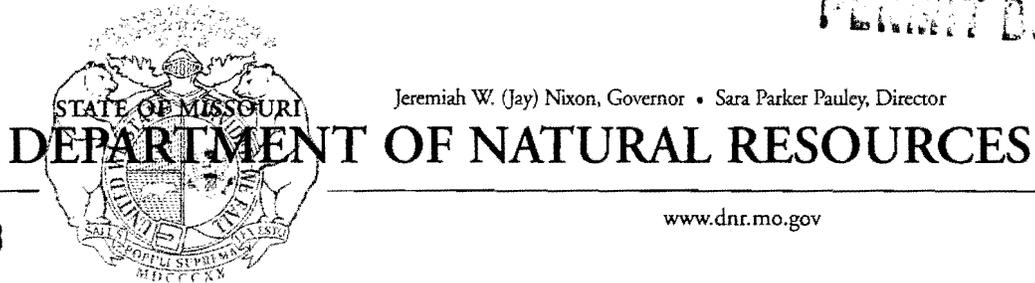


PERMIT BOOK



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

## DEPARTMENT OF NATURAL RESOURCES

MAY 29 2013

www.dnr.mo.gov

Mr. Kenneth Anderson  
Managing Supervisor - Air Quality  
Ameren Corporation  
P.O. Box 66149, MC 602  
St. Louis, MO 63166

RE: New Source Review Temporary Permit Request - Project Number: 2013-04-074  
Installation ID Number: 183-0001  
Temporary Permit Number:  
Expiration Date: September 1, ~~2013~~ **0532 013 - 014**

Dear Mr. Anderson:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to test CyClean B and powdered activated carbon (PAC) at Ameren Missouri Sioux Energy Center, Units 1 and 2, located in West Alton, 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).

The purpose of the project is to test the ability of CyClean B and PAC each alone and in combination to lower mercury emissions. CyClean B was previously evaluated at the site with CyClean A under projects 2011-06-012 and 2011-10-001. CyClean B will continue to be applied directly to the coal, consistent with the previous projects. Likewise, no emissions are expected with its use. PAC will be delivered to the site in 900 pound sacks. It is expected that less than 7,000 pounds of PAC will be used in the testing program. The sacks will be loaded into the hopper of the PAC dosing station and immediately wet-mixed into the limestone slurry of the existing wet flue gas desulfurization (WFGD) system. The dosing station is located inside the enclosed WFGD building, and insignificant emissions are expected from the PAC transfer during the testing program. Insignificant emissions from testing program PAC use are also expected from PAC receiving haul roads, boilers' combined stack, WFGD byproduct handling, and WFGD byproduct shipping haul roads.

Ameren Missouri is approved to use 7,000 pounds of PAC during the testing program. Ameren Missouri shall record the amount of CyClean B and PAC used and the respective usage dates. Those records shall be submitted to the Air Pollution Control Program's Compliance/Enforcement Section within 30 days of the expiration of this permit. In order to continue PAC usage past the expiration date, Ameren Missouri will need to seek permission from the Air Pollution Control Program.

During the testing program, Ameren Missouri should evaluate the effects of the addition of PAC/CyClean B on the boilers' operation and emissions. This study will be necessary if Ameren Missouri applies for a construction permit to use PAC and CyClean B alone or in combination with each other on a permanent basis. The study should include but is not limited to the following information,



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Mr. Kenneth Anderson  
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1. Identification of the emission units and control devices evaluated for this project
2. Locations of the additive introduction and sampling sites
3. Additive rates and concentrations, unit load for each trial
4. The date, time, and duration of each trial
5. Comparison of emission rates of PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>x</sub>, NO<sub>x</sub>, VOC, CO, CO<sub>2</sub>, and mercury during the tests and immediately pre or post project
6. Higher heating value, sulfur, mercury, moisture, and ash content of the coal used in the tests and during the respective pre or post project testing period
7. The six minute average opacity data collected during each test and for a 24-hour period before and after each test
8. A comparison of boilers' operation before and after application of the PAC/CyClean additives including the maximum output, boilers' efficiency, and any other key boiler parameters that are necessary to demonstrate boiler performance and the effects of the PAC/CyClean additives on their operation
9. Conclusions reached concerning the emissions reduction effectiveness of the testing project

You are 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*, and 10 CSR 10-6.405 *Restriction of Particulate Matter Emissions From Fuel Burning Equipment Used for Indirect Heating*.

A copy of this letter should be kept at the installation 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 David Little 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



Kyra L. Moore  
Director

KLM:dlk

c: St. Louis Regional Office  
PAMS File: 2013-04-074