



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

## DEPARTMENT OF NATURAL RESOURCES

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**MAR 07 2016**

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

RE: New Source Review Temporary Permit Request - Project Number: 2016-01-014  
Installation ID Number: 186-0001  
Temporary Permit Number: **032016-001**  
Expiration Date: February 9, 2016

Dear Mr. Kennedy:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request for alternative fuel trial burns at Mississippi Lime Company, 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 burns shall not go beyond February 9, 2016.

Mississippi Lime is a limestone mining and lime manufacturing installation. It is a major source for construction permits and a Part 70 (Title V) source for operating permits. Mississippi Lime has required authority to study the use of alternative fuels in Rotary Kiln #7 (MRK7, EP-182H) and Rotary Kiln #8 (MRK8, EP-183H). In addition to the use of the alternative fuel, some additional handling equipment, including a hopper, blower, and a shredder will be installed. Construction of additional duct work and the modification of burner pipes, which are temporary and will be removed at the conclusion of this project, will also be required. The purpose of the study is to evaluate the viability of the alternative fuels.

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 of each pollutant. There will be increased particulate emissions from the additional handling equipment and haul road. Particulate emissions from hopper load-in were calculated using the drop point equation in Environmental Protection Agency (EPA) document AP-42, *Compilation of Air Pollutant Emission Factors, Volume 1: Stationary Point and Area Sources*, Fifth Edition, Chapter 13.2.4, "Aggregate Handling and Storage Piles," 11/2006. Particulate emissions from haul road were calculated using emission factors from equations in AP-42, Chapter 13.2.2, "Unpaved Roads," 11/2006. A 90% control efficiency was given for the use of documented watering and sweeping. The particulate

emissions calculated from these sources are 0.015 tons per year (tpy) of PM<sub>2.5</sub>, 0.15 tpy of PM<sub>10</sub>, and 0.50 tpy of PM. These emissions are not expected to increase to greater than 100 tpy if other equipment, including the shredder, blower (both of which are exhausted through the kilns), and the kilns are taken into account because their emissions are controlled by a scrubber. The sulfur content of the alternative fuel is expected to be less than that of coal and coke, the current fuel being used in the kilns. Therefore, the sulfur dioxide emissions are not expected to increase. Emissions of all other pollutants are not expected to increase by 100 tpy because the properties of the alternative fuel are very similar to the properties of coal and coke. The emissions factors for each pollutant will be confirmed during the trial burns.

At the conclusion of the trial burns, notification should be made to the Air Pollution Control Program to indicate that the alternative fuels are no longer used at the facility. The following conditions also 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 the following:
  - A. A copy of the safety data sheet (SDS) for each alternative fuel evaluated during the trial. Only non-hazardous material may be used as an alternative fuel.
  - B. The emission unit ID (i.e. Kiln No.), 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. A summary and discussion of the methods used to develop the emission factors.
  - G. Conclusions reached concerning the feasibility of each alternative fuel evaluated during this study.

The emission factors shall be reported in units of pounds of pollutant per MMBtu.

If Mississippi Lime decides to seek permanent authority for the use of the alternative fuels, it shall also be prepared to provide detailed information on emissions of Greenhouse Gases (GHG) and Hazardous Air Pollutants (HAPs) from the use of the alternative fuels. For these pollutants, a comparison shall also be made between the emissions from the alternative fuel and that of coal and coke.

The alternative fuel is classified as a non-waste fuel in accordance with the requirements in 40 CFR Part 241. Therefore, 40 CFR Part 60, Subpart CCCC, *Standards of Performance for Commercial and Industrial Solid Waste Incineration Units for Which Construction is Commenced After November 30, 1999, or for Which Modification or Reconstruction is Commenced After June 1, 2001*, of the New Source Performance Standards (NSPS) does not apply to this project. The classification of the alternative fuel as non-waste was confirmed by the EPA in a letter dated October 5, 2011.

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Mississippi Lime is still obligated to meet all applicable air pollution control rules, Department of Natural Resources' rules, or any other applicable federal, state, or local agency regulations. Specifically, you should avoid violating 10 CSR 10-6.045 *Open Burning Requirements*, 10 CSR 10-6.220, *Restriction of Emission of Visible Air Contaminants*, 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 10-6.261, *Control of Sulfur Dioxide Emissions*, and 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 Chia-Wei Young at the departments' 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:cyl

c: PAMS File: 2016-01-014  
Southeast Regional Office