



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

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

DEC - 7 2010

Mr. Schuyler Johnson
 EHS Manager
 Chemical Lime Company
 Ste. Genevieve Operations
 P.O. Box 488
 Ste. Genevieve, MO 63670

RE: New Source Review Permit Application
 Installation ID: 186-0035, Expiration Date: November 30, 2012
 Temporary Permit Number:

122010-004

Dear Mr. Johnson:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your November 8, 2010 request to conduct a study of several different solid fuel alternatives at the lime manufacturing site known as Chemical Lime Company of Missouri, Incorporated dba/Lhoist North America (Chemical Lime). This site is located at 20947 White Sands Road, Ste. Genevieve, Missouri in Ste. Genevieve County. 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 solid fuel alternative study shall not go beyond November 30, 2012.

Chemical Lime operates a 2,700 ton per day lime manufacturing plant. The facility is a major source and was newly constructed in 1995. Limestone is transported to the site from a nearby quarry (Tower Rock Stone) and calcined in two solid fuel-fired rotary kilns. The finished lime product is transported to customers by barge, rail, and truck. Chemical Lime has requested the authority to study the use of several different types of solid fuels in the rotary kilns and to install the associated feed handling equipment; including a hopper, a blower, and some duct work. The kilns are primarily fueled by coal and coke and supplemented with natural gas. The purpose of the study is to evaluate the viability of various solid fuel alternatives 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 Chemical Lime has indicated that they do not expect an increase in emissions due to the use of the experimental fuels. Filterable particulate emissions are expected to be the same because the baghouse dust collectors used to control particulate emissions are regarded as constant emitting devices. Emissions of sulfur dioxide are expected to be the same or less because the sulfur content of the alternative

fuels is less than the average sulfur content of coal and coke. Emissions of all other pollutants are expected to be the same or less due to the similarity of the fuel properties to those of coal and coke.

Given that the potential emissions are expected to be below 100 tons for each pollutant, the request was made prior to the installation of the feed handling equipment, and the ambient air quality standards are 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 solid fuel alternatives and the associated feed handling equipment are no longer used or located at the facility. The following conditions apply to this temporary activity:

1. No later than 90 days following the expiration of this permit, Chemical 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 solid fuel alternative evaluated during any trial.
 - 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 solid fuel alternative used for each trial.
 - d. A table of emission factors for all regulated New Source Review pollutants developed for each solid fuel alternative.
 - e. A comparison of the emission factors developed for each solid fuel alternative 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 solid fuel evaluated during this study.
2. No later than 90 days following the expiration of this permit, Chemical Lime shall remove all feed system and fuel storage equipment installed for this temporary activity.

Although stack testing is not required for this temporary activity, Chemical Lime should be aware that stack test results would be helpful if Chemical Lime should decide to pursue further permitting under 10 CSR 10-6.060, *Construction Permits Required*.

Chemical Lime should also be aware that the use of the alternate solid fuels beyond the expiration of this permit or for purposes other than evaluating feasibility may be considered a change in the method of operation and subject to Prevention of Significant Deterioration (PSD) review. According to 40 CFR 52.21, *Prevention of significant deterioration of air quality*, beginning in January 2011, condensable particulate matter shall be accounted for in applicability determinations and in establishing emissions limitations for Particulate Matter (PM), Particulate

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Matter less than 2.5 microns in diameter (PM_{2.5}), and Particulate Matter less than 10 microns in diameter (PM₁₀) in PSD permits. Additionally, 40 CFR 52.21 states that beginning in January 2011, Greenhouse Gases (GHGs) will be a regulated NSR pollutant subject to PSD review. Therefore, should Chemical Lime decide to pursue further permitting, they are advised to develop an understanding of the effects of the solid fuel alternatives on emissions of condensable particulate matter and GHGs.

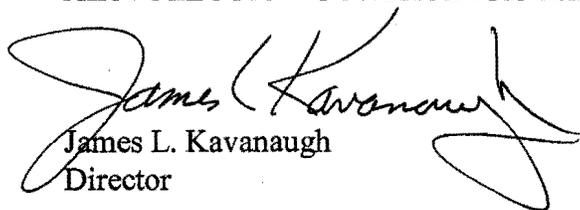
This temporary permit does not give Chemical Lime the authority to exclude any emissions associated with this temporary activity from any applicable emission limit. Additionally, Chemical Lime is still obligated to meet all other applicable air pollution control rules, Department of Natural Resources' 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 permit, please do not hesitate to contact Kathi Jantz with 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: Southeast Regional Office
PAMS File: 2010-11-027