

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

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

www.dnr.mo.gov

MAR - 7 2012

CERTIFIED MAIL: 70041350000314153908
RETURN RECEIPT REQUESTED

Mr. Jonathan Kennedy
Environmental & Regulatory Affairs Manager
Mississippi Lime
16147 U.S. Highway 61
Ste. Genevieve, MO 63670

RE: New Source Review Temporary Permit Request - Project Number: 2012-02-022
Installation ID Number: 186-0001
Temporary Permit Number: **032012-004**
Expiration Date: March 1, 2014

Dear Mr. Kennedy:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to conduct an alternative fuel trial burn at Mississippi Lime, located in Ste. Genevieve, Missouri. The Air Pollution Control Program is hereby granting your request to conduct this temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3). Operation of the alternative fuel trial burn shall not go beyond March 1, 2014.

Mississippi Lime is a limestone mining and a lime manufacturing plant that is located in Ste. Genevieve, Missouri. The installation is a major source for construction permit purposes and a Part 70 (Title V) source for operating permit purposes. Mississippi Lime has requested the authority to study the use of alternative fuels in Rotary Kiln #1 (EP-640) and Rotary Kiln #2 (EP-645). According to the applicant, no additional equipment or physical changes will be required to allow for the test. Currently, the kilns are fueled by a coal and coke blend, except during start-up periods and refractory cure out when natural gas is used. The purpose of the study is to evaluate the viability of alternative fuels to coal and coke.

According to 10 CSR 10-6.060(3), temporary permits may be issued for projects that have the potential to emit less than 100 tons per year for each pollutant, and Mississippi Lime has indicated that they do not expect a significant increase in emissions due to the use of the alternative fuels. Rotary Kiln #1 (EP-640) and Rotary Kiln #2 (EP-645) were constructed under Permit #122002-007, which included pound per ton (or hourly) emission limits for Particulate Matter less than ten microns in diameter (PM₁₀), nitrogen oxides (NO_x), carbon monoxide (CO) and sulfur dioxide (SO_x) and annual limits on PM₁₀, NO_x, CO and SO_x for each kiln. Mississippi

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Lime will be required to continue compliance with these limits during the alternate fuel trial burn. However, sulfur dioxide and filterable particulate emissions are not expected to increase due to the trial burn. For sulfur dioxide, the sulfur content of the trial fuel blends will be equivalent to the average sulfur content of coal and coke. For filterable particulate matter, both kilns are currently controlled by baghouses, and the baghouse is expected to control particulate emissions to a constant rate. In addition, both kilns are equipped with a NO_x and SO_x continuous emissions monitoring system (CEMS) as a requirement in Permit #122002-007.

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 alternative fuels are no longer used at the facility. The following conditions apply to this temporary activity:

1. No later than 90 days following the expiration of this permit, Mississippi Lime shall submit a project report to the Air Pollution Control Program. This report shall include:
 - a. A copy of the Material Safety Data Sheet for each alternative fuel evaluated during any trial. Only non-hazardous materials may be used as an alternative fuel.
 - b. The emission unit ID (i.e. Kiln #), start date, start time, and duration of each trial.
 - c. The type, quantity, and Btu content of each alternative fuel used for each trial.
 - d. A table of emission factors for all regulated New Source Review pollutants developed for each alternative fuel.
 - e. A comparison of the emission factors developed for each alternative fuel and those for coal and coke.
 - f. The emission factors shall be reported in units of pounds pollutant per million BTU's.
 - g. A summary and discussion of the methods used to develop the emission factors.
 - h. Conclusions reached concerning the feasibility of each alternative fuel evaluated during this study.

Although stack testing is not required for this temporary activity, Mississippi Lime may be required to perform stack testing if Mississippi Lime should decide to pursue further permitting under 10 CSR 10-6.060, *Construction Permits Required*.

According to 40 CFR 52.21, *Prevention of significant deterioration of air quality*, condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for Particulate Matter (PM), Particulate Matter less than 2.5 microns in diameter (PM_{2.5}), and PM₁₀ in PSD permits, and Greenhouse Gases (GHGs) will be evaluated as

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a regulated NSR pollutant during any PSD review. Therefore, if Mississippi Lime decides to seek permanent authority for the use of the alternative fuels, Mississippi Lime should be prepared to provide detailed information on emissions of condensable particulate matter and GHGs from the use of the alternative fuel.

Mississippi Lime shall continue to comply with the conditions and limits of Permit #122002-007 for PM₁₀, CO, SO_x and NO_x. Any exceedance of the limits during the alternative fuel trial burn shall be considered a violation of the permit. Additionally, Mississippi Lime 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*, 10 CSR 10-6.260, *Restriction of Emission of Sulfur Compounds*, 10 CSR 10-6.400, *Restriction of Emission of Particulate Matter From Industrial Processes*.

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 determination, please do not hesitate to contact Emily Wilbur at the department's Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102, or by telephone at (573) 75 1-4817. Thank you for your time and attention to this matter.

Sincerely,

AIR POLLUTION CONTROL PROGRAM



Kyra L. Moore
Director

KLM:ewk

c: Southeast Regional Office
PAMS File: 2012-02-022