### AIR QUALITY PERMIT

Issued To: Hollow Contracting, Inc. Permit #4073-00

404 Greenwood Avenue Application Complete: 5/24/07

Butte, MT 59701 Preliminary Determination Issued: 6/18/07 Department Decision Issued: 7/19/07

Permit Final: 08/04/07

AFS #777-4073

An air quality permit, with conditions, is hereby granted to Hollow Contracting, Inc., (Hollow) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and the Administrative Rules of Montana (ARM) 17.8.740, *et seq.*, as amended, for the following:

### Section I: Permitted Facilities

### A. Permitted Equipment

Hollow operates 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 #4073-00.

### B. Plant Location

The initial location of the permitted Hollow facility is the DSL Pit, which is located approximately 3 miles north of Ennis, Montana, on Highway 287. The legal description of the site is the SE½ of Section 16, Township 5 South, and Range 1 West, in Madison County, Montana. Permit #4073-00 applies while operating at any location within Montana, except within those areas having a Department of Environmental Quality (Department)-approved permitting program, those areas considered to be tribal lands, or those areas in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>) nonattainment areas. An Addendum to Permit #4073-00 will be required for operating at locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas. A Missoula County air quality permit will be required for locations within Missoula County, Montana.

### 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. Hollow 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. Hollow 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. Hollow 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 and ARM 17.8.752).
- 5. Hollow 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 17.8.752).
- 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. A fabric-filter bin vent for particulate matter air pollution control shall be installed, operated, and maintained on the lime silo (ARM 17.8.752).
- 8. Once a stack test is performed, the asphalt production rate shall be limited to the average production rate achieved during the last source test monitoring compliance with the applicable emission limit(s) (ARM 17.8.749).
- 9. Asphalt production shall be limited to 956,250 tons during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
- 10. Hollow shall not operate more than two diesel fuel-fired generators at any given time and the maximum combined rated design capacity of the two generators shall not exceed 675 killowatts (kW) (ARM 17.8.749).
- 11. Total combined operation of the diesel fuel-fired generators identified in Section II.A.10 shall not exceed 3,825 hours during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).
- 12. If the permitted equipment is used in conjunction with any other equipment owned or operated by Hollow, 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 calculation used to establish production levels shall be approved by the Department (ARM 17.8.749).
- 13. Hollow 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).
- 14. Hollow shall comply with all applicable standards and limitations, and the reporting, recordkeeping, testing, and notification requirements contained in 40 CFR 60, Subpart IIII Standards of Performance for Compression Ignition 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 achieved during the initial and subsequent compliance source test(s), the test should be performed at the highest production rate practical.

- Within 60 days after achieving the maximum production rate, but not later than 1. 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 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 Hollow 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.3 (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. Hollow may retest at a higher production rate at any time in order to achieve a higher allowable production rate (ARM 17.8.749).
- 5. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).
- 6. The Department may require further testing (ARM 17.8.105).

## C. Operational Reporting Requirements

- 1. If this asphalt plant is moved to another location, an Intent to Transfer form must be sent to the Department. In addition, 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 Intent to Transfer form and 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 17.8.765).
- 2. Hollow 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). Hollow 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. Hollow shall maintain on-site records showing daily hours of operation, 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 Hollow as a permanent business record for at least 5 years following the date of the measurement, must be submitted to the Department upon request, and must be available at the plant for inspection by the Department (ARM 17.8.749).
- 4. Hollow shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745, that would include a 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 or the addition of a new emission unit. This notice must be submitted to the Department, in writing, 10 days prior to start up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change, and must include the information requested in ARM 17.8.745 (1)(d) (ARM 17.8.745).
- 5. Hollow shall document, by month, the facility asphalt production. By the 25<sup>th</sup> day of each month, Hollow 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).
- 6. Hollow shall document, by month, the combined hours of operation of the two diesel generators. By the 25<sup>th</sup> day of each month, Hollow shall calculate the combined hours of operation of the diesel generators for the previous month. The monthly information will be used to verify compliance with the rolling 12-month limitation in Section II.A.11. The information for each of the previous months shall be submitted along with the annual emission inventory (ARM 17.8.749).
- 7. Hollow 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 the certification requirements of ARM 17.8.1207. The annual certification shall be submitted with the annual emissions inventory information (ARM 17.8.1204).

## D. Notification

- 1. Within 30 days of commencement of construction of any NSPS affected equipment, Hollow shall notify the Department of the date of commencement of construction of the affected equipment. NSPS affected equipment at the Hollow 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, Hollow shall submit written notification to the Department of the initial start-up date of the affected equipment. NSPS affected equipment at the Hollow 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, Hollow 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 Hollow 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 Hollow fails to appeal as indicated below.
- C. Compliance with Statutes and Regulations Nothing in this permit shall be construed as relieving Hollow 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 Hollow 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 be 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. Hollow 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 Hollow Contracting, Inc. Permit #4073-00

# I. Introduction/Process Description

## A. Permitted Equipment

Hollow Contracting, Inc., (Hollow) owns and operates a portable 1986 Astec Model PRFM-427 continuous flow drum mix asphalt plant with a maximum production capacity of 250 tons per hour (TPH); a lime silo; an asphalt silo and associated slat conveyor; a 3-bin aggregate and sand material feeder and conveyor system; a recycle-bin screen and conveyor system; a diesel fuel-fired generator with a maximum capacity of up to 600 kilowatts (kW); a diesel fuel-fired generator with a maximum capacity of up to 75 kW; and associated equipment and operations.

### B. Source Description

For a typical operational set-up, three 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 materials in the drum mixer and the drum mixer burner is fired with diesel fuel. Next, lime is pneumatically introduced into the drum mixer via hoses from the lime silo. The lime silo is pneumatically loaded through hoses from the lime storage tank. Oil is then introduced to the drum mixer through hoses from the 30,000 gallon diesel-fired portable hot oil heater tank. The 75 kW capacity diesel-fired over-night generator powers the 30,000 gallon portable asphalt 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 asphalt plant operations are powered by a 600 kW capacity diesel-fired generator set.

After heating and mixing is completed, the asphalt product is transferred from the drum mixer to the asphalt product silo via the slat conveyor. The asphalt remains in the asphalt silo until it is loaded into trucks for transport to a given job location. The asphalt silo is an elevated unit which uses gravity to drop the asphalt product through gates in the bottom of the silo directly into the transport trucks.

### II. Applicable Rules and Regulations

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

- A. ARM 17.8, Subchapter 1 General Provisions, including, but not limited to:
  - 1. <u>ARM 17.8.101 Definitions</u>. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

- 2. <u>ARM 17.8.105 Testing Requirements</u>. 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. <u>ARM 17.8.106 Source Testing Protocol</u>. 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).

Hollow 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. <u>ARM 17.8.110 Malfunctions</u>. (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 that a public nuisance is created.
- 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<sub>10</sub>

Hollow must maintain compliance with the applicable ambient air quality standards.

- C. ARM 17.8, Subchapter 3 Emission Standards, including, but not limited to:
  - 1. <u>ARM 17.8.304 Visible Air Contaminants</u>. 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. <u>ARM 17.8.308 Particulate Matter, Airborne</u>. (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 (PM). (2) Under this rule, Hollow 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. <u>ARM 17.8.309 Particulate Matter, Fuel Burning Equipment</u>. 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 rule.
- 4. <u>ARM 17.8.310 Particulate Matter, Industrial Process</u>. 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 rule.
- 5. <u>ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel</u>. 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), because the facility includes NSPS affected equipment.
- 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 Hollow 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. Hollow submitted the appropriate permit application fee for the current permit action.
  - 2. <u>ARM 17.8.505 Air Quality Operation Fees.</u> 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. This 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. <u>ARM 17.8.740 Definitions</u>. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.
  - 2. <u>ARM 17.8.743 Montana Air Quality Permits--When Required</u>. This rule requires a facility to obtain an air quality permit or permit alteration to construct, modify, or use any asphalt plant, crusher or screen that has the Potential to Emit (PTE) greater than 15 tons per year of any pollutant. Hollow has a PTE greater

- than 15 tons per year of PM, particulate matter with an aerodynamic diameter of 10 microns or less (PM<sub>10</sub>), nitrogen oxides (NO<sub>X</sub>), carbon monoxide (CO), volatile organic compounds (VOC), and sulfur dioxide (SO<sub>2</sub>); therefore, an air quality permit is required.
- 3. <u>ARM 17.8.744 Montana Air Quality Permits--General Exclusions</u>. This rule identifies the activities that are not subject to the Montana Air Quality Permit program.
- 4. <u>ARM 17.8.745 Montana Air Quality Permit--Exclusion for De Minimis Changes</u>. This rule identifies the de minimis changes at permitted facilities that are not subject to the Montana Air Quality Permit Program.
- 5. ARM 17.8.748 New or Modified Emitting Units--Permit Application
  Requirements. This rule requires that a permit application be submitted prior to installation, alteration or use of a source. Hollow 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. Hollow submitted an affidavit of publication of public notice for the April 19, 2007, issue of *The Madisonian*, a newspaper of general circulation in the Town of Virginia City in Madison 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. <u>ARM 17.8.752 Emission Control Requirements</u>. 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. <u>ARM 17.8.755 Inspection of Permit</u>. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.
- 9. <u>ARM 17.8.756 Compliance with Other Requirements</u>. This rule states that nothing in the permit shall be construed as relieving Hollow 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. <u>ARM 17.8.763 Revocation of Permit</u>. 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. <u>ARM 17.8.801 Definitions</u>. 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 as defined in ARM 17.8, Subchapter 8, Prevention of Significant Deterioration (PSD) of Air Quality, since it is not a listed source and the facility's PTE is less than 250 tons per year (excluding fugitive emissions) of any air pollutant.

- G. ARM 17.8, Subchapter 12 Operating Permit Program Applicability, including, but not limited to:
  - 1. <u>ARM 17.8.1201 Definitions</u>. (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 PM<sub>10</sub> in a serious PM<sub>10</sub> nonattainment area.
- 2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #4073-00 for Hollow, the following conclusions were made:
  - a. The facility's allowable PTE is less than 100 tons/year for any criteria 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 a current NSPS standard (40 CFR Part 60, Subpart I).
  - e. This facility is not subject to any current NESHAP standards.
  - f. This source is not a Title IV affected source nor a solid waste combustion unit.
  - g. This source is not an EPA designated Title V source.

Based on these facts, the Department determined that Hollow is a synthetic 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, Hollow will be required to obtain a Title V Operating Permit.

- h. 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.
  - 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.

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

### III. BACT Determination

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

Hollow proposed to control particulate emissions from the drum mix asphalt plant with a fabric-filter baghouse and emissions from the lime silo with a fabric-filter bin vent. All visible emissions from the drum mix asphalt plant operations including systems for 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 are limited to 20% opacity. In addition, all asphalt particulate emissions are limited to 0.04 grains per dry standard cubic foot (gr/dscf). Further, Hollow 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 chemical dust suppressant, as necessary, to meet the fugitive dust opacity requirements. The Department determined that using and properly maintaining a fabric-filter baghouse and fabric-filter bin vent, respectively, to maintain compliance with the corresponding limitations in Section I.A of the permit and using water and chemical dust suppressant to comply with the reasonable precautions limitation will constitute BACT for the Hollow asphalt plant.

Because of the relatively small amount of emissions produced by the limited allowable operations of the two diesel-fired generators and the current manufacture options for readily available/cost effective add-on controls, additional add-on controls would be cost prohibitive in this case. Therefore, the Department determined that proper operation and maintenance with no additional controls constitutes BACT for the diesel-fired generators.

The control options selected contain control equipment and control costs comparable to other recently permitted similar sources and are capable of achieving the BACT-determined emission standards.

### IV. Emission Inventory

<b>Emitting Unit</b>	PM	$PM_{10}$	NO <sub>x</sub>	CO	VOC	SO <sub>x</sub>
Drum Mix Asphalt Plant Dryer	15.29	11.00	26.30	62.16	15.30	27.73
Hot Oil Heater	0.00	0.00	0.00	0.05	0.00	0.00
Drum Mix Plant Asphalt Load-Out	0.57	0.37	0.00	1.48	4.56	0.00
Asphalt Product Silo Filing	0.65	0.27	0.00	1.29	13.35	0.00
Cold Aggregate Screens and Storage Bins	11.83	7.23	0.00	0.00	0.00	0.00
Cold Aggregate Handling/Conveyors	13.14	4.82	0.00	0.00	0.00	0.00
Cold Aggregate Storage Piles	7.25	3.44	0.00	0.00	0.00	0.00
Lime Silo Bin Vent	0.75	0.75	0.00	0.00	0.00	0.00
Diesel Generator #1 (up to 600 kW)	3.39	3.39	47.70	10.28	3.80	3.15
Diesel Generator #2 (up to 75 kW)	0.42	0.42	5.96	1.28	0.48	0.39

Haul Roads/Vehicle Traffic	12.68	3.60	0.00	0.00	0.00	0.00
Total	65.96	35.29	79.96	76.54	37.48	31.28

### **Emission Calculations**

### **Drum Mix Asphalt Plant Dryer**

Operating Parameters:

Operating Hours: 3825 hr/yr (Permit Limit)

Plant Elevation: 3500 ft. (General Assumption for Portable Plant)

Standard Pressure: 29.92 inches Hg

Actual Pressure: 26.42 inches Hg (approximation: subtract 1 inch for each 1000 ft of rise in elevation)

Flow-Rate: 38,000 acfm (Company Information)

Standard Temperature: 20°C 68°F 528°R Assumed Stack Temp: 149°C 300°F 760°R

Corrected Flow-Rate:  $38,000 \text{ acfm} (26.42 \text{ in. Hg} / 29.92 \text{ in. Hg}) (528^{\circ}\text{R} / 760^{\circ}\text{R}) = 23,312 \text{ dscfm}$ 

Process Rate: 250 ton/hr (Company Information)

**PM** Emissions

Emission Factor: 0.04 gr/dscf (BACT Limit)

Calculations: 0.04 gr/dscf \* 23312 dscfm \* 1 lb/7000 gr \* 60 min/hr = 7.99 lb/hr

7.99 lb/hr \* 3825 hr/yr \* 0.0005 ton/lb = 15.29 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.023 lb/ton (AP-42, Section 11.1, Table 11.1-3, Drum Mix, Fabric Filter, 3/04)

Calculations: 0.023 lb/ton \* 250 ton/hr \* 3825 hr/yr \* 0.0005 ton/lb = 11.00 ton/yr

NO<sub>X</sub> Emissions

Emission Factor: 0.055 lb/ton (AP-42, Section 11.1, Table 11.1-3, Drum Mix, Fabric Filter, 3/04)

Calculations: 0.055 lb/ton \* 250 ton/hr \* 3825 hr/yr \* 0.0005 ton/lb = 26.30 ton/yr

CO Emissions

Emission Factor: 0.13 lb/ton (AP-42, Section 11.1, Table 11.1-3, Drum Mix, Fabric Filter, 3/04)

Calculations: 0.13 lb/ton \* 250 ton/hr \* 3825 hr/yr \* 0.0005 ton/lb = 62.16 ton/yr

**VOC Emissions** 

Emission Factor: 0.032 lb/ton (AP-42, Section 11.1, Table 11.1-3, Drum Mix, Fabric Filter, 3/04)

Calculations: 0.032 lb/ton \* 250 ton/hr \* 3825 hr/yr \* 0.0005 ton/lb = 15.30 ton/yr

SO<sub>X</sub> Emissions

Emission Factor: 0.058 lb/ton (AP-42, Section 11.1, Table 11.1-3, Drum Mix, Fabric Filter, 3/04)

Calculations: 0.058 lb/ton \* 250 ton/hr \* 3825 hr/yr \* 0.0005 ton/lb = 27.73 ton/yr

**Hot Oil Heater** 

Operating Parameters:

Diesel Fuel Consumption: 0.92 gal/hr (Company Information)
Operating Hours: 8760 hr/yr (Annual Capacity)

Calculation: 0.92 gal/hr \* 8760 hr/yr = 8059.2 gal/yr

CO Emissions

Emission Factor: 0.012 lb/ton (AP-42, Section 11.1, Table 11.1-13, Diesel Fuel, 3/04)

 $Calculations: \qquad 0.012 \; lb/gal * 8059.2 \; gal/yr * 0.0005 \; ton/lb = \qquad 0.05 \; ton/yr$ 

**Drum Mix Plant Asphalt Load-Out** 

**Operating Parameters:** 

Process Rate: 250 ton/hr (Company Information)

Operating Hours: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.00052 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00052 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.57 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.00034 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00034 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.37 ton/yr

CO Emissions

Emission Factor: 0.00135 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00135 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 1.48 ton/yr

VOC Emissions

Emission Factor: 0.00416lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00416 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 4.56 ton/yr

### **Asphalt Product Silo Filing**

Operating Parameters:

Process Rate: 250 ton/hr (Company Information) Operating Hours: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.00059 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00059 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.65 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.00025 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00025 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.27 ton/yr

CO Emissions

Emission Factor: 0.00118 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.00118 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 1.29 ton/yr

**VOC Emissions** 

Emission Factor: 0.01219 lb/ton (AP-42, Section 11.1, Table 11.1-14, 3/04, , Predictive Emission

Factor, assume default values of -0.5 asphalt volatility and 325°F)

Calculations: 0.01219 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb = 13.35 ton/yr

## **Cold Aggregate Screens and Storage Bins**

Operating Parameters:

Process Rate: 250 ton/hr (Company Information)

Transfers: 3 Transfers (Assumed)
Operating Hours: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.0036 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Fines Screening, Controlled, 8/04) Calculations: 0.0036 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb \* 3 transfers = 11.83 ton/yr

#### PM<sub>10</sub> Emissions

Emission Factor: 0.0022 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Fines Screening, Controlled, 8/04) Calculations: 0.0022 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb \* 3 transfers = 7.23 ton/yr

### **Cold Aggregate Handling/Conveyors**

Operating Parameters:

Process Rate: 250 ton/hr (Company Information)

Transfers: 4 Transfers (Assumed)
Operating Hours: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.003 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Conveyors, Controlled, 8/04) Calculations: 0.003 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb \* 4 transfers = 13.14 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.0011 lb/ton (AP-42, Section 11.19, Table 11.19.2-2, Conveyors, Controlled, 8/04) Calculations: 0.0011 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb \* 4 transfers = 4.82 ton/yr

#### **Cold Aggregate Storage Piles**

**Operating Parameters:** 

Process Rate: 250 ton/hr (Company Information)

Piles: 2 Piles (Assumed)

Operating Hours: 8760 hr/yr (Annual Capacity)

**PM** Emissions

Emission Factor: 0.00331 lb/ton (AP-42, Section 13.2.4, Equation 13.2.4.3, Predictive Emission

Factor, assume PM < 30 microns, 10 mph mean wind speed, and 3%

material moisture content)

Calculations: 0.00331 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb \* 2 Piles = 7.25 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.00157 lb/ton (AP-42, Section 13.2.4, Equation 13.2.4.3, Predictive Emission

Factor, assume  $PM < 10 \ microns, \ 10 \ mph$  mean wind speed, and 3%

material moisture content)

Calculations: 0.00157 lb/ton \* 250 ton/hr \* 8760 hr/yr \* 0.0005 ton/lb \* 2 Piles = 3.44 ton/yr

#### Lime Silo

Operating Parameters:

Fabric Filter Flow Capacity: 1000 dscfm (Similar Source Information (fabric-filter bin vent))

Operating Hours: 8760 hr/yr (Annual Capacity)

PM Emissions

Emission Factor: 0.02 gr/dscf (EPA Fabric Filter Emission Factor)

Calculations: 0.02 gr/dscf \* 1000 dscfm \* 1 lb/7000 gr \* 60 min/hr = 0.17 lb/hr

0.17 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.75 ton/yr

PM<sub>10</sub> Emissions

Emission Factor: 0.02 gr/dscf (EPA Fabric Filter Emission Factor)

Calculations: 0.02 gr/dscf \* 1000 dscfm \* 1 lb/7000 gr \* 60 min/hr = 0.17 lb/hr

0.17 lb/hr \* 8760 hr/yr \* 0.0005 ton/lb = 0.75 ton/yr

#### Diesel Generator (Up-To 600 kW Capacity)

**Operating Parameters:** 

Generator Size: 600 kW

Conversion Factor: 1 kW = 1.3410 hp

Conversion:  $600 \text{ kW} * 1.3410 \text{ hp/kW} = 804.6 \text{ hp}^{\text{a}}$ 

Operating Hours: 3825 hr/yr (Permit Limit)

PM Emissions

Assume all PM resulting from diesel fuel combustion is PM<sub>10</sub>

PM<sub>10</sub> Emissions

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.0022 lb/hp-hr \* 804.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 3.39 ton/yr

NO<sub>X</sub> Emissions

Emission Factor: 0.0310 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.0310 lb/hp-hr \* 804.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 47.70 ton/yr

CO Emissions

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.00668 lb/hp-hr \* 804.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 10.28 ton/yr

**VOC Emissions** 

Emission Factor: 0.00247 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.00247 lb/hp-hr \* 804.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 3.80 ton/yr

SO<sub>X</sub> Emissions

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.00205 lb/hp-hr \* 804.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 3.15 ton/yr

<sup>a</sup>Permit #4073-00 allows Hollow to use a diesel generator or generators (2) with a capacity of up to 675 kW or 905 hp. Department policy dictates the use of more conservative emission factors (AP-42, Section 3.3) for diesel generators with capacity of less than 600 hp to estimate emissions if applicant proposes a generator with a capacity of "up to" a capacity which exceeds 600 hp.

## Diesel Generator (Up To 75 kW Capacity)

Operating Parameters:

Generator Size: 75 kW

Conversion Factor: 1 kW = 1.3410 hp

Conversion: 75 kW \* 1.3410 hp/kW = 100.6 hp

Operating Hours: 3825 hr/yr (Permit Limit)

PM Emissions

Assume all PM resulting from diesel fuel combustion is PM<sub>10</sub>

PM<sub>10</sub> Emissions

Emission Factor: 0.0022 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.0022 lb/hp-hr \* 100.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 0.42 ton/yr

NO<sub>X</sub> Emissions

Emission Factor: 0.0310 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

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Calculation: 0.0310 lb/hp-hr \* 100.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 5.96 ton/yr

CO Emissions

Emission Factor: 0.00668 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.00668 lb/hp-hr \* 100.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 1.28 ton/yr

**VOC Emissions** 

Emission Factor: 0.00247 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.00247 lb/hp-hr \* 100.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 0.48 ton/yr

SO<sub>x</sub> Emissions

Emission Factor: 0.00205 lb/hp-hr (AP-42, Section 3.3, Table 3.3-1, 7/95)

Calculation: 0.00205 lb/hp-hr \* 100.6 hp \* 3825 hr/yr \* 0.0005 ton/lb = 0.39 ton/yr

#### **Haul Roads/Vehicle Traffic**

**Operating Parameters:** 

Vehicle miles traveled: 5 VMT/day (Estimated)
Assumption: Rated Load Capacity < 50 tons

Haul Road Use: 365 day/yr

PM Emissions:

Emission Factor: 13.90 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)

Calculations: 5.0 VMT/day \* 13.90 lb/VMT = 69.50 lb/day

69.50 lb/day \* 365 day/yr \* 0.0005 ton/lb = 12.68 ton/yr

PM<sub>10</sub> Emissions:

Emission Factor: 3.95 lb/VMT (controlled) (AP-42 Section 13.2.2, 12/03)

Calculations: 5 VMT/day \* 3.95 lb/VMT = 19.75 lb/day

19.75 lb/day \* 365 day/yr \* 0.0005 ton/lb = 3.60 ton/yr

### V. Air Quality Impacts

Permit #4073-00 is issued for the operation of a portable drum mix asphalt plant to be initially located in the SE ¼ of Section 16, Township 5 South, Range 1 West, in Madison County, Montana. Permit #4073-00 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<sub>10</sub> nonattainment areas. An Addendum to Permit #4073-00, 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<sub>10</sub> nonattainment areas. A Missoula County air quality permit would be required for locations within Missoula County, Montana. In the view of the Department, the amount of controlled emissions generated by this facility will not exceed any set ambient standard.

# VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through 2-10-105, MCA, the Department conducted a private property taking and damaging assessment and determined that there are no taking or damaging implications.

### VII. 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 1520 East 6<sup>th</sup> Avenue P.O. Box 200901 Helena, Montana 59620-0901 (406) 444-3490

## FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Hollow Contracting, Inc.

404 Greenwood Avenue

Butte, MT 59701

Air Quality Permit Number: 4073-00

Preliminary Determination Issued: June 18, 2007 Department Decision Issued: July 19, 2007

Permit Final: August 4, 2007

- 1. Legal Description of Site: Permit #4073-00 is issued for the operation of a portable drum mix asphalt plant to be initially located in the SE ¼ of Section 16, Township 5 South, Range 1 West, in Madison County, Montana. Permit #4073-00 would apply while operating at any location in Montana, except within those areas having a Department approved permitting program or those areas considered tribal lands. An Addendum to Permit #4073-00 would be required for operating at locations in or within 10 km of certain PM<sub>10</sub> nonattainment areas. A Missoula County air quality permit would be required for locations within Missoula County, Montana.
- 2. Description of Project: Hollow proposes the construction and operation of a portable 1986 Astec Model PRFM-427 continuous flow drum mix asphalt plant with a maximum production capacity of 250 TPH; a lime silo; an asphalt silo and associated slat conveyor; a 3-bin aggregate and sand material feeder and conveyor system; a recycle-bin screen and conveyor system; a diesel fuel-fired generator with a maximum capacity of up to 600 kW; a diesel fuel-fired generator with a maximum capacity of up to 75 kW; and associated equipment and operations.
- 3. *Objectives of Project*: The object of the project would be to produce business and revenue for the company by the sale and use of asphalt products. The issuance of Permit #4073-00 would allow Hollow to operate the permitted equipment at various locations throughout Montana, including the proposed initial site location thereby allowing Hollow to realize the objectives of the project.
- 4. Additional Project Site Information: In many cases, the drum mix asphalt plant operation may move to a general site location, or open cut pit, which has been previously permitted through the Industrial and Energy Minerals Bureau (IEMB). If this were the case, a more extensive EA for the site would have been conducted and would be found in the Mined Land Reclamation Permit for that specific site.
- 5. Alternatives Considered: In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because Hollow demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from

- further consideration.
- 6. *A Listing of Mitigation, Stipulations, and Other Controls:* A list of enforceable conditions and a permit analysis, including a BACT analysis, would be contained in Permit #4073-00.
- 7. 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 would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and would not unduly restrict private property rights.
- 8. 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
В	Water Quality, Quantity, and Distribution			X			Yes
С	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
Н	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 would use the same area as the asphalt plant operations. The asphalt plant operations would be considered a minor source of emissions, by industrial standards, with intermittent and seasonal operations. Therefore, only minor effects on terrestrial life and habitats would be expected as a result of equipment operations or from pollutant deposition.

Impacts on aquatic life and habitats could result from storm water runoff and pollutant deposition, but such impacts would be minor as the facility would be a minor source of emissions (with seasonal and intermittent operations) and only minor amounts of water would be used for pollution control. Since only a minor amount of air emissions would be generated, only minor deposition would occur. Therefore, only minor and temporary impacts to aquatic life and habitat would be expected from the proposed asphalt plant operation.

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

# B. Water Quality, Quantity, and Distribution

Water would be used for dust suppression on the surrounding roadways and areas of operation and for pollution control for equipment operations. However, water use would only cause a minor disturbance to these areas, since only relatively small amounts of water would be needed. At most, only minor surface and groundwater quality impacts would be expected as a result of using water for dust suppression because only small amounts of water would be required to control air pollutant emissions and deposition of air pollutant emissions would be minor (as described in Section 7.F of this EA).

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

## C. Geology and Soil Quality, Stability, and Moisture

The asphalt plant operations would have only minor impacts on soils in any proposed site location (due to the construction and use of the asphalt plant facility) because 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. Therefore, any impacts to geology and soil quality, stability, and moisture at any proposed operational site would be minor.

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

### D. Vegetation Cover, Quantity, and Quality

Because the asphalt plant facility would be a minor source of emissions, by industrial standards, and would initially and typically operate in areas previously designated and used for such operations, impacts from the emissions from the asphalt plant facility 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 8.B, and the associated soil disturbance is minimal, as described in Section 8.C, corresponding vegetative impacts would be minor.

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

### E. Aesthetics

The asphalt plant operation would be visible and would create noise while in operation. However, Permit #4073-00 would include conditions to control emissions, including visible emissions, from the plant. Also, because the asphalt plant operation is portable and would

operate on an intermittent and seasonal basis, any visual and noise impacts would be minor and short-lived.

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

## F. Air Quality

The air quality impacts from the asphalt plant operations would be minor because Permit #4073-00 would include conditions limiting the opacity from the plant, as well as requiring fabric filter baghouse, fabric filter bin vents, water spray bars, and other means to control air pollution. Further, Permit #4073-00 would limit total emissions from the asphalt plant operation and any additional equipment owned and operated by Hollow to 250 tons/year or less at any given operating site, excluding fugitive emissions.

Further, the asphalt plant would be used on a temporary and intermittent basis and would initially and typically operate within an area designated for such operations, thereby further reducing potential air quality impacts from the facility. Additionally, the small and intermittent 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. Overall, any air quality impacts resulting from the proposed asphalt plant operation would be minor.

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

The proposed asphalt plant operations would result in the emission of air pollutants, which could result in minor impacts to any existing unique endangered, fragile, or limited environmental resource in any given area of operation. However, given the temporary and portable nature of the operation, any impact would be minor and short lived. In addition, the operations would initially and typically take place within a previously disturbed industrial location further reducing the potential for impact to any existing unique, endangered, fragile or limited environmental resource in the proposed area of operation.

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

# H. Demands on Environmental Resources 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 generators. In addition, the asphalt plant would operate on an intermittent and seasonal basis thereby minimizing energy demands. Further, impacts to air resources would be minor because the source would be small by industrial standards, would operate on an intermittent and seasonal

basis, 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 industrial nature 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

Typically, the asphalt plant would operate within a previously disturbed open-cut pit used for such purposes. According to past correspondence from the Montana Historical Society, State Historic Preservation Office (SHPO), there would be a low likelihood of disturbance to any known archaeological or historical site given any previous industrial disturbance in any given area of operation. Therefore, it is unlikely that the proposed asphalt plant would impact any historical or archaeological sites in a given area of operation.

## J. Cumulative and Secondary Impacts

The asphalt plant operation would cause minor cumulative and secondary impacts to the physical and biological aspects of the human environment of a given proposed area of operation because the facility would generate emissions of regulated air pollutants and noise would be generated from equipment operations. Emissions and noise would cause minor disturbance to a given area because the equipment is relatively small by industrial standards and the facility would initially and typically operate in areas designated and used for such industrial operations. Additionally, this 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.

Overall, any cumulative or secondary impacts to the physical and biological aspects 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.

9. 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
В	Cultural Uniqueness and Diversity				X		Yes
С	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
Е	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment				X		Yes
Н	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 and intermittent 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.

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 industrial nature of the area would not change as a result of the proposed project and any associated impacts would be minor.

## D. Agricultural or Industrial Production

The asphalt plant operations would result in only minor impacts to local industrial production since the facility would be a minor source of industrial production and air emissions. Also, the facility could locate in an area adjacent to land that could be used for animal grazing and agricultural production. However, because minimal deposition of air pollutants would occur on the surrounding land, only minor and temporary impacts to the surrounding vegetation and land would occur thereby minimizing any impacts to surrounding agricultural land and practices in a given proposed area of operation. In addition, the facility operations would be temporary in nature and would be permitted with operational conditions and limitations that would minimize impacts to local agricultural areas.

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.

### E. Human Health

Permit #4073-00 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.

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.

### 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. Also, the facility would operate on a seasonal and intermittent basis. 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.

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.

# G. Quantity and Distribution of Employment

## H. Distribution of Population

The proposed asphalt plant operation would require only a few employees to operate and would be conducted on a seasonal and intermittent basis 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 of 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 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.

## 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 #4073-00 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 #4073-00 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 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 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. Further, this facility may be operated in conjunction with other equipment owned and operated by Hollow; however, any cumulative impacts to the social and economic aspects of the human environment would be minor and short-lived. 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.

Overall, any cumulative or secondary impacts to the economic and social aspects 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.

Recommendation: An Environmental Impact Statement (EIS) is not required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: All potential effects resulting from construction and operation of the proposed asphalt plant would be minor; therefore, an EIS is not required.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Department of Environmental Quality - Permitting and Compliance Division (Industrial and Energy Minerals Bureau); Montana Natural Heritage Program; and the State Historic Preservation Office (Montana Historical Society).

*Individuals or groups contributing to this EA*: Montana Department of Environmental Quality (Air Resources Management Bureau and Industrial and Energy Minerals Bureau), Montana State Historic Preservation Office (Montana Historical Society).

EA prepared by: M. Eric Merchant Date: June 13, 2007