## 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.

Permi	t Number: 082	0 1 0 - 0 0 4	Project Number: Installation ID:	2010-04-015 PORT-0667
Paren	t Company:	Magruder Paving LLC		
Paren	t Company Address	: 255 Watson Road, Troy, MO	63379	
Install	ation Name:	Magruder Paving LLC		
Install	ation Address:	Pemiscot County Port Authori Levee Road, Caruthersville, N	•	
Locati	on Information:	Pemiscot County, S1, T18N,	R12W	
plant i	ated at 400 tons pe	Construct was made for the or hour. This review was conducted CSR 10-6.060, Construction of the cons	ted in accordance	with Section
コ <b>ゴ</b>		s (on reverse) are applicable to		able to this
	AUG 0 6 2010			(,

DIRECTOR OR DESIGNEE

DEPARTMENT OF NATURAL RESOURCES

**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 devises shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the Departments' 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.

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Permit No.	
Project No.	2010-04-015

### **GENERAL 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."

- 1. Equipment Identification Requirement
  Magruder Paving LLC shall maintain easily read permanent markings on each component
  of the plant. These markings shall be the equipment's serial number or a company
  assigned identification number that uniquely identifies the individual component.
- 2. Relocation of Portable Rock Crushing Plant
  - A. Magruder Paving LLC shall not be operated at any location longer than 24 consecutive months.
  - B. A complete "Portable Source Relocation Request" application must be submitted to the Air Pollution Control Program prior to any relocation of this portable rock crushing plant.
    - If the portable rock crushing plant is moving to a site previously permitted, and if the circumstances at the site have not changed, then an application must be received by the Air Pollution Control Program at least seven days prior to the relocation.
    - If the portable rock crushing plant is moving to a new site, or if circumstances at the site have changed (e.g. the site was only permitted for solitary operation and now another plant is located at the site), then the application must be received by the Air Pollution Control Program at least 21 days prior to the relocation. The application must include written notification of any concurrently operating plants.
- 3. Maximum Hourly Production Level
  - A. The drum dryer of Magruder Paving LLC shall not exceed 195 tons per hour.
  - B. Magruder Paving LLC shall demonstrate compliance with special condition 3.A by recording hourly production on Attachment A or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
- 4. Record Keeping Requirement
  Magruder Paving LLC shall maintain all records required by this permit for not less than five
  years and shall make them available to any Missouri Department of Natural Resources'
  personnel upon request.
- 5. Reporting Requirement
  Magruder Paving LLC shall report to the Air Pollution Control Program Enforcement Section
  P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of
  the limitations imposed by this permit.

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#### SITE SPECIFIC 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."

PORT ID Number: PORT-0667 Site ID Number: 155-0074

Site Name: Pemiscot County Port Authority

Site Address: Levee Road Caruthersville, MO 63830

Site County: Pemiscot S1, T18N, R12W

1. Best Management Practices Requirement

Magruder Paving LLC shall control fugitive emissions from all of the haul roads and vehicular activity areas at this site by performing Best Management Practices as defined in Attachment AA.

2. Ambient Air Impact Limitation

- A. Magruder Paving LLC shall not cause an exceedance of the National Ambient Air Quality Standard (NAAQS) for particulate matter less than ten microns in aerodynamic diameter (PM<sub>10</sub>) of 150.0 μg/m<sup>3</sup> 24-hour average in ambient air.
- B. Magruder Paving LLC 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. Annual Emission Limit
  - A. Magruder Paving LLC shall emit less than 50.0 tons of  $SO_X$  in any 12-month period from the entire installation.
  - B. Magruder Paving LLC shall demonstrate compliance with special condition 3.A using Attachment B or another equivalent form that has been approved by the Air Pollution Control Program, including an electronic form.
- 4. Moisture Content Testing Requirement
  - A. Magruder Paving LLC shall verify that the moisture content of the processed rock is greater than or equal to 1.5% 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.

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Project No.	2010-04-015

#### SITE SPECIFIC 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 Magruder Paving LLC 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 also exceed the limit, Magruder Paving LLC 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 Air Pollution Control Program Compliance Assistance section 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, Magruder Paving LLC 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. Magruder Paving LLC shall control emissions from the drum dryer using baghouses as specified in the permit application.
  - 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).
  - D. Magruder Paving LLC shall monitor and record the operating pressure drop across the baghouses at least once every 24 hours. The operating pressure drop shall be

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#### SITE SPECIFIC SPECIAL CONDITIONS:

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

maintained within the design conditions specified by the manufacturer's performance warranty.

- E. Magruder Paving LLC 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 primary emission point shall be located at least 150 feet from the nearest property boundary.
- Concurrent Operation Restriction
   Magruder Paving LLC is prohibited from operating whenever other plants not owned by Magruder Paving LLC are located at the site.
- 8. Record Keeping Requirement
  Magruder Paving LLC 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.
- 9. Reporting Requirement
  Magruder Paving LLC shall report to the Air Pollution Control Program Enforcement Section
  P.O. Box 176, Jefferson City, MO 65102, no later than ten days after any exceedances of the limitations imposed by this permit.

# REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE

SECTION (6) REVIEW Project Number: 2010-04-015 Installation ID Number: PORT-0667 Permit Number:

Complete: April 6, 2010

Magruder Paving LLC Pemiscot County Port Authority Levee Road Caruthersville, MO 63830

Parent Company: Magruder Paving LLC 255 Watson Road Troy, MO 63379

Pemiscot County, S1, T18N, R12W

#### PROJECT DESCRIPTION

This permit is granting authority to Magruder Paving LLC to transport asphalt plant PORT-0667 and operate at Pemiscot County Port Authority in Caruthersville, Missouri. The maximum hourly design rate (MHDR) of the drum dryer is 400 tons per hour (tph). However, the drum dryer was tested at 177 tph to meet the requirements of 40 CFR 60 Subpart I, "Standards of Performance for Hot Mix Asphalt Facilities" in Mexia, Texas in April 2008 by METCO Environmental. Because the Air Pollution Control Program allows the actual productions to be within 10 % of the tested production rate, Magruder Paving LLC drum dryer shall not exceed 195 tph. The drum dryer is powered by # 5 fuel oil with a 2.0 % sulfur content.

A 120 million British thermal unit per hour (MMBTU/hr) burner will be used. The equipment of this asphalt plant will be powered by a 1,482 horsepower diesel generator. Also, an asphalt heater rated 3.5 MMBTU/hr is used to heat the asphalt. The PM<sub>10</sub> emissions from the drum dryer are controlled by a baghouse. 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 Pemiscot 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 250.0 tons per year and fugitive emissions are counted toward major source applicability.

No permits have been issued to Magruder Paving LLC from the Air Pollution Control Program for this portable asphalt plant in the past.

40 CFR 60 Subpart IIII, "Standards of Performance for Stationary Compression Ignition Internal Combustion Engines" was evaluated but the engine used was manufactured in 1988 and therefore not subject to 40 CFR 60 Subpart IIII.

#### **TABLES**

The table below summarizes the emissions of this project. The potential emissions of the process equipment, which excluded emissions from haul roads and wind erosion, are site specific should not vary from site to site. The existing actual emissions 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). This conditioned potential emissions are based on a voluntary limit on  $SO_X$  to avoid dispersion modeling requirements as found in 10 CSR 10-6.060 Section (6).

Table 1: Emissions Summary (tons per year)

Air Pollutant	De Minimis Level/ SMAL	<sup>1</sup> Potential Emissions of Process Equipment	Existing Actual Emissions	<sup>2</sup> Potential Emissions of the Application	<sup>3</sup> Conditioned Potential Emissions
PM <sub>10</sub>	15.0	5.16	N/A	32.72	1.55
SO <sub>X</sub>	40.0	1058.13	N/A	1058.13	< 50.0
NO <sub>X</sub>	40.0	202.77	N/A	202.77	9.30
VOC	40.0	45.37	N/A	45.37	2.12
CO	100.0	154.24	N/A	154.24	7.23
Lead Compounds	<sup>4</sup> 0.01	0.013	N/A	0.013	0.001
POM	<sup>4,5</sup> 0.01	0.789	N/A	0.789	0.037
Formaldehyde	<sup>4</sup> 2.0	2.73	N/A	2.73	0.13
Total HAPs	25.0	0.79	N/A	0.79	0.48

N/A = Not Applicable

Table 2: Ambient Air Quality Impact Analysis

Pollutant	¹NAAQS/ RAL (µg/m³)	Averaging Time	<sup>2</sup> Maximum Modeled Impact (µg/m³)	Limited Impact (µg/m³)	Background (µg/m³)	<sup>3</sup> Daily Limit (tons/day)
<sup>4</sup> PM <sub>10</sub> (same)	150.0	24-hour	170.53	130.0	20.0	3,752
$SO_X$	1,300	3-hour	118.49	137.07	N/A	N/A
$SO_X$	365	24-hour	52.66	48.83	N/A	N/A
$SO_X$	80	Annual	10.53	0.58	N/A	N/A
⁵POM	0.16	Annual	0.497	0.022	N/A	N/A

N/A = Not Applicable

<sup>&</sup>lt;sup>1</sup>Excludes site specific haul road and storage pile emissions

<sup>&</sup>lt;sup>2</sup>Includes site specific haul road and storage pile emissions

<sup>&</sup>lt;sup>3</sup>Conditioned Potential Emissions is based on a voluntary limit on SO<sub>X</sub>

<sup>&</sup>lt;sup>4</sup>Screening Model Action Level (SMAL)

<sup>&</sup>lt;sup>5</sup> Polycyclic Organic Matter (POM)

<sup>&</sup>lt;sup>1</sup>National Ambient Air Quality Standards (NAAQS) or Risk Assessment Level (RAL)

<sup>&</sup>lt;sup>2</sup>Modeled impact at maximum capacity with controls

<sup>&</sup>lt;sup>3</sup>Indirect limit based on compliance with NAAQS

<sup>&</sup>lt;sup>4</sup>Solitary operation or operation with other plants that are owned by Magruder Paving LLC

<sup>&</sup>lt;sup>5</sup>Polycyclic Organic Matter (POM)

The plant's emissions for  $SO_X$  were modeled using the SCREEN3 screen modeling software. The stack characteristic entered into the modeled are listed in Table 3.

Table 3: SCREEN3 Input Parameters

Equipment Description	Stack Height (m)	Stack Inside Diameter (m)	Stack Gas Exit Velocity (m/s)	Stack Gas Exit Temperature (K)	Dispersion Coefficient
Dryer	13.41	1.53	11.0	389.26	Rural
Generator	3.05	0.15	183.79	755.37	Rural

#### **EMISSIONS CALCULATIONS**

Emissions for the project were calculated using emission factors found in the United States Environmental Protection Agency (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. Sulfur oxide ( $SO_X$ ) 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 is controlled by a baghouse. The PM<sub>10</sub> emission factor used to calculate potential emissions were acquired from drum dryer the testing.

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 greater than 1.5% weight.

Emissions from the diesel generators were calculated using emission factors from AP-42 Section 3.4 "Large Stationary Diesel and All Stationary Dual-fuel Engines," October 1996. 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 is applied to the emission calculations for the use of BMPs. Emissions from loadin 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 is 1.5% 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 2. The Air Pollution Control Program requires an AAQIA of PM<sub>10</sub> for all asphalt, concrete and rock-crushing plants regardless of the level of PM<sub>10</sub> 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 SCREEN3. For each pollutant that was modeled, the maximum concentration that occurs at or beyond the site boundary was compared to the National Ambient Air Quality Standard (NAAQS) or Risk Assessment Level (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. In cases where the plant is providing material for a highway project, the ambient impact is evaluated in accordance with a memorandum issued by the Air Pollution Control Program titled "Permitting Asphalt/Concrete Plants for Temporary Highway Projects," dated April 10, 2000. This memorandum states that air quality should be analyzed at the nearest residence or location where the public could reasonably expected to be found instead of all ambient air. This practice generally allows for a less restrictive daily production level while protecting the public.

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  $\mu g/m^3$  of PM<sub>10</sub> in accordance with the Air Pollution Control Program's BMPs interim policy.

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

#### APPLICABLE REQUIREMENTS

Magruder Paving LLC 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 June 1 for the previous year's emissions.
- No Operating Permit is required for this installation.

- Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin, 10 CSR 10-6.170
- Restriction of Emission of Odors, 10 CSR 10-3.090

#### SPECIFIC REQUIREMENTS

- 40 CFR 60 Subpart I, "Standards of Performance for Hot Mix Asphalt Facilities" applies to the equipment.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPS) or National Emission Standards for Hazardous Air Pollutants for Source Categories (MACTS) apply to the proposed equipment.
- Restriction of Emission of Sulfur Compounds, 10 CSR 10-6.260
- 40 CFR Part 63 Subpart ZZZZ, "National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines" applies to the equipment.

#### 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. This permit is based on a voluntary limit on  $SO_X$  to avoid dispersion modeling requirements as found in 10 CSR 10-6.060 Section (6).

Daronn Williams	Date	
Environmental Engineer		

#### PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated March 26, 2010, received April 5, 2010, designating Magruder Paving LLC 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 April 12, 2010.
- Drum dryer test: "Source Emissions Survey of B.C. Materials, L.L.C. Baghouse

Exhaust Stack (EPN 1), taken in Mexia, Texas in April 2008.

## Attachment A: PM<sub>10</sub> Ambient Impact Tracking Sheet

Magruder Paving LLC PORT-0667 Project Number: 2010-04-015 Solitary or Same-Owner operation

Site Name: Pemiscot County Port Authority

Site Address: Levee Road, Caruthersville, MO 63830

Site County: Pemiscot, S1, T18N, R12W

This sheet covers the period from \_ (Copy as needed) (Month, Day Year) (Month, Day Year)

	Magruder Paving L PORT-0667	LC		Same Owner Plant Plant Name: Plant ID: Permit #:				
	Hours of daily	Hourly	Daily	Impact				
	production	Production	Production	Factor	Impact1	Impact <sup>2</sup>	Back-ground	Total Impact <sup>3</sup>
Date	(hr)	(ton/hour)	(tons)	(µg/m³ton)	Impact <sup>1</sup> (µg/m³)	Impact <sup>2</sup> (µg/m³)	Back-ground (μg/m³)	Total Impact <sup>3</sup> (µg/m³)
Example	15.5	195	3,022.5	0.0347	104.88	10.90	20.0	135.78
				0.0347			20.0	
				0.0347			20.0	
				0.0347			20.0	
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<sup>&</sup>lt;sup>1</sup> Calculate the impact for PORT-0667 by multiplying the Hours of daily production daily production by the impact factor. <sup>2</sup> Input the impact for any plants owned by Magruder Paving LLC that are operating on the site.

<sup>&</sup>lt;sup>3</sup> Calculate the total PM<sub>10</sub> impact by adding the applicable impacts and background. A total of 150 µg/m<sup>3</sup> or less is necessary for compliance.

## Attachment B: SO<sub>X</sub>Annual Emissions Tracking Sheet

Magruder Paving LLC PORT-0667 Project Number: 2010-04-015 Permit Number:

Site Name: Pemiscot County Port Authority

Site Address: Levee Road, Caruthersville, MO 63830

Site County: Pemiscot, S1, T18N, R12W

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

	(Mo	Month, Day Year) (Month, Day Year)				
Month	Production	Emission Factor	Monthly Emissions <sup>1</sup>	Monthly Emissions <sup>2</sup>	12-Month Total Emissions <sup>3</sup>	
	(tons)	(lb/ton)	(lbs)	(tons)	(tons)	
Example	161	1.24	200.0	0.1	1.2	
Example	5,000	1.24	6,200.0	3.1	4.3	
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<sup>&</sup>lt;sup>1</sup> Multiply the monthly production by the emission factor.

<sup>&</sup>lt;sup>2</sup> Divide the monthly emissions (lbs) by 2000.

Add the monthly emissions (tons) to the sum of the monthly emissions from the previous eleven months. A total of less than **50.0** 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<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 manufacture'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 rational 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

<sup>&</sup>lt;sup>1</sup>For purposes of this document, Control of Fugitive Emissions means to control particulate matter that is not collected by a capture system and visible emissions to the extent necessary to prevent violations of the air pollution law or regulation. (Note: control of visible emission is not the only factor to consider in protection of ambient air quality.)