



STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

Matt Blunt, Governor • Doyle Childers, Director

[www.dnr.mo.gov](http://www.dnr.mo.gov)

APR - 4 2008

Mr. Tad Johnsen  
Superintendent  
Columbia Municipal Power Plant  
P.O. Box 6015  
Columbia, MO 65201

RE: New Source Review Temporary Permit Request – Project Number: 2008-01-025  
Installation ID Number: 019-~~004~~ 2008 - 003  
Temporary Permit Number:  
Expiration Date: March 10, 2010

Dear Mr. Johnsen:

The Missouri Department of Natural Resources' Air Pollution Control Program has completed a review of your request to temporarily burn a wood/coal blend fuel in your coal-fired boilers (EP-01 and EP-02). The Air Pollution Control Program is hereby granting your request to conduct these temporary operations at this location according to Missouri State Rule 10 CSR 10-6.060(3). Permission to conduct the above activities is hereby granted provided that no more than 100 tons per year of carbon monoxide is emitted from the boilers while burning the blended fuel during each year of this trial.

The Columbia Municipal Power Plant proposes to burn a wood/coal blend for each year of the trials in order to assess the feasibility of combusting the blend in their coal-fired boilers. The study will test the boiler efficiencies and material flow properties of various wood/coal blends. Possible blends up to 25 wt% wood are planned. The wood source for the study will likely be surplus white oak from a barrel stock and stand production facility. The material is approximately 2-inch chip clean material, at 8,300 to 8,700 Btu per pound. Existing equipment will be used during the trial evaluation. The usage of the wood/coal blend is not expected to change or cause an increase in design capacity of the boiler and the raw material handling/processing operations.

The emission factors used in this analysis were obtained from Environmental Protection Agency document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition, Section 1.6, *Wood Residue Combustion in Boilers (9/03)* and the facility's 2006 Emission Inventory Questionnaire. The following table shows the potential emissions assuming operation of 8,760 hours per year. The emissions for the blended fuel is based burning a 25% wood/ 75% coal blend.

Table 1: Potential Emissions in tpy (based on 8,760 hours per year)

	PM <sub>10</sub> *	Sulfur Oxides	Nitrogen Oxides	Carbon Monoxide	VOC*	HAPs
Wood/Coal Blend	1.2	1408.4	488.2	259.2	4.5	47.7
Coal Only	1.3	1873.4	535.2	203.7	2.0	55.0

\*PM<sub>10</sub> = Particulate matter less than 10 micron, VOC = Volatile Organic Compound

Emissions for all pollutants other than carbon monoxide (CO) and VOC decrease while burning the blended fuel as opposed to coal only. For the blended fuel, the VOC total emissions do not have the potential to exceed 100 tons per year. Since CO is the only pollutant with the capability of emitting more than 100 tons per year while burning the blended fuel, CO emissions will be limited to less than 100 tons per year while burning the blended fuel.

As such, permission to temporarily burn the blended fuel is granted up to the expiration date stated above. In order to continue burning the blended fuel past the expiration date, the Columbia Municipal Power Plant will need to seek permission from the Air Pollution Control Program.

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 10-6.170, *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*; 10-3.030, *Open Burning Restriction*; and 10 CSR 10-3.090, *Restriction of Emission of Odors*.

An accurate record of the total amount of the wood/coal blend combusted in the boiler and the resulting carbon monoxide totals shall be maintained for not less than five years. Attachment A or equivalent form shall be used to demonstrate compliance.

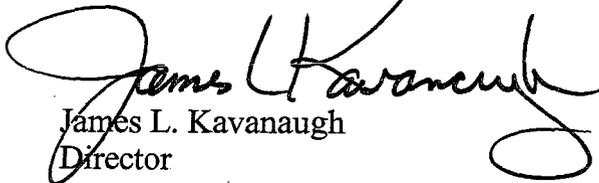
Mr. Tad Johnsen  
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A copy of this letter should be kept on-site and be made immediately available to Department of Natural Resources' personnel upon request. If you have any questions regarding this temporary permit, please contact Ms. Susan Heckenkamp 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:shn

Attachment

c: Mr. Steve Feeler, Compliance/Enforcement Section  
Northeast Regional Office  
PAMS File 2008-01-025

