Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
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March 6, 2012

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

Dear Mr. Robertson:

Montana Air Quality Permit #3042-03 is deemed final as of March 6, 2012, by the Department of Environmental Quality (Department). This permit is for a portable 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,

Vickie Walsh
Air Permitting Program Supervisor
Air Resources Management Bureau
(406) 444-9741

Jenny O'Mara
Environmental Engineer
Air Resources Management Bureau
(406) 444-1452

VW:JO
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #3042-03

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

March 6, 2012

MONTANA AIR QUALITY PERMIT

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

MAQP: #3042-03
Administrative Amendment Received: 01/06/2012
Department's Decision Issued: 02/17/2012
Permit Final: 03/06/2012
AFS #: 777-3042

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 owns and operates an existing portable asphalt plant. The home pit location for this operation is North 1/4, Southwest 1/4, Section 21, Township 16 North, Range 17 East, in Fergus County, Montana. A complete list of equipment is included in Section I.A of the Permit Analysis.

MAQP #3042-03 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality-Air Resources Management Bureau (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 PM_{10} nonattainment areas.

B. Current Permit Action

On January 6, 2012, the Department received a request to administratively amend MAQP #3042-02 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 (tpy) 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 tpy to just below 80 tpy. The permit limit change will consequently alter the oversight category for this facility to a level that is only subject to the State Compliance Monitoring Strategy. This permitting action amends MAQP #3042-02 to further limit hours of operation to maintain potential emissions below 80 tpy. In addition, this permit action updates rule references, permit format, and the emissions inventory.

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 and 40 CFR 60, Subpart I).

2. Century shall not cause or authorize to be discharge into the atmosphere from the asphalt plant operations, any stack emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

3. Century shall not cause or authorize to be discharged into the atmosphere from systems for screening, handling, storing, and weighing hot aggregate; systems for loading, transferring, and storing mineral filler; systems for mixing hot mix asphalt; and loading, transferring, and storage systems associated with emission control systems, any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340, ARM 17.8.749, 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. Water and spray bars shall be available on site at all times and operated as necessary to maintain compliance with opacity limitations (ARM 17.8.749).

7. Century shall install and maintain a baghouse to control emissions from the asphalt plant (ARM 17.8.749).

8. A device to measure the pressure drop (magnehelic gauge, manometer, etc.) must be installed, maintained and calibrated on the baghouse according to the manufacturer's instructions. Century must operate the measurement device on a continuous basis using a strip recorder. In lieu of a continuous recorder, the operator may record the flow rate or water pressure, in inches of water, at a minimum once per day for every calendar day of operation. Temperature indicators at the control device inlet and outlet must be installed and maintained, and readings will be recorded a minimum of once every calendar day (ARM 17.8.752).

9. 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).

10. Century shall use fuel oil, natural gas, or propane as fuels for the asphalt heater and drum dryer (ARM 17.8.749).

11. Total asphalt plant production shall not exceed 1,044,000 tons during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

12. Century shall not operate, or have on-site, more than two diesel engines. The maximum rated design capacity of the engines shall not exceed 900 horsepower (hp) and 145 hp, respectively (ARM 17.8.749).

13. Century shall properly operate and maintain the generator engines (ARM 17.8.752).

14. The maximum rated 900-hp engine shall not exceed 2900 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

15. The maximum rated 145-hp engine shall not exceed 3750 hours of operation during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

16. 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).

17. Century shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities (ARM 17.8.340 and 40 CFR 60, Subpart I).

18. 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 initial Environmental Protection Agency (EPA) Methods 1-5 and 9 source test(s) shall be performed on any New Source Performance Standard (NSPS)-affected equipment at the asphalt plant to demonstrate compliance with the applicable emission limit(s) in Section II.A.1, Section II.A.2, and Section II.A.3. NSPS-affected equipment at the Century facility would include any combination of the following: 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, which were constructed, reconstructed, or modified after June 11, 1973 (ARM 17.8.105, ARM 17.8.340, ARM 17.8.749 and 40 CFR 60, Subpart A).

2. After the initial source test has been completed, testing shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department in writing (ARM 17.8.105, ARM 17.8.340, ARM 17.8.749, and 40 CFR 60, Subpart A and Subpart I).

3. Pressure drop on the baghouse control device must be recorded during the compliance source test and reported as part of the test results (ARM 17.8.749).

4. Century may re-test at a higher production rate at any time in order to achieve a higher allowable production rate (ARM 17.8.749).

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

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

C. Operational Reporting Requirements

1. If this portable 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, 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 total production from the facility. By the 25th day of each month, Century shall calculate the total production from the facility for the previous month, and calculate and record the rolling 12-month sum. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.11. 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 diesel engines/generators. By the 25th day of each month, Century shall calculate the hours of operation for each generator engine for the previous month, and calculate and record the rolling 12-month sums. The monthly information will be used to verify compliance with the rolling 12-month limitations in Sections II.A.14 and II.A.15. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

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

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), Continuous Emission 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 MAQP 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 #3042-03

I. Introduction/Process Description

Century Companies, Inc. (Century) owns and operates a portable drum-mix asphalt plant permitted to operate at various locations throughout Montana.

A. Permitted Equipment

Century owns and operates a portable asphalt drum mixer with a maximum production capacity of 360 tons per hour (tph). Other equipment or operations include: an asphalt silo; lime silo, cold aggregate handling operations; bins, mixers, conveyors; a 900- horsepower (hp) diesel engine; a 145-hp diesel engine; a fuel-fired hot oil heater; baghouse; and associated equipment and operations.

B. Source Description

For a typical operational set-up, raw materials are dumped into a three bin hopper unit. 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 fuel. Oil is then introduced to the drum mixer from the portable hot oil tank. Once all raw materials have been introduced into the drum mixer they are continuously mixed and heated by the drum mixer burner. Ambient air is forced into the end of drum to assist with burning, but also to dry the mix. The air from the dryer is pulled through a baghouse and vented through a vertical stack via exhaust fans.

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

On April 1, 1999, Century was issued **MAQP #3042-00** to operate a 1998 CMI PVM 300 Drum Mix Asphalt Plant, a 1998 CMI RA 318 Baghouse and associated equipment.

On October 9, 2007, the Department of Environmental Quality-Air Resources Management Bureau (Department) received a request from Century to amend their permit to add two existing diesel engines to their equipment list and update their emission inventory. Because the permit had a federally enforceable permit condition limiting Century's operation, this permit action could not be accomplished as an amendment but rather as a modification. The Department requested additional information from Century in order to modify the permit on April 24, 2008, and May 28, 2008, and information was received from Century on June 30, 2008, July 15, 2008, July 22, 2008 and August 12, 2008. In addition to adding the diesel engines to the permit, **MAQP #3042-01** was also updated to reflect the current permit language and rule references used by the Department. MAQP #3042-01 replaced MAQP#3042-00.

On February 23, 2011, the Department received a modification application from Century. This permit action allowed an increase in hp of generator engines, an increase in hours of operation, and also increases the allowable total production of asphalt. The facility previously had one, 900-hp engine and one 60-hp engine. The 900-hp engine is expected to remain and the 60-hp engine was changed out for a 145-hp engine. This modification

assumes AP-42 emissions factors for the engines to keep the permit de minimis friendly. In addition to the increase in allowed diesel engine size, hours of operation, and associated asphalt plant production, the permit was also updated to reflect the current permit language and rule references used by the Department. **MAQP #3042-02** replaced MAQP #3042-01.

D. Current Permit Action

On January 6, 2012, the Department received a request to administratively amend MAQP #3042-02 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 (tpy) 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 tpy to just below 80 tpy. The permit limit change will consequently alter the oversight category for this facility to a level that is only subject to the State Compliance Monitoring Strategy. This permitting action amends MAQP #3042-02 to further limit hours of operation to maintain potential emissions below 80 tpy. In addition, this permit action updates rule references, permit format, and the emissions inventory. **MAQP #3042-03** replaces MAQP #3042-02.

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. Upon request, the Department will provide references for location of complete copies of all applicable rules and regulations or copies where appropriate.

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

1. ARM 17.8.101 Definitions. This rule 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 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
2. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
3. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
4. ARM 17.8.213 Ambient Air Quality Standard for Ozone
5. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
6. ARM 17.8.221 Ambient Air Quality Standard for Visibility
7. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

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

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

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

7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). Century 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 the owner or operator of all equipment or facilities subject to an NSPS Subpart as listed below.

   b. 40 CFR 60, Subpart I, Standards of Performance for Hot Mix Asphalt Facilities: NSPS-affected equipment at the facility would include any combination of the following: 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, which were constructed, reconstructed, or modified after June 11, 1973.

   c. 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Internal Combustion Engines: is not applicable to the 900-hp engine at this time, because the engine was existing equipment and was not manufactured after April 1, 2006. However, the 145-hp engine is subject to this rule. Furthermore, permit conditions for this standard are included in the proposed permit to maintain the de-minimis friendly nature of the permit.

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. Therefore, Century is subject to these standards.

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 MAQP application fee concurrent with the submittal of an MAQP 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 MAQP, excluding an open burning permit, issued by the Department.

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an MAQP or permit modification to construct, modify, or use any 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 NO_X, CO, PM_{10}, and VOC; therefore, an MAQP is required.

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

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the 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. Century 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. 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 MAQPs 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 MAQP shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

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

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

14. ARM 17.8.765 Transfer of Permit. (1) This rule states that an MAQP may be transferred from one location to another if the Department receives a complete notice of intent to transfer location, the facility will operate in the new location for less than 1 year, the facility will comply with the FCAA and the Clean Air Act of Montana, and the facility complies with other applicable rules. (2) This rule states that an MAQP may be transferred from one person to another if written notice of intent to transfer, including the names of the transferor and the transferee, is sent to the Department.

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

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

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

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

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

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

   a. PTE > 100 tpy of any pollutant;

   b. PTE > 10 tpy of any one HAP, PTE > 25 tpy 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 #3042-03 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_{10} nonattainment area.

   d. This facility is subject to current NSPS (40 CFR 60, Subparts A, I and IIII)

   e. This facility is subject to current NESHAP standards (40 CFR 63, Subparts A and 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.

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

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

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

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

3. ARM 17.8.1207 Certification of Truth, Accuracy, and Completeness. The compliance certification submittal by ARM 17.8.1204(3) shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under this subchapter shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

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 technically practicable and economically feasible, except that BACT shall be utilized. A BACT determination was not required for the current permit action because the permit change is considered an administrative permit change.

IV. Emission Inventory*

Table I. Potential to Emit**.

	Emissions (in tpy)								
Emission Source	**PM**	**PM_{10}**	**$PM_{2.5}$**	**NO_x**	**CO**	**VOC**	**SO_x**	**CO_2e**	**Total HAPs**
Cold Aggregate Storage Piles	6.90	3.26	0.49	--	--	--	--		
Cold Aggregate Handling/Conveyors	1.57	0.57	0.23	--	--	--	--		
Cold Aggregate Screens/Bins	7.52	4.59							
Propane-Fired Asphalt Oil Heater	--	--		--	0.00	--	--		
360 TPH Drum Mix Asphalt Plant Dryer	25.16	17.64	13.28	28.71	67.86	16.70	5.74	17358	4.54
Asphalt Product Silo Filling	0.31	0.31	0.31	--	0.62	6.36	--		
Plant Load-Out	0.27	0.27	0.27	--	0.70	2.04	--	2.96	
Lime Silo (via baghouse)	0.42	0.21	0.13	--	--	--	--		
Haul Roads / Vehicle Traffic	3.76	1.04	0.10	--	--	--	--		
900 hp Diesel Engine Main Generator	2.87	2.87	2.87	40.46	8.72	3.28	2.68	1501	
145 hp Diesel Engine: Secondary Generator	0.60	0.60	0.60	8.43	1.82	0.68	0.56	313	
Total Emissions	**49.38**	**31.37**	**18.29**	**77.59**	**79.71**	**29.07**	**8.97**	**19174**	**4.54**

Emission inventory is based on the asphalt plant operating 2900 hours per year

*Emission Inventory reflects federally enforceable permit limits on asphalt production and hours of operation to keep emissions below the Title V threshold of 100 tpy and below the synthetic threshold of 80 tpy.

**Some emissions may show zero due to rounding

***Tank Emissions not shown in EI because they were negligible

acfm = actual cubic feet per minute
in. Hg = inches of mercury
C = Celsius
CO = carbon monoxide
dscfm = dry standard cubic feet per minute
F = Fahrenheit
gal = gallon
HAPs = hazardous air pollutants
hp = horsepower
hr = hour
lb = pound
N/A = not applicable
ND = no data available
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
R = Rankine
SO_X = oxides of sulfur
TPH = tons per hour
TPY = tons per year
VOC = volatile organic compounds
yr = year

Drum Mix Asphalt Plant Dryer			
PM Emissions			
Emission Factor:	0.04 gr/dscf (permit limit)		
Calculation:	(0.04 gr/dscf) * (30,244 dscfm) * (1 lb / 7000 gr) * (60 min/hr) =	**10.37**	**lb/hr**
Calculation:	(10.37 lb/hr) * (2900 hrs/yr) * (0.0005 ton/lb) =	**15.04**	**ton/yr**
PM_{10} Emissions			
Emission Factor:	0.02 gr/dscf (permit limit, assume 50% of PM is PM10, Department Policy)		
Calculation:	(0.02 gr/dscf) * (30,244 dscfm) * (1 lb / 7000 gr) * (60 min/hr) =	**5.18**	**lb/hr**
Calculation:	(5.18 lb/hr) * (2900 hrs/yr) * (0.0005 ton/lb) =	**7.52**	**ton/yr**
Filterable PM2.5 Emissions:			
Emission Factor:	0.0029 lb/ton (fabric filter, AP 42, Table 11.1-4, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.0029 lb/ton) * (ton/2000 lb) =	**2.04**	**ton/yr**
NO_x Emissions			
Emission Factor:	0.055 lb/ton (#2 fuel oil-fired dryer, AP 42, Table 11.1-7, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.055 lb/ton) * (ton/2000 lb) =	**28.71**	**ton/yr**
SO_2 Emissions			
Emission Factor:	0.011 lb/ton (#2 fuel oil-fired dryer, AP 42, Table 11.1-7, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.011 lb/ton) * (ton/2000 lb) =	**5.74**	**ton/yr**
CO2 Emissions:			
Emission Factor:	33 lb/ton (#2 fuel oil-fired dryer, AP 42, Table 11.1-7, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (33 lb/ton) * (ton/2000 lb) =	**17226.00**	**ton/yr**
CH4 Emissions:			
Emission Factor:	0.012 lb/ton (#2 fuel oil-fired dryer, AP 42, Table 11.1-8, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.012 lb/ton) * (ton/2000 lb) =	**6.26**	**ton/yr**
VOC Emissions:			
Emission Factor:	0.032 lb/ton (#2 fuel oil-fired dryer, AP 42, Table 11.1-8, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.032 lb/ton) * (ton/2000 lb) =	**16.70**	**ton/yr**
Total HAPs Emissions:			
Emission Factor:	0.0087 lb/ton (#2 fuel oil-fired dryer with fabric filter, AP 42, Table 11.1-10, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.0087 lb/ton) * (ton/2000 lb) =	**4.54**	**ton/yr**

Diesel Engine Generator (900 HP)			
PM_{10} Emissions			
Emission Factor:	0.0022 lbs/hp-hr (All PM < 1 mm, AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) =	**2.87**	**ton/yr**
PM Emissions			
Calculation:	Assume PM = PM 2.5 = PM_{10}	**2.87**	**ton/yr**
NO_x Emissions			
Emission Factor:	0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) =	**40.46**	**ton/yr**
CO Emissions			
Emission Factor:	0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) =	**8.72**	**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)		
Calculation:	(2,900 hours) * (900 hp) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) =	**3.28**	**ton/yr**
SO_2 Emissions			
Emission Factor:	0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.00205 lbs/hp-hr) * (ton/2000 lb) =	**2.68**	**ton/yr**

Diesel Engine Generator (145 HP)			
PM_{10} Emissions			
Emission Factor:	0.0022 lbs/hp-hr (All PM < 1 mm, AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) =	**0.60**	**ton/yr**
PM Emissions			
Calculation:	Assume PM = PM 2.5 = PM_{10}	**0.60**	**ton/yr**
NO_x Emissions			
Emission Factor:	0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) =	**8.43**	**ton/yr**
CO Emissions			
Emission Factor:	0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) =	**1.82**	**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)		
Calculation:	(2,900 hours) * (900 hp) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) =	**0.68**	**ton/yr**
SO_2 Emissions			
Emission Factor:	0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)		
Calculation:	(2,900 hours) * (900 hp) * (0.00205 lbs/hp-hr) * (ton/2000 lb) =	**0.56**	**ton/yr**

Cold Aggregate Piles			
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 = 0.00331 lb/ton		
Where	k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)		
	U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)		
	M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)		
	Control Efficiency = % (Water or chemical spray)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.00331 lb/ton) * (ton/2000 lb) * (4 piles) * (1 - /100) =	**6.90**	**ton/yr**
PM_{10} 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 = 0.00156 lb/ton		
Where	k = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)		
	U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)		
	M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)		
	Control Efficiency = % (Water or chemical spray)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.00156 lb/ton) * (ton/2000 lb) * (4 piles) * (1 - /100) =	**3.26**	**ton/yr**

Conveyors			
PM Emissions			
Emission Factor:	0.003 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.003 lb/ton) * (ton/2000 lb) * (1 transfer) =	**1.57**	**ton/yr**
PM_{10} Emissions			
Emission Factor:	0.0011 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.0011 lb/ton) * (ton/2000 lb) * (1 transfer) =	**0.57**	**ton/yr**

Sorting Screen(s)			
PM Emissions			
Emission Factor:	0.0036 lb/ton (0.30 uncontrolled, 0.0036 controlled, AP 42, Table 11.19.2-2, 8/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.0036 lb/ton) * (ton/2000 lb) * (4 screen(s)) =	**7.52**	**ton/yr**
PM_{10} Emissions			
Emission Factor:	0.0022 lb/ton (0.072 uncontrolled, 0.0022 controlled, AP 42, Table 11.19.2-2, 8/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.0022 lb/ton) * (ton/2000 lb) * (4 screen(s)) =	**4.59**	**ton/yr**

Asphalt Oil Heater			
CO Emissions			
Emission Factor:	0.0000089 lb/cf (AP-42, Section 11.1, Table 11.1-13, Natural Gas, 3/04)		
Calculation:	(2900 hrs/yr) * (0.37 cf/hr) * (0.0000089 lb/cf) * (ton/2000 lb) =	**0.00000**	**ton/yr**

Asphalt Silo Filling			
PM Emissions			
	Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.		
Emission Factor:	0.000332 + 0.00105(-V)e^((0.0251)(T + 460) - 20.43) = 0.00033 lb/ton		
Where	V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)		
	T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.00033 lb/ton) * (ton/2000 lb) =	**0.173**	**ton/yr**
	PM - Condensable (AP-42, Table 11.1-14, 3/04)	**0.133**	**ton/yr**
	Total PM (Filterable + Condensable)	**0.31**	**ton/yr**
CO Emissions			
	Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.		
Emission Factor:	0.00488(-V)e^((0.0251)(T + 460) - 20.43) = 0.00118 lb/ton		
Where	V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)		
	T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.00118 lb/ton) * (ton/2000 lb) =	**0.62**	**ton/yr**

Product Load Out			
PM Emissions			
	Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.		
Emission Factor:	0.000181 + 0.00141(-V)e^((0.0251)(T + 460) - 20.43) = 0.00018 lb/ton		
Where	V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)		
	T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.00018 lb/ton) * (ton/2000 lb) =	**0.09**	**ton/yr**
	PM - Condensable (AP-42, Table 11.1-14, 3/04)	**0.178**	**ton/yr**
	Total PM (Filterable + Condensable)	**0.27**	**ton/yr**
CO Emissions			
	Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.		
Emission Factor:	0.00558(-V)e^((0.0251)(T + 460) - 20.43) = 0.00135 lb/ton		
Where	V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)		
	T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)		
Calculation:	(360 ton/hr) * (2900 hrs/yr) * (0.00135 lb/ton) * (ton/2000 lb) =	**0.70**	**ton/yr**

Lime Silo			
PM Emissions			
Emission Factor:	0.04 gr/dscf (Permit limit per NSPS)		
Calculation:	(1000 cfm) * (2900 hrs/yr) * (0.04 gr/dscf) * (lb/7000 gr) * (ton/2000 lb) * (60 min/hr) =	**0.42**	**ton/yr**
PM_{10} Emissions			
Emission Factor:	0.02 gr/dscf (Assume PM10 = 50% of PM, Department Policy)		
Calculation:	(1000 cfm) * (2900 hrs/yr) * (0.02 gr/dscf) * (lb/7000 gr) * (ton/2000 lb) * (60 min/hr) =	**0.21**	**ton/yr**
PM2.5 Emissions			
Emission Factor:	0.012 gr/dscf (Assume PM2.5 = 30% of PM, AP-42, Appendix B-2, Category 4)		
Calculation:	(1000 cfm) * (2900 hrs/yr) * (0.012 gr/dscf) * (lb/7000 gr) * (ton/2000 lb) * (60 min/hr)	**0.13**	**ton/yr**

Haul Roads					
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 = 12.46 lb/VMT				
Where	k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)				
	s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)				
	W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)				
	a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)				
	b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)				
Control Efficiency	0% (Water spray or chemical dust suppressant)				
Calculation:	(2900 hrs/yr) * (0.21 VMT/hr) * (12.46 lb/VMT) * (ton/2000 lb) * (1-0/100) =	**3.76**	**tons/yr**		
PM_{10} 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 = 3.43 lb/VMT				
Where	k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)				
	s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)				
	W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)				
	a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)				
	b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)				
Control Efficiency	0% (Water spray or chemical dust suppressant)				
Calculation:	(2900 hrs/yr) * (0.21 VMT/hr) * (3.43 lb/VMT) * (ton/2000 lb) * (1-0/100) =	**1.04**	**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 = 0.34 lb/VMT				
Where	k = constant = 0.15 lbs/VMT (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)				
	s = surface silt content = 54 tons (1994 average loaded/unloaded or a 40 ton truck)				
	W = mean vehicle weight = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)				
	a = constant = 0.9 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)				
	b = constant = 0.45 (Value for PM2.5, AP 42, Table 13.2.2-2, 11/06)				
Control Efficiency	0% (Water spray or chemical dust suppressant)				
Calculation:	(2900 hrs/yr) * (0.21 VMT/hr) * (0.34 lb/VMT) * (ton/2000 lb) * (1-0.45/100) =	**0.10**	**tons/yr**		

IV. Existing Air Quality

The location in which the facility is initially located is designated as attainment/unclassifiable for all criteria pollutants.

V. Air Quality Impacts

The permit action resulted in a reduction of potential emissions. Therefore, no additional air quality impacts would be expected as a result of this change.

VII. Ambient Air Impact Analysis

The Department determined that the impact 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	
X		1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (ex.: right to exclude others, disposal of property)
	X	4. Does the action deprive the owner of all economically viable uses of the property?
	X	5. Does the action require a property owner to dedicate a portion of property or to grant an easement? [If no, go to (6)].
		5a. Is there a reasonable, specific connection between the government requirement and legitimate state interests?
		5b. Is the government requirement roughly proportional to the impact of the proposed use of the property?
	X	6. Does the action have a severe impact on the value of the property? (consider economic impact, investment-backed expectations, character of government action)
	X	7. Does the action damage the property by causing some physical disturbance with respect to the property in excess of that sustained by the public generally?
	X	7a. Is the impact of government action direct, peculiar, and significant?
	X	7b. Has government action resulted in the property becoming practically inaccessible, waterlogged or flooded?
	X	7c. Has government action lowered property values by more than 30% and necessitated the physical taking of adjacent property or property across a public way from the property in question?
	X	Takings or damaging implications? (Taking or damaging implications exist if YES is checked in response to question 1 and also to any one or more of the following questions: 2, 3, 4, 6, 7a, 7b, 7c; or if NO is checked in response to questions 5a or 5b; the shaded areas)

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

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: Jenny O'Mara
Date: 01/25/2012