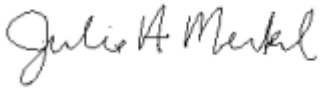
March 9, 2018

Cale Fisher
Riverside Contracting, Inc.
2110 South Reserve Street
Missoula, Montana 59801

Dear Mr. Fisher:

Montana Air Quality Permit #2561-05 is deemed final as of March 9, 2018, by the Department of Environmental Quality (Department). This permit is for a portable drum mix asphalt plant. All conditions of the Department's Decision remain the same. Enclosed is a copy of your permit with the final date indicated.

For the Department,



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JM:RP
Enclosure

Montana Department of Environmental Quality
Air, Energy & Mining Division

Montana Air Quality Permit #2561-05

Riverside Contracting, Inc.
2110 South Reserve Street
Missoula, Montana 59801

March 9, 2018

MONTANA AIR QUALITY PERMIT

Issued To: Riverside Contracting, Inc.
2110 South Reserve Street
Missoula, Montana 59801

MAQP: #2561-05
Administrative Amendment (AA)
Request Received: 1/22/2018
Department's Decision on AA: 2/21/2018
Permit Final: 3/9/2018

A Montana Air Quality Permit (MAQP), with conditions, is hereby granted to Riverside Contracting, Inc. (Riverside) pursuant to Sections 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.740, *et seq*., as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

Riverside operates a portable drum mix asphalt plant and associated equipment, initially located in the SE ¼ of Section 22, Township 13 North, Range 11 West, in Powell County, Montana. However, Montana Air Quality Permit (MAQP) #2561-05 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.*

Addendum #4 applies to the Riverside facility while operating at any location in or within 10 km of certain PM_{10} nonattainment areas during the summer months only (April 1 – September 30).

B. Current Permit Action

On January 22, 2018, the Department received a request to amend MAQP #2561-04 to reflect that Riverside replaced the wet scrubber with a baghouse for control of particulate emissions. The update does not result in an increase in emissions or violate any conditions of the MAQP; therefore, the action is considered an administrative amendment. This permit action updates the permit to reflect the new control equipment and current language used by the Department. **MAQP #2561-05** replaces MAQP #2561-04 and **Addendum 4** replaces Addendum 3.

Section II: Conditions and Limitations

A. Emission Limitations

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

2. Riverside shall not cause or authorize to be discharged into the atmosphere from the asphalt plant stack any visible emissions that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.340 and 40 CFR 60, Subpart I).

3. Riverside shall not cause or authorize to be discharged into the atmosphere from 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, any visible emissions that exhibit 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. Riverside 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. Riverside 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 device to measure the pressure drop (magnehelic gauge, manometer, etc.) on the control device (baghouse) must be installed and maintained. Pressure drop must be measured in inches of water (ARM 17.8.749).

7. The asphalt production rate shall be limited to the average production rate during the last source test demonstrating compliance (ARM 17.8.749).

8. Hours of operation shall be limited to 2,600 hours per rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

9. Asphalt production is limited to 1,040,000 tons per year during any rolling 12-month time period (ARM 17.8.749 and ARM 17.8.1204).

10. Riverside shall not operate more than one diesel engine/generator at any given time and the engine shall not have a capacity greater than 1,071 hp (ARM 17.8.749).

11. If the permitted equipment is used in conjunction with any other equipment owned or operated by Riverside, at the same site, production shall be limited to correspond with an emission level that does not exceed 250 tons during

any rolling 12-month period. Any calculations used to establish production levels shall be approved by the Department (ARM 17.8.749).

12. Riverside shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 Code of Federal Regulations (CFR) 60, Subpart I, as it applies to this asphalt operation (ARM 17.8.340 and 40 CFR 60, Subpart I).

13. Riverside shall comply with all applicable standards and limitations, and the reporting, recordkeeping, and notification requirements contained in 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines and 40 CFR 63, Subpart ZZZZ, National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines, for any applicable diesel engine (ARM 17.8.340; 40 CFR 60, Subpart IIII; ARM 17.8.342 and 40 CFR 63, Subpart ZZZZ).

B. Testing Requirements

1. Within 60 days after achieving the maximum production rate, but not later than 180 days after initial start up, an Environmental Protection Agency (EPA) Methods 1-5 source test shall be performed on the asphalt plant to demonstrate compliance with Section II.A.1. An EPA Method 9 opacity test shall be performed in conjunction with all particulate tests to demonstrate compliance with the conditions specified in Sections II.A.2. and II.A.3. The testing shall continue on an every-four-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. Pressure drop on the control device must be recorded daily and kept on site according to Section II.C.2 (ARM 17.8.749).

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

4. Since asphalt production will be limited to the average production rate during the compliance source test, it is suggested the test be performed at the highest production rate practical (ARM 17.8.749).

5. Riverside may retest at any time in order to test at a higher 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 asphalt plant is moved to another location, an Intent to Transfer form must be sent to the Department and a Public Notice Form for Change of Location must be published in a newspaper of general circulation in the area to which the transfer is to be made, at least 15 days prior to the move. The proof of publication (affidavit) of the Public Notice Form for Change of Location must be submitted to the Department prior to the move. These forms are available from the Department (ARM 17.8.749 and ARM 17.8.765).

2. Riverside shall supply the Department with annual production information for all emission points, as required by the Department in the annual emission inventory request. The request will include, but not be limited to, all sources of emissions identified in the emission inventory contained in the permit analysis.

   Production information shall be gathered on a calendar-year basis and submitted to the Department by the date required in the emission inventory request. Information shall be in the units required by the Department. This information may be used for calculating operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

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

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

Section III: Addendum

Riverside shall comply with all conditions in Addendum #4 to MAQP #2561-05, as applicable (ARM 17.8.749).

Section IV: General Conditions

A. Inspection – Riverside 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 Riverside fails to appeal as indicated below.

C. Compliance with Statutes and Regulations – Nothing in this permit shall be construed as relieving Riverside of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided for in ARM 17.8.740, *et seq.* (ARM 17.8.756).

D. Enforcement – Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq.*, MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders its decision, upon affidavit setting forth the grounds therefore, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding that a stay is appropriate under Section 75-2-211(11)(b), MCA. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the

Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection – As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fee – Pursuant to Section 75-2-220, MCA, failure to pay the annual operation fee by Riverside may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

H. Duration of Permit – Construction or installation must begin or contractual obligations entered into that would constitute substantial loss within 3 years of permit issuance and proceed with due diligence until the project is complete or the permit shall expire (ARM 17.8.762).

I. The Department may modify the conditions of this permit based on local conditions of any future site. These factors may include, but are not limited to, local terrain, meteorological conditions, proximity to residences, etc.

J. Riverside shall comply with the conditions contained in this permit while operating in any location in Montana, except within those areas that have a Department-approved permitting program or areas considered tribal lands.

Montana Air Quality Permit (MAQP) Analysis
Riverside Contracting, Inc.
MAQP #2561-05

I. Introduction/Process Description

Riverside Contracting, Inc. (Riverside) owns and operates a portable drum mix asphalt plant and associated equipment.

A. Permitted Equipment

1. 1983 Cedar Rapids 8828 portable drum mix asphalt plant and associated equipment, serial number #28852, with a 400 ton per hour (TPH) capacity, with baghouse for particulate control.

2. One diesel-fired engine/generator with a capacity of up to 1,071 horsepower (hp).

B. Source Description

For a typical operational set-up, 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 waste oil. 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 diesel-fired generator powers the operation.

After heating and mixing is completed, the asphalt product is transferred from the drum mixer to the asphalt product silo via a conveyor. The asphalt remains in the asphalt silo until it is loaded into trucks for transport to a given job location.

C. Permit History

On April 21, 1989, **MAQP #2561-00** was issued to Marvin A. Rehbein to operate a 1983 Cedar Rapids 8828 portable drum mix asphalt plant #28852 (400 TPH) and associated equipment.

On March 15, 1994, MAQP #2561-01 was issued to Riverside Contracting, Inc. MAQP #2561-01 transferred ownership of the above-listed equipment from Marvin A. Rehbein to Riverside. **MAQP #2561-01** replaced MAQP #2561-00.

On March 5, 1996, Riverside requested that MAQP #2561-01 be modified to allow the asphalt plant to operate in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas during the summer months (April 1 through September 30). **MAQP #2561-02** replaced MAQP #2561-01 and **Addendum 1** was established.

On February 10, 1999, Riverside requested that MAQP #2561-02 and Addendum 1 be modified to allow for only summer months of operation (April 1 through September 30) in or within 10 km of any of the following PM_{10} nonattainment areas: Kalispell, Whitefish, Columbia Falls, Butte, Lincoln, Libby, and Thompson Falls. In addition, initial source testing language was removed from Section II.B of the permit because the initial tests had been completed. The plant became subject to emission testing every four years from the latest test, which was conducted on August 26, 1998. **MAQP #2561-03** replaced MAQP #2561-02 and **Addendum 2** replaced Addendum 1.

Riverside submitted a request for a modification to MAQP #2561-03 to include the operation of a diesel-powered engine/generator with a maximum design capacity of 1,071 hp. The permitting action reflected the operation of the diesel-powered engine/generator, updated the emission inventory to reflect current Department of Environmental Quality (Department) standards and to include the emissions from the diesel-powered engine/generator, established Addendum 3, and updated the permit to reflect current permit language and rule references used by the Department. **MAQP #2561-04** replaced MAQP #2561-03 and **Addendum 3** replaced Addendum 2.

D. Current Permit Action

On January 22, 2018, the Department received a request to amend MAQP #2561-04 to replace the wet scrubber with a baghouse for control of particulate emissions. The update does not result in an increase in emissions or violate any conditions of the MAQP; therefore, the action is considered an administrative amendment. This permit action updates the permit to reflect the new control equipment and current language used by the Department. **MAQP #2561-05** replaces MAQP #2561-04 and **Addendum 4** replaces Addendum 3.

E. Additional Information

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

II. Applicable Rules and Regulations

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

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

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emission of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment (including instruments and sensing devices) and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   Riverside 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}

Riverside 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, Riverside 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). Based on the information provided by Riverside, the 1983 Cedar Rapids asphalt plant with associated equipment is considered an NSPS affected facility under 40 CFR Part 60 and is subject to the requirements of the following subparts.

   a. 40 CFR 60, Subpart A – General Provisions apply to all equipment or facilities subject to an NSPS Subpart as listed below:

   b. 40 CFR 60, Subpart I – Standards of Performance of Hot Mix Asphalt Facilities. In order for an asphalt plant to be subject to this subpart, the facility must meet the definition of an affected facility and, the affected equipment must have been constructed, reconstructed, or modified after August 31, 1983. Based on the information submitted by Riverside, the Asphalt plant equipment to be used under MAQP#2561-05 is subject to this subpart because the facility is a hot mix asphalt facility.

   c. 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression. Ignition (CI) Internal Combustion Engines (ICE), indicates that NSPS requirements apply to owners or operators of stationary CI ICE that commence construction after July 11, 2005, where the stationary CI ICE is manufactured after April 1, 2005, and is not a fire pump engine. Since this permit is written in a de minimis friendly manner, this regulation may apply to engines in the future.

7. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR Part 63, shall comply with the requirements of 40 CFR Part 63, as listed below.

a. 40 CFR 63, Subpart A – General Provisions apply to all equipment or facilities subject to a National Emission Standard for Hazardous Air Pollutants (NESHAPs) Subpart as listed below.

b. 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE). As an area source, the diesel RICE may be subject to this rule depending on the time spent at a single location.

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. A permit fee is not required for the current permit action because the permit action is considered an administrative permit change.

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

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

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

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

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit modification to construct, modify, or use any asphalt plant, crusher or screen that has the potential to emit (PTE) greater than 15 tons per year of any pollutant. Riverside has a PTE greater than 15 tons per year of particulate matter (PM), oxides of nitrogen (NO_x), carbon monoxide (CO), volatile organic compounds (VOC) and oxides of sulfur (SO_x); therefore, an air quality permit is required.

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

4. ARM 17.8.745 Montana Air Quality Permits--Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units--Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, modification, or use of a source. A permit application was not required for the current permit action because the permit change is considered an administrative permit change. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. An affidavit of publication of public notice was not required for the current permit action because the permit change is considered an administrative permit change.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that 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 Riverside 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 17.8.760 Additional Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those applications that require an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or modified source may contain a condition providing that the permit will expire unless construction is commenced within

the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

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

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

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

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

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

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

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

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

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

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

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

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

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA Amendments of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing MAQP #2561-05 for Riverside, 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 a current NSPS (40 CFR 60, Subpart I and potentially subject to Subpart IIII).

   e. This facility is potentially subject to area source provisions of a current NESHAP (40 CFR 63, Subpart ZZZZ).

   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 Riverside will be a minor source of emissions as defined under Title V because Riverside requested to take federally enforceable limitations to keep them out of the Title V Operating Permit Program. However, in the event that the EPA makes minor sources that are subject to NSPS obtain a Title V Operating Permit, this source will be subject to the Title V Operating Permit Program.

   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 PTE.

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

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

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

III. BACT Determination

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

A BACT determination was not required for the current permit action because the permit change is considered an administrative amendment.

IV. Emission Inventory

CONTROLLED	**tons/year**					
Emission Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_x**
Cold Aggregate Storage Piles	0.86	0.41	--	--	--	--
Cold Aggregate Handling/Conveyors	0.07	0.02	--	--	--	--
Diesel-Fired Asphalt Oil Heater	--	--	--	0.01	--	--
400 TPH Drum Mix Asphalt Plant Dryer	8.67	6.94	28.60	67.60	16.64	30.16
Asphalt Product Silo Filling	0.30	--	--	0.61	--	--
Batch Mix Plant Load-Out	0.27	--	--	0.70	--	--
Lime Silo	0.20	0.20	--	--	--	--
Haul Roads / Vehicle Traffic	1.69	0.47	--	--	--	--
1071 hp Diesel Engine Generator	3.06	3.06	43.16	9.30	3.50	2.85
Total Emissions	**15.13**	**11.10**	**71.76**	**78.22**	**20.14**	**33.01**

NOTE: annual hours of operation are restricted with enforceable permit conditions to reduce annual potential emissions.

Operating Parameters

Maximum Process Rate:	400 tons/hr	(Maximum Plant Capability)
Maximum Hours of Operation:	2600 hrs/yr	(Permit Limit – annual restriction)

Output:	1,040,000 tons/yr	(Permit Limit – annual restriction)
Plant Elevation:	4300 ft.	(Department Information)
Actual Pressure:	25.62 in. Hg	(Estimate)
Standard Pressure:	29.92 in. Hg	
Actual Flowrate (V2):	35,000 acfm	(Company Information)
Standard Temp:	20C = 68F = 528R	
Assumed Stack Temp.	66C = 150F = 610R	

Standard Volumetric Flowrate Correction: V1 = V2 (P2/P1) (T1/T2)
Standard Volumetric Flowrate: V1=35000 acfm*(25.62in. Hg /29.92 in. Hg)*(528R / 610R)
Standard Volumetric Flowrate (V1): 25,946 scfm
Stack Gas Moisture Content (M): 25 % (From 7/2006 Stack Test)
Dry Standard Volumetric Flowrate: V1*(1 - M/100) = 25,946 scfm * (1 - 25/100)
Dry Standard Volumetric Flowrate: 19,460 dscfm

Drum Mix Asphalt Plant Dryer

PM Emissions
Emission Factor: 0.04 gr/dscf (permit limit NSPS)
Calculation: (0.04 gr/dscf)*(19,460 dscfm)*(1 lb / 7000 gr)*(60 min/hr) = 6.67 lb/hr
Calculation: (6.67 lb/hr) * (2600 hr/yr) * (0.0005 ton/lb) = **8.67 ton/yr**

PM_{10} Emissions
Emission Factor: 0.032 gr/dscf (permit limit NSPS, assume 80% of TSP [PM] is PM_{10})
Calculations: (0.032 gr/dscf)*(19,460 dscfm)*(1 lb / 7000 gr)*(60 min/hr) = 5.34 lb/hr
Calculation: (5.34 lb/hr) * (2600 hr/yr) * (0.0005 ton/lb) = **6.94 ton/yr**

NO_x Emissions
Emission Factor: 0.055lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, burning waste oil, 3/04)
Calculation: (400 ton/hr)*(2600 hr/yr)*(0.055 lb/ton)*(ton/2000 lb) = **28.60 ton/yr**

CO Emissions
Emission Factor: 0.13 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, burning waste oil, 3/04)
Calculation: (400 ton/hr)*(2600 hr/yr)*(0.13 lb/ton)*(ton/2000 lb) = **67.60 ton/yr**

VOC Emissions
Emission Factor: 0.032 lb/ton (AP-42, Section 11.1, Table 11.1-8, worst-case fuel, 3/04)
Calculation: (400 ton/hr)*(2600 hr/yr)*(0.032 lb/ton)*(ton/2000 lb) = **16.64 ton/yr**

Sulfur oxides (SO_x) Emissions
Emission Factor: 0.058 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, burning waste oil, 3/04)
Calculation: (400 ton/hr)*(2600 hr/yr)*(0.058 lb/ton)*(ton/2000 lb) = **30.16 ton/yr**

Diesel-fired engine/generator
Emission factors for small engines are used to make the calculations de minimis friendly (small engine emission factors more conservative than large engine emission factors).
Operational Capacity of Engine = up to 1,071 hp
Hours of Operation = 2,600 hours

PM_{10} Emissions
Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (2,600 hours) * (1,071 hp) * (0.0022 lbs/hp-hr) * (ton/2000 lb) = **3.06 ton/yr**

PM Emissions
PM Emissions = **3.06 ton/yr** (Assume PM = PM_{10})

NO_x Emissions
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (2,600 hours) * (1,071 hp) * (0.031 lbs/hp-hr) * (ton/2000 lb) = **43.16 ton/yr**

CO Emissions
Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (2,600 hours) * (1,071 hp) * (0.00668 lbs/hp-hr) * (ton/2000 lb) = **9.30 ton/yr**

VOC Emissions
Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)
Calculation: (2,600 hours) * (1,071 hp) * (0.0025141 lbs/hp-hr) * (ton/2000 lb) = **3.50 ton/yr**

SO_x Emissions
Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (2,600 hours) * (1,071 hp) * (0.00205 lbs/hp-hr) * (ton/2000 lb) = **2.85 ton/yr**

Cold Aggregate Storage Piles
This Emission Inventory is based on maximum plant process rate (400 tph) rather than the actual number of individual piles because the number of aggregate piles may change depending on project requirements.

PM Emissions
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00331 lb/ton
Where: k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)
U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency = 50% (Water or chemical spray)
Calculation: (400 ton/hr)*(2600 hrs/yr)*(0.00331 lb/ton)*(ton/2000 lb)*(1 - 50/100) = **0.86 ton/yr**

PM_{10} Emissions
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00156 lb/ton
Where: k = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency = 50% (Water or chemical spray)
Calculation: (400 ton/hr)*(2600 hrs/yr)*(0.00156 lb/ton)*(ton/2000 lb)*(1 - 50/100) = **0.41 ton/yr**

Conveyor Transfer Points
Number of Transfers = 1 transfer (Company Information, Excludes RAP transfers)

PM Emissions
Emission Factor = 0.00014 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)
Calculation: (400 ton/hr) * (2600 hr/yr) * (0.00014 lb/ton) * (ton/2000 lb) * (1 transfer) = **0.07 ton/yr**

PM_{10} Emissions
Emission Factor = 0.000046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)
Calculation: (400 ton/hr) * (2600 hr/yr) * (0.000046 lb/ton) * (ton/2000 lb) * (1 transfer) = **0.02 ton/yr**

Diesel-Fired Asphalt Oil Heater
Production Rate = 5.00 gal/hr (Company information)

CO Emissions
Emission Factor = 0.0012 lb/gal (AP-42, Section 11.1, Table 11.1-13, No. 2 Fuel Oil, 3/04)
Calculation: (2600 hr/yr) * (5.00 gal/hr) * (0.0012 lb/gal) * (ton/2000 lb) = **0.01 ton/yr**

Silo Filling
PM Emissions
Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.000332 + 0.00105(-V)e^((0.0251)(T + 460) - 20.43) = 0.00059 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (2600 hr/yr) * (0.00059 lb/ton) * (ton/2000 lb) = **0.30 ton/yr**

CO Emissions
Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.00488(-V)e^((0.0251)(T + 460) - 20.43) = 0.00118 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (2600 hr/yr) * (0.00118 lb/ton) * (ton/2000 lb) = **0.61 ton/yr**

Plant Load-Out
PM Emissions
Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.000181 + 0.00141(-V)e^((0.0251)(T + 460) - 20.43) = 0.00052 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (2600 hr/yr) * (0.00052 lb/ton) * (ton/2000 lb) = **0.27 ton/yr**

CO Emissions
Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.00558(-V)e^((0.0251)(T + 460) - 20.43) = 0.00135 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (2600 hr/yr) * (0.00135 lb/ton) * (ton/2000 lb) = **0.70 ton/yr**

Lime Silo
Flow Capacity = 450 cfm (Company information)
PM Emissions
Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)
Calculation: (450 cfm)*(2600 hr/yr)*(0.04 gr/dscf)*(lb/7000 gr)*(ton/2000 lb)*(60 min/hr) = **0.20 ton/yr**

PM_{10} Emissions
Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)
Calculation: (450 cfm)*(2600 hr/yr)*(0.04 gr/dscf)*(lb/7000 gr)*(ton/2000 lb)*(60 min/hr) = **0.20 ton/yr**

Haul Roads
Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)
VMT per hour = (5 VMT/day) * (day/24 hrs) = 0.21 VMT/hr

PM Emissions
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 12.46 lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (2600 hr/yr)*(0.21 VMT/hr)*(12.46 lb/VMT)*(ton/2000 lb) = 3.37 ton/yr (Uncontrolled Emissions)
Calculation: (2600 hr/yr)*(0.21 VMT/hr)*(12.46 lb/VMT)*(ton/2000 lb)*(1-50/100) = **1.69 ton/yr** (Apply 50% control efficiency)

PM_{10} Emissions
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 3.43 lb/VMT
Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (2600 hr/yr)*(0.21 VMT/hr)*(3.43 lb/VMT)*(ton/2000 lb) = 0.93 ton/yr (Uncontrolled Emissions)
Calculation: (2600 hr/yr)*(0.21 VMT/hr)*(3.43 lb/VMT)*(ton/2000 lb)*(1-50/100) = **0.47 ton/yr** (Apply 50% control efficiency)

V. Existing Air Quality

This permit is for a portable drum mix asphalt plant to locate in various locations throughout the state of Montana. In the view of the Department, the amount of controlled particulate emissions generated by this project will not cause concentrations of pollutants in the ambient air that will exceed any set standard.

VI. Air Quality Impacts

MAQP #2561-05 covers operation of this portable drum mix asphalt plant while operating in those areas within Montana, classified as being in attainment with federal ambient air quality standards, and those areas not yet classified. This permit contains conditions and limitations that would protect air quality for the site and surrounding area, and that would limit the facility's emissions below the Title V threshold. Based on the information provided, the amount of controlled emissions generated by this facility will not exceed any set ambient air quality standard.

VII. Ambient Air Impact Analysis

The Department determined, based on ambient air modeling, that the impact from this permitting action will be minor. The Department believes it will not cause or contribute to a violation of any ambient air quality standard.

VIII. Taking or Damaging Implication Analysis

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

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

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

IX. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared By: Rhonda Payne
Date: February 5, 2018

Addendum 4
Riverside Contracting, Inc.
MAQP #2561-05

An addendum to Montana Air Quality Permit (MAQP) #2561-05 is hereby granted to Riverside Contracting, Inc. (Riverside) pursuant to Section 75-2-204 and 211 of the Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM) 17.8.765, as amended, for the following:

I. Permitted Equipment:

Riverside owns and operates a portable 1983 Cedar Rapids Drum Mix Asphalt Plant (maximum capacity 400 tons per hour (TPH)) with baghouse for particulate control, a diesel-fired engine/generator of up to 1,071 (hp) horsepower, and associated material handling and processing equipment.

II. Seasonal and Site Restrictions – **Winter and Summer Seasons**

Addendum 4 applies to the Riverside facility while operating at any location in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas. Additionally, seasonal and site restrictions apply to the facility as follows:

A. During the summer season only (April 1-September 30) – Riverside may operate at any location in or within 10 km of the Butte, Columbia Falls, Kalispell, Libby, Thompson Falls, and Whitefish PM_{10} nonattainment areas.

B. Riverside shall comply with the limitations and conditions contained in Addendum 4 to MAQP #2561-05 while operating in or within 10 km of any of the previously identified PM_{10} nonattainment areas. Addendum 4 shall be valid until revoked or modified. The Department reserves the authority to modify Addendum 4 at any time based on local conditions of any future site. These conditions may include, but are not limited to, local terrain, meteorological conditions, proximity to residences or other businesses, etc.

III. Limitations and Conditions

A. Operational Limitations and Conditions: **Summer Season (April 1 – September 30)**

1. Asphalt plant particulate matter 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. Riverside shall not cause or authorize to be discharged into the atmosphere from the asphalt plant stack any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

3. Riverside shall not cause or authorize to be discharged into the atmosphere from any equipment, such as screens or transfer points, any visible emissions that exhibit an opacity of 10% or greater averaged over 6 consecutive minutes (ARM 17.8.749).

4. Riverside shall not cause or authorize to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property any visible fugitive emissions that exhibit an opacity of 10% or greater (ARM 17.8.749).

5. Riverside shall treat all unpaved portions of the access roads, parking lots, and general plant area with water and/or chemical dust suppressant as necessary to maintain compliance with the 10% opacity limitation (ARM 17.8.749).

6. During the Summer Season, total asphalt production shall not exceed 9,600 tons per day (ARM 17.8.749).

B. Operational Reporting Requirements

1. If this portable asphalt plant is moved to another nonattainment 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. Production information for the sites covered by this addendum must be maintained for five years and submitted to the Department upon request. The information must include (ARM 17.8.749):

   a. Tons of asphalt produced at each site,

   b. Daily hours of operation at each site,

   c. Gallons of diesel used by each generator at each site,

   d. Hours of operation and sizes for each generator at each site, and

   e. Fugitive dust information consisting of the total miles driven on unpaved roads for all plant vehicles.

3. Riverside shall document, by day, the total amount of asphalt produced. Riverside shall sum the total amount of asphalt produced for the previous day to verify compliance with the limitation in Section III.A.6. A written report of compliance and the emissions inventory shall be submitted to the Department annually. The report for the previous calendar year shall be submitted and may be submitted along with the annual emissions inventory (ARM 17.8.749).

Addendum 4 Analysis
Riverside Contracting, Inc.
MAQP #2561-05

I. Permitted Equipment

Riverside Contracting, Inc. (Riverside) owns and operates a portable 1983 Cedar Rapids Drum Mix Asphalt Plant (maximum capacity 400 tons per hour (TPH)), a diesel-fired engine and generator with a design capacity of up to 1,071 horsepower (hp), and associated material handling and processing equipment.

II. Source Description

For a typical operational set-up, 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 waste oil. 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 diesel-fired generator 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.

III. Permit History

On April 21, 1989, **MAQP #2561-00** was issued to Marvin A. Rehbein to operate a 1983 Cedar Rapids 8828 portable drum mix asphalt plant #28852 (400 TPH) and associated equipment.

On March 15, 1994, **MAQP #2561-01** was issued to Riverside Contracting, Inc. MAQP #2561-01 transferred ownership of the above-listed equipment from Marvin A. Rehbein to Riverside. MAQP #2561-01 replaced MAQP #2561-00.

On March 5, 1996, Riverside requested that MAQP #2561-01 be modified to allow the asphalt plant to operate in or within 10 kilometers (km) of certain particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) nonattainment areas during the summer months (April 1 through September 30). **MAQP #2561-02** replaced MAQP #2561-01 and **Addendum 1** was established.

On February 10, 1999, Riverside requested that MAQP #2561-02 and Addendum 1 be modified to allow for only summer months of operation (April 1 through September 30) in or within 10 km of any of the following PM_{10} nonattainment areas: Kalispell, Whitefish, Columbia Falls, Butte, Lincoln, Libby, and Thompson Falls. In addition, initial source testing language was removed from Section II.B of the permit because the initial tests had been completed. The plan became responsible for emission testing every four years from the latest test which was conducted on August 26, 1998. **MAQP #2561-03** replaced MAQP #2561-02 and **Addendum 2** replaced Addendum 1.

This action was in response to a request for modification to MAQP #2561-03 to include the operation of a diesel-powered engine/generator with a maximum design capacity of 1,071 hp. The permitting action reflected the operation of the diesel-powered engine/generator, updated the emission inventory to reflect current Department of Environmental Quality (Department) standards, included the emissions from the diesel-powered engine/generator, established Addendum 3, and updated the permit to reflect current permit language and rule references used by the Department. **MAQP #2561-04** replaced MAQP #2561-03 and **Addendum 3** replaced Addendum 2.

IV. Current Permit Action

On January 22, 2018, the Department received a request to amend MAQP #2561-04 to replace the wet scrubber with a baghouse for control of particulate emissions. The update does not result in an increase in emissions or violate any conditions of the MAQP; therefore, the action is considered an administrative amendment. This permit action updates the permit to reflect the new control equipment and current language used by the Department. **MAQP #2561-05** replaces MAQP #2561-04 and **Addendum 4** replaces Addendum 3.

V. Applicable Rules and Regulations

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

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

A. ARM 17.8.749 Conditions for Issuance 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.

B. 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. A source may not increase its emissions beyond those found in its permit unless the source applies for and receives another permit.

C. ARM 17.8.765 Transfer of Permit. An air quality permit may be transferred from one location to another if:

1. Written notice of intent to transfer location and proof of public notice are sent to the Department;

2. The source will operate in the new location for a period of less than 1 year; and

3. The source will not have any significant impact on any nonattainment area or any Class I area.

VI. Emission Inventory

Summer Season (unrestricted)

CONTROLLED	**Pounds/day**					
Emission Source	**PM**	**PM_{10}**	**NO_x**	**CO**	**VOC**	**SO_x**
Cold Aggregate Storage Piles	15.86	7.50	--	--	--	--
Cold Aggregate Handling/Conveyors	1.34	0.44	--	--	--	--
Diesel-Fired Asphalt Oil Heater	--	--	--	0.14	--	--
400 TPH Drum Mix Asphalt Plant Dryer	160.10	128.08	528.00	1248.00	307.20	556.80
Asphalt Product Silo Filling	5.62	--	--	11.33	--	--
Batch Mix Plant Load-Out	5.01	--	--	12.95	--	--
Lime Silo	3.70	3.70	--	--	--	--
Haul Roads / Vehicle Traffic	31.15	8.59	--	--	--	--
1071 hp Diesel Engine Generator	56.55	56.55	796.82	171.70	64.62	52.69
Total Emissions	**279.34**	**204.86**	**1324.82**	**1444.13**	**371.82**	**609.49**

NOTE: PM_{10} emissions are less than 541 pounds per day with unrestricted use.

Operating Parameters

Maximum Process Rate: 400 ton/hr (Maximum Plant Capability)
Maximum Hours of Operation: 24 hrs/day (Unrestricted—Summer Season)
Output: 9,600 tons/day (Unrestricted—Summer Season)
Plant Elevation: 4300 ft. (Department Information)
Actual Pressure: 25.62 in. Hg (Estimate)
Standard Pressure: 29.92 in. Hg
Actual Flowrate (V2): 35,000 acfm (Company Information)
Standard Temp: 20C = 68F = 528R
Assumed Stack Temp. 66C = 150F = 610R
Standard Volumetric Flowrate Correction: V1 = V2 (P2/P1) (T1/T2)
Standard Volumetric Flowrate: V1=35000 acfm*(25.62 in. Hg /29.92 in. Hg)*(528R / 610R)
Standard Volumetric Flowrate (V1): 25,941 scfm
Stack Gas Moisture Content (M): 25 % (From 7/2006 Stack Test)
Dry Standard Volumetric Flowrate: V1*(1 - M/100) = 25,941 scfm * (1 - 25/100)
Dry Standard Volumetric Flowrate: 19,456 dscfm

Drum Mix Asphalt Plant Dryer

PM Emissions

Emission Factor: 0.04 gr/dscf (permit limit, NSPS)
Calculation: (0.04 gr/dscf)*(19,456 dscfm)*(1 lb / 7000 gr)*(60 min/hr) = 6.67 lb/hr
Calculation: (6.67 lb/hr) * (24 hrs/day) = **160.10 lb/day (Summer Hours)**

PM_{10} Emissions

Emission Factor: 0.032 gr/dscf (permit limit, assume 80% of TSP is PM_{10})
Calculations: (0.032 gr/dscf)*(19,456 dscfm)*(1 lb / 7000 gr)*(60 min/hr) = 5.34 lb/hr
Calculation: (5.34 lb/hr) * (24 hrs/day) = **128.08 lb/day (Summer Hours)**

NO_x Emissions
Emission Factor: 0.055 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, burning waste oil, 3/04)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.055 lb/ton) = **528.00 lb/day (Summer Hours)**

CO Emissions
Emission Factor: 0.13 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, burning waste oil, 3/04)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.13 lb/ton) = **1,248.00 lb/day (Summer Hours)**

VOC Emissions
Emission Factor: 0.032 lb/ton (AP-42, Section 11.1, Table 11.1-8, worst-case fuel, 3/04)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.032 lb/ton) = **307.20 lb/day (Summer Hours)**

Sulfur oxides (SO_x) Emissions
Emission Factor: 0.058 lb/ton (AP-42, Section 11.1, Table 11.1-7, Drum Mix, burning waste oil, 3/04)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.058 lb/ton) = **556.80 lb/day (Summer Hours)**

Diesel-fired engine/generator
Emission factors for small engines (≤600 hp) are used to make the calculations de minimis friendly (small engine emission factors more conservative than large engine emission factors).
Operational Capacity of Engine = up to 1,071 hp
Hours of Operation = 9 hours/day
PM_{10} Emissions
Emission Factor = 0.0022 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (24 hrs/day) * (1,071 hp) * (0.0022 lbs/hp-hr) = **56.55 lb/day (Summer Hours)**

PM Emissions
PM Emissions = **56.55 lb/day (Summer Hours, Assume PM = PM_{10})**

NO_x Emissions
Emission Factor = 0.031 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (24 hrs/day) * (1,071 hp) * (0.031 lbs/hp-hr) = **796.82 lb/day (Summer Hours)**

CO Emissions
Emission Factor = 0.00668 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (24 hrs/day) * (1,071 hp) * (0.00668 lbs/hp-hr) = **171.70 lb/day (Summer Hours)**

VOC Emissions
Emission Factor = 0.0025141 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, TOC, Exhaust & Crankcase, 10/96)
Calculation: (24 hrs/day) * (1,071 hp) * (0.0025141 lbs/hp-hr) = **64.62 lb/day (Summer Hours)**

SO_x Emissions
Emission Factor = 0.00205 lbs/hp-hr (AP-42, Sec. 3.3, Table 3.3-1, 10/96)
Calculation: (24 hrs/day) * (1,071 hp) * (0.00205 lbs/hp-hr) = **52.69 lb/day (Summer Hours)**

Cold Aggregate Storage Piles
This Emission Inventory is based on maximum plant process rate (400 tph) rather than the actual number of individual piles because the number of aggregate piles may change depending on project requirements.

PM Emissions
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00331 lb/ton
Where: k = particle size multiplier = 0.74 (Value for PM < 30 microns per AP 42, Sec. 13.2.4.3, 11/06)
U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency = 50% (Water or chemical spray)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.00331 lb/ton)*(1 - 50/100) = **15.86 lb/day (Summer Hours)**

PM_{10} Emissions
Predictive equation for emission factor provided per AP 42, Sec. 13.2.4.3, 11/06.
Emission Factor = k (0.0032) * (U/5)^1.3 * (M / 2)^-1.4 = 0.00156 lb/ton
Where: k = particle size multiplier = 0.35 (Value for PM < 10 microns per AP 42, Sec. 13.2.4.3, 11/06)
U = mean wind speed = 10 mph (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
M = material moisture content = 3% (Estimate based on values provided in AP 42, Sec. 13.2.4.3, 11/06)
Control Efficiency = 50% (Water or chemical spray)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.00156 lb/ton)*(1 - 50/100) = **7.50 lb/day (Summer Hours)**

Conveyor Transfer Points
Number of Transfers = 1 transfer (Company Information, Excludes RAP transfers)
PM Emissions
Emission Factor = 0.00014 lb/ton (0.0030 uncontrolled, 0.00014 controlled, AP 42, Table 11.19.2-2, 8/04)
Calculation: (400 ton/hr) * (24 hrs/day) * (0.00014 lb/ton) * (1 transfer) = **1.34 lb/day (Summer Hours)**

PM_{10} Emissions
Emission Factor = 0.000046 lb/ton (0.00110 uncontrolled, 0.000046 controlled, AP 42, Table 11.19.2-2, 8/04)
Calculation: (400 ton/hr)*(24 hrs/day)*(0.000046 lb/ton)*(1 transfer) = **0.44 lb/day (Summer Hours)**

Diesel-Fired Asphalt Oil Heater
Production Rate = 5.00 gal/hr (Company information)
CO Emissions
Emission Factor = 0.0012 lb/gal (AP-42, Section 11.1, Table 11.1-13, No. 2 Fuel Oil, 3/04)
Calculation: (24 hrs/day) * (5.00 gal/hr) * (0.0012 lb/gal) = **0.14 lb/day (Summer Hours)**

Silo Filling

PM Emissions

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.000332 + 0.00105(-V)e^((0.0251)(T + 460) - 20.43) = 0.00059 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (24 hrs/day) * (0.00059 lb/ton) = **5.62 lb/day (Summer Hours)**

CO Emissions

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.00488(-V)e^((0.0251)(T + 460) - 20.43) = 0.00118 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (24 hrs/day) * (0.00118 lb/ton) = **11.33 lb/day (Summer Hours)**

Plant Load-Out

PM Emissions

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.000181 + 0.00141(-V)e^((0.0251)(T + 460) - 20.43) = 0.00052 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (24 hrs/day) * (0.00052 lb/ton) = **5.01 lb/day (Summer Hours)**

CO Emissions

Predictive equation for emission factor provided per AP 42, Table 11.1-14, 3/04.
Emission Factor = 0.00558(-V)e^((0.0251)(T + 460) - 20.43) = 0.00135 lb/ton
Where: V = Asphalt volatility = -0.5 (Default value per AP 42, Table 11.1-14, 3/04)
T = HMA mix temperature = 325 F (Default value per AP 42, Table 11.1-14, 3/04)
Calculation: (400 ton/hr) * (24 hrs/day) * (0.00135 lb/ton) = **12.95 lb/day (Summer Hours)**

Lime Silo

Flow Capacity = 450 cfm (Company information)

PM Emissions

Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)
Calculation: (450cfm)*(24hrs/day)*(0.04gr/dscf)*(lb/7000gr)*(60min/hr) = **3.70 lb/day (Summer Hours)**

PM_{10} Emissions

Emission Factor = 0.04 gr/dscf (Permit limit per NSPS)
Calculation: (450cfm)*(24hrs/day)*(0.04gr/dscf)*(lb/7000gr)*(60min/hr) = **3.70 lb/day (Summer Hours)**

Haul Roads

Vehicle Miles Traveled (VMT) per Day = 5 VMT/day (Estimate)
VMT per hour = (5 VMT/day) * (day/24 hrs) = 0.21 VMT/hr

PM Emissions

Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 12.46 lb/VMT
Where: k = constant = 4.9 lbs/VMT (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)

s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.7 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
b = constant = 0.45 (Value for PM30/TSP, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (24 hrs/day)*(0.21 VMT/hr)*(12.46 lb/VMT)*(1-50/100) = **31.15 lb/day (Summer Hours)**

PM_{10} Emissions
Predictive equation for emission factor for unpaved roads at industrial sites provided per AP 42, Ch. 13.2.2, 11/06.
Emission Factor = k * (s / 12)^a * (W / 3)^b = 3.43 lb/VMT
Where: k = constant = 1.5 lbs/VMT (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
s = surface silt content = 7.1 % (Mean value, sand/gravel processing, material storage area, AP 42, Table 13.2.2-1, 11/06)
W = mean vehicle weight = 54 tons (1994 average loaded/unloaded or a 40 ton truck)
a = constant = 0.9 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
b = constant = 0.45 (Value for PM10, AP 42, Table 13.2.2-2, 11/06)
Control Efficiency = 50% (Water spray or chemical dust suppressant)
Calculation: (24 hrs/day)*(0.21 VMT/hr)*(3.43 lb/VMT)*(1-50/100) = **8.59 lb/day (Summer Hours)**

VII. Existing Air Quality

On July 1, 1987, the Environmental Protection Agency (EPA) promulgated new National Ambient Air Quality Standards (NAAQS) for particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}). Due to exceedances of the national standards for PM_{10}, the cities of Kalispell (and the nearby Evergreen area), Columbia Falls, Butte, Whitefish, Libby, Missoula, and Thompson Falls were designated by EPA as nonattainment for PM_{10}. As a result of this designation, the EPA required the Department and the City-County Health Departments to submit PM_{10} State Implementation Plans (SIP). The SIPs consisted of emission control plans that controlled fugitive dust emissions from roads, parking lots, construction, and demolition, since technical studies identified these sources to be the major contributors to PM_{10} emissions.

MAQP #2561-05 and Addendum 4 are for a portable drum mix asphalt plant that will locate at sites in or within 10 kilometers (km) of certain PM_{10} nonattainment areas. The more stringent operating conditions contained in the addendum will minimize any potential impact on the nonattainment areas and will protect the national ambient air quality standards. Also, this facility is a portable source that would operate on an intermittent and temporary basis and any effects on air quality will be minor and short-lived.

VIII. Air Quality Impacts

MAQP #2561-05 and Addendum 4 will cover the operations of this portable asphalt plant while operating at any location within Montana, excluding those counties that have a Department approved permitting program and those areas that are tribal lands.

Addendum 4 will cover the operations of this portable asphalt plant while operating in or within 10 km of PM_{10} nonattainment areas during the summer months (April 1 through September 30).

IX. Taking or Damaging Implication Analysis

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

X. Environmental Assessment

This permitting action will not result in an increase of emissions from the facility and is considered an administrative action; therefore, an environmental assessment is not required.

Analysis Prepared by: Rhonda Payne
Date: February 5, 2017