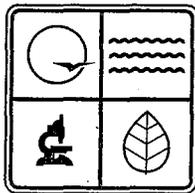


STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES  
MISSOURI AIR CONSERVATION COMMISSION



PERMIT BOOK

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: **122006-017** Project Number: **2006-10-002**

Owner: **Asphalt Products Inc.**

Owner's Address: **PO Box 104747, Jefferson City, MO 65110**

Installation Name: **Asphalt Products Inc.**

Installation Address: **County Road 4300, West Plains, MO 65775**

Location Information: **Howell County, S7 T24N, R8W**

Application for Authority to Construct was made for:

**Asphalt Products Inc. will change the fuel fired in their drum dryer from #2 fuel oil to #4 fuel oil. This review was conducted in accordance with Section (6), 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 (listed as attachments starting on page 2) are applicable to this permit.

DEC 26 2006

EFFECTIVE DATE

  
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.** Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. 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 as provided in RSMo 643.075. If you choose to appeal, the Air Pollution Control Program must receive your written declaration within 30 days of receipt of this permit.

If you choose not to appeal, this certificate, the project review, 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 Department of Natural Resources has established the Outreach and Assistance Center to help in completing future applications or fielding complaints about the permitting process. You are invited to contact them at 1-800-361-4827 or (573) 526-6627, or in writing addressed to Outreach and Assistance Center, P.O. Box 176, Jefferson City, MO 65102-0176.

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 Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention Construction Permit Unit.

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Permit No.	
Project No.	2006-10-002

## 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."*

Asphalt Products Inc.  
Howell County, S7 T24N, R8W

1. Fuel Type Limitation  
Asphalt Products Inc. may fire Number 2, 3, 4, 5 or 6 fuel oil in the drum dryer.
2. Sulfur Content of Fuel Oil Limitation
  - A. Asphalt Products Inc. shall ensure that the sulfur content of the fuel fired in the drum dryer does not exceed 2.00 percent of the fuel weight.
  - B. To demonstrate compliance, Asphalt Products Inc. shall obtain the sulfur content of the fuel oil for each fuel oil delivery from the fuel vendors or conduct their own fuel analysis to evaluate the typical sulfur content weight percent of the fuel oil.
3. Emission Limitation
  - A. Asphalt Products Inc. shall emit less than 50 tons of Sulfur Dioxide (SO<sub>2</sub>) from the drum dryer in any consecutive 12-month period.
  - B. Attachment A or equivalent forms approved by the Air Pollution Control Program shall be used to demonstrate compliance with Special Conditions 2(A).
4. Record Keeping
  - A. Asphalt Products Inc. shall maintain all records required by this permit for not less than five (5) years and shall make them available to any Missouri Department of Natural Resources personnel upon request.
  - B. Asphalt Products Inc. shall report to the Air Pollution Control Program Enforcement Section, P.O. Box 176, Jefferson City, Missouri 65102, no later than ten (10) days after the end of the month during which records indicate that the source exceeds a limitation of the Special Conditions.

REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE  
SECTION (6) REVIEW

Project Number: 2006-10-002  
Installation ID Number: PORT-0501  
Permit Number:

Asphalt Products Inc.  
County Road 4300  
West Plains, MO 65775

Complete: 9/29/06  
Reviewed: 10/23/06

Parent Company:  
Asphalt Products Inc.  
PO Box 104747  
Jefferson City, MO 65110

Howell County, S7 T24N, R8W

REVIEW SUMMARY

- Asphalt Products Inc. has applied for authority to change the fuel fired in their drum dryer from #2 fuel oil to #4 fuel oil.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment, but are below *de minimis* levels.
- This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of SO<sub>2</sub> are above *de minimis* levels.
- This installation is located in Howell County, an attainment area for all criteria air pollutants.
- This installation is not on the List of Named Installations [10 CSR 10-6.020(3)(B), Table 2].
- Ambient air quality screening was performed to determine the ambient impact of SO<sub>2</sub>.
- Emissions testing is not required for the equipment.
- An Basic Operating Permit is required for this installation.
- Approval of this permit is recommended with special conditions.

## INSTALLATION DESCRIPTION

Asphalt Products Inc. PORT-0501 is a hot-mix-asphalt (HMA) plant with a maximum hourly design rate of 300 tons of HMA per hour. The plant was originally permitted as a portable plant but has remained at the initial site. The applicant will submit an operating permit application.

The following permits have been issued to Asphalt Products Inc. from the Air Pollution Control Program.

Permit Number	Description
042004-008	New Portable Asphalt

## PROJECT DESCRIPTION

Asphalt Products, Inc. is changing the fuel used in the drum dry from #2 fuel oil to #4 fuel oil. Asphalt Products, Inc. is permitted to use any distillate of residual fuel oil so long as the sulfur content is below 2.00% by weight.

## EMISSIONS/CONTROLS EVALUATION

The emission factors and control efficiencies used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.3 Fuel Oil Combustion and Section 11.1 Hot Mix Asphalt Plants. Potential emissions of the application represent the potential of the new equipment, assuming continuous operation (8760 hours per year.) The following table provides an emissions summary for this project.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	*Existing Potential Emissions	Existing Actual Emissions (2005EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM <sub>10</sub>	15.0	98.32	8.89	N/A	N/A
SO <sub>x</sub>	40.0	26.26	0.57	299.59	< 50
NO <sub>x</sub>	40.0	135.59	2.56	N/A	N/A
VOC	40.0	43.66	2.74	N/A	N/A
CO	100.0	187.63	1.66	N/A	N/A
HAPs	10.0/25.0	5.18	0.55	N/A	N/A

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

\*Existing Potential Emissions taken from project: 2004-01-108

The emissions from a drum dryer for all criteria pollutants, except SO<sub>2</sub>, are the same for distillate and residual fuel oils. SO<sub>2</sub> emissions are dependent on the amount of sulfur in the fuel oil. For this reason, an emission factor for the combustion of #4 fuel oil was used to determine SO<sub>2</sub> emissions. AP-42 estimates that 50 percent of the fuel bound sulfur is absorbed in the hot mix asphalt.

## PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (6) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of SO<sub>2</sub> are above de minimis levels.

## APPLICABLE REQUIREMENTS

Asphalt Products 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.

### GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110  
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *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 10-3.090

### SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.260

## AMBIENT AIR QUALITY IMPACT ANALYSIS

Ambient air quality screening was performed to determine the ambient impact of SO<sub>2</sub>.

Pollutant	Modeled Impact	Ambient Air Increment	Time Period
SO <sub>2</sub>	13.93	20	Annual
SO <sub>2</sub>	69.66	91	24-hour
SO <sub>2</sub>	323.49	512	3-hour

Screen 3 was used to model the SO<sub>2</sub> concentration in the ambient air. The highest concentration occurred approximately 630 feet from the emissions source, inside the property boundary. The hourly emission rate for SO<sub>2</sub> is 68.4 pounds per hour. At this rate, the 3-hour average concentration is below the Ambient Air Increment Standards, found in 10 CSR 10-060 Table 1. To show compliance with the 24-hour and 3-hour Ambient Air Increment Standards, an average hourly emission rate was developed using the limitations found in permit 042004-008. This permit limits production to 3,488 tons of asphalt per day. At this production, 795 pounds of SO<sub>2</sub> are emitted each day and the average hourly emission rate per 24-hour period is 33.14 pounds of SO<sub>2</sub> per hour. When this hourly rate is applied to the Screen 3 model, SO<sub>2</sub> concentrations are below the 24-hour and annual Ambient Air Increment Standards.

#### STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (6), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

\_\_\_\_\_  
Michael Mittermeyer  
Environmental Engineer

\_\_\_\_\_  
Date

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated 9/25/2006, received 9/29/2006, designating Asphalt Products Inc. as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southeast Regional Office Site Survey, dated 10/16/2006.



Mr. Chris Yarnell, PE  
General Manager  
Asphalt Products Inc.  
County Road 4300  
West Plains, MO 65775

RE: New Source Review Permit - Project Number: 2006-10-002

Dear Mr. Yarnell:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, 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 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 Michael Mittermeyer at (573) 751-4817, or you may write to me at the Department of Natural Resources, Air Pollution Control Program, P.O. Box 176, Jefferson City, Missouri 65102. Thank you for your attention to this matter.

Sincerely,

**AIR POLLUTION CONTROL PROGRAM**

Kendall B. Hale  
New Source Review Unit Chief

KBH:mml

Enclosures

c: Southeast Regional Office  
PAMS File: 2006-10-002  
Permit Number: