



Montana Department of
ENVIRONMENTAL QUALITY

Brian Schweitzer, Governor

P. O. Box 200901

Helena, MT 59620-0901

(406) 444-2544

Website: www.deq.mt.gov

January 5, 2009

Jeremiah Bowser
Helena Sand & Gravel, Inc.
P.O. Box 5960
Helena, MT 59604-5960

Dear Mr. Bowser:

Air Quality Permit #4262-00 is deemed final as of January 3, 2009, by the Department of Environmental Quality (Department). This permit is for a portable drum-mix asphalt plant and associated equipment. 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

Brent Lignell
Environmental Engineer
Air Resources Management Bureau
(406) 444-5311

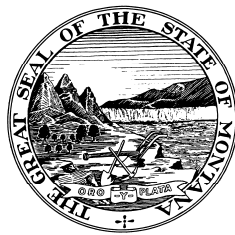
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Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

Air Quality Permit #4262-00

Helena Sand & Gravel, Inc.
P.O. Box 5960
Helena, MT 59604-5960

January 3, 2009



MONTANA AIR QUALITY PERMIT

Issued To: Helena Sand & Gravel, Inc. Permit: #4262-00
P.O. Box 5960 Application Complete: October 6, 2008
Helena, MT 59604-5960 Preliminary Determination Issued: November 14, 2008
Department's Decision Issued: December 17, 2008
Permit Final: January 3, 2009
AFS #: 777-4262

An air quality permit, with conditions, is hereby granted to Helena Sand & Gravel, Inc. (HSG), 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. Permitted Equipment

HSG proposes to operate a portable drum-mix asphalt plant and associated equipment. A complete list of permitted equipment is contained in Section I.A of the Permit Analysis to Permit #4262-00.

B. Plant Location

The initial location of the plant is at HSG's Lake Helena Drive Site, between Valley Drive and Lake Helena Drive, south of Canyon Ferry Drive, about 1 mile north of East Helena. The legal description of the initial location of the permitted HSG facility is Section 19, Township 10 North, Range 2 West, in Lewis & Clark County, Montana. Permit #4262-00 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.

SECTION II: Conditions and Limitations

A. Emission Limitations

1. Asphalt plant particulate matter (PM) emissions shall be limited to 0.04 grains per dry standard cubic feet (gr/dscf) (ARM 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).
2. HSG 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 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).
3. HSG 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 17.8.340, ARM 17.8.752, and 40 CFR 60, Subpart I).

4. Water and spray bars shall be available on-site at all times and operated as necessary to maintain compliance with the opacity limitations in Sections II.A.3 (ARM 17.8.749).
5. HSG shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).
6. HSG shall treat all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary, to maintain compliance with the reasonable precautions limitation in Section II.A.5 (ARM 17.8.749).
7. A fabric-filter baghouse 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. Temperature indicators at the control device inlet and outlet must be installed and maintained (ARM 17.8.752).
8. Asphalt production shall be limited to 1,200,000 tons during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
9. Operation of the drum-mix asphalt dryer shall not exceed 3000 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
10. 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. HSG may retest at a higher production rate at any time in order to achieve a higher allowable production rate (ARM 17.8.749).
11. If the permitted equipment is used in conjunction with any other equipment owned or operated by HSG, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).
12. HSG shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR Part 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities (ARM 17.8.340 and 40 CFR 60, Subpart I).

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 Standards (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, respectively. NSPS-affected equipment at the HSG 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. After the initial source test, 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 17.8.749, and 40 CFR 60, Subpart A and Subpart I).

2. Pressure drop on the baghouse control device and process temperature must be recorded daily and kept on-site according to Section II.C.4 (ARM 17.8.749).
3. Pressure drop on the baghouse control device and process temperature must be recorded during the compliance source test and reported as part of the test results (ARM 17.8.749).
4. All compliance source tests shall conform to the requirements of the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
5. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. If this 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. HSG 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. HSG 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. HSG shall maintain on-site records showing daily hours of operation and daily production rates and daily pressure drop and temperature readings for the last 12 months. The records compiled in accordance with this permit shall be maintained by HSG 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. HSG shall document, by month, the asphalt production from the facility. By the 25th day of each month, HSG shall calculate the asphalt production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.8. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

6. HSG shall document, by month, the hours of operation of the facility. By the 25th day of each month, HSG shall calculate the asphalt production from the facility for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.9. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
7. HSG 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).

D. Notification

1. Within 30 days of commencement of construction of any NSPS-affected equipment, HSG shall notify the Department of the date of commencement of construction of the affected equipment. NSPS-affected equipment at the HSG 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 17.8.340 and 40 CFR 60, Subpart A and Subpart I).
2. Within 15 days of the actual start-up date of any NSPS-affected equipment, HSG shall submit written notification to the Department of the initial start-up date of the affected equipment. NSPS-affected equipment at the HSG 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 17.8.340 and 40 CFR 60, Subpart A and Subpart I).
3. Within 15 days of the actual start-up date of any non-NSPS affected equipment, HSG shall submit written notification to the Department of the initial start-up date of the affected equipment (ARM 17.8.749).

SECTION III: General Conditions

- A. Inspection – HSG 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 HSG fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving HSG 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, as amended by the 1991 Legislature, failure to pay the annual operation fee by HSG may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.
- H. Construction Commencement – Construction must begin within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall be revoked (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. HSG 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
Helena Sand & Gravel, Inc.
Permit #4262-00

I. Introduction/Process Description

A. Permitted Equipment

Helena Sand & Gravel, Inc. (HSG) owns and operates a portable drum-mix asphalt plant with a maximum production capacity of 400 tons per hour (TPH). The plant includes feed bins, transfer conveyors, scalping screen, drum dryer/mixer, elevating conveyor, storage silos, primary fines collector, baghouse, and associated equipment.

B. Source Description

For a typical operational set-up, process materials are delivered to the plant site by truck. Aggregates, including recovered asphalt product (RAP), are stockpiled and fed as needed to bins by a front end loader. Aggregates are withdrawn from the bins and transported by conveyor to the scalping screen. From the scalping screen, aggregates are transported by belt conveyor to the drum mixer where aggregate is dried and mixed with asphalt concrete. Recovered fines, RAP, and mineral filler may also be added to the mixer. Hot mix asphalt is discharged to the elevating conveyor and in to storage silos to await truck load out.

II. Applicable Rules and Regulations

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

HSG 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 the following:

1. ARM 17.8.204 Ambient Air Monitoring.
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide.
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide.
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide.
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone.
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide.
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter.
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility.
9. ARM 17.8.222 Ambient Air Quality Standard for Lead.
10. ARM 17.8.223 Ambient Air Quality Standard for PM₁₀.

HSG 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, HSG 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, allow, or permit to be discharged into the atmosphere particulate matter caused by the combustion of fuel in excess of the amount determined by this rule.
4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere particulate matter in excess of the amount set forth in this rule.
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 rule.

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 is equipped with a vapor loss control device as described in (1) of this rule.
 7. ARM 17.8.340 Standard of Performance for New Stationary Sources and Emission Guidelines for Existing Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is an NSPS-affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts:
 - a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:
 - b. 40 CFR 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities apply because the facility includes NSPS-affected equipment.
 8. ARM 17.8.341 Emission Standards for Hazardous Air Pollutants. This source shall comply with the standards and provisions of 40 CFR Part 61, as appropriate.
- 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. HSG submitted the appropriate permit application fee for the current permit action.
 2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit (excluding an open burning permit) issued by the Department. 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 prorate 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 alteration to construct, alter, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. HSG has a PTE greater than 15 tons per year of particulate matter (PM),

particulate matter with an aerodynamic diameter of less than 10 microns (PM₁₀), oxides of nitrogen (NO_x), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur dioxide (SO₂); 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, alteration, or use of a source. HSG 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. HSG submitted an affidavit of publication of public notice for the September 23, 2008, issue of the *Independent Record*, a newspaper of general circulation in the City of Helena in the County of Lewis & Clark, 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 HSG 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 altered 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 Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major stationary source because this facility is not a listed source and the facility's PTE is below 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 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 PM₁₀ in a serious PM₁₀ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program. (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 Air Quality Permit #4262-00 for HSG, 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 for all HAPs.
 - c. This source is not located in a serious PM₁₀ nonattainment area.
 - d. This facility is subject to a current NSPS standard (40 CFR Part 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities).
 - 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.
 - h. As allowed by 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 potential to emit.
 - i. In applying for an exemption under this section, the owner or operator of the source shall certify to the Department that the source's potential to emit does not require the source to obtain an air quality operating permit.
 - ii. Any source that obtains a federally enforceable limit on potential to emit 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. HSG shall annually certify that its actual emissions are less than those that would require the source to obtain an air quality operating permit as required by ARM 17.8.1204 (3)(b). The annual certification shall comply with requirements of ARM 17.8.1207. The annual certification shall be submitted along with the annual emission inventory information.

HSG has taken federally enforceable permit limits to keep potential emissions below major source permitting thresholds. Therefore, the facility is not a major source and, thus a Title V operating permit is not required. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, HSG will be required to obtain a Title V Operating Permit.

III. BACT Determination

A BACT (best available control technology) determination is required for each new or altered source. HSG shall install on the new or altered source the maximum air pollution control capability which is technically practicable and economically feasible, except that BACT shall be utilized.

Asphalt Drum Mixer

The Department has reviewed relevant control options, as well as previous BACT determinations. The following control options were reviewed by the Department in order to make the following BACT determinations:

- Fabric Filter Baghouse
- Electrostatic Precipitator
- Cyclone
- Wet Scrubber

All of the listed control technologies are deemed technically feasible for this application. Technically feasible control options, in order of the highest control efficiency to the lowest control efficiency based on PM₁₀ control, are as follows:

1. Fabric Filter Baghouse (99 – 99.9% efficient) (EPA Fact Sheet EPA-452/F-03-025, 07/15/03)
2. Electrostatic Precipitator (99 – 99.9% efficient) (EPA Fact Sheet EPA-452/F-03-025, 07/15/03)
3. Cyclone (up to 99% efficient) (EPA Fact Sheet EPA-452/F-03-005, 07/15/03)
4. Wet Scrubber (up to 99% efficient) (EPA Fact Sheet EPA-452/F-03-0010, 07/15/03)

HSG has proposed to use a fabric filter baghouse for the control of PM₁₀ from the displaced air from the asphalt plant. Because HSG proposes to use a control technology that is equivalent to the highest control efficiency, no further economic analysis is needed. The control options selected have controls and control costs comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards. All asphalt particulate emissions are limited to 0.04 grains per dry standard cubic foot (gr/dscf).

Further, HSG must take reasonable precautions to limit the fugitive emissions of airborne particulate matter on haul roads, access roads, parking lots, and the general plant area. Reasonable precautions include treating all unpaved portions of the haul roads, access roads, parking lots, or the general plant area with water and/or chemical dust suppressant, as necessary. Operating and maintaining a baghouse to meet the corresponding emission limitations in Section I.A of the permit and using water and/or chemical dust suppressant to comply with the reasonable precautions limitation will constitute BACT for the HSG facility.

IV. Emission Inventory

Emission Source	Tons per Year					
	PM	PM ₁₀	NOx	CO	VOC	SO ₂
Cold Aggregate Storage Piles	0.99	0.47	--	--	--	--
Cold Aggregate Handling/Conveyors	0.17	0.06	--	--	--	--
Cold Aggregate Screens	2.16	1.32	--	--	--	--
Asphalt Oil Heater	0.06	--	0.59	0.16	0.16	0.93
Drum Mix Dryer	19.80	13.80	33.00	78.00	19.20	34.80
Asphalt Product Silo Filling	0.35	--	--	0.71	--	--
Plant Load-Out	0.31	--	--	0.81	--	--
Lime Silo	0.04	0.04	--	--	--	--
Haul Roads / Vehicle Traffic	1.95	0.54	--	--	--	--
Total Emissions	25.83	16.23	33.59	79.68	19.36	35.73

Note: Inventory reflects operation of concrete batch plant at maximum operating capacity of 400 tons/hour, operated at the permit limit of 3000 hours/year.

Cold Aggregate Storage Piles

PM Emissions:

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

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

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)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hrs/yr}) * (0.00331 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 50/100) = 0.99 \text{ ton/yr}$$

PM₁₀ Emissions:

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

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

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)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.00156 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 - 50/100) = 0.47 \text{ ton/yr}$$

Cold Aggregate Handling/Conveyors

Number of Transfers = 2 transfers (Excludes RAP transfers)

PM Emissions:

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

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.00014 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (2 \text{ transfers}) = 0.17 \text{ ton/yr}$$

PM₁₀ Emissions:

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

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.000046 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (2 \text{ transfers}) = 0.06 \text{ ton/yr}$$

Cold Aggregate Screens

Number of Screens = 1 screen(s) (Excludes RAP screen)

PM Emissions:

Emission Factor = 0.0036 lb/ton (controlled, AP 42, Table 11.19.2-2, 8/04)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.0036 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ screen(s)}) = 2.16 \text{ ton/yr}$$

PM₁₀ Emissions:

Emission Factor = 0.0022 lb/ton (controlled, AP 42, Table 11.19.2-2, 8/04)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.0022 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) * (1 \text{ screen(s)}) = 1.32 \text{ ton/yr}$$

Asphalt Oil Heater

Maximum Fire Rate = 2.82 MMBtu/hr (Manufacturer data provided in application)

PM Emissions:

Emission Factor = 0.0143 lb/MMBtu (Manufacturer data provided in application)

Calculation: (3000 hr/yr) * (2.82 MMBtu/hr) * (0.0143 lb/MMBtu) * (ton/2000 lb) = 0.06 ton/yr

CO Emissions:

Emission Factor = 0.037 lb/MMBtu (Manufacturer data provided in application)

Calculation: (3000 hr/yr) * (2.82 MMBtu/hr) * (0.037 lb/MMBtu) * (ton/2000 lb) = 0.16 ton/yr

NOx Emissions:

Emission Factor = 0.14 lb/MMBtu (Manufacturer data provided in application)

Calculation: (3000 hr/yr) * (2.82 MMBtu/hr) * (0.14 lb/MMBtu) * (ton/2000 lb) = 0.59 ton/yr

SOx Emissions:

Emission Factor = 0.2205 lb/MMBtu (Manufacturer data provided in application)

Calculation: (3000 hr/yr) * (2.82 MMBtu/hr) * (0.2205 lb/MMBtu) * (ton/2000 lb) = 0.93 ton/yr

VOC Emissions:

Emission Factor = 0.038 lb/MMBtu (Manufacturer data provided in application)

Calculation: (3000 hr/yr) * (2.82 MMBtu/hr) * (0.038 lb/MMBtu) * (ton/2000 lb) = 0.16 ton/yr

Drum Mix Dryer

PM Emissions:

Emission Factor = 0.033 lb/ton (fabric filter, AP 42, Table 11.1-3, 3/04)

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.033 lb/ton) * (ton/2000 lb) = 19.80 ton/yr

PM₁₀ Emissions:

Emission Factor = 0.023 lb/ton (fabric filter, AP 42, Table 11.1-3, 3/04)

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.023 lb/ton) * (ton/2000 lb) = 13.80 ton/yr

CO Emissions:

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

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.13 lb/ton) * (ton/2000 lb) = 78.00 ton/yr

NOx Emissions:

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

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.055 lb/ton) * (ton/2000 lb) = 33.00 ton/yr

SO₂ Emissions:

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

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.058 lb/ton) * (ton/2000 lb) = 34.80 ton/yr

VOC Emissions:

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

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.032 lb/ton) * (ton/2000 lb) = 19.20 ton/yr

Total HAPs Emissions:

Emission Factor = 0.01 lb/ton (waste oil-fired dryer with fabric filter, AP 42, Table 11.1-10, 3/04)

Calculation: (400 ton/hr) * (3000 hr/yr) * (0.01 lb/ton) * (ton/2000 lb) = 6.00 ton/yr

Asphalt Product Silo Filling

PM Emissions:

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

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

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)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.00059 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.35 \text{ ton/yr}$$

CO Emissions:

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

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

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)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.00118 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.71 \text{ ton/yr}$$

Plant Load Out

PM Emissions:

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

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

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)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.00052 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.31 \text{ ton/yr}$$

CO Emissions:

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

$$\text{Emission Factor} = 0.00558(-V)e^{((0.0251)(T + 460) - 20.43)} = 0.00135 \text{ lb/ton}$$

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)

$$\text{Calculation: } (400 \text{ ton/hr}) * (3000 \text{ hr/yr}) * (0.00135 \text{ lb/ton}) * (\text{ton}/2000 \text{ lb}) = 0.81 \text{ ton/yr}$$

Lime Silo

Flow Capacity = 80 cfm (Vendor information)

PM Emissions:

Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)

$$\text{Calculation: } (80 \text{ cfm}) * (3000 \text{ hr/yr}) * (0.04 \text{ gr/dscf}) * (\text{lb}/7000 \text{ gr}) * (\text{ton}/2000 \text{ lb}) * (60 \text{ min/hr}) = 0.04 \text{ ton/yr}$$

PM₁₀ Emissions:

Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)

$$\text{Calculation: } (80 \text{ cfm}) * (3000 \text{ hr/yr}) * (0.04 \text{ gr/dscf}) * (\text{lb}/7000 \text{ gr}) * (\text{ton}/2000 \text{ lb}) * (60 \text{ min/hr}) = 0.04 \text{ ton/yr}$$

Haul Roads

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

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

PM Emissions:

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

$$\text{Emission Factor} = k * (s / 12)^a * (W / 3)^b = 12.46 \text{ lb/VMT}$$

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: (3000 hrs/yr) * (0.21 VMT/hr) * (12.46 lb/VMT) * (ton/2000 lb) * (1-50/100) = 1.95 tons/yr

PM₁₀ Emissions:

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

Emission Factor = $k * (s / 12)^a * (W / 3)^b = 3.43 \text{ lb/VMT}$

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: (3000 hrs/yr) * (0.21 VMT/hr) * (3.43 lb/VMT) * (ton/2000 lb) * (1-50/100) = 0.54 tons/yr

V. Existing Air Quality

Permit #4262-00 is issued for the operation of a portable drum-mix asphalt plant to be initially located in the Section 19, Township 10 North, and Range 2 West, in Lewis & Clark County, Montana. Permit #4262-00 will also cover the plant while operating at any location within Montana, except those areas having a Department-approved permitting program, areas considered tribal lands, or areas in or within 10 kilometers (km) of certain PM₁₀ nonattainment areas. An Addendum to Permit #4262-00, including more stringent requirements to protect the nonattainment area, will be required for operating at locations in or within 10 km of certain PM₁₀ nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana.*

Based on the relatively small amount of emissions resulting from the HSG operation and the limits and conditions that would be included in MAQP #4262-00, the Department believes that the allowable/permitted emissions from this source will not cause or contribute to an exceedance of any ambient air quality standard while operating in any area classified as attainment or unclassified for the ambient air quality standards.

VI. Ambient Air Impact Analysis

Permit #4262-00 will cover the asphalt plant while operating at any location within Montana, excluding those counties that have a Department-approved permitting program and those locations in or within 10 km of certain PM₁₀ nonattainment areas. The Department believes the amount of controlled emissions generated by this facility will not exceed any set ambient standard. In addition, this source is portable and any air quality impacts will be minor and short-lived.

The initial proposed location of the asphalt plant is within the East Helena lead nonattainment area and approximately ½ mile west of the East Helena SO₂ nonattainment area. However, this facility is not expected to have lead emissions. Therefore, the Department has 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.

VII. Taking or Damaging Implication Analysis

As required by 2-10-105, MCA, the Department conducted the following private property taking and damaging assessment.

YES	NO	
	X	1. Does the action pertain to land or water management or environmental regulation affecting private real property or water rights?
	X	2. Does the action result in either a permanent or indefinite physical occupation of private property?
	X	3. Does the action deny a fundamental attribute of ownership? (e.g., 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.

VIII. Environmental Assessment

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

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

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Helena Sand & Gravel, Inc.

Air Quality Permit Number: 4262-00

Preliminary Determination Issued: November 14, 2008

Department Decision Issued: December 17, 2008

Permit Final: January 3, 2009

1. *Legal Description of Site:* Section 19, Township 10 North, Range 2 West, in Lewis & Clark County, Montana.
2. *Description of Project:* Helena Sand & Gravel, Inc. owns and operates a portable drum-mix asphalt plant with a maximum production capacity of 400 TPH. The plant includes feed bins, transfer conveyors, scalping screen, drum dryer/mixer, elevating conveyor, storage silos, primary fines collector, baghouse, and associated equipment. The proposed action is to issue a Montana Air Quality Permit #4262-00 allowing the construction and operation of the plant in Lewis & Clark County, Montana, and various locations across Montana.

Construction of the existing gravel pit at this location was permitted under Montana's Open Cut Mining Program (Permit # HSG-017). Potential environmental impacts for construction of the gravel pit at large were analyzed at that time (on file at the Department), in accordance with the Montana Environmental Policy Act (MEPA). This draft environmental assessment for the asphalt plant is tiered to that conducted for the Open Cut Operating Permit analysis.

The proposed asphalt production facility is a portable operation; therefore, it can be expected to move, and operate at various locations throughout Montana. This MEPA analysis is intended evaluated potential impacts of this plant at any operational location.

3. *Objectives of Project:* The objective of construction and operation of the asphalt plant at this location is to provide material for support of construction projects in the area.
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 HSG 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 Permit #4262-00.

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

Terrestrials could use the same area as the asphalt plant operations. However, the asphalt plant would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. No additional disturbance to that permitted for construction of the gravel pit is proposed; therefore, potential impacts to terrestrial life and habitats are expected to be minor due increased noise in the area and deposition of relatively minor amounts of air pollutants emitted from the portable asphalt plant.

Impacts on aquatic life and habitats could result from asphalt plant operations, but such impacts would be minor. 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 additional disturbance to any known aquatic life and habitats given any previous industrial disturbance in any given area of operation. The minor amounts of water used in controlling dust emissions may have a minor impact on aquatic life and habitat by runoff. Lastly, the asphalt plant will be considered a minor source of emissions (with seasonal and intermittent operations) and, would only have minor disposition that could reach nearby water bodies. Overall, minor and temporary impacts to aquatic life and habitat would be expected from the proposed plant 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, and saturated conditions will not be maintained within material or along haul roads. Therefore, potential impact to state water quality, quantity and distribution are expected to be minor.

C. Geology and Soil Quality, Stability and Moisture

The asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. There is a low likelihood that assembly and operation of the plant in any location will cause significant additional impacts to geology and soil quality, stability and moisture given the likelihood of previous industrial disturbance at the given area of operation. The facility is relatively small in size, would use only relatively small amounts of water for pollution control, and would only have seasonal and intermittent operations. Any impacts to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

D. Vegetation Cover, Quantity, and Quality

There is a low likelihood that assembly and operation of the plant in any location will cause significant additional impacts to vegetative cover, quantity, and quality given the likelihood of previous industrial disturbance at the given area of operation. Furthermore, the facility would be a minor source of emissions, by industrial standards, and would typically operate in areas previously designated for industrial purposes, thus impacts from the asphalt plant facility emissions would be minor and typical. As described in Section 7.F of this EA, the amount of air emissions from this facility would be minor. As a result, the corresponding deposition of the air pollutants on the surrounding vegetation would also be minor. Also, because the water usage is minimal, as described in Section 7.B, and the associated soil disturbance is minimal, as described in Section 7.C, corresponding vegetative impacts would be minor. Overall, any impacts would be minor because the proposed asphalt plant operation would typically operate within areas designated for such operations.

E. Aesthetics

The initial site location would be visible from residential neighborhoods, Lake Helena Drive, and Valley Drive. According to the Open Cut permit for that initial site, the asphalt hot plant would be placed on a pad set 15 feet below grade to reduce aesthetic and noise impacts. Stockpiled recycled asphalt would be kept adjacent to the asphalt plant on the below-grade pad and would not be visible from above grade. The open cut permit requires that HSG plant, maintain, and, if necessary, replace vegetation on berms and vegetation planted for visual screening as determined necessary by the Department to minimize visual impacts on surrounding neighborhoods to the degree practicable.

In addition Permit #4262-00 would include conditions to control emissions, including visible emissions, from the proposed equipment. At all locations the asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, there is a low likelihood that assembly and operation of the plant in any location will cause significant additional 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 Permit #4262-00 would include conditions limiting the opacity from the plant, as well as requiring fabric filter baghouse, water spray as necessary, and other means to control air pollution. Further, Permit

#4262-00 would limit total emissions from the asphalt plant operation and any additional equipment owned and operated by HSG 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 contacted the Montana Natural Heritage Program (MNHP) to identify species of special concern that may be found in the area where the proposed plant will initially locate. Search results concluded that there are 3 species of concern in the area. The area, in this case, is defined by the section, township, and range of the proposed site, with an additional 1-mile buffer. The species of special concern are the gray wolf, the bald eagle, and the wedge-leaved saltbush.

Since the gray wolf is regional, it is unlikely that the installation of the asphalt plant in a semi-developed area would have any impact on these animals. Likewise, the bald eagle should not be impacted since it is primarily a species of riparian habitats, although it can have a range of several miles from its nest. Lastly, the saltbush, a vascular plant, covers a region that begins about 1 mile from the area and extends west away from the asphalt plant. There is no evidence that this plant will be impacted by the asphalt plant.

At all locations the asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, there is a low likelihood that assembly and operation of the plant in any location will cause significant additional impacts to unique, endangered, fragile or limited resources given the likelihood of previous industrial disturbance at the given area of operation. Given the temporary and portable nature of the operations, any impacts would be minor and short-lived. In addition, operational conditions and limitations in the permit would be protective of these resources by limiting overall impacts to the surrounding environment.

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 land line power. In addition, the asphalt plant operation would be temporary as it is not permitted to remain at this location for more than 12 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.

I. Historical and Archaeological Sites

The Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO) to identify cultural resources recorded in the area proposed for the HSG asphalt plant. SHPO identified one cultural resource recorded in the area: Site 24LC1062, the Helena Valley

Irrigation Canal, located on the northern border of the property. According to the Open Cut Mining Program EA, the canal is located well over 1000 feet away from the proposed asphalt operations area. HSG is not proposing to discharge any water to the canal or change the drainage patterns, so it is unlikely this resource would be adversely impacted.

At all locations the asphalt plant would typically operate within a previously disturbed open-cut pit used for such purposes. Therefore, there is a low likelihood that assembly and operation of the plant in any location will cause significant additional impacts to historical and archaeological sites given the likelihood of previous industrial disturbance at the given area of operation.

J. Cumulative and Secondary Impacts

The asphalt plant would cause minor cumulative and secondary impacts to the proposed area of operation because the facility would generate emissions of regulated air pollutants and noise. This facility will be operated in conjunction with other equipment owned and operated by HSG as part of a sand and gravel operation that is permitted under the Open Cut Mining Program. The other equipment, which will be permitted separately by the Department, may include a crusher, a wash plant, and a concrete batch plant. However, the asphalt plant facility, in combination with the other emissions from equipment operations at the operational site, would not be permitted to exceed 250 tons per year of non-fugitive emissions.

Department believes the cumulative impacts to air quality will not violate applicable air quality standards. At all locations the asphalt plant would typically operate within a previously disturbed open-cut pit and in conjunction with other portable operations used for such purposes. Therefore, there is a low likelihood that assembly and operation of the plant in any location will cause significant additional cumulative and secondary impacts given the likelihood of previous industrial disturbance at the given area of operation.

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

The proposed project would not have any effect on social structures and mores of the proposed area of operation. The project is temporary, seasonal, and small by industrial standards and operations would initially and typically take place in an existing industrial location. The predominant use of the surrounding area would not change as a result of the proposed project. Further, the facility would be required to operate according to the conditions that would be placed in Permit #4262-00, which would limit the effects to social structures and mores because air emissions would be limited from compliance with the established permit conditions.

B. Cultural Uniqueness and Diversity

The asphalt plant operation would cause no disruption to the 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 the surrounding area would not change as a result of the proposed project.

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.

D. Agricultural or Industrial Production

Previous MEPA analysis for the permitted gravel pit in which the asphalt plant would initially locate concluded potential 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

The proposed project would result in the emission of air pollutants. However, Permit #4262-00 would include limits and conditions to ensure that the facility would be operated in compliance with all applicable air quality rules and standards. HSG would be required to use BACT and maintain compliance with all ambient air quality standards (including secondary standards). These standards are designed to be protective of human health. Overall, any health impacts resulting from the proposed project would be minor.

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

The proposed asphalt plant would require only a few employees to operate the equipment. Furthermore, the proposed project would be relatively small, and would have seasonal and intermittent operations requiring no permanent immigration in to, or emigration out of, a given area. Therefore, the proposed project would have no significant effects upon the quantity and distribution of employment in this area.

H. Distribution of Population

The proposed operations would not disrupt the normal population distribution in any given area. The proposed asphalt plant would require only a few employees to operate the equipment. Because operations are temporary and seasonal, no individuals would be expected to permanently relocate to any area as a result of operating the facility.

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 proposed project would have only minor impacts on local industrial and commercial activity because the proposed project would initially and typically operate in an existing industrial location and would not require any additional industrial construction or result in any additional industrial production. 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.

K. Locally Adopted Environmental Plans and Goals

Permit #4262-00 allows HSG to operate in areas designated by the EPA as attainment or unclassified for ambient air quality. Permit #4262-00 would contain limits for protecting air quality and for ensuring facility emissions are in compliance with any applicable ambient air quality standards. However, since HSG may operate at various locations across Montana, HSG is required to apply for and receive an addendum to operate in or within 10 km of certain PM₁₀

nonattainment areas. The addendum would include more restrictive requirements to protect the nonattainment area from further degradation. The state standards would be protective of any proposed area of operation.

L. Cumulative and Secondary Impacts

The asphalt plant operations as proposed at its initial location 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 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. Permit #4262-00 includes conditions and limitations to ensure the facility will operate in compliance with all applicable air quality rules and regulations. In addition, all impacts associated with the proposed action are expected to be insignificant or minor.

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, Industrial and Energy Minerals Bureau; Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

EA prepared by: Brent Lignell

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