



Jeremiah W. (Jay) Nixon, Governor • Kip A. Stetzler, Acting Director

## DEPARTMENT OF NATURAL RESOURCES

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DEC 10 2010

Mr. Michael T. Stevinson  
Wayne B. Smith, Incorporated  
10415 Highway 79 South  
P.O. Box 474  
Louisiana, MO 63353

RE: New Source Review Permit Applicability Determination  
Installation ID: 163-0008, Expiration Date: June 30, 2011  
Temporary Permit Number: 122010-007

Dear Mr. Stevinson:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your December 3, 2010 request to operate a 300 ton per hour portable rock crusher at the Wayne B. Smith, Incorporated (W.B. Smith) site located at 10415 Highway 79 South in Louisiana, Missouri. The Air Pollution Control Program is hereby granting your request to conduct this temporary activity according to Missouri State Rule 10 CSR 10-6.060(3), *Temporary Installations and Pilot Plants Permits*. Operation of the portable crusher at this site shall not go beyond June 30, 2011.

W.B. Smith is an existing minor source located in Pike County. The facility operates a limestone quarry and crushing plant, a sand dredging and storage facility, and a bauxite, urea, and ammonium nitrate processing plant. W.B. Smith manages its limestone crushing plant by operating close to its maximum production during the day and prefers not to operate at night or on weekends. W.B. Smith has requested permission to obtain a portable rock crusher in order to temporarily increase their throughput without increasing their hours of operation. The portable rock crusher is rated at 300 tons per hour and is a self-propelled unit powered by a diesel engine.

W.B. Smith has submitted two operating scenarios for the portable crusher. Scenario 1 includes transferring limestone from a storage pile to the crusher over a 100 foot haul road. The crushed limestone would be loaded directly to a barge for shipment. Scenario 2 includes the use of the portable crusher to generate a temporary storage pile. Scenario 2 would involve transferring the limestone over a 300 foot haul road, crushing the limestone, transferring the crushed limestone over a 200 foot haul road, and creating a new 0.1 acre temporary storage pile. Crushed limestone from this activity would be loaded into a truck for shipment. As both scenarios were considered for this review, W.B. Smith shall have the flexibility to operate either scenario for the duration of this permit. The emission units and activities considered for Scenario 1 and Scenario 2 are summarized in Table 1 and Table 2 on the next page.

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Table 1: Scenario 1 Emissions

Description	PM <sub>10</sub> Emission Rate (lb/hr)	PM <sub>2.5</sub> Emission Rate (lb/hr)
Unloading Fragmented Stone	0.0048	0.0014
Primary Crusher	0.16	0.048
Conveyor	0.014	0.0039
Truck/Barge Loading - Conveyor	0.030	0.0088
Vehicle Activity (100 ft Haul Road)	0.55	0.077

Table 2: Scenario 2 Emissions

Description	PM <sub>10</sub> Emission Rate (lb/hr)	PM <sub>2.5</sub> Emission Rate (lb/hr)
Unloading Fragmented Stone	0.0048	0.0014
Primary Crusher	0.16	0.048
Conveyor	0.030	0.0088
Vehicle Activity (300 ft Haul Road)	1.13	0.11
Vehicle Activity (200 ft Haul Road)	0.75	0.075
Storage Pile Load-In/Load-out	0.57	0.087
Storage Pile Wind Erosion	0.0089	0.0013

The emission factors used in this analysis were obtained from the Environmental Protection Agency (EPA) document AP-42, Fifth Edition, *Compilation of Air Pollutant Emission Factors*, Volume 1, Chapter 11.19.2 "Crushed Stone Processing and Pulverized Mineral Processing" (August 2004), Chapter 13.2.2 "Unpaved Roads" (November 2006), and the Missouri Air Pollution Control Program, EIQ Form 2.8 "Storage Pile Worksheet" (December 2009). A 90% control efficiency was applied to the haul road emissions for the use of chemical dust suppressants or paving. Potential emissions for Scenario 1 and Scenario 2 were calculated assuming continuous operation (8760 hours per year) and are summarized in Table 3 below. Emissions associated with the diesel engine are considered non-road engine emissions and are not included in the potential emissions of the project.

Table 3: Potential Emissions Summary (tons per year)

Pollutant	Scenario 1	Scenario 2
PM <sub>10</sub>	3.34	11.63
PM <sub>2.5</sub>	0.61	1.46

Given that the potential emissions are well below 100 tons per year for each pollutant, the request was made prior to the installation of the portable crusher, and ambient air quality standards are expected to be maintained; the proposed temporary permit is granted according to the provisions

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expected to be maintained; the proposed temporary permit is granted according to the provisions of Missouri State Rule, 10 CSR 10-6.060(3). Subsequent notification should be made to the Air Pollution Control Program once the portable crusher is no longer located at the facility.

W.B. Smith should also be aware that the potential emissions of Scenario 2 exceed the Insignificant Emission Exemption Levels indicated in 10 CSR 10-6.061, *Construction Permit Exemptions*. Therefore, operation of the portable rock crusher beyond the expiration of this permit would require further permit review under 10 CSR 10-6.060, *Construction Permits Required*.

10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*, does not apply to the equipment in this permit because the potential emissions of the non-fugitive sources have a potential to emit less than 0.5 pounds per hour. However, W.B. Smith is still obligated to meet all other applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you shall not violate:

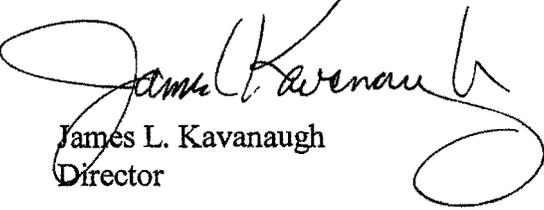
- 10 CSR 10-6.165, *Restriction of Emission of Odors*
- 10 CSR 10-6.170, *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*
- 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*

Additionally, this temporary permit does not give W.B. Smith the authority to exclude any emissions associated with this temporary activity from any applicable emission limit.

A copy of this letter should be kept with the unit and be made available to Department of Natural Resources' personnel upon verbal request. If you have any questions regarding this permit, please do not hesitate to contact Kathi Jantz at the Departments' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 751-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM

  
James L. Kavanaugh  
Director

JLK:kjl

c: Northeast Regional Office  
PAMS File: 2010-12-007