DEQ
Montana Department
of Environmental Quality

Air, Energy, & Mining Division

June 28, 2017

Jesse Johansen
Strata Corporation
PO Box 13500
Grand Forks, ND 58208

Dear Mr. Johansen:

Montana Air Quality Permit #5165-01 is deemed final as of June 27, 2017, by the Department of Environmental Quality (Department). This permit is for a portable crushing and screening plant. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

Acting Bureau Chief for
Dave Klemp, Bureau Chief
For Julie A. Merkel
Permitting Services Section Supervisor
Air Quality Bureau
(406) 444-5287

Rhonda Payne
Environmental Science Specialist
Air Quality Bureau
(406) 444-3626

JM:RP
Enclosure

Montana Department of Environmental Quality
Air, Energy, and Mining Division

Montana Air Quality Permit #5165-01

Strata Corporation
P.O. Box 13500
Grand Forks, ND
58208

June 28, 2017

MONTANA AIR QUALITY PERMIT

Issued To: Strata Corporation
PO Box 13500
Grand Forks, ND 58208

MAQP: #5165-01
Application Complete: 4/14/2017
Preliminary Determination Issued: 5/19/2017
Department's Decision Issued: 6/12/2017
Permit Final: 6/28/2017

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Strata Corporation (Strata) 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

Strata owns and operates a portable crushing and screening plant, initially located in an existing 101 acre pit covering Section 34, Township 25 North, Range 59 East; Section 1, Township 24 North, Range 59 East; and Section 6, Township 24 North, Range 60 East, in Richland County, Montana. This location is northwest of Fairview, Montana, at -104.0807° North, 47.86797° West. However, MAQP 5165-01 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.

B. Current Permit Action

On April 7, 2017, the Department received an application for modification of the existing MAQP to allow for the addition of a 310 horsepower (HP) diesel-fired generator engine. The current permit action updates the permit to reflect the new engine, updates hour of operation limitations as necessary to maintain emissions at minor source levels, and updates the emissions inventory. In addition, the current permit action updates rule references and language used by the Department.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. All visible emissions from any Standards of Performance for New Stationary Source (NSPS) – affected crusher shall not exhibit an opacity in excess of the following averaged over 6 consecutive minutes (ARM 17.8.340 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 six 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 equipment shall not exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

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

5. Strata 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. Strata shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.752).

7. Strata shall not operate more than two crushers at any given time and the total combined maximum rated design capacity of the crushers shall not exceed 600 tons per hour (TPH) (ARM 17.8.749).

8. Crushing production is limited to 1,110,000 tons during any rolling 12-month time period, as determined monthly (ARM 17.8.749).

9. Strata shall not operate more than 2 screens at any given time and the total combined maximum rated design capacity of the screens shall not exceed 600 TPH (ARM 17.8.749).

10. Screening production is limited to 1,110,000 tons during any rolling 12-month time period (ARM 17.8.749).

11. Strata shall not operate or have on-site more than 2 diesel generator engine. The maximum capacity of the engines that drive the generators shall not exceed 1,381 HP (ARM 17.8.749).

12. Operation of the diesel engines driving the generators shall not exceed 1,850 hours during any rolling 12-month time period (ARM 17.8.749).

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

14. Strata 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).

15. Strata 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. 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. Strata 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. Strata 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. Strata shall maintain 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 Strata 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. These records may be stored at a location other than the plant site upon approval by the Department (ARM 17.8.749).

5. Strata shall document, by month, the crushing production from the facility. By the 25th day of each month, Strata shall total the crushing 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).

6. Strata shall document, by month, the screening production from the facility. By the 25th day of each month, Strata shall total the screening 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.10. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

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

D. Notification

Strata shall provide the Department with written notification of the actual start-up date of the 310 HP generator engine postmarked within 15 days after the actual start-up date (ARM 17.8.749)

SECTION III: General Conditions

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

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Strata 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 therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

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

G. Air Quality Operation Fees – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Strata 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. Strata 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
Strata Corporation
MAQP #5165-01

I. Introduction/Process Description

Strata Corporation (Strata) owns and operates a portable crushing and screening operation.

A. Permitted Equipment

MAQP #5165-01 is written de minimis-friendly to provide operational flexibility so that alternate equipment may be utilized as long as maximum capacities are not exceeded and permit conditions are met. The following list of permitted equipment is based on information provided in the initial application and includes equipment permitted under this action:

- Maximum rated 300 ton per hour (TPH) Jaw Crusher
- Maximum rated 300 TPH Cone Crusher
- Two (2) Screens with maximum throughput rating of 300 TPH each
- Maximum of Sixteen (16) conveyors
- Two (2) Diesel Generator Engines with maximum combined rating of 1,381 horsepower (HP)

In addition, this permit accounts for emissions associated with loading, unloading, piling, and storing product, as well as emissions from unpaved haul roads.

B. Source Description

The crushing/screening plant is used to crush and sort gravel/sand materials for use in various construction activities. For a typical operational setup, the raw materials will initially be sent through a primary crusher then through a series of secondary crushers and/or screens for sorting or processing to the desired dimension and, ultimately, to a stockpile for use in construction operations.

The home pit location of this mineral processing operation is located at an existing 101 acre pit covering Section 34, Township 25 North, Range 59 East, Section 1, Township 24 North, Range 59 East, and Section 6, Township 24 North, Range 60 East, in Richland County, Montana. This location is northeast of Fairview, Montana, at -104.0807° North, 47.86797° West.

C. Permit History

Strata was issued **MAQP #5165-00** on September 29, 2016 for the operation of a portable crushing and screening plant with a combined maximum rated design capacity of 600 TPH. The facility also included a 1,071 HP diesel-fired engine/generator set and associated material handling equipment.

D. Current Permit Action

On April 7, 2017, the Department received an application for modification of MAQP #5165-00 to allow for the addition of a 310 horsepower (HP) diesel-fired generator engine. The current permit action updates the permit to reflect the new engine, updates hour of operation limitations as well as production limitations as necessary to limit emissions and updates the emissions inventory. In addition, the current permit action updates rule references and language used by the Department. **MAQP #5165-01** replaces MAQP #5165-00.

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 Administrative Rules of Montana (ARM) and are available, upon request, from the Department of Environmental Quality (Department). Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations where appropriate.

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

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

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

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

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

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

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

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

1. ARM 17.8.204 Ambient Air 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

Strata 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, Strata shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter.

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

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

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

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such tank tuck 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 and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Strata is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

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

   b. 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants. In order for a crushing plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Strata, the portable crushing equipment to be used is subject to this subpart.

   c. 40 CFR 60, Subpart IIII – Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (CI ICE). Owners and operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE are manufactured after April 1, 2006, and are not fire pump engines, and owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005, are subject to this subpart. Based on the information submitted by Strata, the CI ICE equipment to be used may be subject to this subpart if the engine becomes a 'stationary' engine as defined for 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. Strata is potentially considered a NESHAP-affected facility under 40 CFR Part 63 and is potentially subject to the requirements of the following subparts.

   a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a NESHAPs Subpart as listed below.

b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants (HAPs) for Stationary Reciprocating Internal Combustion Engines (RICE). An owner or operator of 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 Strata, the RICE equipment to be used may be subject to this subpart if the engine becomes a 'stationary' engine as defined for this subpart.

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

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

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Strata's crushing and screening operation has a PTE greater than 15 tons per year of oxides of nitrogen (NO_X), carbon monoxide (CO), and 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. Strata 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. Strata submitted an affidavit of publication of public notice for the April 9, 2017 issue of the *Sidney Herald*, a newspaper of general circulation in the Town of Sydney in Richland County, as proof of compliance with the public notice requirements.

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 Strata 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 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 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 #5165-01 for Strata, 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 a current NSPS (40 CFR 60 Subpart OOO and potentially to 40 CFR 60 Subpart IIII).

   e. This facility is potentially subject to a current NESHAP/MACT standard (40 CFR 63 Subpart ZZZZ).

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

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

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

   Based on these facts, the Department has determined that Strata 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, Strata may be required to obtain a Title V Operating Permit.

III. BACT Determination

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

This permit action adds an additional 310 HP diesel-fired generator engine. Generally, any new diesel-fired engine would be required to comply with federal engine emission limitations including, for example, EPA Tiered emission standards for non-road engines (40 CFR Part 89 or 1039), New Source Performance Standard emission limitations for stationary compression ignition engines (40 CFR 60, Subpart IIII), or National Emissions Standards for Hazardous Air Pollutant Sources for Reciprocating Internal Combustion Engines (40 CFR 63, Subpart ZZZZ). Engines that are not new which operate as a stationary source would be required to comply with 40 CFR 63, Subpart ZZZZ and potentially 40 CFR 60, Subpart IIII. The Department has determined that compliance with any applicable federal emissions limits and standards, with no additional requirements, constitutes BACT for these engines.

IV. Emission Inventory**

	Potential to Emit in Tons Per Year							
Emissions Source	**PM (fil)**	**PM_{10} (fil)**	**$PM_{2.5}$ (fil)**	**PM (cond)**	**NO_X**	**CO**	**VOC**	**SO_X**
Crusher	1.67	0.67	0.04	0.00	--	--	--	--
Screening	2.00	1.22	0.75	0.00	--	--	--	--
Conveyor Transfer Points	0.58	0.19	0.04	0.00	--	--	--	--
Piles	2.14	1.01	0.15	0.00	--	--	--	--
Loading	0.03	0.03	0.03	0.00	--	--	--	--
Unloading	0.0044	0.00	0.00	0.00	--	--	--	--
Haul Roads and Unpaved Areas	1.02	0.27	0.03	0.00	--	--	--	--
Diesel Generator Engines (max 1,381 HP)	2.81	2.81	2.81	0.35	39.6[a]	8.53	3.21	2.64
TOTAL	10.25	6.2	3.85	**0.35**	**39.6**	**8.53**	**3.21**	**2.64**

**

- Total PM_{10} emissions are 10.10 TPY, determined by the sum of PM_{10}(fil) + PM(cond)
- Total $PM_{2.5}$ emissions are 5.56 TPY, determined by the sum of $PM_{2.5}$(fil) + PM(cond)
- Total Particulate Matter emissions are 19.02 TPY, determined by the sum of PM(fil) + PM(cond)

CO = carbon monoxide
cond = condensible
(fil) = filterable
HAPs = hazardous air pollutants
HP = horsepower
lb = pound
NO_X = oxides of nitrogen
PM = particulate matter
PM_{10} = particulate matter with an aerodynamic diameter of 10 microns or less
$PM_{2.5}$ = particulate matter with an aerodynamic diameter of 2.5 microns or less
SO_2 = sulfur dioxide
TPY = tons per year
VOC = volatile organic compounds

Footnotes:

a. Inventory reflects enforceable limits on hours of operation of the diesel generator engine to keep emissions at or below the attainment area modeling threshold of 40 TPY for NO_X. The hourly operation limitation on generator engine hours was carried throughout the permit. While more crushing and screening operations could be permitted, the engine hourly limit applied throughout also kept $PM_{2.5}$ below any rate at which ambient air impacts would be of concern.

Crushing http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf		
Maximum Process Rate = 600 ton/hr (Maximum rated throughput for any configuration)	600	ton/hr
Maximum Hours of Operation = 1,850 hrs/yr	1,850.00	hrs/yr
PM Emissions:		
Emission Factor = 0.003 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.003	lb/ton
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.003 lb/ton) * (ton/2000 lb) =	**1.67**	ton/yr
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.003 lb/ton) * (ton/2000 lb) =	**1.67**	ton/yr
PM_{10} Emissions:		
Emission Factor = 0.0012 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.0012	lb/ton
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =	**0.67**	ton/yr
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.0012 lb/ton) * (ton/2000 lb) =	**0.67**	ton/yr
PM2.5 Emissions:		
Emission Factor = 0.00007 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.00007	lb/ton
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.00007 lb/ton) * (ton/2000 lb) =	**0.04**	ton/yr
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.00007 lb/ton) * (ton/2000 lb) =	**0.04**	ton/yr

Screening http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf		
Maximum Process Rate = 600 ton/hr (Maximum rated throughput for any configuration)	600	ton/hr
Maximum Hours of Operation = 1,850 hrs/yr	1,850.00	hrs/yr
Total PM Emissions:		
Emission Factor = 0.0036 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.0036	lb/ton
Control Efficiency = 0%	0	%
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.0036 lb/ton) * (ton/2000 lb) =	**2.00**	ton/yr
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.0036 lb/ton) * (ton/2000 lb) * (1 - 0/100) =	**2.00**	ton/yr
Total PM10 Emissions:		
Emission Factor = 0.0022 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.0022	lb/ton
Control Efficiency = 0%	0	%
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) =	**1.22**	ton/yr
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) * (1 - 0/100) =	**1.22**	ton/yr
Total PM2.5 Emissions:		
Emission Factor = 0.00135 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.00135	lb/ton
Control Efficiency = 0%	0	%
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.00135 lb/ton) * (ton/2000 lb) =	**0.75**	ton/yr
Calculation: (600 ton/hr) * (1850 hrs/yr) * (0.00135 lb/ton) * (ton/2000 lb) * (1 screen(s)) * (1 - 0/100) =	**0.75**	ton/yr

Conveyor Transfers http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf

Transfer from a conveyor onto a screen, or into a crusher, should not be considered a conveyor transfer point. However, the Department does not typically place limits on how these conveyors can be configured. Remembering there are pile emissions, assume there is one conveyor transfer point for each conveyor.

Maximum Process Rate = 300 ton/hr	300	ton/hr
Maximum Hours of Operation = 1,850 hrs/yr	1,850.00	hrs/yr
Number of Conveyor Transfers = 15 conveyors	15	conveyors

Total PM Emissions:

Emission Factor = 0.00014 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.00014	lb/ton
Control Efficiency = 0%	0	%
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (15 conveyors) =	**0.58**	ton/yr
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (15 conveyors) * (1 - 0/100) =	**0.58**	ton/yr

Total PM2.5 Emissions:

Emission Factor = 0.00001 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.00001	lb/ton
Control Efficiency = 0%	0	%
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.00001 lb/ton) * (ton/2000 lb) * (15 conveyors) =	**0.04**	ton/yr
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.00001 lb/ton) * (ton/2000 lb) * (15 conveyors) * (1 - 0/100) =	**0.04**	ton/yr

Total PM10 Emissions:

Emission Factor = 0.000046 lb/ton (assume controlled due to BACT / NSPS / 20% opacity)	0.000046	lb/ton
Control Efficiency = 0%	0	%
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (15 conveyors) =	**0.19**	ton/yr
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (15 conveyors) * (1 - 0/100) =	**0.19**	ton/yr

Storage Piles http://www.epa.gov/ttn/chief/ap42/ch13/final/c13s0204.pdf

Maximum Process Rate = 300 ton/hr (Maximum plant process rate)	300	ton/hr
Maximum Hours of Operation = 1,850 hrs/yr	1,850	hrs/yr
Number of Piles = 1 pile (From a mass balance standpoint, one pile at maximum capacity can be assumed)	1	pile

PM Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.		
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00772 lb/ton	0.00772	lb/ton
Where: k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.74	
U = mean wind speed = 9.1 mph www.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html (See Guidance - wind data for Statewide Average)	9.1	mph
M = material moisture content = 1.5% See guidance - based on moisture contents assumed for crushing and screening operations	1.5	%
Calculation: (300 ton/hr) * (1850 hrs/yr) * (0.00772 lb/ton) * (ton/2000 lb) * (1 pile) =	**2.14**	ton/yr

PM2.5 Emissions:			
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.			
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00055 lb/ton		0.00055	lb/ton
Where:	k = particle size multiplier = 0.053 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.053	
	U = mean wind speed = 9.1 mph www.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html (See Guidance - wind data for Statewide Average)	9.1	mph
	M = material moisture content = 1.5% See guidance - based on moisture contents assumed for crushing and screening operations	1.5	%
Calculation:	(300 ton/hr) * (1850 hrs/yr) * (0.00055 lb/ton) * (ton/2000 lb) * (1 pile) =	**0.15**	ton/yr
PM10 Emissions:			
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.			
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00365 lb/ton		0.00365	lb/ton
Where:	k = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)	0.35	
	U = mean wind speed = 9.1 mph www.ncdc.noaa.gov/oa/climate/online/ccd/avgwind.html (See Guidance - wind data for Statewide Average)	9.1	mph
	M = material moisture content = 1.5% See guidance - based on moisture contents assumed for crushing and screening operations	1.5	%
Calculation:	(300 ton/hr) * (1850 hrs/yr) * (0.00365 lb/ton) * (ton/2000 lb) * (1 pile) =	**1.01**	ton/yr

Loading	http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf		
These operations typically involve truck loading operations. Limited emissions factor data is available. Assume steady stockpiling for PTE purposes (i.e., what is made is sold and pile sizes stay relatively the same)			
Maximum Process Rate = 300 ton/hr		300	ton/hr
Maximum Hours of Operation = 1,850 hrs/yr		1,850	hrs/yr
PM Emissions: (assume PM Emissions = PM10 Emissions = PM2.5)			
Emission Factor = 0.00010 lb/ton		0.00010	lb/ton
Calculation:	(300 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (1850 hrs/yr) =	**0.03**	ton/yr
PM10 Emissions:			
Predictive equation for emission factor provided per AP 42, Sec. 11.19.2-2, 8/04.			
Emission Factor = 0.00010 lb/ton		0.00010	lb/ton
Calculation:	(300 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (1850 hrs/yr) =	**0.03**	ton/yr
PM10 Emissions:			
Predictive equation for emission factor provided per AP 42, Sec. 11.19.2-2, 8/04.			
Emission Factor = 0.00010 lb/ton		0.00010	lb/ton
Calculation:	(300 ton/hr) * (0.0001 lb/ton) * (ton/2000 lb) * (1850 hrs/yr) =	**0.03**	ton/yr

Unloading http://www.epa.gov/ttn/chief/ap42/ch11/final/c11s1902.pdf		
These operations typically involve on-site truck loading. Limited emissions factor data is available.		
Maximum Process Rate = 300 ton/hr	300	ton/hr
Maximum Hours of Operation = 1,850 hrs/yr	1,850	hrs/yr
PM Emissions: (assume PM Emissions = PM10 Emissions = PM2.5)		
Emission Factor = 0.000016 lb/ton	0.000016	lb/ton
Calculation: (300 ton/hr) * (0.000016 lb/ton) * (ton/2000 lb) * (1850 hrs/yr) =	**0.0044**	ton/yr

Haul Roads		
Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)	5	VMT/day
VMT per hour = (5 VMT/day) * (day/24 hrs) = 0.21 VMT/hr	0.21	VMT/hr
Hours of Operation = 1,850 hrs/yr	1,850.00	hrs/yr
PM Emissions:		
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = k * (s / 12)^a * (W / 3)^b = 10.64 lb/VMT	10.64	lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	4.9	lbs/VMT
s = surface silt content = 5.95 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	5.95	%
W = mean vehicle weight = 50 tons Department History	50	tons
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.7	
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.45	
Control Efficiency = 50% (Water spray or chemical dust suppressant)	50	%
Calculation: (1850 hrs/yr) * (0.21 VMT/hr) * (10.64 lb/VMT) * (ton/2000 lb) =	**2.05**	tons/yr
Calculation: (1850 hrs/yr) * (0.21 VMT/hr) * (10.64 lb/VMT) * (ton/2000 lb) * (1-50/100) =	**1.02**	tons/yr
PM10 Emissions:		
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = k * (s / 12)^a * (W / 3)^b = 2.83 lb/VMT	2.83	lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	1.5	lbs/VMT
s = surface silt content = 5.95 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	5.95	%
W = mean vehicle weight = 50 tons Department History	50	tons
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.9	
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.45	
Control Efficiency = 50% (Water spray or chemical dust suppressant)	50	%
Calculation: (1850 hrs/yr) * (0.21 VMT/hr) * (2.83 lb/VMT) * (ton/2000 lb) =	**0.55**	tons/yr
Calculation: (1850 hrs/yr) * (0.21 VMT/hr) * (2.83 lb/VMT) * (ton/2000 lb) * (1-50/100) =	**0.27**	tons/yr

PM2.5 Emissions:		
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.		
Emission Factor = k * (s / 12)^a * (W / 3)^b = 0.28 lb/VMT	0.28	lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.15	lbs/VMT
s = surface silt content = 5.95 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)	5.95	%
W = mean vehicle weight = 50 tons Department History	50	tons
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.9	
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)	0.45	
Control Efficiency = 50% (Water spray or chemical dust suppressant)	50	%
Calculation: (1850 hrs/yr) * (0.21 VMT/hr) * (0.28 lb/VMT) * (ton/2000 lb) =	**0.05**	tons/yr
Calculation: (1850 hrs/yr) * (0.21 VMT/hr) * (0.28 lb/VMT) * (ton/2000 lb) * (1-50/100) =	**0.03**	tons/yr

Diesel Engine Generator		
Note: Emissions are based on the power output of the engine (1381 hp).		
Operational Capacity of Engine = 1,381 hp	1,381.00	Hp
Hours of Operation = 1,850.00 hours	1,850.00	hours
PM = PM10 = PM2.5 Emissions (all PM < 1um in size):		
PM Emissions = 5,620.67 lbs/yr (Assume PM = PM10 = PM2.5)	5,620.67	lbs/yr
PM Emissions = 2.81 ton/yr (Assume PM = PM10 = PM2.5)	**2.81**	ton/yr
PM-10 Emissions:		
Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	0.0022	lbs/hp-hr
Calculation: (1,850 hours) * (1,381 hp) * (0.0022 lbs/hp-hr) =	5,620.67	lbs/yr
Calculation: (1,850 hours) * (1,381 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) =	**2.81**	ton/yr
PM-2.5 Emissions:		
Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	0.0022	lbs/hp-hr
Calculation: (1,850 hours) * (1,381 hp) * (0.0022 lbs/hp-hr) =	5,620.67	lbs/yr
Calculation: (1,850 hours) * (1,381 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) =	**2.81**	ton/yr
NOx Emissions:		
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	0.031	lbs/hp-hr
Calculation: (1,850 hours) * (1,381 hp) * (0.031 lbs/hp-hr) =	79,200.35	lbs/yr
Calculation: (1,850 hours) * (1,381 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) =	**39.60**	ton/yr
CO Emissions:		
Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	6.68E-03	lbs/hp-hr
Calculation: (1,850 hours) * (1,381 hp) * (0.00668 lbs/hp-hr) =	17,066.40	lbs/yr
Calculation: (1,850 hours) * (1,381 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) =	**8.53**	ton/yr
VOC Emissions:		
Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust + Crankcase, 10/96)	2.51E-03	lbs/hp-hr
Calculation: (1,850 hours) * (1,381 hp) * (0.0025141 lbs/hp-hr) =	6,423.15	lbs/yr
Calculation: (1,850 hours) * (1,381 hp) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) =	**3.21**	ton/yr

SOx Emissions:		
Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)	2.05E-03	lbs/hp-hr
Calculation: (1,850 hours) * (1,381 hp) * (0.00205 lbs/hp-hr) =	5,237.44	lbs/yr
Calculation: (1,850 hours) * (1,381 hp) * (0.00205 lbs/hp-hr) * (ton/2000 lb) =	**2.62**	ton/yr

V. Existing Air Quality

This permit is to add a diesel generator engine at a portable crushing and screening facility located near Fairfield, Montana. This location, and other locations for which this facility is permitted to operate, have been designated unclassified/attainment with all ambient air quality standards.

VI. Air Quality Impacts

This permit contains conditions and limitations that would protect air quality for the site and surrounding area. Furthermore, this facility is a portable source that would operate on an intermittent and temporary basis, limiting effects to air quality. Impacts are expected to be minor.

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**	
XX		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	XX	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	XX	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	XX	4. Does the action deprive the owner of all economically viable uses of the property?
	XX	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?
	XX	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	XX	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?
	XX	7a. Is the impact of government action direct, peculiar, and significant?
	XX	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	XX	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?

YES	NO	
	XX	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.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Air, Energy & Mining Division
Air Quality Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Strata Corporation
PO Box 13500
Grand Forks, ND 58208

Montana Air Quality Permit number (MAQP): 5165-01

EA Draft: May 19, 2017
EA Final: June 12, 2017
Permit Final: June 28, 2017

1. *Legal Description of Site*: Strata Corporation (Strata) operates a portable crushing and screening plant, which will initially be located in an existing 101 acre pit covering Section 34, Township 25 North, Range 59 East, Section 1, Township 24 North, Range 59 East, and Section 6, Township 24 North, Range 60 East, in Richland County, Montana. This location is northeast of Fairview, Montana, at -104.0807° North, 47.86797° West. However, MAQP #5165-01 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.

2. *Description of Project*: Strata operates a portable crushing and screening operation which would crush and size nonmetallic minerals to provide for sale. The Department received an application from Strata to modify MAQP #5165-00 to include an additional 310 HP generator engine to run a wash plant used to sort and wash different types of aggregate materials.

3. *Objectives of Project*: To provide crushed and sized aggregate for sale.

4. *Alternatives Considered*: In addition to the proposed action, the Department also considered the "no-action" alternative. The no-action alternative would mean that Strata would not be able to generate power for use in washing aggregate and could potentially lose profits from the production of quality crushed and sized aggregate. As an existing and operating pit, this location has previously accommodated crushing and screening operators. Therefore, the "no-action" alternative was eliminated from further consideration. Other alternatives considered were discussed in the BACT analysis, Section III in the MAQP Analysis.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in MAQP #5165-01.

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 generator engine would be initially located along with additional equipment at the facility in a large existing and operating pit with crushing and screening operations having previously operated on site. Minor impacts from this operation would be expected.

B. Water Quality, Quantity and Distribution

The generator engine would be initially located in a large existing and operating pit with crushing and screening operations having previously operated on site. Use of water as a means of dust suppression is required. Minor impacts from this operation would be expected.

C. Geology and Soil Quality, Stability and Moisture

The generator engine would be initially located in a large existing and operating pit with crushing and screening operations having previously operated on site. Use of water as a means of dust suppression is required. Minor impacts from this operation would be expected.

D. Vegetation Cover, Quantity, and Quality

The generator engine would be initially located in a large existing and operating pit with crushing and screening operations having previously operated on site. Strata is required by rule and permit to limit emissions. Minor impacts from this operation would be expected.

E. Aesthetics

The generator engine would be initially located in a large existing and operating pit with crushing and screening operations having previously operated on site. Strata is required by rule and permit to limit opacity. Significant noise, as previously present at this location, would be expected. Any impacts to aesthetics as a result of the generator engine would be expected to be minor.

F. Air Quality

Strata would obtain an air quality permit for the addition of the generator engine which limits the amount of allowable emissions to ambient air. The amount of allowable emissions would be minor on an industrial scale. Further, emissions would be expected to be temporary and intermittent. Minor impacts to air quality would be expected.

G. Unique Endangered, Fragile, or Limited Environmental Resources

The Department, in an effort to assess any potential impacts to unique, endangered, fragile or limited environmental resources in the initial proposed area of operation, analyzed the online Species of Concern (SOC) database maintained by Montana Natural Heritage Program (MNHP). The initial location for the generator engine and the associated equipment at the facility is in a large existing and operating pit with crushing and screening operations having previously operated on site. The SOC report listed one species of concern, the Whooping Crane. Given the nature of the existing site and previous operations, the generator engine would not be expected to have any more than a minor impact to any unique endangered, fragile, or limited environmental resources.

H. Sage Grouse Executive Order

The site location is not within a Greater Sage Grouse General Habitat Area as defined by Executive Order No. 12-2015.

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

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Use of water as a means of dust suppression is expected. Use of diesel fuel for electrical generator engine use is expected. A limited amount of allowable air impacts are expected. Minor impacts from this operation would be expected to water, air, and energy resources.

J. Historical and Archaeological Sites

The Department contacted the Montana Historical Society, State Historical Preservation Office (SHPO) at initial permit issuance in an effort to identify any historical and archaeological sites that may be present in the area of operation. According to their records there are no previously recorded sites in the area of the proposed project location and there is a low likelihood of adverse disturbance to any known archaeological or historic site. The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site.

Therefore no impacts upon historical or archaeological sites would be expected as a result of this permitting action

K. Cumulative and Secondary Impacts

The Department found no more than minor impacts to the individual physical and biological considerations above. From a cumulative and secondary impacts standpoint, no more than minor impacts would be expected.

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

A. Social Structures and Mores

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. No change to the general nature of the site is expected. Any impacts to social structures and mores would be expected to be minor.

B. Cultural Uniqueness and Diversity

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. No change to the general nature of the site is expected. Any impacts to cultural uniqueness and diversity would be expected to be minor.

C. Local and State Tax Base and Tax Revenue

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. A very small, if any discernable impact at all, to local and state tax base and tax revenue would be expected from the operation of the generator engine.

D. Agricultural or Industrial Production

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. There would be no change to agricultural production and a minor increase to industrial production as the generator engine would allow the source to provide power for operations where there previously was no power available. Minor impacts would be expected as a result of permit issuance.

E. Human Health

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Strata would be required to obtain a Montana Air Quality permit which would limit the amount of allowable emissions from the engine. These limitations would be derived from rules designed to protect human health.

F. Access to and Quality of Recreational and Wilderness Activities

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Any impacts to access to or quality of recreational and wilderness activities would be expected to be minor.

G. Quantity and Distribution of Employment

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Strata would utilize two to eight employees for crushing and screening operations at this location.

H. Distribution of Population

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Strata would utilize two to eight employees for crushing and screening operations at this location. This operation is expected to operate in a temporary and intermittent nature. Any impacts to distribution of population would be expected to be minor.

I. Demands for Government Services

The initial location for the generator engine is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. An active open cut permit is already issued. Strata would require a Montana Air Quality Permit, requiring DEQ services to maintain the permit and associated compliance and permit upkeep.

J. Industrial and Commercial Activity

The initial location for the generator is proposed to be in a large existing and operating pit with crushing and screening operations having previously operated on site. Any impacts to industrial and commercial activity as a result of issuance of a Montana Air Quality Permit to Strata would be expected to be minor.

K. Locally Adopted Environmental Plans and Goals

The Department is not aware of any locally adopted environmental plans and goals which would be impacted by issuance of a Montana Air Quality Permit to Strata. The permit would contain conditions derived from rules designed to protect public health.

L. Cumulative and Secondary Impacts

The Department found no more than minor impacts to the individual economic and social considerations made above. Cumulative and secondary impacts would be expected to be minor.

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

The current permitting action is for the operation of an additional generator engine at an existing portable crushing and screening plant. MAQP #5165-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program – Montana Sage Grouse Oversight Team

Individuals or groups contributing to this EA: Department of Environmental Quality – Air Quality Bureau, Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

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