



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

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December 11, 2009

Bruce Anderson
Deer Lodge Asphalt, Inc.
1140 Kelley Street
Deer Lodge, MT 59722

Dear Mr. Anderson:

Montana Air Quality Permit #2382-01 is deemed final as of December 11, 2009, 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) 444-3490

Trista Glazier
Air Quality Specialist
Air Resources Management Bureau
(406) 444-3403

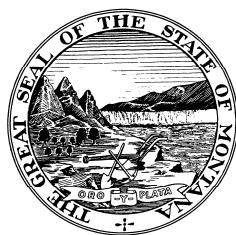
VW:DS
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Montana Air Quality Permit #2382-01

Deer Lodge Asphalt, Inc.
1140 Kelley St.
Deer Lodge, MT 59722

December 11, 2009



MONTANA AIR QUALITY PERMIT

Issued To: Deer Lodge Asphalt, Inc.
1140 Kelley St.
Deer Lodge, MT 59722

MAQP: #2382-01
Application Complete: 10/06/09
Preliminary Determination Issued: 11/06/09
Department's Decision Issued: 11/25/09
Permit Final: 12/11/09
AFS #: 777-2382

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Deer Lodge Asphalt, Inc. (Deer Lodge) 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

Deer Lodge owns and operates a portable 1960 asphalt drum mixer with a maximum production capacity of 125 tons per hour (TPH); cold aggregate handling operations; material transfer operations including elevator, bins, mixers, and conveyors; a 250 horsepower (hp) diesel engine/generator; a propane-fired hot oil heater; and associated equipment and operations.

A. Plant Location

The initial location of the permitted Deer Lodge facility is Section 27, Township 8 North, and Range 9 West, in Powell County. MAQP #2382-01 applies while operating at any location in Montana, except those areas having a Department of Environmental Quality (Department)-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) 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 PM₁₀ nonattainment areas.

B. Current Permit Action

On October 6, 2009, the Department received a complete application for Deer Lodge requesting a modification to MAQP #2382-00 to change the facility location. The current permitting action changes the facility "homepit" location of MAQP #2382-00 and updates the permit to reflect current permit language and rule references used by the Department.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Asphalt plant particulate matter (PM) emissions shall be limited to 0.1 grains per dry standard cubic feet of air, including "back-half" emissions (gr/dscf) (ARM 17.8.752).
2. Deer Lodge shall not cause or authorize to be discharged 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. Deer Lodge 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 the loading, transfer, 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 17.8.308).
4. Deer Lodge 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. Deer Lodge 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 wet scrubber for particulate matter air pollution control, with a device to measure the pressure drop (magnehelic gauge, manometer, etc.), shall be installed, operated, and maintained on the asphalt drum mix dryer. Pressure drop must be measured in inches of water (ARM 17.8.752).
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. Deer Lodge shall not operate more than one diesel fuel-fired engine/generator at any given time with a maximum rating on the diesel engine of 250 hp (ARM 17.8.749).
9. If the permitted equipment is used in conjunction with any other equipment owned or operated by Deer Lodge, 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).
10. Deer Lodge 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 Internal Combustion Engines (ARM 17.8.340 and 40 CFR 60, Subpart IIII).

B. Testing Requirements

1. Deer Lodge may retest at a higher production rate at any time in order to achieve a higher allowable production rate than the rate referenced in Section II.A.7 (ARM 17.8.749).
2. Pressure drop on the wet scrubber control device must be recorded during compliance source tests and reported as part of the test results (ARM 17.8.749).
3. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
4. 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. Deer Lodge 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. Deer Lodge 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(1)(d) (ARM 17.8.745).
4. Deer Lodge 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 Deer Lodge 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).

SECTION III: General Conditions

- A. Inspection – Deer Lodge 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 (CEMS, 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 Deer Lodge fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Deer Lodge 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. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Deer Lodge 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. Deer Lodge 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.

Permit Analysis
Deer Lodge Asphalt, Inc.
MAQP #2382-01

I. Introduction/Process Description

Deer Lodge Asphalt, Inc. (Deer Lodge) owns and operates an asphalt batch plant.

A. Permitted Equipment

Deer Lodge owns and operates a portable 1960 Pioneer continuous asphalt drum mixer with a maximum production capacity of 125 tons per hour (TPH), an asphalt silo, cold aggregate handling operations, material transfer operations, a 250 horsepower (hp) diesel engine/generator; a propane-fired hot oil heater; and associated equipment and operations.

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 diesel fuel. Oil is then introduced to the drum mixer through hoses from the diesel-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. The 250-hp capacity 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

Montana Air Quality Permit (MAQP) #2382-00 was issued on June 10, 1987.

D. Current Permit Action

On October 6, 2009, the Department of Environmental Quality (Department) received a complete application from Deer Lodge requesting a modification to MAQP #2382-00 to change the facility location. The current permitting action changes the facility “homepit” location of MAQP #2382-00 and updates the permit to reflect current permit language and rule references used by the Department. **MAQP #2382-01** replaces MAQP #2382-00.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the Administrative Rules of Montana (ARM) and are available, upon request, from the Department. 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).

Deer Lodge 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 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
5. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀

Deer Lodge 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, Deer Lodge 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 17.8.310 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.
 4. 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.
 5. 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)
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities. This facility is not an NSPS-affected facility under 40 CFR 60, Subpart I. NSPS-affected equipment at the Deer Lodge facility could 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. The Deer Lodge asphalt plant was constructed in 1960, and therefore predates this standard.
 - c. 40 CFR 60, Subpart III – Standards of Performance for Stationary Compression Internal Combustion Engines. Currently, the standards under 40 CFR 60, Subpart III are not applicable, because the proposed equipment is an existing engine. However, permit conditions for this standard are included in the proposed permit to maintain the de-minimis friendly nature of the permit.
- 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. Because the Department requested Deer Lodge to submit a permit application to update their permit to reflect current rules and current site location, the permit application fee was waived for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

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

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

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an 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. Deer Lodge has a PTE greater than 15 tons per year of particulate matter (PM), oxides of nitrogen (NO_x), carbon monoxide (CO), sulfur dioxide (SO₂), and volatile organic compounds (VOC); 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. Deer Lodge 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. Deer Lodge submitted an affidavit of publication of public notice for the September 9, 2009 issue of the *Silver State Post*, a newspaper of general circulation in the Town of Deer Lodge in Powell County, as proof of compliance with the public notice requirements.
6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.
7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving Deer Lodge 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 air quality permit 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 Modification--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

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

- G. ARM 17.8, Subchapter 12 – Operating Permit Program Applicability, including, but not limited to:
1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:
 - a. PTE > 100 tons/year of any pollutant;
 - b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or
 - c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) in a serious PM₁₀ 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 #2382-01 for Deer Lodge, 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 PM₁₀ nonattainment area.
 - d. This facility is not subject to any current NSPS.
 - e. This facility is not subject to any current NESHAP standards.
 - f. This source is not a Title IV affected source or a solid waste combustion unit.
 - g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that Deer Lodge will be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or modified source. Deer Lodge 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. No new or modified equipment was included in this permit action, therefore a BACT analysis is not required. Relocation of equipment does not constitute modification.

IV. Emission Inventory

| CONTROLLED Emission Source | Tons/hour | | | | | |
|---|------------------|------------------------|-----------------------|--------------|--------------|-----------------------|
| | PM | PM₁₀ | NO_x | CO | VOC | SO₂ |
| Cold Aggregate Storage Piles | 0.90 | 0.43 | -- | -- | -- | -- |
| Cold Aggregate Handling/Conveyors | 0.23 | 0.08 | -- | -- | -- | -- |
| Propane-Fired Asphalt Oil Heater | -- | -- | -- | 0.00 | -- | -- |
| 125 TPH Drum Mix Asphalt Plant Dryer | 73.04 | 58.43 | 30.11 | 71.18 | 17.52 | 31.76 |
| Asphalt Product Silo Filling | 1.76 | -- | -- | 0.65 | -- | -- |
| Batch Mix Plant Load-Out | 0.29 | -- | -- | 0.74 | -- | -- |
| Haul Roads / Vehicle Traffic | 5.68 | 1.57 | -- | -- | -- | -- |
| 250 hp Diesel Engine Generator | 2.41 | 2.41 | 33.95 | 7.31 | 2.75 | 2.24 |
| Total Emissions | 84.31 | 62.92 | 64.06 | 79.87 | 20.27 | 34.00 |

Cold Aggregate Storage Piles

Maximum Process Rate = 125 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 24 hrs/day

Number of Piles = 1 piles

PM Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00331 \text{ lb/ton}$

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 = 50% (Water or chemical spray)

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00331 \text{ lb/ton}) * (1 \text{ piles}) = 9.92 \text{ lb/day}$

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00331 \text{ lb/ton}) * (1 \text{ piles}) * (1 - 50/100) = 4.96 \text{ lb/day}$

Calculation: $(4.96 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.90 \text{ tons/yr}$

PM₁₀ Emissions:

Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.

Emission Factor = $k (0.0032) * (U/5)^{1.3} * (M / 2)^{-1.4} = 0.00156 \text{ lb/ton}$

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 = 50% (Water or chemical spray)

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00156 \text{ lb/ton}) * (1 \text{ piles}) = 4.69 \text{ lb/day}$

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00156 \text{ lb/ton}) * (1 \text{ piles}) * (1 - 50/100) = 2.34 \text{ lb/day}$

Calculation: $(2.34 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.43 \text{ tons/yr}$

Conveyor Transfer Point (SCC 3-05-02006)

Maximum Process Rate = 125 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 24 hrs/day

Number of Transfers = 3 transfer (Company Information, Excludes RAP transfers)

Total PM Emissions:

Emission Factor = 0.00014 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00014 \text{ lb/ton}) * (3 \text{ transfer}) = 1.26 \text{ lb/day}$

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00014 \text{ lb/ton}) * (3 \text{ transfer}) * (1 - 0/100) = 1.26 \text{ lb/day}$

Calculation: $(1.26 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.23 \text{ ton/yr}$

Total PM₁₀ Emissions:

Emission Factor = 0.000046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.000046 \text{ lb/ton}) * (3 \text{ transfer}) = 0.41 \text{ lb/day}$

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.000046 \text{ lb/ton}) * (3 \text{ transfer}) * (1 - 0/100) = 0.41 \text{ lb/day}$

Calculation: $(0.41 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.08 \text{ ton/yr}$

Hot Oil Heater

Production Rate = 6.00 gal/hr (Company information)

Maximum Hours of Operation = 24 hrs/day

CO Emissions:

Emission Factor = 0.0000089 lb/gal (AP-42, Section 11.1, Table 11.1-13, Natural Gas, 3/04)

Control Efficiency = 0%

Calculation: $(24 \text{ hrs/day}) * (6.00 \text{ gal/hr}) * (0.0000089 \text{ lb/gal}) = 0.00 \text{ lb/day}$

Calculation: $(24 \text{ hrs/day}) * (6.00 \text{ gal/hr}) * (0.0000089 \text{ lb/gal}) * (1 - 0/100) = 0.00 \text{ lb/day}$

Calculation: $(0.00 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.00 \text{ ton/yr}$

Dryer, wet scrubber (SCC 3-05-002-05, -55 to -63)

Maximum Process Rate = 125 ton/hr (Application information)

Maximum Hours of Operation = 24 hrs/day

Dry Standard Volumetric Flowrate: = 19,456 dscfm

PM Emissions:

Based on Emission Limit

Emission Factor = 0.1 gr/dscf (permit limit)

Calculation: $(0.1 \text{ gr/dscf}) * (19,456 \text{ dscfm}) * (1 \text{ lb} / 7000 \text{ gr}) * (60 \text{ min/hr}) = 16.68 \text{ lb/hr}$

Calculation: $(16.68 \text{ lb/hr}) * (24 \text{ hrs/day}) = 400.24 \text{ lb/day}$

Calculation: $(400.24 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 73.04 \text{ ton/yr}$

PM₁₀ Emissions:

Based on Emission Limit

Emission Factor = 0.08 gr/dscf (permit limit, wet scrubber, assume 80% of TSP is PM10)

Calculation: $(0.08 \text{ gr/dscf}) * (19,456 \text{ dscfm}) * (1 \text{ lb} / 7000 \text{ gr}) * (60 \text{ min/hr}) = 13.34 \text{ lb/hr}$

Calculation: $(13.34 \text{ lb/hr}) * (24 \text{ hrs/day}) = 320.19 \text{ lb/day}$

Calculation: $(320.19 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 58.43 \text{ ton/yr}$

CO Emissions:

Emission Factor = 0.13 lb/ton (waste oil-fired dryer, AP 42, Table 11.1-7, 3/04)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.13 \text{ lb/ton}) = 390.00 \text{ lb/day}$ Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.13 \text{ lb/ton}) * (1 - 0/100) = 390.00 \text{ lb/day}$ Calculation: $(390.00 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 71.18 \text{ ton/yr}$ **NO_x Emissions:**

Emission Factor = 0.055 lb/ton (waste oil-fired dryer, AP 42, Table 11.1-7, 3/04)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.055 \text{ lb/ton}) = 165.00 \text{ lb/day}$ Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.055 \text{ lb/ton}) * (1 - 0/100) = 165.00 \text{ lb/day}$ Calculation: $(165.00 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 30.11 \text{ ton/yr}$ **SO₂ Emissions:**

Emission Factor = 0.058 lb/ton (waste oil-fired dryer, AP 42, Table 11.1-7, 3/04)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.058 \text{ lb/ton}) = 174.00 \text{ lb/day}$ Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.058 \text{ lb/ton}) * (1 - 0/100) = 174.00 \text{ lb/day}$ Calculation: $(174.00 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 31.76 \text{ ton/yr}$ **VOC Emissions:**

Emission Factor = 0.032 lb/ton (waste oil-fired dryer, AP 42, Table 11.1-8, 3/04)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.032 \text{ lb/ton}) = 96.00 \text{ lb/day}$ Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.032 \text{ lb/ton}) * (1 - 0/100) = 96.00 \text{ lb/day}$ Calculation: $(96.00 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 17.52 \text{ ton/yr}$ **Silo Filling (SCC 3-05-002-13)**

Maximum Process Rate = 125 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 24 hrs/day

Total PM Emissions:

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor = $0.000332 + 0.00105(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00059 \text{ lb/ton}$

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)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00059 \text{ lb/ton}) = 1.76 \text{ lb/day}$ Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00059 \text{ lb/ton}) * (1 - 0/100) = 1.76 \text{ lb/day}$ **CO Emissions:**

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor = $0.00488(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00118 \text{ lb/ton}$

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)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00118 \text{ lb/ton}) = 3.54 \text{ lb/day}$ Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00118 \text{ lb/ton}) * (1 - 0/100) = 3.54 \text{ lb/day}$ Calculation: $(3.54 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.65 \text{ ton/yr}$

Plant Load-Out (SCC 3-05-002-14)

Maximum Process Rate = 125 ton/hr (Maximum plant process rate)

Maximum Hours of Operation = 24 hrs/day

Total PM Emissions:

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.

Emission Factor = $0.000181 + 0.00141(-V)e^{(0.0251)(T + 460) - 20.43} = 0.00052$ 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)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00052 \text{ lb/ton}) = 1.57 \text{ lb/day}$

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00052 \text{ lb/ton}) * (1 - 0/100) = 1.57 \text{ lb/day}$

Calculation: $(1.57 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.29 \text{ ton/yr}$

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)

Control Efficiency = 0%

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00135 \text{ lb/ton}) = 4.05 \text{ lb/day}$

Calculation: $(125 \text{ ton/hr}) * (24 \text{ hrs/day}) * (0.00135 \text{ lb/ton}) * (1 - 0/100) = 4.05 \text{ lb/day}$

Calculation: $(4.05 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 0.74 \text{ ton/yr}$

Haul Roads

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)

VMT per hour = $(5 \text{ VMT/day}) * (\text{day}/24 \text{ hrs}) = 0.21 \text{ VMT/hr}$

Hours of Operation = 24 hrs/day

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 = 50% (Water spray or chemical dust suppressant)

Calculation: $(24 \text{ hrs/day}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) = 62.30 \text{ lb/day}$ (Uncontrolled Emissions)

Calculation: $(24 \text{ hrs/day}) * (0.21 \text{ VMT/hr}) * (12.46 \text{ lb/VMT}) * (1 - 50/100) = 31.15 \text{ lb/day}$ (50% control efficiency)

Calculation: $(31.15 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 5.68 \text{ ton/yr}$

PM₁₀ Emissions:

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 3.43$ 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 = 50% (Water spray or chemical dust suppressant)

Calculation: $(24 \text{ hrs/day}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) = 17.17 \text{ lb/day}$ (Uncontrolled Emissions)
Calculation: $(24 \text{ hrs/day}) * (0.21 \text{ VMT/hr}) * (3.43 \text{ lb/VMT}) * (1-50/100) = 8.59 \text{ lb/day}$ (50% control efficiency)
Calculation: $(8.59 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 1.57 \text{ ton/yr}$

Diesel Engine Generator

Note: Emissions are based on the power output of the engine (250 hp).

Operational Capacity of Engine = 250 hp

Hours of Operation = 24.00 hrs/day

PM Emissions:

PM Emissions = 13.20 lbs/day (Assume PM = PM10, Summer Hours)

Calculation: $(13.20 \text{ lbs/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 2.41 \text{ ton/yr}$

PM₁₀ Emissions:

Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: $(24 \text{ hrs/day}) * (250 \text{ hp}) * (0.0022 \text{ lbs/hp-hr}) = 13.20 \text{ lb/day}$

Calculation: $(13.20 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 2.41 \text{ ton/yr}$

NO_x Emissions:

Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: $(24 \text{ hrs/day}) * (250 \text{ hp}) * (0.031 \text{ lbs/hp-hr}) = 186.00 \text{ lb/day}$

Calculation: $(186.00 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 33.95 \text{ ton/yr}$

CO Emissions:

Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: $(24 \text{ hrs/day}) * (250 \text{ hp}) * (0.00668 \text{ lbs/hp-hr}) = 40.08 \text{ lb/day}$

Calculation: $(40.08 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 7.31 \text{ ton/yr}$

VOC Emissions:

Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)

Calculation: $(24 \text{ hrs/day}) * (250 \text{ hp}) * (0.0025141 \text{ lbs/hp-hr}) = 15.08 \text{ lb/day}$

Calculation: $(15.08 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 2.75 \text{ ton/yr}$

SO₂ Emissions:

Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)

Calculation: $(24 \text{ hrs/day}) * (250 \text{ hp}) * (0.00205 \text{ lbs/hp-hr}) = 12.30 \text{ lb/day}$

Calculation: $(12.30 \text{ lb/day}) * (365 \text{ day/yr}) * (0.0005 \text{ ton/lb}) = 2.24 \text{ ton/yr}$

VI. Air Quality Impacts

MAQP #2382-01 is issued for the operation of a portable drum mix asphalt plant to be initially located in the Section 27, Township 8 North, and Range 9 West, in Powell County, Montana. MAQP #2382-01 will also cover the plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program, those areas considered tribal lands, or those areas in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas. An Addendum to MAQP #2382-01, including more stringent requirements to protect the non-attainment area, will be required for operating at locations in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana.*

VII. Ambient Air Impact Analysis

The Department determined, based on ambient air modeling, 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

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

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, MT 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Deer Lodge Asphalt, Inc.
1140 Kelley Street
Deer Lodge, MT 59722

Montana Air Quality Permit number: 2382-01

Preliminary Determination Issued: November 6, 2009

Department Decision Issued: November 25, 2009

Permit Final: December 11, 2009

1. *Legal Description of Site:* Section 27, Township 8 North, and Range 9 West, in Powell County, Montana
2. *Description of Project:* Deer Lodge owns and operates a portable 1960 Pioneer continuous asphalt drum mixer with a maximum production capacity of 125 TPH, an asphalt silo, cold aggregate handling operations, material transfer operations, a 250 hp diesel generator; a propane-fired hot oil heater; and associated equipment and operations.
3. *Objectives of Project:* The objective of construction and operation of the asphalt plant at its initial location is to provide material for support of construction projects.
4. *Alternatives Considered:* In addition to the proposed action, the Department also considered the “no-action” alternative. The “no-action” alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the “no-action” alternative to be appropriate because Deer Lodge has demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the “no-action” alternative was eliminated from further consideration.
5. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions, including a BACT analysis, would be included in MAQP #2382-01.
6. *Regulatory Effects on Private Property:* The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions are reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and do not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.

| | | Major | Moderate | Minor | None | Unknown | Comments Included |
|---|--|-------|----------|-------|------|---------|-------------------|
| A | Terrestrial and Aquatic Life and Habitats | | | X | | | Yes |
| B | Water Quality, Quantity, and Distribution | | | X | | | Yes |
| C | Geology and Soil Quality, Stability and Moisture | | | | X | | Yes |
| D | Vegetation Cover, Quantity, and Quality | | | X | | | Yes |
| E | Aesthetics | | | X | | | Yes |
| F | Air Quality | | | X | | | Yes |
| G | Unique Endangered, Fragile, or Limited Environmental Resources | | | | X | | Yes |
| H | Demands on Environmental Resource of Water, Air and Energy | | | X | | | Yes |
| I | Historical and Archaeological Sites | | | | X | | Yes |
| J | Cumulative and Secondary Impacts | | | X | | | Yes |

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

A. Terrestrial and Aquatic Life and Habitats:

At all locations the asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, there would be a low likelihood of disturbance to any known terrestrial and aquatic life and habitats given any previous industrial disturbance in any given area of operation. Therefore, the asphalt plant would have minor in a given area of operation.

B. Water Quality, Quantity and Distribution:

Water would be used for dust suppression on the surrounding roadways and areas of operation and for emission pollution control during operations. Water use would be relatively small; therefore impacts on water quantity are expected to be minor. No impacts to ground water quality from pollutant infiltration are expected because PM suppression will be on an as-needed basis; saturated conditions will not be maintained within material or along haul roads. The facility has not proposed to discharge industrial waste water to state surface water; furthermore storm water run-off from the facility would be subject to control and permitting under the Montana Pollutant Discharge Elimination System, as applicable. Therefore, potential impact to state water quality, quantity and distribution are expected to be minor at most.

C. Geology and Soil Quality, Stability and Moisture:

Potential impacts to geology and soil quality, stability and moisture were previously analyzed for permitting of construction of the gravel pit. As no additional disturbance is with this permit action, no impacts are expected.

At all locations the asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, assembly and operation of the plant in any location would probably cause no more than minor impacts to geology and soil quality, stability and moisture given the likelihood of previous industrial disturbance at the given area of operation.

D. Vegetation Cover, Quantity, and Quality:

The asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, assembly and operation of the plant in any location would cause no more than minor impacts to vegetative cover, quantity and quality given the likelihood of previous industrial disturbance at the given area of operation.

E. Aesthetics:

The proposed facility would be visible. However, the profile of the equipment associated with the asphalt plant would be partially obstructed because its profile would be recessed within the permitted gravel pit. MAQP #2382-01 contains provisions that control visible emissions from the facility. Therefore potential visual impacts to aesthetics would be minor.

The proposed action contains equipment which would create noise during operation. However, the asphalt plant would be recessed from the surrounding topography within the gravel pit which would naturally mitigate horizontal noise propagation to receptors. Operation of the asphalt plant would add limited amounts of noise; however, this noise would be difficult to discern from noise created from operation of equipment associated with the permitted gravel pit. Therefore, potential impacts to aesthetics due to noise are expected to be minor.

The asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, assembly and operation of the plant in any location would cause no more than minor impacts to aesthetics given the likelihood of previous industrial disturbance at the given area of operation.

F. Air Quality:

The air quality impacts from the asphalt plant operations would be minor because MAQP #2382-01 would include conditions limiting the opacity and particulate emissions from the plant, water spray as necessary, and other means to control air pollution. Further, MAQP #2382-01 would limit total emissions from the asphalt plant operation and any additional equipment owned and operated by Deer Lodge to 250 tons/year or less at any given operating site, excluding fugitive emissions.

Small amounts of deposition generated from the asphalt plant operation would be minimal because the pollutants emitted would be well controlled, widely dispersed (from such factors as wind speed and wind direction), and would result in only minor impacts to the surrounding environment. Similarly air pollutant deposition and impacts due to emissions from the asphalt plant would be temporary because the facility is not permitted to remain in one location more than 12 months. Overall, any air quality impacts resulting from the proposed asphalt plant operation would be minor.

G. Unique, Endangered, Fragile, or Limited Environmental Resources:

The Department, in an effort to assess any potential impacts, previously contacted the Montana Natural Heritage Program (MNHP) to identify any species of special concern associated with the proposed site location. Search results indicated that there are such environmental resources in the area. Area, in this case, is defined by the township and range of the proposed site, with an

additional one-mile buffer. Species of concern include *Haliaeetus leucocephalus* (Bald Eagle), *Oncorhynchus clarkii lewisi* (Westslope Cutthroat Trout), *Salvelinus confluentus* (Bull Trout), *Canis Lupis* (Gray Wolf), and *Carex idaho* (Idaho Sedge).

The operation of the asphalt plant would result in the emissions of air pollutants that could result in impacts to these species of concern. However, given the temporary, and portable nature of the operations, any impacts would be minor and short-lived. Additionally, operational conditions and limitations within MAQP #2382-01 would aid in the protection of these resources by protecting the surrounding environment. Therefore, air quality impacts from operating the asphalt plant would be minor.

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

Due to the relatively small size of the facility and relatively low potential to emit regulated air pollutants, the asphalt plant operation would result in only minor demands on the environmental resources of water, air, and energy for normal operations. Small quantities of water would be used for dust suppression and would control particulate emissions generated through equipment operations and vehicle traffic at the site. Energy requirements would be accommodated through the use of electricity obtained via diesel-fired generator. In addition, the asphalt plant operation would be temporary as it is not permitted to remain at this location for more than twelve months. Further, impacts to air resources would be minor because the source would be small by industrial standards, and would generate relatively minor amounts of regulated pollutants through normal operations.

Overall, any impacts to the above-cited physical and biological resource of the human environment of the project area would be minor because the proposed asphalt plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall demand on environmental resource of water, air and energy of the area would not change as a result of the proposed project and any associated impacts would be minor.

I. Historical and Archaeological Sites:

The Department previously contacted the Montana Historical Society - State Historical Preservation Office (SHPO) in an effort to identify any historical and/or archaeological sites that may be present in the proposed area of construction/operation. According to the response from SHPO, been no previously recorded sites within the designated search locales. However, SHPO indicated there is a low likelihood cultural properties will be impacted. In addition, SHPO felt that a recommendation for a cultural resource inventory would be unwarranted at this time. Therefore, the operation of the asphalt plant would not impact on any known historical or archeological sites.

J. Cumulative and Secondary Impacts:

The asphalt plant would cause minor impacts on the physical and biological environment because the plant would result in emissions of PM, PM₁₀, NO_x, VOCs, CO, and SO₂. As a result of the temporary or seasonal nature of the facility and conditions and limitations contained within MAQP #2382-01, impacts would be minimized. There is potential for other operations to locate at this site; however, any operations would have to apply for and receive the appropriate permits from the Department prior to operation. These permits would address the environmental impacts associated with the operations at the site.

8. *The following table summarizes the potential economic and social effects of the proposed project on the human environment. The “no-action” alternative was discussed previously.*

| | | Major | Moderate | Minor | None | Unknown | Comments Included |
|---|---|-------|----------|-------|------|---------|-------------------|
| A | Social Structures and Mores | | | | X | | Yes |
| B | Cultural Uniqueness and Diversity | | | | X | | Yes |
| C | Local and State Tax Base and Tax Revenue | | | X | | | Yes |
| D | Agricultural or Industrial Production | | | X | | | Yes |
| E | Human Health | | | X | | | Yes |
| F | Access to and Quality of Recreational and Wilderness Activities | | | X | | | Yes |
| G | Quantity and Distribution of Employment | | | | X | | Yes |
| H | Distribution of Population | | | | X | | Yes |
| I | Demands for Government Services | | | X | | | Yes |
| J | Industrial and Commercial Activity | | | X | | | Yes |
| K | Locally Adopted Environmental Plans and Goals | | | X | | | Yes |
| L | Cumulative and Secondary Impacts | | | X | | | Yes |

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

A. Social Structures and Mores:

B. Cultural Uniqueness and Diversity:

The asphalt plant operation would cause no disruption to the above-cited economic and social resources or cultural uniqueness and diversity of the human environment in any given area of operation because the source would be a minor industrial source of emissions, would initially and typically operate in an existing industrial site used for such purposes, and would operate on a temporary basis. The predominant use of any surrounding area would not change as a result of the proposed action.

C. Local and State Tax Base and Tax Revenue:

The asphalt plant operations would have little, if any, impact on the local and state tax base and tax revenue because the facility would be a minor industrial source and would conduct only seasonal and intermittent operations. The facility would require the use of only a few employees. Thus, only minor impacts to the local and state tax base and revenue could be expected from the employees and facility production. Furthermore, the impacts to local tax base and revenue would be minor because the source would be portable and the money generated for taxes would be widespread.

Overall, any impacts to the above-cited economic and social resource of the human environment of any given project area would be minor because the proposed asphalt plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall local and state tax base and tax revenue of any given area would not change as a result of the proposed project and any associated impacts would be minor.

D. Agricultural or Industrial Production:

As the asphalt plant would operate primarily in a preexisting open-cut pit, impacts to agricultural or industrial production would be minor and temporary. As no additional land disturbance is proposed by this action, no impacts to agricultural production are expected. Minor impacts to industrial production are expected as the facility described in the proposed action produces a construction material. However, the proposed operation remains relatively small by industrial standards. Overall, potential impacts to agricultural and industrial production are expected to be minor.

E. Human Health:

MAQP #2382-01 is in effect while operating at any location in Montana, except those areas having a Department -approved permitting program, areas considered tribal lands, or areas in or within 10 km of certain PM₁₀ nonattainment areas and would include limits and conditions to ensure that the asphalt plant facility would be operated in compliance with all applicable air quality rules and standards. These rules and standards are designed to be protective of human health.

F. Access to and Quality of Recreational and Wilderness Activities:

Noise from the facility would be minor because the asphalt plant operation would be small by industrial standards and would initially and typically operate in areas used for such operations. As a result, the amount of noise generated from the asphalt plant operation would be minimal for the area. Therefore, any impacts to the quality of recreational and wilderness activities created by the proposed project would be expected to be minor and short-lived. Similarly, the asphalt plant operation would initially and typically operate within areas designated for such operations; therefore, impacts to access to recreational and wilderness areas are expected to be minor or insignificant. Overall potential impacts to access to and quality of recreational and wilderness activities are expected to be minor.

G. Quantity and Distribution of Employment:

H. Distribution of Population:

The proposed asphalt plant operation would require only a few employees to operate thereby resulting in little, if any, permanent immigration into or emigration out of a given area. Therefore, the proposed project would not impact the above-cited economic and social resources of the human environment at the initially proposed or any other given operating site.

I. Demands for Government Services:

Minor increases would be seen in traffic on existing roadways in the area while the asphalt plant operation is in progress. In addition, government services would be required for acquiring the appropriate permits for the proposed project and to verify compliance with the permits that would be issued. Overall, any demands for government services would be minor.

J. Industrial and Commercial Activity:

The asphalt plant operation would represent only a minor increase in the industrial activity in the proposed initial or any future area of operation because the source would be a relatively small industrial source that would be portable and temporary in nature. Very little, if any, additional industrial or commercial activity would be expected as a result of the proposed operation.

Overall, any impacts to industrial and commercial activity of the human environment from the project area would be minor because the proposed asphalt plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

K. Locally Adopted Environmental Plans and Goals:

The Department is not aware of any locally adopted environmental plans or goals in the initial area of operation or any future operating site since MAQP #2382-01 would allow for operations at various locations throughout the state. However, if the plant moved to an area classified as non-attainment for PM₁₀, the operation would be required to apply for and receive an addendum to MAQP #2382-01 prior to operation at the site. The addendum would include more restrictive requirements to protect the non-attainment area from further degradation. The state standards would be protective of any proposed area of operation.

Overall, any impacts to the above-cited economic and social resource of the human environment of the project area would be minor because the proposed asphalt plant operation would initially and typically operate within areas designated for such operations. Therefore, the overall industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

L. Cumulative and Secondary Impacts:

The asphalt plant operations as proposed at its initial location in conjunction with other pending permitting actions as described in Section 7.J. would cause minor cumulative and secondary impacts to the social and economic aspects of the human environment in the immediate area of operation because the combined operations are relatively small by industrial standards.

The source would be a portable and temporary source. Few, if any, other industrial operations would be expected to result from the permitting and operation of this facility. Minor increases in traffic would have minor effects on local traffic in the immediate area. Because the source is relatively small and temporary, only minor economic impacts to the local economy would be expected from operating the facility.

Overall, the proposed asphalt plant operation would result in only minor and temporary secondary and cumulative impacts to the social and economic aspects of the human environment of the initially proposed and any future operating site.

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

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permitting action is for the construction and operation of asphalt batch plant. MAQP #2382-01 includes conditions and limitations to ensure the facility will operate in compliance with all applicable rules and regulations. In addition, there are no significant impacts associated with this proposal.

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

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

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