

# 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: **092016-007**

Project Number: 2016-04-020  
Installation ID: 151-0037

Parent Company: Higgins Asphalt Paving Company, Inc.

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 addition of equipment to an existing stationary rock-crushing plant and to convert the ambient impact limits of this rock-crushing plant to a daily production limit to reflect the Air Pollution Control Program's updated policy for construction industry facilities. A construction permit for the asphalt plant was issued on January 15, 2014, but Higgins Asphalt Paving Company, Inc. failed to begin construction of this plant by that permit's two year deadline (January 15, 2016), so a new Application for Authority to Construct for the same equipment was submitted. 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.

Handwritten signature of Daronn A. Williams in black ink.

Prepared by  
Daronn A. Williams  
New Source Review Unit

Handwritten signature of Kyra L Moore in black ink.

Director or Designee  
Department of Natural Resources

**SEP 07 2016**

Effective Date

## 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 source(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 source(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 For Installation**  
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. **Annual Emission Limit For Asphalt Plant**
  - A. Higgins Asphalt Paving Company, Inc. shall emit less than 40.0 tons of NO<sub>x</sub> in any 12-month period from the stationary asphalt plant's drum dryer (EP-4) and asphalt cement heater (EP-7).
  - B. Higgins Asphalt Paving Company, Inc. shall demonstrate compliance with Special Condition 2.A using Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
3. **Daily Production Limit For Rock-Crushing Plant**
  - A. Higgins Quarry (owner of the stationary rock-crushing plant) shall limit its daily production based on the table below using Attachment B, or another equivalent form, that has been approved by the Air Pollution Control Program, including electronic forms.

**Table 1: Summary of Daily Production Limits For Rock-Crushing Plant**

Type of Operation	Daily Production Limit
<sup>a</sup> Solitary	8,207 tons per day
<sup>b</sup> Concurrent	5,051 tons per day

<sup>a</sup> Operation without other plants

<sup>b</sup> Operation with any other plant

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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4. **Moisture Content Testing Requirement For Asphalt Plant**
- 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.
  - 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) For Asphalt Plant**
- A. Higgins Asphalt Paving Company, Inc. shall control emissions from the asphalt plant's 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

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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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).
  - 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. Fuel Requirement For Asphalt Plant
- 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 6.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 6.C on site or the company's main office and make them available for Department of Natural Resources' employees upon request.

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**SPECIAL CONDITIONS:**

The permittee is authorized to construct and operate subject to the following special conditions:

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7. **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.
  
8. **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.
  
9. **Superseding Condition**  
The conditions of this permit supersede all special conditions in Construction Permits 052008-004, 032005-017A, 032005-017, and Special Condition 2 of Construction Permit 082007-015, which were all issued by the Missouri Air Pollution Control Program. Higgins Asphalt Paving Company, Inc. was issued Construction Permit 012014-006 but failed to begin construction of the equipment by that permit's two year deadline (January 15, 2016), so the special conditions in this permit are not valid.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (5) REVIEW

Project Number: 2016-04-020  
Installation ID Number: 151-0037

Permit Number: **092016-007**

Higgins Asphalt Paving Company, Inc.  
3857 Highway 50 West  
Loose Creek, MO 65054

Complete: April 7, 2016

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 and to add equipment to an existing stationary rock-crushing plant, that's owned by Higgins Quarry, LLC, herein referred to as Higgins Quarry. Higgins Asphalt and Higgins Quarry are owned by the same parent company and are located at the same physical location. The asphalt plant and the rock-crushing plant are considered the same installation.

The rock-crushing plant's ambient impact limits found in Construction Permit 082007-015 are also being removed to reflect the Air Pollution Control Program's updated construction industry policy for the cessation of the use of nomographs to estimate the ambient impact of concrete, rock-crushing and asphalt plants. As a result, the ambient impact limits of this plant are being converted to a daily production limit. These production limits are detailed in Table 6. Please note that all special conditions in Construction Permit 082007-015, except Special Condition 2, are still applicable, including the 15.0 ton per year PM<sub>10</sub> limit for the rock-crushing plant.

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. After this acquisition, it was determined 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.

Construction Permit 012014-006 was issued to Higgins Asphalt on January 15, 2014 for similar changes to the existing asphalt plant. However, Higgins Asphalt failed to begin construction by the permit's two year deadline (January 15, 2016), so a new Application for Authority to Construct was required and submitted.

The MHDR of the asphalt 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. Higgins Asphalt is also replacing an existing bin with two larger bins. The new bins will allow the plant to temporarily store more asphalt, but it will not allow the plant to produce more asphalt. Lastly, Higgins Asphalt will be installing a cyclone to transfer fine particulates from the drum dryer's baghouse back into the drum dryer. The cyclone is a closed, sealed system without a stack. No air emissions are expected from the cyclone while it is in use.

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. A propane 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.

Higgins Quarry will be adding one vertical shaft impactor (crusher; EP-12) that is rated at 300 tons per hour and one attached conveyor (EP-13) to its stationary rock-crushing plant. This crusher and conveyor will be operated in series with the existing equipment. The bottleneck of the rock-crushing plant is its primary crusher, which is rated at 400 tons per hour. Because the new crusher and conveyor will be operated in series with the existing equipment and is rated less than the plant's current bottleneck, there will not be an increase in emissions or throughput in downstream equipment. The only increase in emissions from the rock-crushing plant will be from the additional crusher and conveyor. The increase in emissions from the crusher and conveyor is 0.025 pounds of PM<sub>10</sub> per hour (0.077 tons of PM<sub>10</sub> per year).

The emissions from the crusher and conveyor are included in this project's emissions. However, the NO<sub>x</sub> emissions tracking requirements of this permit only applies to the asphalt plant's drum dryer (EP-4) and asphalt cement heater (EP-7).

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 asphalt plant is on the List of Named Installations found in 10 CSR 10-6.020(3)(B), Table 2. The asphalt plant's major source level is 250 tons per year and fugitive emissions are counted toward major source applicability, per CFR 52.21.

## TABLES

This installation's asphalt plant includes the emission units shown below.

**Table 2: Emission Sources of Asphalt Plant (151-0037)**

Emission Point (EP) Number	Description
EP-1	Cold Feed Bins
EP-2	Conveyors
EP-3	Screen
EP-4	Drum Dryer
EP-5	Plant Load Out
EP-6	Hot Mix Asphalt Storage Silos
EP-7	Asphalt Concrete Heater
EP-8	Drag Conveyor
EP-9	Storage Piles
EP-10	Haul Roads

The equipment added to the rock-crushing plant is listed below.

**Table 3: New Rock-Crushing Plant Equipment**

Emission Point (EP) Number	Description
EP-22	Vertical Shaft Impactor
EP-23	Conveyor

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

**Table 4: Permit History**

Permit Number	Description
0798-020	Modification of an asphalt plant from a portable source to a stationary source; superseded by Construction Permit 032005-017
102002-001	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 Construction Permit 032005-017
102002-001A	Correction to Construction Permit 102002-001 to correct NSPS requirements; superseded by Construction Permit 032005-017
032005-017	Modification in the control of asphalt plant's emissions; superseded by Construction Permit 012014-006
032005-017A	Amendment to Construction Permit 032005-017 to change concurrent operation limits and NAAQS requirements; superseded by Construction Permit 012014-006
052008-004	Change in fuel fired in drum dryer; superseded by Construction Permit 012014-006
012014-006	Application to "de-bottleneck" its existing stationary asphalt plant; superseded by this permit

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 of the asphalt plant and new equipment of the rock-crushing plant assuming continuous operation (8760 hours per year). The conditioned potential emissions are based on a voluntary limit of 40.0 tons of NO<sub>x</sub> per year to avoid modeling requirements. The installation conditioned potential emissions is a sum of this project's conditioned potential emissions and conditioned potential emissions in Construction Permit 082007-015 (which includes emissions from the rock-crushing plant).

Table 5: Emissions Summary of Stationary Asphalt Plant: (tons per year)

Air Pollutant	De Minimis Level/ SMAL	<sup>a</sup> Potential Emissions of Process Equipment	<sup>b</sup> Existing Actual Emissions (2015 EIQ)	<sup>c</sup> Potential Emissions of the Application	Conditioned Potential Emissions	Installation Conditioned Potential Emissions
PM	25.0	65.87	N/A	153.14	23.33	N/D
PM <sub>10</sub>	15.0	48.83	6.06	79.69	12.14	27.14
PM <sub>2.5</sub>	10.0	45.70	1.95	52.22	7.96	N/D
SO <sub>x</sub>	40.0	135.00	3.06	135.00	20.57	21.67
NO <sub>x</sub>	40.0	262.54	4.80	262.54	< 40.00	56.84
VOC	40.0	85.70	0.43	85.70	13.06	14.44
CO	100.0	76.28	2.34	76.28	11.62	15.24
Formaldehyde	10.0/2.0 <sup>d</sup>	5.58	N/A	5.58	0.85	N/D
2-methylnaphthalene <sup>e</sup>	10.0/0.01 <sup>d</sup>	0.30	N/A	0.30	0.05	N/D
Lead Compounds	10.0/0.01 <sup>d</sup>	0.03	N/A	0.03	0.004	N/D
Total HAPs	25.0	18.49	N/A	18.49	2.82	3.04

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

<sup>a</sup> Excludes haul road and storage pile emissions

<sup>b</sup> The existing actual emissions include emissions from the stationary rock-crushing and asphalt plants

<sup>c</sup> Includes site specific haul road and storage pile emissions

<sup>d</sup> SMAL

<sup>e</sup> 2-methylnaphthalene is a member of the Polycyclic Organic Matter (POM) HAP group.

Table 6: Daily Production Limits for Rock-Crushing Plant

Type of Operation	Daily Production Limit
<sup>a</sup> Solitary	8,207 tons per day
<sup>b</sup> Concurrent	5,051 tons per day

<sup>a</sup> Operation without other plants

<sup>b</sup> Operation with any other plant

## 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<sub>x</sub> emissions were calculated using the SO<sub>2</sub> and SO<sub>3</sub> 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<sub>10</sub> 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 propane asphalt heater were calculated using emission factors from AP-42 Section 1.5 "Liquefied Petroleum Gas Combustion," July 2008. 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 the rock-crushing equipment 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, per Special Condition 4 in Construction Permit 082007-015.

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<sub>10</sub> and a 74% control efficiency for PM<sub>2.5</sub> 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."

The potential emissions of 2-methylnaphthalene for this project does exceed its 0.01 ton per year SMAL. Typically the plant's drum dryer would be modeled using the AERSCREEN screen modeling software and the drum dryer's stack characteristics. However, the drum dryer's stack characteristics are not available. Based on engineering judgment and experience, the RALs for 2-methylnaphthalene (23 µg/m<sup>3</sup> for a 24-hour averaging time and 2.3 µg/m<sup>3</sup> for an annual averaging time) will not be exceeded.

## OPERATING SCENARIOS

This installation's asphalt and rock-crushing plants cannot operate with any other plants that have ambient impact limits based on the Air Pollution Control Program's nomographs. When allowing other plants to locate at this site, please refer to the special conditions of those plants' permits.

The following scenarios explain how this installation's rock-crushing plant shall operate and demonstrate compliance to the Air Pollution Control Program's updated construction industry policy.

- When the rock-crushing plant operates by itself (referred to as solitary operation), it may produce up to 8,207 tons of rock per day.
- When the rock-crushing plant operates with another plant (referred to as concurrent operation), it may produce up to 5,051 tons of rock per day. This includes when it operates with the installation's asphalt plant.

## 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 PM<sub>10</sub> are conditioned below de minimis levels.

## APPLICABLE REQUIREMENTS

Higgins Asphalt 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

- 40 CFR 60 Subpart I, "Standards of Performance for Hot Mix Asphalt Facilities" applies to the asphalt plant equipment.
- 40 CFR 60 Subpart OOO, "Standards of Performance for Nonmetallic Mineral Processing Plants" applies to the rock-crushing equipment.
- None of the NESHAPS or MACT regulations apply to the proposed equipment.
- *Control of Sulfur Compounds*, 10 CSR 10-6.261

#### 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.

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 30, 2016, received April 7, 2016, designating Higgins Asphalt Paving Company, Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.





## **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<sup>1</sup> 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

<b>%</b> .....	percent	<b>MMBtu</b> .....	Million British thermal units
<b>°F</b> .....	degrees Fahrenheit	<b>MMCF</b> .....	million cubic feet
<b>acfm</b> .....	actual cubic feet per minute	<b>MSDS</b> .....	Material Safety Data Sheet
<b>BACT</b> .....	Best Available Control Technology	<b>NAAQS</b> .....	National Ambient Air Quality Standards
<b>BMPs</b> .....	Best Management Practices	<b>NESHAPs</b> ..	National Emissions Standards for Hazardous Air Pollutants
<b>Btu</b> .....	British thermal unit	<b>NO<sub>x</sub></b> .....	nitrogen oxides
<b>CAM</b> .....	Compliance Assurance Monitoring	<b>NSPS</b> .....	New Source Performance Standards
<b>CAS</b> .....	Chemical Abstracts Service	<b>NSR</b> .....	New Source Review
<b>CEMS</b> .....	Continuous Emission Monitor System	<b>PM</b> .....	particulate matter
<b>CFR</b> .....	Code of Federal Regulations	<b>PM<sub>2.5</sub></b> .....	particulate matter less than 2.5 microns in aerodynamic diameter
<b>CO</b> .....	carbon monoxide	<b>PM<sub>10</sub></b> .....	particulate matter less than 10 microns in aerodynamic diameter
<b>CO<sub>2</sub></b> .....	carbon dioxide	<b>ppm</b> .....	parts per million
<b>CO<sub>2e</sub></b> .....	carbon dioxide equivalent	<b>PSD</b> .....	Prevention of Significant Deterioration
<b>COMS</b> .....	Continuous Opacity Monitoring System	<b>PTE</b> .....	potential to emit
<b>CSR</b> .....	Code of State Regulations	<b>RACT</b> .....	Reasonable Available Control Technology
<b>dscf</b> .....	dry standard cubic feet	<b>RAL</b> .....	Risk Assessment Level
<b>EIQ</b> .....	Emission Inventory Questionnaire	<b>SCC</b> .....	Source Classification Code
<b>EP</b> .....	Emission Point	<b>scfm</b> .....	standard cubic feet per minute
<b>EPA</b> .....	Environmental Protection Agency	<b>SIC</b> .....	Standard Industrial Classification
<b>EU</b> .....	Emission Unit	<b>SIP</b> .....	State Implementation Plan
<b>fps</b> .....	feet per second	<b>SMAL</b> .....	Screening Model Action Levels
<b>ft</b> .....	feet	<b>SO<sub>x</sub></b> .....	sulfur oxides
<b>GACT</b> .....	Generally Available Control Technology	<b>SO<sub>2</sub></b> .....	sulfur dioxide
<b>GHG</b> .....	Greenhouse Gas	<b>tph</b> .....	tons per hour
<b>gpm</b> .....	gallons per minute	<b>tpy</b> .....	tons per year
<b>gr</b> .....	grains	<b>VMT</b> .....	vehicle miles traveled
<b>GWP</b> .....	Global Warming Potential	<b>VOC</b> .....	Volatile Organic Compound
<b>HAP</b> .....	Hazardous Air Pollutant		
<b>hr</b> .....	hour		
<b>hp</b> .....	horsepower		
<b>lb</b> .....	pound		
<b>lbs/hr</b> .....	pounds per hour		
<b>MACT</b> .....	Maximum Achievable Control Technology		
<b>µg/m<sup>3</sup></b> .....	micrograms per cubic meter		
<b>m/s</b> .....	meters per second		
<b>Mgal</b> .....	1,000 gallons		
<b>MW</b> .....	megawatt		
<b>MHDR</b> .....	maximum hourly design rate		



Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

## DEPARTMENT OF NATURAL RESOURCES

[www.dnr.mo.gov](http://www.dnr.mo.gov)

SEP 07 2016

Mr. Keith Higgins  
Owner  
Higgins Asphalt Paving Company, Inc.  
35086 Higgins Road  
Tipton, MO 65081

RE: New Source Review Permit - Project Number: 2016-04-020

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

A handwritten signature in black ink, appearing to read 'S. Heckenkamp'.

Susan Heckenkamp  
New Source Review Unit Chief

SH:dwl

Enclosures

c: Northeast Regional Office  
PAMS File: 2016-04-020

Permit Number: 092016-007

