



Montana Department of  
**ENVIRONMENTAL QUALITY**

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November 2, 2012

Ms. Tracy Hodik  
Century Companies, Inc.  
P.O. Box 579  
Lewistown, MT 59457

Dear Ms Hodik:

Montana Air Quality Permit #2527-03 is deemed final as of November 2, 2012, by the Department of Environmental Quality (Department). This permit is for a portable drum mix asphalt 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,

Julie Merkel  
Air Permitting Supervisor  
Air Resources Management Bureau  
(406) 444-3626

Shawn Juers  
Environmental Engineer  
Air Resources Management Bureau  
(406) 444-2049

JM:SJ  
Enclosure

Montana Department of Environmental Quality  
Permitting and Compliance Division

Montana Air Quality Permit #2527-03

Century Companies, Inc.  
P.O. Box 579  
Lewistown, MT 59457

11/2/2012



## MONTANA AIR QUALITY PERMIT

Issued To: Century Companies, Inc.  
P.O. Box 579  
Lewistown, MT 59457

MAQP: #2527-03  
Administrative Amendment (AA) Request  
Received: 9/28/2012  
Department's Decision on AA: 10/17/2012  
Permit Final: 11/2/2012  
AFS #: 777-2527

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Century Companies, Inc. (Century) 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

Century operates a portable drum mix asphalt plant, which was initially located at SW ¼ of the SE ¼ of Section 30, Township 8 South, Range 8 East in Park County, Montana. However, Montana Air Quality Permit (MAQP) #2527-03 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.* An addendum will be required for locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas.

#### B. Current Permit Action

On September 28, 2012, the Department received a letter from Century notifying the Department that this facility should be a true minor, and as such, should not have applied for synthetic minor limits as requested for MAQP #2527-02. The Department concurs, and the current permit action corrects rule references and removes annual certification requirements.

### SECTION II: Conditions and Limitations

#### A. Emission Limitations

1. Asphalt plant particulate matter emissions shall be limited to 0.04 grains per dry standard cubic feet (gr/dscf) (ARM 17.8.340 ARM 17.8.752, and 40 CFR 60, Subpart I).
2. Century shall not cause or authorize to be discharged into the atmosphere from the asphalt plant stack any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart I).
3. Century shall not cause or authorize to be discharged into the atmosphere from dryers; systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing hot mix asphalt; and the loading, transfer, and storage systems associated with emission control systems, any visible emissions that exhibit opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).

4. Century 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).
5. Century 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.4 (ARM 17.8.749).
6. A device to measure the pressure drop (magnehelic gauge, manometer, etc.) on the control device (wet scrubber) must be installed and maintained. Pressure drop must be measured in inches of water. Temperature indicators at the control device inlet and outlet must be installed and maintained (ARM 17.8.749).
7. Once a stack test is performed, the asphalt production rate shall be limited to the average production rate during the last source test demonstrating compliance (ARM 17.8.749).
8. Century shall not operate, or have on-site, more than two diesel engine/generators at any given time and the engines shall not have a combined capacity greater than 408 hp (ARM 17.8.749).
9. Asphalt plant production shall not exceed 1,046,850 tons during any rolling 12-month time period (ARM 17.8.749).
10. The hours of operation of the asphalt plant and associated equipment (including diesel-powered engines/generators) shall not exceed 6,979 hours during any rolling 12-month time period (ARM 17.8.749).
11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Century, 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).
12. Century shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 Code of Federal Regulations (CFR) 60, Subpart I, as it applies to this asphalt operation (ARM 17.8.340 and 40 CFR 60, Subpart I).
13. Century 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 the maximum production rate, but not later than 180 days after initial start up, an Environmental Protection Agency (EPA) Methods 1-5 source test shall be performed on the asphalt plant to demonstrate compliance with Section II.A.1. An EPA Method 9 opacity test shall be performed in conjunction with all particulate tests to demonstrate compliance with the conditions specified in Sections II.A.2. and II.A.3.

The plant was last tested October 2008, testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. Pressure drop on the control device and temperature must be recorded daily and kept on site (ARM 17.8.749).
3. Pressure drop on the control device and temperatures must be recorded during the compliance source test and reported as part of the test results (ARM 17.8.749).
4. Since asphalt production will be limited to the average production rate during the compliance source test, it is suggested the test be performed at the highest production rate practical (ARM 17.8.749).
5. Century may retest at any time in order to test at a higher production rate (ARM 17.8.749).
6. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
7. The Department may require further testing (ARM 17.8.105).

#### C. Operational Reporting Requirements

1. If this asphalt 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. Century 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, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

3. Century 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. Century shall maintain on-site records showing daily hours of operation and daily production rates for the last 12 months. The records compiled in accordance with this permit shall be maintained by Century 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. Century shall document, by month, the asphalt production of the facility. By the 25th day of each month, Century shall total the asphalt production of 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.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
6. Century shall document, by month, the hours of operation of the asphalt plant and diesel-powered generator engine(s). By the 25th day of each month, Century shall total the hours of operation for the previous month. The monthly information will be used to demonstrate 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).

### SECTION III: General Conditions

- A. Inspection – Century shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (continuous emissions monitoring system (CEMS) or continuous emissions rate monitoring system (CERMS)) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.
- B. Waiver – The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if Century fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Century 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 Century 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. Century 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  
Century Companies, Inc.  
MAQP #2527-03

I. Introduction/Process Description

Century Companies, Inc. (Century) owns and operates a drum mix asphalt batch plant.

A. Permitted Equipment

- Drum Mix Asphalt Plant (150 ton per hour (TPH)) controlled with a venturi wet scrubber
- Propane-fired Dryer
- Propane-fired Hot Oil Heater
- Lime Silo
- Diesel-Powered Generator Engine (348 horsepower (hp))
- Diesel-Powered Generator Engine (60 horsepower (hp))

B. Source Description

For a typical operational set-up, two different raw materials are introduced into the drum mixer. First, aggregate materials are taken from the on-site aggregate stockpiles and dumped via a front end loader into the cold aggregate feed bins. The cold aggregate is then transferred from the cold aggregate feed bins via conveyor to the drum mixer. The cold aggregate is dried and mixed with the other raw material in the drum mixer and the drum mixer burner is fired with propane. Oil is then introduced to the drum mixer through hoses from the propane fired portable hot oil heater tank. Once all raw materials have been introduced into the drum mixer they are continuously mixed and heated by the drum mixer burner. A diesel-fired engine/generator set powers the operation.

After heating and mixing is completed, the asphalt product is transferred from the drum mixer to the asphalt product silo via a conveyor. The asphalt remains in the asphalt silo until it is loaded into trucks for transport to a given job location.

C. Permit History

**MAQP #2527-00** was issued to Century on March 28, 1989.

On December 19, 2008, the Department of Environmental Quality (Department) received a request from Century to include the horsepower rating of the diesel-fired generator/engines associated with MAQP #2527-00. The permit action updated the permit to include the horsepower rating as well as updated the permit to reflect current permit format, language, emission inventory, and rule references. **MAQP #2527-01** replaced MAQP #2527-00.

On January 6, 2012, the Department received a request to administratively amend MAQP #2527-02 to change existing federally enforceable limits. Century's request was made as part of a project undertaken by the Department to address those sources with existing federally enforceable permit limits that were established to keep potential emissions below the 100 ton per year major source Title V Operating Permit thresholds. The Department encouraged synthetic minor sources to take new permit limits to further reduce emissions from just below 100 tons per year to just below 80 tons per year. The permit limit change consequently altered the oversight category for a synthetic minor facility to a level that is only subject to the State Compliance Monitoring Strategy. This permitting action amended



the MAQP to further limit hours of operation to below 80 tpy. In addition, this permit action updated rule references, permit format, and the emissions inventory. **MAQP #2527-02** replaced MAQP #2527-01.

D. Current Permit Action

On September 28, 2012, the Department received a letter from Century notifying the Department that this facility is a true minor, and as such, should not have applied for synthetic minor limits as requested for MAQP #2527-02. The current permit action corrects rule references and removes annual certification requirements. **MAQP #2527-03** replaces MAQP #2527-02.

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).

Century 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<sub>10</sub>

Century 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, Century 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 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 and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Century is considered an NSPS affected facility under 40 CFR Part 60.
    - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart.
    - b. 40 CFR 60, Subpart I Standards of Performance of Hot Mix Asphalt Facilities. In order for an asphalt 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.
    - c. 40 CFR 60, Subpart III - 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.
  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. Century is considered a NESHAP-affected facility under 40 CFR Part 63 and is 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.
- D. ARM 17.8, Subchapter 5 – Air Quality Permit Application, Operation, and Open Burning Fees, including, but not limited to:
1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.
  2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department.

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. Century has a PTE greater than 15 tons per year of all criteria pollutants; therefore, an air quality permit is required.
  3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
  4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.
  5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements.  
(1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.
  6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
  7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.
  8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
  9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Century 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<sub>10</sub>) in a serious PM<sub>10</sub> 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 #2527-02 for Century, the following conclusions were made:
- a. The facility's PTE is less than 100 tons/year for any pollutant.
  - b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.
  - c. This source is not located in a serious PM<sub>10</sub> nonattainment area.
  - d. This facility is subject to current NSPS.
  - e. This facility is subject to current NESHAP standards.
  - 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 Century 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, Century will be required to obtain a Title V Operating Permit.

### III. BACT Determination

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

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

#### IV. Emission Inventory\*\*

MAQP #2527-03								
Source	Ton/Year							
	PM	PM10	PM2.5	NOX	VOC	CO	SOX	HAPs
150 TPH Drum Mix Asphalt Plant Dryer	26.81	15.15	13.65	20.41	16.75	68.05	1.78	3.99
Hot Oil Heater	0.05	0.05	0.05	0.74	0.06	0.00		
Drum Mix Plant Load-Out	0.27	0.27	0.27		2.18	0.62		0.15
Asphalt Product Silo Filling	0.31	0.31	0.31		6.38	0.62		0.73
Cold Aggregate Screening	1.88	1.15	ND					
Cold Aggregate Handling / Conveyors	0.44	0.14	0.04					
Cold Aggregate Storage Piles	16.45	7.78	1.18					
Diesel Generator(s) (up to 408 hp)	2.67	2.67	2.67	37.64	3.05	8.11	2.49	4.44
Haul Roads / Vehicle Traffic	5.49	1.51	0.15					
<b>TOTAL:</b>	<b>54.38</b>	<b>29.04</b>	<b>18.32</b>	<b>58.80</b>	<b>28.42</b>	<b>77.39</b>	<b>4.27</b>	<b>9.31</b>

Footnotes:

a. This facility is a true minor, with unlimited throughput having emissions less than 100 tons per year of any conventional pollutant. Operational limits are not for the purposes of being a synthetic minor.

\*\*

acfm = actual cubic feet per minute  
 dscf = dry standard cubic feet  
 CO = carbon monoxide  
 ft = feet  
 HAP = hazardous air pollutants  
 hp = horsepower  
 in Hg = inches of mercury  
 lb = pound  
 MPH = miles per hour  
 MMBtu = million British Thermal Units  
 N/A = not applicable  
 ND = no data available

NO<sub>x</sub> = oxides of nitrogen  
 PM = particulate matter  
 PM<sub>10</sub> = particulate matter with an aerodynamic diameter of 10 microns or less  
 PM<sub>2.5</sub> = particulate matter with an aerodynamic diameter of 2.5 microns or less  
 SO<sub>x</sub> = oxides of sulfur  
 TPH = tons per hour  
 TPY = tons per year  
 VMT = vehicle miles traveled  
 VOC = volatile organic compounds  
 yr = year

Operating Hours	6979 hr/year	MAQP Condition	
Average Plant Elevation	3000 ft	Prior Department Information	
Actual Pressure	26.8 in Hg	Prior Department Information	
Standard Pressure	29.92 in Hg		
Flowrate	22,000 acfm	Prior Company Information	
Std. Temp:	25 °C		
Assumed Stack Temp	149 °C	Prior Determination	
Dry flowrate:	13924 dscfm	prior calculation (V1=V2(P2/P1)(T1/T2))	
Process Production Rate:	150 TPH		

<b>Drum Mix Asphalt Plant Dryer</b>	(MAQP requires natural gas or propane)					
<b>PM Emissions (Filterable)</b>						
Emission Factor:	0.04 gr/dscf	(permit limit)				
Calculations:	0.04gr/dscf*13924dscfm*1 lb/7000 gr * 60 min/hr =			4.77	lb/hr	
	4.77394285714286lb/hr*6979hr/year*0.0005 ton/lb =			<b>16.66</b>	<b>ton/yr</b>	
<b>PM Emissions (Condensable)</b>						
Emissions Factor:	0.0194 lb/ton produced	(AP-42 Table 11.1-3, 3/2004)				
Calculations:	0.0194lb/ton produced*150TPH=			<b>2.91</b>	<b>lb/hr</b>	
	2.91lb/hr*6979hr/year*0.0005 ton/lb =			<b>10.15</b>	<b>ton/yr</b>	
<b>PM10 Emissions</b>						
Emissions Factor:	30% of filterable PM + condensable (AP-42 Table 11.1-4, 03/2004)					
	<b>Filterable:</b>	26.01 ton/yr	* 0.30 =	<b>5.00</b>	<b>ton/yr</b>	
	<b>Condensable:</b>			<b>10.15</b>	<b>ton/yr</b>	
	<b>Total:</b>			<b>15.15</b>	<b>ton/yr</b>	
<b>PM2.5 Emissions</b>						
Emissions Factor:	21% of filterable PM + condensable (AP-42 Table 11.1-4, 03/2004)					
	<b>Filterable:</b>	26.01 ton/yr	*0.21 =	<b>3.50</b>	<b>ton/yr</b>	
	<b>Condensable:</b>			<b>10.15</b>	<b>ton/yr</b>	
	<b>Total:</b>			<b>13.65</b>	<b>ton/yr</b>	
<b>NOX Emissions</b>						
Emissions Factor:	0.026 lb/ton produced	(AP-42 Table 11.1-7, 3/2004)				
	0.039 =1.5*0.026	correction for Propane (AP-42 Table 1.5-1 Note a)				
Calculations:	0.039lb/ton produced*150TPH=			5.85	lb/hr	
	5.85lb/hr*6979hr/year*0.0005 ton/lb =			<b>20.41</b>	<b>ton/yr</b>	
<b>VOC Emissions</b>						
Emissions Factor:	0.032 lb/ton produced	(AP-42 Table 11.1-8, 3/2004)				
	0.032lb/ton produced*150TPH=			4.80	lb/hr	
	4.8lb/hr*6979hr/year*0.0005 ton/lb =			<b>16.75</b>	<b>ton/yr</b>	
<b>CO Emissions</b>						
Emissions Factor:	0.13 lb/ton produced	(AP-42 Table 11.1-8, 3/2004)				
	0.13lb/ton produced*150TPH=			19.50	lb/hr	
	19.5lb/hr*6979hr/year*0.0005 ton/lb =			<b>68.05</b>	<b>ton/yr</b>	
<b>SO2 Emissions</b>						
Emissions Factor:	0.0034 lb/ton produced	(AP-42 Table 11.1-7, 3/2004)				
	0.0034lb/ton produced*150TPH=			0.51	lb/hr	
	0.51lb/hr*6979hr/year*0.0005 ton/lb =			<b>1.78</b>	<b>ton/yr</b>	



<b>HAP Emissions</b>					
Organics Emissions Factor:	0.0076 lb/ton	(non-metal HAPS AP-42 Table 11.1-9, 3/2004)			
	0.0076lb/ton*150TPH=				1.14 lb/hr
	1.14lb/hr*6979hr/year*0.0005 ton/lb =				3.98 ton/yr
	<u>Metals Emissions Factors:</u>		<u>Emissions Calculations</u>		
(AP-42 Table 11.1-12, 3/2004)	HAP	lb/ton produced	Emissions - lb/hr	Emissions - ton/yr	
	Arsenic	0.00000018	0.000027	9.422E-05	
	Beryllium	0	0	0	
	Cadmium	0.00000041	0.0000615	8.241E-07	
	Chromium	0.00000055	0.000825	1.234E-05	
	Cobalt	0.000000026	0.0000039	0.0000429	
	Hexavalent Chromium	0.00000045	0.0000675	8.438E-07	
	Lead	0.00000062	0.000093	6.929E-06	
	Manganese	0.00000077	0.001155	0.0080411	
	Mercury	0.00000024	0.000036	0.0000027	
	Nickel	0.0000063	0.00945	0	
	Phosphorus	0.000028	0.0042	0	
	Selenium	0.00000035	0.0000525	3.938E-06	
	TOTAL:				0.01 ton/yr
	Organics + Metals		0.00820580235ton/yr+3.97803ton/yr=		<b>3.99 ton/yr</b>
<b>Hot Oil Heater and Storage (propane fired)</b>					
**The ducted emissions from the heated asphalt storage tanks may include VOCs and combustion products from the tank heater.					
Max Propane Firing Rate:	1.5 MMBtu/hr	@ 91.5 MMBtu/10 <sup>3</sup> gal =			
Max Propane Firing Rate:	0.0164 10 <sup>3</sup> gal/hr				
Operating Hours	6979 hr/yr	includes any preheating time (MAQP Condition)			
<b>Filterable PM Emissions</b>					
Emissions Factor:	0.2 lb/10 <sup>3</sup> gal	(AP-42 Table 1.3-1, 5/2010)			
Calculations:	0.2lb/10 <sup>3</sup> gal*0.016393442622950810 <sup>3</sup> gal/hr*6979hr/yr=				22.88197 lb/yr
	22.8819672131148lb/yr*0.0005 ton/lb =				<b>0.01 ton/yr</b>
<b>Condensable PM Emissions</b>					
Emissions Factor:	0.6 lb/10 <sup>3</sup> gal	(AP-42 Table 1.3-2, 5/2010)			
Calculations:	0.6lb/10 <sup>3</sup> gal*0.016393442622950810 <sup>3</sup> gal/hr*6979hr/yr=				68.6459 lb/yr
	68.6459016393443lb/yr*0.0005 ton/lb =				<b>0.03 ton/yr</b>
TOTAL:					<b>0.05 ton/yr</b>

<b>NOX Emissions</b>			
Emissions Factor:	13 lb/10 <sup>3</sup> gal	(AP-42 Table 1.3-1, 5/2010)	
Calculations:	13lb/10 <sup>3</sup> gal*0.016393442622950810 <sup>3</sup> gal/hr*6979hr/yr=	1487.328 lb/yr	
	1487.32786885246lb/yr*0.0005 ton/lb =	<b>0.74 ton/yr</b>	
<b>VOC Emissions</b>			
Emissions Factor:	1 lb/10 <sup>3</sup> gal	(AP-42 Table 1.3-3, 05/2010)	
Calculations:	1lb/10 <sup>3</sup> gal*0.016393442622950810 <sup>3</sup> gal/hr*6979hr/yr=	114.4098 lb/yr	
	114.409836065574lb/yr*0.0005 ton/lb =	<b>0.06 ton/yr</b>	
<b>CO Emissions</b>			
Emissions Factor:	0.0000089 lb/ft <sup>3</sup>	(AP-42 Table 11.1-13, 3/2004)	
	0.0000089lb/ft <sup>3</sup> *2.19 ft <sup>3</sup> /hr *6979hr/yr=	0.136028 lb/yr	
	0.136027689lb/yr*0.0005 ton/lb =	<b>0.00007 ton/yr</b>	
<b>SOX Emissions</b>			
Emissions Factor:	0.5 lb/10 <sup>3</sup> gal	(AP-42 Table 1.31-1, 5/2010) S = 5 grains / 100 ft <sup>3</sup> gas	
Calculations:	0.5lb/10 <sup>3</sup> gal*0.016393442622950810 <sup>3</sup> gal/hr*6979hr/yr=	57.20492 lb/yr	
	57.2049180327869lb/yr*0.0005 ton/lb =	<b>0.03 ton/yr</b>	
<b>Drum Mix Plant Load-Out</b>			
Process Rate:	160 ton/hr		
<b>PM/PM10/PM2.5 Emissions Factor</b>	0.000181+0.00141(-V)e <sup>^</sup> ((0.0251)(T+460)-20.43)	(AP-42 Table 11.1-14, 3/2004)	
(AP-42 Table 11.1-14, 3/2004)	V = asphalt volatility =	-0.5 (AP-42 Table 11.1-14 note a)	
	T = mix temp in °F =	325 (AP-42 Table 11.1-14 note a)	
	Emissions Factor =	<u>0.000521937</u> lb/ton produced	
Calculations:	0.000521937031819792lb/ton produced*150TPH=	0.078291 lb/hr	
	0.0782905547729688lb/hr*6979hr/year*0.0005 ton/lb =	<b>0.27 ton/yr</b>	
	Note b of Table 11.1-14 indicates total PM is predominately PM2.5		
<b>VOC Emissions</b>			
Emissions Factor =	0.0172(-V)e <sup>^</sup> ((0.0251)(T+460)-20.43))		
	Emissions Factor =	<u>0.004158948</u> lb/ton produced	
Calculations:	0.00415894818957476lb/ton produced*150TPH=	0.623842 lb/hr	
	0.623842228436215lb/hr*6979hr/year*0.0005 ton/lb =	<b>2.18 ton/yr</b>	
<b>HAPs Emissions</b>			
Total PAH HAPs =	5.93% of VOCs	(AP-42 Table 11.1-15, 3/2004)	
Total Other HAPs =	1.18% of VOCs	(AP-42 Table 11.1-15, 3/2004)	
TOTAL:	7.11% of VOCs		<b>0.15 ton/yr</b>

<b>CO Emissions</b>			
Emissions Factor =	$=0.00488(-V)e^{((0.0251)(T+460)-20.43)}$		
	Emissions Factor =	<u>0.001179981</u>	lb/ton produced
Calculations:	0.00117998064913517lb/ton produced*150TPH=		0.176997 lb/hr
	0.176997097370275lb/hr*6979hr/year*0.0005 ton/lb =		<b>0.62 ton/yr</b>
<b>Asphalt Product Silo Filling</b>			
<b>PM/PM10/PM2.5 Emissions Factor</b>	$=0.000332+0.00105(-V)e^{((0.0251)(T+460)-20.43)}$		
(AP-42 Table 11.1-14, 3/2004)	Emissions Factor =	<u>0.000585889</u>	lb/ton produced
Calculations:	0.000585889279014739lb/ton produced*150TPH=		0.087883 lb/hr
	0.0878833918522108lb/hr*6979hr/year*0.0005 ton/lb =		<b>0.31 ton/yr</b>
<b>VOC Emissions Factor =</b>	$=0.0504*(-V)*e^{((0.0251)(T+460)-20.43)}$		
	Emissions Factor =	<u>0.012186685</u>	lb/ton produced
Calculations:	0.0121866853927075lb/ton produced*150TPH=		1.828003 lb/hr
	1.82800280890612lb/hr*6979hr/year*0.0005 ton/lb =		<b>6.38 ton/yr</b>
<b>HAPs Emissions</b>			
Total PAH HAPs =	11.40% of VOCs	(AP-42 Table 11.1-15, 3/2004)	<b>0.73 ton/yr</b>
Total Other HAPs =	ND		
<b>CO Emissions Factor =</b>	$=0.00488(-V)e^{((0.0251)(T+460)-20.43)}$		
	Emissions Factor =	<u>0.001179981</u>	lb/ton produced
Calculations:	0.00117998064913517lb/ton produced*150TPH=		0.176997 lb/hr
	0.176997097370275lb/hr*6979hr/year*0.0005 ton/lb =		<b>0.62 ton/yr</b>

**Cold Aggregate Storage Piles**

For calculation purposes, 1 pile, at max capacity of the plant, is assumed

Process Rate: 150 TPH  
 Hours of Operation 6979 hr/year (MAQP Condition)

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

where:

- E = emission factor
- k = particle size multiplier (dimensionless)
- U = mean wind speed, meters per second (m/s) (miles per hour [mph])
- M = material moisture content (%)

	PM	PM10	PM2.5
k =	0.74	0.35	0.053
U =	9.1 MPH - average of statewide wind speeds from NOAA		
M =	0.55 average of controlled moisture contents - AP-42 Table 11.19.2-2 note b (some moisture control is assumed to meet general opacity requirements) (less moisture needed to meet 20% opacity than OOO opacity requirements)		
<b>PM Emissions</b>			
Emissions Factor =	0.031435lb/ton handled		
Calculations:	0.0314346573743194lb/ton handled*150TPH=		4.7151986lb/hr
	4.71519860614791lb/hr*6979hr/year*0.0005=		<b>16.45 ton/yr</b>
<b>PM10 Emissions</b>			
Emissions Factor =	0.014868lb/ton handled		
Calculations:	0.0148677433527186lb/ton handled*150TPH=		2.2301615lb/hr
	2.23016150290779lb/hr*6979hr/year*0.0005=		<b>7.78 ton/yr</b>
<b>PM2.5 Emissions</b>			
Emissions Factor =	0.002251 lb/ton handled		
Calculations:	0.00225140113626882lb/ton handled*150TPH=		0.3377102 lb/hr
	0.337710170440323lb/hr*6979hr/year*0.0005=		<b>1.18 ton/yr</b>

<b>Cold Aggregate Transfer Points</b>			
Process Rate	150 tons/hr		
Number of Transfers	6 transfers	(previously determined)	
Hours of Operation:	6979 hr/yr	(MAQP Condition)	
<b>PM Emissions</b>			
Emissions Factor:	0.00014 lb/ton processed	(AP-42 Table 11.19.2-2, 8/2004)	
Calculations:	0.00014lb/ton processed*150tons/hr=		0.021 lb/hr
	0.021lb/hr*6979hr/yr*0.0005ton/lb =		0.073 ton/yr
	0.0732795ton/yr*6transfers=		<b>0.440 ton/yr</b>
<b>PM10 Emissions</b>			
Emissions Factor:	0.000046 lb/ton processed	(AP-42 Table 11.19.2-2, 8/2004)	
Calculations:	0.000046lb/ton processed*150tons/hr=		0.0069 lb/hr
	0.0069lb/hr*6979hr/yr*0.0005ton/lb =		0.024 ton/yr
	0.02407755ton/yr*6transfers=		<b>0.144 ton/yr</b>
<b>PM2.5 Emissions</b>			
Emissions Factor:	0.000013 lb/ton processed	(AP-42 Table 11.19.2-2, 8/2004)	
Calculations:	0.000013lb/ton processed*150tons/hr=		0.00195 lb/hr
	0.00195lb/hr*6979hr/yr*0.0005ton/lb =		0.007 ton/yr
	0.006804525ton/yr*6transfers=		<b>0.041 ton/yr</b>

<b>Diesel Generator(s)</b>			
Maximum Rated hp =	348 hp	(MAQP Condition)	
Hours of Operation =	6979 hr/year	(MAQP Condition)	
<b>PM/PM10/PM2.5 Emissions</b>			
Emissions Factor:	0.0022 lb/hp-hr	(AP-42 Table 3.3-1, 10/1996)	
Calculations:	0.0022lb/hp-hr*348hp=		0.77 lb/hr
	0.7656lb/hr*6979hr/year*0.0005ton/lb =		<b>2.67 ton/yr</b>
<b>NOX Emissions</b>			
Emissions Factor:	0.031 lb/hp-hr	(AP-42 Table 3.3-1, 10/1996)	
Calculations:	0.031lb/hp-hr*348hp=		10.79 lb/hr
	10.788lb/hr*6979hr/year*0.0005ton/lb =		<b>37.64 ton/yr</b>
<b>VOC Emissions</b>			
Emissions Factor:	0.002514 lb/hp-hr	(AP-42 Table 3.3-1, 10/1996)	
Calculations:	0.002514lb/hp-hr*348hp=		0.87 lb/hr
	0.8749068lb/hr*6979hr/year*0.0005ton/lb =		<b>3.05 ton/yr</b>
<b>CO Emissions</b>			
Emissions Factor:	0.00668 lb/hp-hr	(AP-42 Table 3.3-1, 10/1996)	
Calculations:	0.00668lb/hp-hr*348hp=		2.32 lb/hr
	2.32464lb/hr*6979hr/year*0.0005ton/lb =		<b>8.11 ton/yr</b>
<b>SOX Emissions</b>			
Emissions Factor:	0.00205 lb/hp-hr	(AP-42 Table 3.3-1, 10/1996)	
Calculations:	0.00205lb/hp-hr*348hp=		0.71 lb/hr
	0.7134lb/hr*6979hr/year*0.0005ton/lb =		<b>2.49 ton/yr</b>
<b>HAPs</b>			
Emissions Factor:	0.003659 lb/hp-hr	(AP-42 Table 3.3-1, 10/1996)	
Calculations:	0.0036588lb/hp-hr*348hp=		1.27 lb/hr
	1.2732624lb/hr*6979hr/year*0.0005ton/lb =		<b>4.44 ton/yr</b>

<b>Cold Aggregate Screening</b>			
Process Rate:	150	TPH	
Hours of Operation:	6979	hr/year	(MAQP Condition)
<b>PM Emissions</b>			
Emissions Factor:	0.0036	lb/ton processed	(AP-42 Table 11.19.2-2, 08/2004)
Calculations:	0.0036lb/ton processed*150TPH=		0.54 lb/hr
	0.54lb/hr*6979hr/year*0.0005ton/lb =		<b>1.88 ton/yr</b>
<b>PM10 Emissions</b>			
Emissions Factor:	0.0022	lb/ton processed	(AP-42 Table 11.19.2-2, 08/2004)
Calculations:	0.0022lb/ton processed*0.0036TPH=		0.33 lb/hr
	0.33lb/hr*6979hr/year*0.0005ton/lb =		<b>1.15 ton/yr</b>
<b>PM2.5 Emissions</b>			
Emissions Factor:	0	lb/ton processed	(ND - expected to be very small)
Calculations:	0lb/ton processed*0.0022TPH=		0 lb/hr
	0lb/hr*6979hr/year*0.0005ton/lb =		<b>0.00 ton/yr</b>

<b>Haul Roads and Front Loader Traffic</b>																																		
(AP-42 13.2.2, 11/2006)																																		
<b><math>E = k (s/12)^a (W/3)^b</math></b>																																		
<table border="1"> <thead> <tr> <th rowspan="2">Constant</th> <th colspan="3">Industrial Roads (Equation 1a)</th> </tr> <tr> <th>PM-2.5</th> <th>PM-10</th> <th>PM-30*</th> </tr> </thead> <tbody> <tr> <td>k (lb/VMT)</td> <td>0.15</td> <td>1.5</td> <td>4.9</td> </tr> <tr> <td>a</td> <td>0.9</td> <td>0.9</td> <td>0.7</td> </tr> <tr> <td>b</td> <td>0.45</td> <td>0.45</td> <td>0.45</td> </tr> <tr> <td>c</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>d</td> <td>-</td> <td>-</td> <td>-</td> </tr> <tr> <td>Quality Rating</td> <td>B</td> <td>B</td> <td>B</td> </tr> </tbody> </table>				Constant	Industrial Roads (Equation 1a)			PM-2.5	PM-10	PM-30*	k (lb/VMT)	0.15	1.5	4.9	a	0.9	0.9	0.7	b	0.45	0.45	0.45	c	-	-	-	d	-	-	-	Quality Rating	B	B	B
Constant	Industrial Roads (Equation 1a)																																	
	PM-2.5	PM-10	PM-30*																															
k (lb/VMT)	0.15	1.5	4.9																															
a	0.9	0.9	0.7																															
b	0.45	0.45	0.45																															
c	-	-	-																															
d	-	-	-																															
Quality Rating	B	B	B																															
k, a, b = empirical constants																																		
s = surface material silt content (%)																																		
W = mean Vehicle Weight (tons)																																		
Vehicle Miles Traveled =		5 miles/day (estimated)																																

<b>PM Emissions</b>						
Emissions Factor Development:						
k =	4.9					
a =	0.7					
b =	0.45					
s =	7.1 (AP-42 Table 13.2.2-1, 11/2006)					
W =	50 tons					
E =	12.04 lb/VMT					
Calculations:						
	12.036lb/VMT*5miles/day (estimated)=	60.18	lb/day			
	60.17997369366lb/day*365 day/yr =	21965.69	lb/yr			
	21965.6903981859lb/yr*0.0005ton/lb =	10.98	ton/yr			
	50 % control efficiency (AP-42 Figure 13.2.2-2 and MAQP Condition II.A.5) (Department Guidance)					
	10.9828451990929ton/yr*0.50 =	<b>5.49</b>	<b>ton/yr</b>			
<b>PM10 Emissions</b>						
Emissions Factor Development:						
k =	1.5					
a =	0.9					
b =	0.45					
s =	7.1 (AP-42 Table 13.2.2-1, 11/2006)					
W =	50 tons					
E =	3.32 lb/VMT					
Calculations:						
	3.317lb/VMT*5miles/day (estimated)=	16.59	lb/day			
	16.5867994294458lb/day*365 day/yr =	6054.18	lb/yr			
	6054.1817917477lb/yr*0.0005ton/lb =	3.03	ton/yr			
	50 % control efficiency (AP-42 Figure 13.2.2-2 and MAQP Condition II.A.5) (Department Guidance)					
	3.02709089587385ton/yr*0.50 =	<b>1.51</b>	<b>ton/yr</b>			



<b>PM2.5 Emissions</b>							
Emissions Factor Development:							
k =	0.15						
a =	0.9						
b =	0.45						
s =	7.1 (AP-42 Table 13.2.2-1, 11/2006)						
W =	50 tons						
E =	0.33 lb/VMT						
Calculations:							
	0.332lb/VMT*5miles/day (estimated)=	1.66	lb/day				
	1.65867994294458lb/day*365 day/yr =	605.42	lb/yr				
	605.41817917477lb/yr*0.0005ton/lb =	0.30	ton/yr				
	50 % control efficiency (AP-42 Figure 13.2.2-2 and MAQP Condition II.A.5) (Department Guidance)						
	0.302709089587385ton/yr*0.50 =	<b>0.15</b>	<b>ton/yr</b>				

V. Existing Air Quality

Those areas for which this facility is permitted to operate has been designated unclassified/attainment with all ambient air quality standards

VI. Air Quality Impacts

The Department determined that there will be no impacts from this permitting action because this permitting action is considered an administrative action.

VII. Ambient Air Impact Analysis

The Department determined that the impacts from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

As required by 2-10-105, 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?
	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.

IX. Environmental Assessment

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

Analysis Prepared By: Shawn Juers  
Date: 10/9/2012