital Concrete Inc.

Montana Air Quality Permit Number: #2626-08
EA Draft: July 20, 2017
EA Final: August 7, 2017
Permit Final: August 23, 2017

1. *Legal Description of Site:* Capital Concrete Inc. (Capital) is currently operating in the western half of Section 17, Township 8N, Range 1E in Broadwater County.

2. *Description of Project:* Capital is proposing to modify their existing permit by changing the crushers and screens as well as the size of the diesel generator engine. The request also includes a limit on the number of operating hours to keep the permit below major source thresholds. A complete list of the permitted equipment is included in Section I.A of the permit analysis.

3. *Objectives of Project:* Crushing and screening operation for business.

4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the "no action" alternative. The "no action" alternative would deny the issuance of the MAQP to the facility. However, the Department does not consider the "no action" alternative to be appropriate because Capital already holds an MAQP and has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no action" alternative was eliminated from further consideration. Other alternatives considered were discussed in the Best Available Control Technology (BACT) analysis.

5. *A listing of mitigation, stipulations, and other controls:* A list of enforceable conditions, including a BACT analysis, would be included in Montana Air Quality Permit (MAQP) #2626-08

6. *Regulatory effects on private property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

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

A. Terrestrial and Aquatic Life and Habitats

The proposed action would modify an existing permit for crushing and screening equipment currently located at an existing permitted pit. Conditions requiring control mechanisms have been placed within MAQP #2626-08 to ensure that only minor air quality impacts would occur. Additionally, limitations established within MAQP #2626-08 would minimize air pollution. Overall, any adverse impact on terrestrial and aquatic life and habitats is anticipated to be minor.

B. Water Quality, Quantity, and Distribution

This facility would have little or no effect on the water quality, water quantity, and distribution, as the proposed equipment will initially be operating in an existing pit. Therefore, the project would have minor, if any, impacts to water quality, quantity or distribution in the area.

C. Geology and Soil Quality, Stability, and Moisture

This permitting action would have a minor effect on geology and soil properties with land disturbances as the initial location and future locations are likely to be existing open cut sites. The Department determined that any impacts from deposition would be minor due to dispersion characteristics of pollutants, the atmosphere, and conditions that would be placed in MAQP #2626-08.

D. Vegetation Cover, Quantity, and Quality

This permitting action would have minor impacts on the surrounding vegetation because the proposed equipment is planned to go into an existing pit. The existing surrounding land is currently rural and agricultural in nature. The emissions from this project may have a minor effect on the surrounding vegetation; however, the air quality permit associated with this project would contain limitations to minimize the effect of the emissions on the surrounding environment. Overall, this project would have minor effects on the vegetation cover, quantity and quality.

E. Aesthetics

Providing a modified permit for the existing source and associated equipment will not result in any aesthetic changes as the facility already exists.

F. Air Quality

Emissions will be minimized by limitations and conditions that would be included in MAQP #2626-08. The permit would provide enforceable conditions specific to the age of the crushers and screens and any applicable regulations. While deposition of pollutants would continue to occur, the Department determined that the impacts from deposition of pollutants would be minor due to dispersion characteristics of pollutants, the atmosphere (wind speed, wind direction, ambient temperature, etc.), and conditions that would be placed in MAQP #2626-08.

G. Unique Endangered, Fragile, or Limited Environmental Resources

In an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The area was defined by the section, township, and range of the proposed location with an additional 1-mile buffer zone. Search results identified a number of species within the search radius. Animal species of concern include the Long-billed Curlew, McCown's Longspur, Green-tailed Towhee, Great Blue Heron, Clark's Nutcracker, Cassin's Finch as well as one observation of a Wolverine likely in the extreme southern boundary of this buffered polygon. One plant species also includes the Astragalus convallarius often found in the Helena valley and extreme southwest Montana in Beaverhead County. Because potential emission levels are minor, and disturbance is limited as the current operation is in an existing pit, the Department has determined that there will be a minor disturbance to unidentified unique, endangered, fragile, or limited environmental resources in the area.

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

The facility would have minor impacts on the demands for the environmental resources of air and water because the facility would be a source of air pollutants. Deposition of pollutants would occur as a result of operating the facility; however, as explained in Section 7.F of this EA, the Department determined that any impacts on air and water resources from the pollutants (including deposition) would be minor. The Department determined that controlled emissions from the source would not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the addition of the new equipment would be minor.

The facility would be expected to have minor impacts on the demand for the environmental resource of energy because of additional fuel usage would be required at the site due to the larger engine. The impact on the demand for the environmental resource of energy would be minor because proposed equipment is rated only slightly higher than the current equipment on the MAQP. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

Since the site already exists and no new disturbance is planned, no review of any historical or archaeological sites was attempted.

J. Cumulative and Secondary Impacts

The facility would cause minor effects on the physical and biological aspects of the human environment because the facility and activities produce volatile organic compounds (VOCs) and fugitive dust from equipment and due to truck traffic. However, conditions have been placed in MAQP #2626-08 to ensure that only minor air quality impacts would occur. Limitations would be established in the permit to minimize air pollution. Overall, any impacts to the physical and biological environment would be minor.

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

A. Social Structures and Mores

The facility would not cause disruption to any native or traditional lifestyles or communities (social structures or mores) in the area because the initial location already exists and the proposed equipment is rated only slightly higher than the current permit allows.

B. Cultural Uniqueness and Diversity

Only minor impacts to the cultural uniqueness and diversity of the area would be anticipated as the planned operating site is an existing pit. No additional employees are expected with the permit issuance. In addition, no new disturbance is planned. Therefore, the cultural uniqueness and diversity of the area would not likely be affected.

C. Local and State Tax Base and Tax Revenue

The facility would result in minor impacts to the local and state tax base and tax revenue as a result of the facility operation. However, the on-going operations would continue to have material hauling from the site. Overall, any impacts to the local and state tax base and tax revenue would be minor.

D. Agricultural or Industrial Production

The land at the current location is currently used as an opencut pit. The facility would not have any known impact on agricultural production. However, because the facility currently exists, no impact to agricultural production or increase in industrial production would be expected.

E. Human Health

The completed project would result in minor, if any, impacts to human health. As explained in Section 7.F of this EA, deposition of pollutants would occur; however, the Department determined that the facility would comply with all applicable air quality rules, regulations, and standards. These rules, regulations, and standards are designed to be protective of human health. Overall any impacts to public health would be minor. The Department believes this crushing and screening facility will only have minor impacts.

F. Access to and Quality of Recreational and Wilderness Activities

The initial planned location is an existing pit and there would be no impacts to access and quality of recreational and wilderness activities in the project.

G. Quantity and Distribution of Employment

The facility would have minor impacts on the quantity and distribution of employment as the current equipment already operates in a pit and the new equipment would also operate in the same pit. Any impacts to the quantity and distribution of employment would be minor due to the relatively small size of the facility.

H. Distribution of Population

The facility would have minor impacts on the employment and population of the area as the proposed equipment is only slightly higher capacity. However, any impacts to the quantity and distribution of employment from construction related employment would be minor due to the relatively small size of the facility. Overall, any impacts to the distribution of population in the area would be minor.

I. Demands of Government Services

There would be minor impacts on the demands for government services because additional time would be required by government agencies to issue MAQP #2626-08 and, in the future, to assure compliance with applicable rules, standards, and conditions that would be contained in MAQP #2626-08. Overall, any demands for government services to regulate the facility or activities associated with the facility would be minor due to the relatively small size of the facility.

J. Industrial and Commercial Activity

Only minor impacts would be expected on local industrial and commercial activity because the facility would represent only a minor increase in the industrial and commercial activity in the area.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals affected by issuing MAQP #2626-08. This permit would contain limits for protecting air quality and keeping facility emissions in compliance with any applicable ambient air quality standards. Because the facility is relatively small, any impacts from the facility would be minor.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this facility would result in minor impacts to the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the proposed equipment, the industrial production, employment, and tax revenue (etc.) impacts resulting from the facility would be minor. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in MAQP #2626-08.

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for issuing a permit for a crushing and screening plant. MAQP #2626-08 would include conditions and limitations to ensure the facility would operate in compliance with all applicable air quality rules and regulations. In addition, there are no major or unknown effects associated with this proposal.

Individuals or groups contributing to this EA: Montana Department of Environmental Quality, Montana Natural Heritage Program

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Date: July 3, 2017