STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: 012014-006
Project Number: 2013-10-060
Installation ID: 151-0037

Parent Company Address: 35086 Higgins Road, Tipton, MO 65081
Installation Name: Higgins Asphalt & Paving Company, Inc.
Installation Address: 3857 Highway 50 West, Loose Creek, MO 65054
Location Information: Osage County, S10 T43N R10W

Application for Authority to Construct was made for:
The "de-bottlenecking" of an existing stationary asphalt plant. The maximum hourly design rate of the plant is increasing from 120 tons per hour to 400 tons per hour. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required.

☐ Standard Conditions (on reverse) are applicable to this permit.
☑ Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

JAN 15 2014

DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES
STANDARD CONDITIONS:

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Department’s Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant sources(s). The information must be made available within 30 days of actual startup. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located within 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant sources(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

The special conditions listed in this permit were included based on the authority granted the Missouri Air Pollution Control Program by the Missouri Air Conservation Law (specifically 643.075) and by the Missouri Rules listed in Title 10, Division 10 of the Code of State Regulations (specifically 10 CSR 10-6.060). For specific details regarding conditions, see 10 CSR 10-6.060 paragraph (12)(A)10. “Conditions required by permitting authority.”

Site ID Number: 151-0037
Site Name: Higgins Asphalt & Paving Company, Inc.
Site Address: 3857 Highway 50 West, Loose Creek, MO 65054
Site County: Osage County, S10 T43N R10W

1. Best Management Practices Requirement
Higgins Asphalt & Paving Company, Inc. shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing BMPs as defined in Attachment AA.

2. Ambient Air Impact Limitation
   A. Higgins Asphalt & Paving Company, Inc. shall not cause an exceedance of the NAAQS for PM$_{10}$ of 150.0 µg/m$^3$ 24-hour average in ambient air.

   B. Higgins Asphalt & Paving Company, Inc. shall demonstrate compliance with Special Condition 2.A using Attachment A and Attachment B or other equivalent forms that have been approved by the Air Pollution Control Program, including electronic forms. Higgins Asphalt & Paving Company, Inc. shall account for the impacts from other sources of PM$_{10}$ as instructed in the attachments.

3. Annual Emission Limit
   A. Higgins Asphalt & Paving Company, Inc. shall emit less than 40.0 tons of NO$_{X}$ in any 12-month period from the stationary asphalt plant.

   B. Higgins Asphalt & Paving Company, Inc. shall demonstrate compliance with Special Condition 3.A using Attachment C or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.

4. Moisture Content Testing Requirement
   A. Higgins Asphalt & Paving Company, Inc. shall verify that the moisture content of the processed rock is greater than or equal to 1.5 percent by weight.

   B. Testing shall be conducted according to the method prescribed by the American Society for Testing Materials (ASTM) D-2216, C-566 or another method approved by the Director.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

C. The initial test shall be conducted no later than 45 days after the start of operation. A second test shall be performed the calendar year following the initial test during the months of July or August.

D. The test samples shall be taken from rock that has been processed by the plant or from each source of aggregate (e.g. quarry).

E. The written analytical report shall include the raw data and moisture content of each sample, the test date and the original signature of the individual performing the test. The report shall be filed on-site or at the Higgins Asphalt & Paving Company, Inc. main office within 30 days of completion of the required test.

F. If the moisture content of either of the two tests is less than the moisture content in Special Condition 4.A, another test may be performed within 15 days of the noncompliant test. If the results of that test is also less than the moisture content in Special Condition 4.A, Higgins Asphalt & Paving Company, Inc. shall either:
   1) Apply for a new permit to account for the revised information, or
   2) Submit a plan for the installation of wet spray devices to the Compliance/Enforcement Section of the Air Pollution Control Program within 10 days of the second noncompliant test. The wet spray devices shall be installed and operational within 40 days of the second noncompliant test.

G. In lieu of testing, Higgins Asphalt & Paving Company, Inc. may obtain test results that demonstrate compliance with the moisture content in Special Condition 4.A from the supplier of the aggregate.

5. Control Device Requirement-Baghouse
A. Higgins Asphalt & Paving Company, Inc. shall control emissions from the drum dryer (EP-4) using baghouses.

B. The baghouses shall be operated and maintained in accordance with the manufacturer’s specifications. The baghouse shall be equipped with a gauge or meter, which indicates the pressure drop across the control device. These gauges or meters shall be located such that the Department of Natural Resources employees may easily observe them.

C. Replacement filters for the baghouses shall be kept on hand at all times. The bags shall be made of fibers appropriate for operating conditions expected to occur (i.e. temperature limits, acidic and alkali resistance, and abrasion resistance).
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

D. Higgins Asphalt & Paving Company, Inc. shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be maintained within the design conditions specified by the manufacturer's performance warranty.

E. Higgins Asphalt & Paving Company, Inc. shall maintain a copy of the baghouse manufacturer's performance warranty on site.

F. Higgins Asphalt & Paving Company, Inc. shall maintain an operating and maintenance log for the baghouses which shall include the following:
   1) Incidents of malfunction, with impact on emissions, duration of event, probable cause, and corrective actions; and
   2) Maintenance activities, with inspection schedule, repair actions, and replacements, etc.

6. Minimum Distance to Property Boundary Requirement
   The drum dryer (EP-4) shall be located at least 500 feet from the nearest property boundary.

7. Fuel Requirement
   A. Higgins Asphalt & Paving Company, Inc. shall exclusively burn fuel with a sulfur content less than or equal to 0.50% by weight in their drum dryer (EP-4).
   B. Higgins Asphalt & Paving Company, Inc. shall exclusively burn propane in their asphalt heater (EP-7).
   C. Higgins Asphalt & Paving Company, Inc. shall demonstrate compliance with Special Condition 7.A by either obtaining records from the vendor of the fuel’s sulfur content for each shipment of fuel received or by testing each shipment of fuel for the sulfur content in accordance with the method described in 10 CSR 10-6.040 Reference Methods.
   D. Higgins Asphalt & Paving Company, Inc. shall keep the records required by Special Condition 7.C on site or the company’s main office and make them available for Department of Natural Resources’ employees upon request.

8. Record Keeping Requirement
   Higgins Asphalt & Paving Company, Inc. shall maintain all records required by this permit for not less than five years and make them available to any Missouri Department of Natural Resources personnel upon request.
SPECIAL CONDITIONS:
The permittee is authorized to construct and operate subject to the following special conditions:

9. Reporting Requirement
Higgins Asphalt & Paving Company, Inc. shall report to the Air Pollution Control Program Enforcement Section P.O. Box 176, Jefferson City, MO 65102, no later than 10 days after any exceedances of the limitations imposed by this permit.

10. Superseding Condition
The conditions of this permit supersede all special conditions in construction permits 052008-004, 032005-017A and 032005-017, and Special Condition 2 in construction permit 082007-015, which were all issued by the Missouri Air Pollution Control Program.
3857 Highway 50 West
Loose Creek, MO 65054

Parent Company:
Higgins Asphalt & Paving Company, Inc.
35086 Higgins Road
Tipton, MO 65081

Osage County, S10 T43N R10W

PROJECT DESCRIPTION

Higgins Asphalt & Paving Company, Inc., herein referred to as Higgins Asphalt, has submitted an application to “de-bottleneck” its existing stationary asphalt plant. The MHDR of the plant is increasing from 120 tons per hour to 400 tons per hour. The existing bottleneck of this plant is the pug mill and drag slat conveyor. Higgins Asphalt is removing this pug mill and replacing the drag slat conveyor with a new drag slat conveyor with a MHDR of 400 tons per hour. The plant’s drum dryer is also rated at 400 tons per hour, therefore, the drum dryer (EP-4) and the new drag slat conveyor (EP-8) will become the plant’s new bottleneck. Also, the plant is replacing an existing bin with two larger bins. The additional bins will allow the plant to temporarily store more asphalt, but it will not allow the plant to produce more asphalt. During the review of this project, Higgins Asphalt also requested that the NAAQS limits of this installation be changed.

Because the plant’s MHDR is increasing, the emissions from the entire asphalt plant were recalculated. Higgins Asphalt will operate a drum dryer that is powered by #4 distillate fuel oil with a sulfur content up to 0.50 % by weight and uses a 120 MMBtu/hr burner. An asphalt heater rated at 0.15 MMBTU/hr is used to heat the asphalt. The particulate emissions from the drum dryer are controlled by a baghouse. The asphalt plant will be powered by electricity from the grid.

At this site, a stationary rock-crushing plant owned by Higgins Quarry, LLC, herein referred to as Higgins Quarry, also operates at this site. This rock-crushing plant was originally owned by Muenks Brothers Quarries and permitted by the Missouri Air Pollution Control Program during the review of Permit 082007-015 under Installation ID Number 151-0028. However, in 2008 this rock-crushing plant was purchased by Higgins Quarry, LLC. After this acquisition, it was determined that that for permitting and emission reporting purposes the asphalt plant and the rock-crushing plant will be...
considered one installation because both plants are owned by a mutual organization and the rock-crushing plant is a support facility for the asphalt plant. Annual emissions from both plants are reported as one Emission Inventory Questionnaire under Installation ID Number 151-0037 to Missouri Air Pollution Control Program’s Air Quality Analysis Section.

The applicant is using one of the methods described in Attachment AA, “Best Management Practices,” to control emissions from haul roads and vehicular activity areas. This installation is located in Osage County, an attainment area for all criteria pollutants.

This installation is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The installation's major source level is 100 tons per year and fugitive emissions are counted toward major source applicability.

TABLES

This asphalt plant includes the following emission units, as shown in Table 1.

Table 1: Emission Sources of Asphalt Plant (151-0037)

<table>
<thead>
<tr>
<th>Emission Point (EP) Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EP-1</td>
<td>Cold Feed Bins</td>
</tr>
<tr>
<td>EP-2</td>
<td>Conveyors</td>
</tr>
<tr>
<td>EP-3</td>
<td>Screen</td>
</tr>
<tr>
<td>EP-4</td>
<td>Drum Dryer</td>
</tr>
<tr>
<td>EP-5</td>
<td>Plant Load Out</td>
</tr>
<tr>
<td>EP-6</td>
<td>Hot Mix Asphalt Storage Silos</td>
</tr>
<tr>
<td>EP-7</td>
<td>Asphalt Concrete Heater</td>
</tr>
<tr>
<td>EP-8</td>
<td>Drag Conveyor</td>
</tr>
<tr>
<td>EP-9</td>
<td>Storage Piles</td>
</tr>
<tr>
<td>EP-10</td>
<td>Haul Roads</td>
</tr>
<tr>
<td>EP-11</td>
<td>Recycled Asphalt Shingles &amp; Recycled Asphalt Pavement Bins</td>
</tr>
</tbody>
</table>

The following permits have been issued to the stationary asphalt plant from the Air Pollution Control Program.

Table 2: Permit History

<table>
<thead>
<tr>
<th>Permit Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0798-020</td>
<td>Modification of an asphalt plant from a portable source to a stationary source; superseded by Permit 032005-017.</td>
</tr>
<tr>
<td>102002-001</td>
<td>Modification of asphalt plant to become stationary because it relocated off site after the issuance of Permit 0798-020 along with operation restrictions; superseded by Permit 032005-017.</td>
</tr>
<tr>
<td>102002-001A</td>
<td>Correction to Permit 102002-001 to correct NSPS requirements; superseded by Permit 032005-017.</td>
</tr>
<tr>
<td>032005-017</td>
<td>Modification in the control of asphalt plant’s emissions.</td>
</tr>
<tr>
<td>032005-017A</td>
<td>Amend Permit 032005-017 to change concurrent operation limits and NAAQS requirements.</td>
</tr>
<tr>
<td>052008-004</td>
<td>Change in fuel fired in drum dryer</td>
</tr>
</tbody>
</table>
The table below summarizes the emissions of this project. The potential emissions of the process equipment exclude emissions from haul roads and wind erosion. The existing actual emissions of the stationary rock-crushing and asphalt plants were taken from the previous year’s EIQ. The potential emissions of the application represent the emissions of all equipment and activities assuming continuous operation (8760 hours per year). The conditioned potential emissions are based on a voluntary limit of 40.0 tons of NOX per year.

Table 3: Emissions Summary of Stationary Asphalt Plant: (tons per year)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>PM</td>
<td>25.0</td>
<td>66.13</td>
<td>N/A</td>
<td>151.64</td>
<td>23.10</td>
</tr>
<tr>
<td>PM_{10}</td>
<td>15.0</td>
<td>48.94</td>
<td>5.04</td>
<td>79.03</td>
<td>12.04</td>
</tr>
<tr>
<td>PM$_{2.5}$</td>
<td>10.0</td>
<td>45.72</td>
<td>N/A</td>
<td>57.79</td>
<td>8.80</td>
</tr>
<tr>
<td>SO{X}</td>
<td>40.0</td>
<td>135.00</td>
<td>3.06</td>
<td>135.00</td>
<td>20.57</td>
</tr>
<tr>
<td>NO{X}</td>
<td>40.0</td>
<td>262.54</td>
<td>4.32</td>
<td>262.54</td>
<td>&lt; 40.00</td>
</tr>
<tr>
<td>VOC</td>
<td>40.0</td>
<td>85.70</td>
<td>0.44</td>
<td>85.70</td>
<td>13.06</td>
</tr>
<tr>
<td>CO</td>
<td>100.0</td>
<td>76.28</td>
<td>N/A</td>
<td>76.28</td>
<td>11.62</td>
</tr>
<tr>
<td>Formaldehyde</td>
<td>10.0/2.0$^a$</td>
<td>5.58</td>
<td>N/A</td>
<td>5.58</td>
<td>0.85</td>
</tr>
<tr>
<td>2-methylnaphthalene$^e$</td>
<td>10.0/0.01$^d$</td>
<td>0.30</td>
<td>N/A</td>
<td>0.30</td>
<td>0.05</td>
</tr>
<tr>
<td>Lead Compounds</td>
<td>10.0/0.01$^d$</td>
<td>0.03</td>
<td>N/A</td>
<td>0.03</td>
<td>0.004</td>
</tr>
<tr>
<td>Total HAPs</td>
<td>25.0</td>
<td>18.49</td>
<td>N/A</td>
<td>18.49</td>
<td>2.82</td>
</tr>
</tbody>
</table>

N/A = Not Applicable; N/D = Not Determined

$^a$ Excludes haul road and storage pile emissions

$^b$ The existing actual emissions include emissions from the stationary rock-crushing and asphalt plants

$^c$ Includes site specific haul road and storage pile emissions

$^d$ SMAL

$^e$ 2-methylnaphthalene is a member of the Polycyclic Organic Matter (POM) HAP group.

Table 4: 24-Hour Ambient Air Quality Impact Analysis

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>NAAQS (µg/m$^3$)</th>
<th>Asphalt Plant’s Maximum Modeled Impact $^a$ (µg/m$^3$)</th>
<th>Rock-crushing Plant’s Maximum Modeled Impact $^b$ (µg/m$^3$)</th>
<th>Limited Impact for all sources owned by Higgins Quarry, and Higgins Asphalt $^c$ (µg/m$^3$)</th>
<th>Background (µg/m$^3$) $^d$</th>
</tr>
</thead>
<tbody>
<tr>
<td>PM$_{10}$ $^e$ (Same)</td>
<td>150.0</td>
<td>770.58</td>
<td>158.71</td>
<td>130.0</td>
<td>20.0</td>
</tr>
<tr>
<td>PM$_{10}$ $^f$ (Separate)</td>
<td>150.0</td>
<td>N/A</td>
<td>N/A</td>
<td>89.9</td>
<td>20.0</td>
</tr>
</tbody>
</table>

$^a$ Modeled impact of asphalt plant at maximum capacity with controls, as calculated during the review of this project.

$^b$ Modeled impact of rock-crushing plant at maximum capacity with controls, as calculated during the review of Permit 082007-015.

$^c$ The operators of the rock-crushing and asphalt plants must balance production when operating concurrently to ensure compliance with the NAAQS for PM$_{10}$.

$^d$ Emissions from haul roads and vehicular activity areas are addressed as a background concentration of 20.0 µg/m$^3$.

$^e$ Operation with other plants that are owned by Higgins Quarry and Higgins Asphalt

$^f$ Operation with plants that are not owned by Higgins Quarry and Higgins Asphalt
EMISSIONS CALCULATIONS

Emissions for the project were calculated using emission factors found in the United States EPA document AP-42 *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition (AP-42).

Emissions from the drum mix asphalt plant were calculated using emission factors from AP-42 Section 11.1 “Hot Mix Asphalt Plants,” April 2004. SO$_x$ emissions were calculated using the SO$_2$ and SO$_3$ emission factors from AP-42 Section 1.3 “Fuel Oil Combustion,” September 1998 and assuming half of the sulfur up to 0.1 pound per ton of product is absorbed into the product. The asphalt plant’s drum dryer is controlled by a baghouse, so the fabric filter controlled emission factor was used to calculate PM$_{10}$ emissions from this source. Emissions from plant load-out were calculated using predictive equations found in AP-42 Table 11.1-14. Default values were used for asphalt volatility and mix temperature. Emissions from the asphalt heater were calculated using emission factors from AP-42 Section 1.3. Emissions from aggregate handling were calculated using emission factors from AP-42 Section 11.19.2 “Crushed Stone Processing and Pulverized Mineral Processing,” August 2004. The controlled emission factors were used because the inherent moisture content of the crushed rock is equal to or greater than 1.5% by weight.

Emissions from haul roads and vehicular activity areas were calculated using the predictive equation from AP-42 Section 13.2.2 “Unpaved Roads,” November 2006. A 90% control efficiency for PM and PM$_{10}$ and a 40% control efficiency for PM$_{2.5}$ were applied to the emission calculations for the use of BMPs. Emissions from load-in and load-out of storage piles were calculated using the predictive equation from AP-42 Section 13.2.4. The moisture content of the aggregate was assumed to be at least 1.5% by weight. Emissions from wind erosion of storage piles were calculated using an equation found in the Air Pollution Control Program’s Emissions Inventory Questionnaire Form 2.8 “Storage Pile Worksheet.”

AMBIENT AIR QUALITY IMPACT ANALYSIS

An ambient air quality impact analysis (AAQIA) was performed to determine the impact of the pollutants listed in Table 4. The Air Pollution Control Program requires an AAQIA of PM$_{10}$ for all asphalt, concrete and rock-crushing plants regardless of the level of PM$_{10}$ emissions if a permit is required. An AAQIA is required for other pollutants if their emissions exceed their respective de minimis or screening model action level (SMAL). The AAQIA was performed using the Air Pollution Control Program’s generic nomographs and when appropriate the EPA modeling software AERSCREEN. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the NAAQS or RAL for the pollutant. If during continuous operation the modeled concentration of a pollutant is greater than the applicable NAAQS or RAL, the plant’s production is limited to ensure compliance with the standard.
This plant uses BMPs to control emissions from haul roads and vehicular activity areas, so emissions from these sources were not included in the AAQIA. Instead they were addressed as a background concentration of 20.0 µg/m³ of PM₁₀ in accordance with the Air Pollution Control Program’s BMPs interim policy.

OPERATING SCENARIOS

The plant is permitted to operate with other plants located at the site as long as the NAAQS is not exceeded. The following scenarios explain how Higgins shall demonstrate compliance with the NAAQS.

- When plants that are owned by Higgins Quarry and Higgins Asphalt, which are referred to as same owner plants, are located at the site, the daily impact of each plant must be calculated and the total impact of all plants shall not exceed the NAAQS. During this scenario, Higgins Quarry and Higgins Asphalt shall use Attachment A to demonstrate compliance with the NAAQS.

- When plants that are not owned by Higgins Quarry and Higgins Asphalt, which are referred to as separate owner plants, are located at the site, Higgins Quarry and Higgins Asphalt must account the impacts of these separate owner plants as a background concentration and add it to the total impact of all plants they own that are operating at the site. This total is limited to not exceed the NAAQS. Higgins Quarry and Higgins Asphalt will limit the total impact of all plants they own and operate at the site to 89.9 µg/m³ when any plants they do not own are located at the site. Higgins Quarry and Higgins Asphalt are not permitted to operate with a separate owner plant that has an ambient impact of 40.10 µg/m³ or greater. During this scenario, Higgins Quarry and Higgins Asphalt shall use Attachment B to demonstrate compliance with the NAAQS.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, Construction Permits Required. Potential emissions of PM₁₀ are conditioned below de minimis levels.

APPLICABLE REQUIREMENTS

Higgins Asphalt & Paving Company, Inc. shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.
GENERAL REQUIREMENTS

- Submission of Emission Data, Emission Fees and Process Information, 10 CSR 10-6.110.

- A Basic Operating Permit application is required for this installation within 30 days of commencement of operations.

- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170

- Restriction of Emission of Visible Air Contaminants, 10 CSR 10-6.220

- Restriction of Emission of Odors, 10 CSR 10-6.165

SPECIFIC REQUIREMENTS


- None of the NESHAPs or MACT regulations apply to the proposed equipment.

- Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, Construction Permits Required, I recommend this permit be granted with special conditions.

Daronn A. Williams
New Source Review Unit
PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated October 18, 2013, received October 24, 2013, designating Higgins Asphalt & Paving Company, Inc. as the owner and operator of the installation.

Attachment A: Ambient Impact Tracking Sheet
For Solitary and Same Owner Operations
Higgins Asphalt & Paving Company, Inc. (151-0037)
Project Number: 2013-10-060

This sheet covers the period from ____________________ to ____________________ (Copy as needed)
(Month, Day Year) (Month, Day Year)

<table>
<thead>
<tr>
<th>Date</th>
<th>Stationary Asphalt Plant Plant ID: 151-0037</th>
<th>Ambient Impact Factor (µg/m³)</th>
<th>Impact¹ (µg/m³·ton)</th>
<th>Daily Production (tons)</th>
<th>Stationary Rock-crushing Plant Plant ID: 151-0037</th>
<th>Ambient Impact Factor (µg/m³·ton)</th>
<th>Impact¹ (µg/m³)</th>
<th>Daily Production (tons)</th>
<th>Same Owner Plant Plant Name:</th>
<th>Plant ID:</th>
<th>Permit #:</th>
<th>Same Owner Plant Plant Name:</th>
<th>Plant ID:</th>
<th>Permit #:</th>
<th>Background (µg/m³)</th>
<th>TOTAL Impact³ (µg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>1,628</td>
<td>0.04913</td>
<td>80.0</td>
<td>0.0107</td>
<td>4,673</td>
<td>0.04913</td>
<td>0.0107</td>
<td>50.0</td>
<td>N/A</td>
<td>N/A</td>
<td>20.00</td>
<td>150.0</td>
<td></td>
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</tbody>
</table>

¹ Calculate the impact of the stationary asphalt plant and rock-crushing plant by multiplying the appropriate daily production by the impact factor.

² Input the impact for any plants owned by Higgins Asphalt & Paving Company, Inc. and Higgins Quarry, LLC that are operating on the site.

³ Calculate the total impact by adding the applicable impacts and background. A total of 150.0 µg/m³ or less is necessary for compliance.
## Attachment B: Ambient Impact Tracking Sheet
For Separate Owner Operation
Higgins Asphalt & Paving Company, Inc. (151-0037)
Project Number: 2013-10-060

This sheet covers the period from ________________ to ________________ (Copy as needed)
(Month, Day Year) (Month, Day Year)

<table>
<thead>
<tr>
<th>Date</th>
<th>Stationary Asphalt Plant</th>
<th>Stationary Rock-crushing Plant</th>
<th>Same Owner Plant</th>
<th>Separate Owner Plant</th>
<th>TOTAL Impact³ (µg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Plant ID: 151-0037</td>
<td>Plant ID: 151-0037</td>
<td>Plant Name:</td>
<td>Plant ID:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Daily Production (tons)</td>
<td>Daily Production (tons)</td>
<td>Plant Name:</td>
<td>Permit #:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ambient Impact Factor (µg/m³ton)</td>
<td>Impact¹ (µg/m³)</td>
<td>Ambient Impact Factor (µg/m³ton)</td>
<td>Impact² (µg/m3)</td>
<td>Impact (µg/m³)</td>
</tr>
<tr>
<td>Example</td>
<td>800</td>
<td>0.0990</td>
<td>79.2</td>
<td>0.0990</td>
<td>0.0107</td>
</tr>
<tr>
<td></td>
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</tbody>
</table>

1 Calculate the impact of the stationary asphalt plant and rock-crushing plant by multiplying the appropriate daily production by the impact factor.
2 Input the impact for any plants owned by Higgins Asphalt & Paving Company, Inc. and Higgins Quarry, LLC that are operating on the site.
3 Calculate the total impact by adding the applicable impacts and background. A total of 150.0 µg/m³ or less is necessary for compliance.
This sheet covers the period from ______________ to ______________ (Copy as needed)
(Month, Day Year) (Month, Day Year)

<table>
<thead>
<tr>
<th>Month</th>
<th>Production (tons)</th>
<th>Emission Factor (lb/ton)</th>
<th>Monthly Emissions¹ (lbs)</th>
<th>Monthly Emissions² (tons)</th>
<th>12-Month Total Emissions³ (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example</td>
<td>16,000</td>
<td>0.15</td>
<td>2,400</td>
<td>1.2</td>
<td>1.2</td>
</tr>
<tr>
<td>Example</td>
<td>20,000</td>
<td>0.15</td>
<td>3,000</td>
<td>1.5</td>
<td>2.7</td>
</tr>
</tbody>
</table>

1 Multiply the monthly production by the emission factor.
2 Divide the monthly emissions (lbs) by 2000.
3 Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than 40.0 tons is necessary for compliance.
Attachment AA: Best Management Practices

Haul roads and vehicular activity areas shall be maintained in accordance with at least one of the following options when the portable plant is operating.

1. Pavement
   A. The operator shall pave the area with materials such as asphalt, concrete or other materials approved by the Air Pollution Control Program. The pavement will be applied in accordance with industry standards to achieve control of fugitive emissions\(^1\) while the plant is operating.
   B. Maintenance and repair of the road surface will be conducted as necessary to ensure that the physical integrity of the pavement is adequate to achieve control of fugitive emissions from these areas while the plant is operating.
   C. The operator shall periodically wash or otherwise clean all of the paved portions of the haul roads as necessary to achieve control of fugitive emissions from these areas while the plant is operating.

2. Application of Chemical Dust Suppressants
   A. The operator shall apply a chemical dust suppressant (such as magnesium chloride, calcium chloride, lignosulfonates, etc.) to unpaved areas.
   B. The quantities of the chemical dust suppressant shall be applied and maintained in accordance with the manufacturer’s recommendation (if available) and in sufficient quantities to achieve control of fugitive emissions from these areas while the plant is operating.
   C. The operator shall record the time, date and the amount of material applied for each application of the chemical dust suppressant agent on the above areas. The operator shall keep these records with the plant for not less than five (5) years and make these records available to Department of Natural Resources personnel upon request.

3. Application of Water-Documented Daily
   A. The operator shall apply water to unpaved areas. Water shall be applied at a rate of 100 gallons per day per 1,000 square feet of unpaved or untreated surface area while the plant is operating.
   B. Precipitation may be substituted for watering if the precipitation is greater than one quarter of one inch and is sufficient to control fugitive emissions.
   C. Watering may also be suspended when the ground is frozen, during periods of freezing conditions when watering would be inadvisable for traffic safety reasons, or when there will be no traffic on the roads.
   D. The operator shall record the date, volume of water application and total surface area of active haul roads or the amount of precipitation that day. The operators shall also record the rationale for not watering (e.g. freezing conditions or not operating).
   E. The operator shall keep these records with the plant for not less than five (5) years, and the operator shall make these records available to Department of Natural Resources personnel upon request.
APPENDIX A

Abbreviations and Acronyms

% ............ percent
ºF ............ degrees Fahrenheit
acfm ........ actual cubic feet per minute
BACT ...... Best Available Control Technology
BMPs ...... Best Management Practices
Btu......... British thermal unit
CAM ........ Compliance Assurance Monitoring
CAS .......... Chemical Abstracts Service
CEMS ......... Continuous Emission Monitor System
CFR .......... Code of Federal Regulations
CO .......... carbon monoxide
CO2 .......... carbon dioxide
CO2e ......... carbon dioxide equivalent
COMS ......... Continuous Opacity Monitoring System
CSR .......... Code of State Regulations
dscf ........ dry standard cubic feet
EIQ .......... Emission Inventory Questionnaire
EP ........... Emission Point
EPA ........... Environmental Protection Agency
EU ........... Emission Unit
fps .......... feet per second
ft ............. feet
GACT ....... Generally Available Control Technology
GHG .......... Greenhouse Gas
gpm .......... gallons per minute
gr .......... grains
GWP .......... Global Warming Potential
HAP .......... Hazardous Air Pollutant
hr .......... hour
hp .......... horsepower
lb .......... pound
lbs/hr ....... pounds per hour
MACT ....... Maximum Achievable Control Technology
µg/m³ ...... micrograms per cubic meter
m/s ........ meters per second
Mgal ......... 1,000 gallons
MW .......... megawatt
MHDR ....... maximum hourly design rate

MMBtu ....... Million British thermal units
MMCF ......... million cubic feet
MSDS .......... Material Safety Data Sheet
NAAQS ...... National Ambient Air Quality Standards
NESHAPs .... National Emissions Standards for Hazardous Air Pollutants
NOx .......... nitrogen oxides
NSPS ......... New Source Performance Standards
NSR .......... New Source Review
PM .......... particulate matter
PM2.5 ........ particulate matter less than 2.5 microns in aerodynamic diameter
PM10 ......... particulate matter less than 10 microns in aerodynamic diameter
ppm .......... parts per million
PSD .......... Prevention of Significant Deterioration
PTE .......... potential to emit
RACT .......... Reasonable Available Control Technology
RAL .......... Risk Assessment Level
SCC .......... Source Classification Code
scfm .......... standard cubic feet per minute
SIC .......... Standard Industrial Classification
SIP .......... State Implementation Plan
SMAL .......... Screening Model Action Levels
SOx .......... sulfur oxides
SO2 .......... sulfur dioxide
tph ........... tons per hour
tpy ............ tons per year
VMT .......... vehicle miles traveled
VOC .......... Volatile Organic Compound
Mr. Keith Higgins  
Owner  
Higgins Asphalt & Paving Company, Inc.  
35086 Higgins Road  
Tipton, MO 65081  

RE: New Source Review Permit - Project Number: 2013-10-060  

Dear Mr. Higgins:  

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. Operation in accordance with these conditions, your new source review permit application and with your amended operating permit is necessary for continued compliance. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri.  

If you have any questions regarding this permit, please do not hesitate to contact Daronn A. Williams, at the department’s Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102 or at (573) 751-4817. Thank you for your attention to this matter.  

Sincerely,  

AIR POLLUTION CONTROL PROGRAM  

Susan Heckenkamp  
New Source Review Unit Chief  

SH:dwl  

Enclosures  

Permit Number:  

PAMS File: 2013-10-060  

Northeast Regional Office