

STATE OF MISSOURI  
DEPARTMENT OF NATURAL RESOURCES

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

www.dnr.mo.gov

JUL 29 2014

Mr. Christian Johanningmeier  
Power Production Superintendent  
Columbia Municipal Power Plant  
105 East Ash Street  
Columbia, MO 65205-6015

Dear Mr. Johanningmeier:

RE: Temporary Permit Extension Request - Project Number: 2014-07-015  
Installation ID Number: 019-0002  
Temporary Permit Number: **072014-013**  
Expiration Date: December 31, 2014

Dear Mr. Johanningmeier:

The Missouri Department of Natural Resources' Air Pollution Control Program has reviewed your request to extend the temporary trial burns allowed by Permits 042013-013 and 042013-013A due to the installation being unable to obtain the corn stover and grass needed to perform the trial burns. The Air Pollution Control Program is hereby granting your request to extend the temporary operation at this location in accordance with Missouri State Rule 10 CSR 10-6.060(3).

On April 30, 2013, the Air Pollution Control Program authorized Columbia Municipal Power Plant to conduct two separate trial burns to test the feasibility of combusting corn stover and grass blended with coal in EP-02 Boiler #7. In the first trial burn the installation will combust up to 50 percent corn stover with the remaining percentage being coal. In the second trial burn the installation will combust up to 50 percent corn stover and grass with the remaining percentage being coal. Percentages are based upon Btu rating rather than tonnage. The corn stover and grass will be handled using the installation's existing coal handling equipment. No new equipment will be added.

Due to the supplier having limited manufacturing capability, Columbia Municipal Power Plant was unable to obtain the corn stover and grass needed to conduct the trial burns prior to the expiration date of December 31, 2013; therefore, the Air Pollution Control Program extended the permit by an additional six months (see Permit 042013-013A).

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The supplier has completed the setup of their pilot plant and plans to produce the corn stover and grass derived fuel for the trial burn in July. Columbia Municipal Power Plant anticipates testing to occur by October; therefore, the Air Pollution Control Program is extending the permit by an additional six months.

Permission to conduct the trial burns is granted with the following conditions:

1. The permittee shall combust no more than 700 tons of corn stover and grass in EP-02 Boiler #7.
2. No later than 90 days after the expiration date of this permit, the permittee shall submit a project report to the Air Pollution Control Program. The report shall include:
  - a. A copy of the analytical data for each batch of corn stover and corn stover/grass combusted during each trial burn.
  - b. The start date, start time, and duration of each trial burn.
  - c. The quantity in tons and the heat content in Btu of the corn stover, grass, and coal combusted during each trial burn.
  - d. A table of emission factors developed from the stack testing conducted during the trial burns. The developed emission factor table shall include sample calculations and a full stack testing report.
  - e. The emission factors shall be reported in both pounds of pollutant per MMBtu and pounds of pollutant per ton.
  - f. An emission factor comparison for the different types of fuels combusted.
  - g. A steam production rate comparison for the different types of fuels combusted.
  - h. An emission factor summary including discussion of the methods used to develop the emission factors.
  - i. Conclusions reached concerning the long-term feasibility of blending corn stover or corn stover/grass with coal in EP-02 Boiler #7.

The permittee 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 10-6.165 *Restriction of Emission of Odors*
- ◆ 10 CSR 10-6.170 *Restriction of PM 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 10-6.405 *Restriction of PM Emissions From Fuel Burning Equipment Used for Indirect Heating*
- ◆ 40 CFR Part 64 *Compliance Assurance Monitoring*
- ◆ 40 CFR Parts 72, 73, 75, 76, 77, and 78 *Acid Rain Program*
- ◆ 40 CFR Part 96 *CAIR*

A copy of this letter should be kept with the unit and be made available to Department of Natural Resources' personnel upon verbal request.

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If you have any questions regarding this determination, please do not hesitate to contact Alana Rugen 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

A handwritten signature in cursive script that reads "Kendall B. Hale".

Kendall B. Hale  
Permits Section Chief

KBH:arl

c: Northeast Regional Office  
PAMS File: 2013-12-036