Montana Department of
ENVIRONMENTAL QUALITY
Brian Schweitzer, Governor
P. O. Box 200901 Helena, MT 59620-0901 (406) 444-2544 Website: www.deq.mt.gov

June 17, 2008

Mr. Patrick Schneiderhan, Owner
Capitol Gravel and Asphalt, LLC
P.O. Box 978
East Helena, MT 59635

Dear Mr. Schneiderhan:

Air Quality Permit #4206-00 is deemed final as of June 17, 2008, by the Department of Environmental Quality (Department). This permit is for a portable hot mix asphalt facility. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,

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

Paul Skubinna
Environmental Engineer
Air Resources Management Bureau
(406) 444-6711

VW:PS
Enclosure

Montana Department of Environmental Quality
Permitting and Compliance Division

# Air Quality Permit #4206-00

CAPITOL GRAVEL & ASPHALT, LLC
P.O. BOX 978
EAST HELENA, MT 59635

JUNE 17, 2008

AIR QUALITY PERMIT

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|---|---|---|
| Issued To: | Capitol Gravel and Asphalt, LLC<br>P.O. Box 978<br>East Helena, MT 59635 | Permit: #4206-00<br>Application Complete: 03/31/08<br>Preliminary Determination Issued: 05/09/08<br>Department's Decision Issued: 05/30/08<br>Permit Final: 06/17/08<br>AFS #: 777-4206 |

An air quality permit, with conditions, is hereby granted to Capitol Gravel and Asphalt, LLC (Cap) 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

Cap 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 #4206-00.

B. Plant Location (New permits)

The initial location of the permitted Cap facility is the East Helena "home pit", which is located 0.25 mile south of East Helena, Montana, off Highway 282. The legal description of the site is the NE¼ of Section 35, Township 10 North, and Range 3 West, in Lewis and Clark County. Permit 4206-00 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 ($PM_{10}$) nonattainment areas. *A Missoula County air quality permit will be required for locations within Missoula County, Montana*. An addendum will be required for locations in or within 10 km of certain $PM_{10}$ nonattainment areas.

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. Cap 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. Cap 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. Cap 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. Cap 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 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).

7. Asphalt production shall be limited to 876,000 tons during any rolling 12-month time period (ARM 17.8.749).

8. Cap shall not operate more than one diesel fuel-fired generator at any given time with a maximum rating of 350 horsepower (hp) (ARM 17.8.749).

9. If the permitted equipment is used in conjunction with any other equipment owned or operated by Cap, 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. Cap shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart I – Standards of Performance for Hot Mix Asphalt Facilities (ARM 17.8.340 and 40 CFR 60, Subpart I).

11. Cap 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

Since asphalt production will be limited to the average production rate (as reported in Cap's application) achieved during the initial and subsequent compliance source test(s), the test should be performed at the highest production rate practical.

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start up, an initial Environmental Protection Agency (EPA) Methods 1-5 and 9 source test(s) shall be performed on any New Source Performance Standard (NSPS)-affected equipment at the asphalt plant to demonstrate compliance with the applicable emission limit(s) in Section II.A.1, Section II.A.2, and Section II.A.3,

respectively. NSPS-affected equipment at the Cap 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. 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).

5. Cap may retest at a higher production rate at any time in order to achieve a higher allowable production rate (ARM 17.8.749).

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

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

C. Operational Reporting Requirements

1. If this 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. Cap 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). Cap shall submit the following information annually to the Department by March 1 of each year, and may be submitted with the annual emission inventory (ARM 17.8.505):

a. Annual asphalt production in tons per year; and
b. Annual diesel generator operating hours.

3. Cap 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. Cap 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 Cap 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. Cap shall document, by month, the asphalt production from the facility. By the 25$^{th}$ day of each month, Cap 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.7. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).

D. Notification

1. Within 30 days of commencement of construction of any NSPS-affected equipment, Cap shall notify the Department of the date of commencement of construction of the affected equipment (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, Cap shall submit written notification to the Department of the initial start-up date of the affected equipment (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, Cap 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 – Cap 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 Cap fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Cap 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 Cap 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. Cap 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.

PERMIT ANALYSIS
Capitol Gravel and Asphalt, LLC
Permit #4206-00

I. Introduction/Process Description

A. Permitted Equipment

Capitol Gravel and Asphalt, LLC (Cap) owns and operates a portable 1993 parallel flow continuous asphalt drum mixer with a maximum production capacity of 100 tons per hour (TPH); an asphalt silo; cold aggregate handling operations; material transfer operations including elevator, screens, bins, mixers, conveyors including 4 transfer points; a 350 horsepower (hp) diesel generator; a diesel fuel-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 350 hp capacity diesel-fired 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.

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).

Cap 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 $PM_{10}$

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

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

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

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

6. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 CFR Part 60, Standards of Performance for New Stationary Sources (NSPS).

   This facility is an NSPS-affected facility under 40 CFR Part 60, Subpart I (Standards of Performance for Hot Mix Asphalt Facilities) NSPS-affected equipment at the Cap 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.

   Currently, the standards at 40 CFR 60, Subpart IIII (Standards of Performance for Stationary Compression Internal Combustion Engines) 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-minimus friendly nature of the permit.

7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. This rule incorporates, by reference, 40 CFR Part 63, National Emission Standards for Hazardous Air Pollutants (NESHAP). The proposed facility contains an engine which is an affected source under 40 CFR 63 Subpart ZZZZ; however, because the engine is an existing engine, that is less than 500 hp, at an area source of HAPs it qualifies for an exemption within Subpart ZZZZ that excludes it from the maximum achievable control technology standards and reporting requirements in 40 CFR Part 63. If the engine were replaced by a new or reconstructed 350 hp engine (permit conditions limit the size and quantity of engine that may be operated see Section II.A.8. of permit) via a de-minimus change, it would qualify for another separate exemption un Subpart ZZZZ that states the operation of the engine must comply with the NSPS requirement at 40 CFR 60, Subpart IIII as described above. Therefore, the requirements at 40 CFR 63, Subpart ZZZZ do not apply to this facility.

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. Cap 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 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 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. Cap has a PTE greater than 15 tons per year of particulate matter PM, oxides of nitrogen ($NO_x$), carbon monoxide (CO), sulfur dioxide ($SO_2$) 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, alteration, or use of a source. Cap 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. Cap submitted an affidavit of publication of public notice for the March 22, 2008 issue of the *Independent Record,* a newspaper of general circulation in the city of Helena and Lewis and Clark 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 Best Available Control Technology (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 Cap 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 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 since it is not a listed source and the facility's PTE is less than 250 tons per year of any pollutant (excluding fugitive emissions).

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

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

   a. PTE > 100 tons/year of any pollutant;

   b. PTE > 10 tons/year of any one hazardous air pollutant (HAP), PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

   c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less ($PM_{10}$) in a serious $PM_{10}$ nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #4206-00 for cap, the following conclusions were made.

   a. The facility's PTE is less than 100 tons/year for any pollutant.

   b. The facility's PTE is less than 10 tons/year for any one HAP and less than 25 tons/year of all HAPs.

   c. This source is not located in a serious $PM_{10}$ nonattainment area.

   d. This facility is subject to current NSPS at 40 CFR Part 60, Subpart I and may become subject to Subpart IIII via a de-minimus change.

   e. This facility is subject to area source provisions of current NESHAP 40 CFR 63, Subpart ZZZZ; however, based on proposed equipment, permit conditions and possible de-minimus changes no requirements apply for the proposed engine under this NESHAP.

   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 Cap will be a minor source of emissions as defined under Title V. However, if minor sources subject to NSPS are required to obtain a Title V Operating Permit, Cap will be required to obtain a Title V Operating Permit.

## III. BACT Determination

A BACT determination is required for each new or altered source. Cap 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

A BACT analysis was submitted by Cap in permit application #4206-00, addressing available methods of controlling emissions from the drum mixer. The Department has reviewed these methods, as well as previous BACT determinations. The following control options have been 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 $PM_{10}$ control, are as follows:

1) Fabric Filter Baghouse (90 – 99+% efficient)
2) Electrostatic Precipitator (90 – 99+% efficient)
3) Wet Scrubber (70-95% efficient)
4) Wet Scrubber (<70% efficient)

Cap has proposed to use a fabric filter baghouse for the control of PM10 from the displaced air from the asphalt plant. Because Cap proposes to use a control technology that is equivalent to the highest control efficiency, no further economic analysis is needed. The control options selected contain control equipment comparable to other recently permitted similar sources and are capable of achieving the appropriate emission standards.

Diesel Engine and Aggregate and Asphalt Transfer Points

A BACT determination was not required for these emission points. The Department has determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel-fired generator. Asphalt transfer point particulate emissions are generally small therefore no control is BACT for these emission points. At aggregate transfer points (1-4) within the plant Cap has proposed to increase the moisture content using water sprays and to minimize drop distances as BACT for fugitive emissions.

IV. Emission Inventory

| Emitting Unit | PM | $PM_{10}$ | NOx | CO | VOC | SOx |
|---|---|---|---|---|---|---|
| Drum Mix Asphalt Plant Dryer | 21.99 | 12.64 | 24.09 | 56.94 | 14.02 | 25.40 |
| Hot Oil Heater | 0.00 | 0.00 | 0.00 | 0.005 | 0.00 | 0.00 |
| Elevators, Screens, Bins and Mixers | | | | | | |
| Drum Mix Plant Load-Out | 0.23 | 0.15 | 0.00 | 0.59 | 1.82 | 0.00 |
| Asphalt Product Silo Filling | 0.26 | 0.11 | 0.00 | 0.52 | 5.34 | 0.00 |
| Cold Aggregate Handling/Conveyors | 5.26 | 1.93 | 0.00 | 0.00 | 0.00 | 0.00 |
| Diesel Generator | 3.37 | 3.37 | 47.52 | 10.24 | 3.79 | 3.14 |
| Haul Roads/Vehicle Traffic | 4.05 | 1.03 | 0.00 | 0.00 | 0.00 | 0.00 |
| **Total Emissions** | **35.15** | **19.23** | **71.61** | **68.29** | **24.96** | **28.55** |

**DRUM MIX ASPHALT PLANT DRYER**

Operating Parameters:

Operating Hours: 8760 hr/yr (Permit Limit)
Plant Elevation: 4000 ft. (Application information)
Actual Pressure: 25.9 in. Hg (Application Information)
Standard Pressure: 29.92 in. Hg
Flowrate: 30,000 acfm (Company Information)
Std. Temp: 25 °C = 77 °F = 537 °R
Stack Temp. 177 °C = 350 °F = 810°R (Application Information)
Fractional Moisture Content: 0.15
Correction Equation: V1 = V2 (P2/P1) (T1/T2) (1-MC)

Corrected Flowrate 30000 acfm * (25.9 in. Hg / 29.92 in. Hg) * (537 R / 810 R)*(1-0.15) = 14634 dscfm
Process Rate: 100 ton/hr (Application Information)

***PM Emissions***

Emission Factor: 0.04 gr/dscf (BACT Determination)
Calculations: 0.04 gr/dscf * 14634.15 dscfm * 1 lb/7000 gr * 60 m/hr = 5.02lb/hr
5.02 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 21.99ton/yr

***$PM_{10}$ Emissions***

Emission Factor: 0.023 lb/ton (AP-42, Section 11.1, Table 11.1-3, Drum Mix, Fabric Filter Control, 3/04)
Calculations: 0.023 lb/ton * 100 ton/hr = 2.89 lb/hr
2.88501814285714 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 2.64 ton/yr

***$NO_x$ Emissions***

Emission Factor: 0.055 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, worst-case fuel excluding coal, 3/04)
Calculations: 0.055 lb/ton * 100 ton/hr = 5.50lb/hr
5.5 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 24.09 ton/yr

***CO Emissions***

Emission Factor: 0.13 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, worst-case fuel excluding coal, 3/04)
Calculations: 0.13 lb/ton * 100 ton/hr = 13.00 lb/hr
13 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 56.94 ton/yr

***VOC Emissions***
Emission Factor: 0.032 lb/ton (AP-42, Section 11.1, Table 11.1-8, worst-case fuel, 3/04)

Calculations: 0.032 lb/ton * 100 ton/hr = 3.20 lb/hr
3.2 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 14.02 ton/yr

***$SO_2$ Emissions***
Emission Factor: 0.058 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, worst-case fuel excluding coal, 3/04)
Calculations: 0.058 lb/ton * 100 ton/hr = 5.80 lb/hr
5.8 lb/hr * 8760 hr/yr * 0.0005 ton/lb = 25.40 ton/yr

**HOT OIL HEATER**

Operating Parameters:
Diesel Fuel Consumption: 0.92 gal/hr (Application Information)
Operating Hours: 8760 hr/yr (Annual Capacity)
Calculation: 0.92 gal/hr * 8760 hr/yr = 8059.2 gal/yr

***CO Emissions***
Emission Factor: 0.0012 lb/gal (AP-42, Section 11.1, Table 11.1-13, Diesel Fuel, 3/04)
Calculations: 8059.2 gal/yr * 0.0012 lb/gal * 0.0005 ton/lb = 0.005 ton/yr

**DRUM MIX PLANT LOAD-OUT**

Operating Parameters:

Process Rate: 100 ton/hr (Application Information)
Hours of Operation: 8760 hr/yr (Annual Capacity)

***PM Emissions***
Emission Factor: 0.00052 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04)
Calculations: 0.00052 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 0.23 ton/yr

***$PM_{10}$ Emissions***
Emission Factor: 0.00034lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04)
Calculations: 0.00034 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 0.15 ton/yr

***CO Emissions***
Emission Factor: 0.00135 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04)
Calculations: 0.00135 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 0.59 ton/yr

***VOC Emissions*** (VOC = TOC)
Emission Factor: 0.00416 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04)
Calculations: 0.00416 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 1.82 ton/yr

**ASPHALT PRODUCT SILO FILLING**

Operating Parameters:

Process Rate: 100 ton/hr (Application Information)
Hours of Operation: 8760 hr/yr (Annual Capacity)

***PM Emissions***
Emission Factor: 0.00059 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04)
Calculations: 0.00059 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 0.26 ton/yr

***$PM_{10}$ Emissions***
Emission Factor: 0.00025lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04,)
Calculations: 0.00025 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 0.11 ton/yr

***CO Emissions***
Emission Factor: 0.00118 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04,)
Calculations: 0.00118 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 0.52 ton/yr

***VOC Emissions*** (VOC = TOC)
Emission Factor: 0.01219 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04)
Calculations: 0.01219 lb/ton * 100 ton/hr * 8760 hr/yr * 0.0005 ton/lb = 5.34 ton/yr

**COLD AGGREGATE HANDLING/CONVEYORS**

Operating Parameters:

Process Rate: 100 tons/hr (Application Information)
Number of Transfers: 4 Transfers (Application Information)
Hours of operation: 8760 hr/yr (Annual Capacity)

***PM Emissions***
Emission Factor: 0.003 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Conveyor Transfer, Controlled, 8/04)
Calculations: 0.003 lb/ton * 100 tons/hr * 8760 hr/yr * 0.0005 ton/lb * 4 Transfers = 5.26 ton/yr

***$PM_{10}$ Emissions***
Emission Factor: 0.0011 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Conveyor Transfer, Controlled, 8/04)
Calculations: 0.0011 lb/ton * 100 tons/hr * 8760 hr/yr * 0.0005 ton/lb * 4 Transfers = 1.93 ton/yr

**DIESEL GENERATOR**

Operating Parameters:

Engine size = 350 hp
1kw = 1.3410 hp
350.0 hp / 1.341 hp/kw ≈ 261 kw
Hours of Operation: 8760 hrs/yr

***PM Emissions***
Emission Factor: 0.0022 lbs/hp-hr (AP-42 Table 3.3-1, 7/95)
Calculations: 0.0022 lbs/hp-hr * 350 hp * 8760 hrs/yr * 0.0005 ton/lb = 3.37 ton/yr

***$PM_{10}$ Emissions***
Emission Factor: 0.0022 lbs/hp-hr (AP-42 Table 3.3-1, 10/96)
Calculations: 0.0022 lbs/hp-hr * 350 hp * 8760 hrs/yr * 0.0005 ton/lb = 3.37 ton/yr

***$NO_X$ Emissions***
Emission Factor: 0.0310 lbs/hp-hr (AP-42 Table 3.3-1, 10/96)
Calculations: 0.031 lbs/hp-hr * 350 hp * 8760 hrs/yr * 0.0005 ton/lb = 47.52 ton/yr

***CO Emissions***
Emission Factor: 0.00668 lbs/hp-hr (AP-42 Table 3.3-1, 10/96)
Calculations: 0.00668 lbs/hp-hr * 350 hp * 8760 hrs/yr * 0.0005 ton/lb = 10.24 ton/yr

***VOC Emissions***
Emission Factor 0.00247 lbs/hp-hr (AP-42 Table 3.3-1, 10/96)
Calculations: 0.00247 lbs/hp-hr * 350 hp * 8760 hrs/yr * 0.0005 ton/lb = 3.79 ton/yr

***$SO_2$ Emissions***
Emission Factor: 0.00205 lbs/hp-hr (AP-42 Table 3.3-1, 10/96)
Calculations: 0.00205 lbs/hp-hr * 350 hp * 8760 hrs/yr * 0.0005 ton/lb = 3.14 ton/yr

**HAUL ROADS/VEHICLE TRAFFIC**

Operating Parameters:

Vehicle miles travelled: 5 VMT/day (Application Information
Days Per Year: 365 days/year

***PM Emissions***
Emission Factor: 4.44 lb/VMT (AP-42, Section 13.2.2, Controlled Emissions, 11/06)
Calculation: 4.44 lb/VMT * 5 VMT/day * 365 days/year * 0.0005 ton/lb = 4.05 ton/yr

***$PM_{10}$ Emissions***
Emission Factor: 1.13 lb/VMT (AP-42, Section 13.2.2, Controlled Emissions, 11/06)
Calculation: 1.13 lb/VMT * 5 VMT/day * 365 days/year * 0.0005 ton/lb = 1.03 ton/yr

VI. Air Quality Impacts

Permit #4206-00 is issued for the operation of a portable drum mix asphalt plant to be initially located in the NE¼ of Section 35, Township 10 North, and Range 3 West, in Lewis and Clark County, Montana. Permit #4206-00 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 $PM_{10}$ nonattainment areas. An Addendum to Permit #4206-00, including more stringent requirements to protect the non-attainment area, will be required for operating at locations in or within 10 km of certain $PM_{10}$ nonattainment areas. *A Missoula County air quality permit would be required for locations within Missoula County, Montana*.

VII. Ambient Air Impact Analysis

The initial proposed location of the asphalt plant is within the historic East Helena lead nonattainment area and approximately ½ mile west of the East Helena $SO_2$ nonattainment area. However, this facility is not expected to have lead emissions and minimal $SO_2$ emissions from the single 350 hp diesel generator. 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.

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 pubic 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*: Capital Gravel and Asphalt, LLC

*Air Quality Permit number:* 4206-00

*Preliminary Determination Issued:* 05/09/08
*Department Decision Issued:* 05/30/08
*Permit Final:* 06/17/08

1. *Legal Description of Site:* NE¼ of Section 35, Township 10 North, and Range 3 West, in Lewis and Clark County, Montana

2. *Description of Project*: Capitol Gravel and Asphalt, LLC (Cap) owns and operates a portable parallel flow continuous asphalt drum mixer with a maximum production capacity of 100 tons per hour (TPH); an asphalt silo; cold aggregate handling operations; material transfer operations including elevator, screens, bins, mixers, conveyors including 4 transfer points; a 350 horse power (hp) diesel generator; a diesel fuel-fired hot oil heater; and associated equipment and operations. The proposed action is to issue a Montana Air Quality Permit #4206-00 allowing construction/assembly of the plant initially located at an existing gravel pit near East Helena. Construction of the existing gravel pit at this location was permitted (permit number RDP-002) under Montana's Open Cut Mining Program in 2007. Potential environmental impacts for construction of the gravel pit at large were analyzed at that time (Open Cut Operating permit # RDP-002, On file at the Department), in accordance with the Montana Environmental Policy Act (MEPA). This potential environmental impact analysis 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 its initial location is to provide material for support of construction of Mountain View Estates subdivision located south of East Helena, and other 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 for the proposed asphalt plant. The no action alternative is to deny the proposed air quality permit disallowing construction and operation of the asphalt plant and would result in existing site conditions including the permitted gravel pit. However, the Department does not consider the "no-action" alternative to be appropriate because Cap has demonstrated compliance with all applicable rules and regulations as required for air quality 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 #4206-00.

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: MEPA analysis for the permitted gravel pit identified the Agapetus Caddisfly as a potential species of concern in the project area, but this occurrence was dismissed due to the upland nature of the proposed project site. No additional disturbance to that permitted for construction of the gravel pit is proposed; therefore, potential impacts to terrestrial and aquatic 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.

   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 terrestrial and aquatic life and habitats given any previous industrial disturbance in any given area of operation. Therefore, it is unlikely that the proposed asphalt plant would have significant impacts 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 proposed by the proposed 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, 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.

D. Vegetation Cover, Quantity, and Quality: Previous MEPA analysis for the permitted gravel pit identified Wedge-Leaved Saltbush, Lesser Rushy Milvetch and Small Yelllow Lady's Slipper as potentially impacted species of concern. The analysis for permitting of the gravel pit concluded potential impacts to these plants were insignificant. Research for this MEPA analysis did not identify additional species of concern. Since no additional land disturbance is included in this proposed action potential impacts to these species habitats, quantity and quality are minor due to potential deposition of relatively minor amounts of air pollutions emitted from this facility.

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 vegetative cover, quantity and quality given the likelihood of previous industrial disturbance at the given area of operation.

E. Aesthetics: The proposed facility will be visible from Highways 282 and 12. However, the profile of the equipment associated with the asphalt plant will be partially obstructed because its profile will be recessed within the permitted gravel pit. Furthermore, visible portions of the plant will be difficult to discern from other construction equipment and implements associated with construction of the housing development at large. Finally, draft permit 4206-00 contains provisions that control visible emissions from the facility. Therefore potential visual impacts to aesthetics are minor.

The proposed action contains equipment which will create noise pollution during operation. However, the asphalt plant will be recessed from the surrounding topography within the gravel pit which will naturally mitigate horizontal noise propagation to receptors. Operation of the asphalt plant will add limited amounts of noise; however, this noise will 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.

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 #4206-00 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 #4206-00 would limit total emissions from the asphalt plant operation and any additional equipment owned and operated by Cap 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: Research conducted for this analysis has identified that the proposed action is within the potential range of Gray Wolf. The Gray Wolf is in the process of being delisted by the US Fish and Wildlife Service. No sightings of this species have been identified at or within one mile of the subject property. Noise from the operation my have limited impacts on animals within their potential extended range; however, no element occurrences have been document at the subject property or within one mile of the subject property. Additionally, the proposed project is adjacent to the urbanized area associated with the town of East Helena (which is also included within the recently expanded extended range of this species); however, the presence of the town is an existing condition that is a deterrent to habitation of this area by this species. Over-all the Department believes the proposed action does not constitute potential impacts to Gray Wolf within its recently expanded extended range.

Similarly, previous MEPA analysis for the permitted gravel pit identified sensitive or limited plant species including Wedge-Leaved Saltbush, Lesser Rushy Milvetch and Small Yellow Lady's Slipper as potentially being impacted. The analysis for the gravel pit permit concluded potential impacts to these plants were insignificant. Research for this MEPA analysis did not identify additional endangered, fragile or limited species of concern. Since no additional land disturbance beyond that already permitted for the gravel pit is included in this proposed action, no potential impacts to these limited or sensitive plant species are expected.

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.

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: No historical or archaeological sites were identified during MEPA analysis for permitting of the gravel pit or during research conducted for this analysis. No ground disturbance, in addition to that analyzed previously, is included in the proposed action; therefore, no potential impacts are expected.

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 Department is currently considering a pending Montana Air Quality Permit (permit # 4205-00) application for a gravel crushing and screening operation by a separate owner/operator to be located concurrent to the asphalt plant considered by this proposed action. Aggregated produced by the crushing and screening operation will provide raw materials to the proposed asphalt plant. Cumulative affects of these two operations will include combined air emissions of PM, $SO_2$, $NO_x$, CO, and VOCs; as well as, additional noise and other cumulative impacts to the human environment. However, the Department believes the cumulative impacts to air quality will not violate applicable air quality standards. Similarly, potential impacts to terrestrial and aquatic life and habitat; water quality, quantity and distribution; vegetative quality; aesthetics; and, demands of environmental resources will be minor. No additional disturbance is proposed by the pending crushing and screening operation or the proposed action, in addition to that analyzed for permitting of the construction of the gravel pit, and the cumulative operation remains to be relatively small by industrial 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:

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: Previous MEPA analysis for gravel pit construction permitted 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: Permit #4206-00 is in effect at all locations 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 Permit #4206-00 would allow for operations at various unknown locations throughout the state. However, if the plant moved to an area classified as non-attainment for $PM_{10}$, the operation would be required to apply for and receive an addendum to Permit #4206-00 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 EIS is required. Permit #4206-00 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

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