

PERMIT BOOK

STATE OF MISSOURI



DEPARTMENT OF NATURAL RESOURCES

MISSOURI AIR CONSERVATION COMMISSION

PERMIT TO CONSTRUCT

Under the authority of RSMo 643 and the Federal Clean Air Act the applicant is authorized to construct the air contaminant source(s) described below, in accordance with the laws, rules and conditions as set forth herein.

Permit Number: **06 2007 - 002** Project Number: 2007-05-041

Parent Company: City Utilities of Springfield, Missouri

Parent Company Address: 301 East Central, P.O. Box 551, Springfield, MO
65801-0551

Installation Name: City Utilities of Springfield - James River Power Station

Installation Address: 5701 South Kissick Road, Springfield, MO 65801-0551

Location Information: Greene County, S20, T28N, R21W

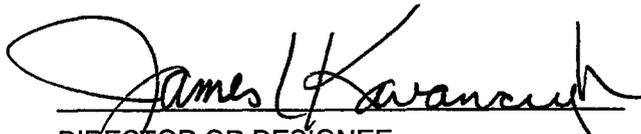
Application for Authority to Construct for the addition of a fuel oil storage tank and coal crusher. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

Standard Conditions (on reverse) are applicable to this permit.

Standard Conditions (on reverse) and Special Conditions are applicable to this permit.

JUN - 4 2007

EFFECTIVE DATE



DIRECTOR OR DESIGNEE
DEPARTMENT OF NATURAL RESOURCES

STANDARD CONDITIONS:

PERMIT BOOK

Permission to construct may be revoked if you fail to begin construction or modification within two years from the effective date of this permit. Permittee should notify the Air Pollution Control Program if construction or modification is not started within two years after the effective date of this permit, or if construction or modification is suspended for one year or more.

You will be in violation of 10 CSR 10-6.060 if you fail to adhere to the specifications and conditions listed in your application, this permit and the project review. In the event that there is a discrepancy between the permit application and this permit, the conditions of this permit shall take precedence. Specifically, all air contaminant control devices shall be operated and maintained as specified in the application, associated plans and specifications.

You must notify the department's Air Pollution Control Program of the anticipated date of start up of this (these) air contaminant source(s). The information must be made available not more than 60 days but at least 30 days in advance of this date. Also, you must notify the Department of Natural Resources Regional office responsible for the area within which you are located with 15 days after the actual start up of this (these) air contaminant source(s).

A copy of this permit and permit review shall be kept at the installation address and shall be made available to Department of Natural Resources' personnel upon request.

You may appeal this permit or any of the listed special conditions to the Administrative Hearing Commission (AHC), P.O. Box 1557, Jefferson City, MO 65102, as provided in RSMo 643.075.6 and 621.250.3. If you choose to appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed. If it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC.

If you choose not to appeal, this certificate, the project review and your application and associated correspondence constitutes your permit to construct. The permit allows you to construct and operate your air contaminant source(s), but in no way relieves you of your obligation to comply with all applicable provisions of the Missouri Air Conservation Law, regulations of the Missouri Department of Natural Resources and other applicable federal, state and local laws and ordinances.

The Air Pollution Control Program invites your questions regarding this air pollution permit. Please contact the Construction Permit Unit at (573) 751-4817. If you prefer to write, please address your correspondence to the Missouri Department of Natural Resources' Air Pollution Control Program, P.O. Box 176, Jefferson City, MO 65102-0176, attention: Construction Permit Unit.

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65801-0551

Installation Name:

City Utilities of Springfield - James River Power Station

Installation Address:

5701 South Kissick Road, Springfield, MO 65801-0551

Location Information:

Greene County, S20, T28N, R21W

Application for Authority to Construct for the addition of a fuel oil storage tank and coal crusher. This review was conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*.

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REVIEW OF APPLICATION FOR AUTHORITY TO CONSTRUCT AND OPERATE
SECTION (5) REVIEW

Project Number: 2007-05-041
Installation ID Number: 077-0005
Permit Number:

City Utilities of Springfield
James River Power Station
5701 South Kissick Road, P.O. Box 551
Springfield, MO 65801-0551

Complete: May 4, 2007

Parent Company:
City Utilities of Springfield, Missouri
301 East Central, P.O. Box 551
Springfield, MO 65801-0551

Greene County, S20, T28N, R21W

REVIEW SUMMARY

- City Utilities of Springfield - James River Power Station has applied for authority to add a fuel oil storage tank and coal crusher.
- Hazardous Air Pollutant (HAP) emissions are expected from the proposed equipment in insignificant amounts from the fuel storage tank.
- 40 CFR Part 60, Subpart Y, *Standards of Performance for Coal Preparation Plants*, of the NSPS applies to the coal crusher.
- None of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) or currently promulgated Maximum Achievable Control Technology (MACT) regulations apply to the proposed equipment.
- No air pollution control equipment is being used in association with the new equipment.
- This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ and volatile organic compounds (VOCs) are at de minimis levels.
- This installation is located in Greene County, an attainment area for all criteria air pollutants.
- This installation is on the List of Named Installation [10 CSR 10-6.020(3)(B), Table 2, Number 26 – *Fossil-fuel fired steam electric plants of more than 250 million British thermal units per hour heat input*]. Therefore, the major source threshold for all criteria pollutants is 100 tons per year.

- Ambient air quality modeling was not performed since potential emissions of the application are at de minimis levels.
- Emissions testing is not required for the equipment.
- An off-permit change to the installation's Part 70 Operating Permit application is required within 1 year of equipment startup.
- Approval of this permit is recommended with special conditions.

INSTALLATION DESCRIPTION

James River Power Station (JRPS) is a fossil-fuel steam electric generation facility owned and operated by City Utilities of Springfield, Missouri. JRPS consists of five coal-fired electric utility steam generating units (EUSGUs) with a gross electrical output capacity of 253-megawatt (MW) and two combustion turbines with a combined output of 147 MW. The five pulverized coal-fire units have an aggregate maximum design heat input rate of 2,596 MMBTU/hr. Power River Basin (PRB) coal is burned in these units. Particulate matter emissions are controlled using electrostatic precipitators.

The installation is a major source for both construction and operating permits. JRPS is considered a Part 70 source and an operating permit, Permit No. OP2001-049, was issued in June 2001. The Part 70 permit renewal application (Project No. 2005-12-024) was received on December 14, 2005 and is currently under technical review.

The following construction permits have been issued to JRPS from the Air Pollution Control Program.

Table 1. Previously Issued Construction Permits

Permit Number	Description
1085-002A	Dry Fly Ash Collection System
0888-002A	Construct Gas Turbine
0391-002 (PSD)	Installation Of Second Gas Turbine Generator
0697-008	Construction Of Coal Unloading And Handling Equipment
042000-016	Installation Of Water Fogging System To Air Inlet Of CT#12
082001-003	Modification To Increase Coal Handling And Unloading
032003-017	Modification Of Fly Ash Collection System
032003-017A	Amendment To Permit No. 032003-017
102006-006	Propane Peak Shaving
032007-003	Replacement of existing Over-Fire Air (OFA) combustion controls and upgrade of existing burner configuration with an "ultra low-NO _x " design on Unit 3, Unit 4, and Unit 5. A High Energy Reagent Technology (HERT) system will be installed for additional NO _x control

PROJECT DESCRIPTION

JRPS is seeking authority to add a fuel oil storage tank and a coal crusher. The fuel oil storage tank will provide additional fueling capacity for heavy equipment and large mobile sources (i.e. dozers, scrapers, and trucks) at the plant site. The fuel storage tank will store No. 1 and/or No.2 fuel oil. The maximum design storage capacity will not exceed 8,000 gallons. Working losses of the storage tank are based on a throughput of 8,000 gallons per day. Actual usage is estimated at 8,000 gallons per month. JRPS is voluntarily limiting their sulfur content of the fuel oil to 0.1% by weight.

A coal crusher is also being added in order to reduce the size of the coal being introduced to the existing boilers. It will be located in the existing coal transfer house. The reduction in the coal size will help provide more complete burning of the fuel. The coal crusher has a maximum design rating of 720 tons per hour. However, the potential emissions of the crusher is based on the maximum amount of coal that can be burned in the existing boilers which is equal to 1,250,000 tons per year.

There are no control devices being used on the proposed equipment.

EMISSIONS/CONTROLS EVALUATION

The emission factors used in this analysis were obtained from the Environmental Protection Agency document Factor Information Retrieval (FIRE) V6.24, *Source Classification Codes and Emission Factors Listing for Criteria Air Pollutants* (SCC #3-05-010-10 for the coal crusher and #4-03-010-19 and #4-03-010-21 for working and breathing losses of the storage tank).

The following table provides an emissions summary for this project. Existing potential emissions were taken from Permit Number 032007-003. Existing actual emissions were taken from the installation's 2005 Emission Inventory Questionnaire (EIQ). The potential emissions of PM₁₀ are based on the bottleneck created by the maximum amount of coal that can be burned in the existing boilers.

Table 1: Emissions Summary (tons per year)

Pollutant	Regulatory <i>De Minimis</i> Levels	Existing Potential Emissions (Note 1)	Existing Actual Emissions (2005 EIQ)	Potential Emissions of the Application	New Installation Conditioned Potential
PM ₁₀	15.0	1065	254	3.75	N/A
SO _x	40.0	32157	4894	N/A	N/A
NO _x	40.0	<9078	4013	N/A	N/A
VOC	40.0	147	33	0.03	N/A
CO	100.0	3388	276	N/A	N/A
HAPs	10.0/25.0	796	40	N/A	N/A

N/A = Not Applicable

Note 1: In permit 032007-003, upgrades to Unit 3, 4, and 5 were permitted. As a result of these upgrades, there should be a significant reduction in NO_x emissions. However, the amount of reductions have not yet been quantified at the time of this permit.

PERMIT RULE APPLICABILITY

This review was conducted in accordance with Section (5) of Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*. Potential emissions of PM₁₀ and VOCs are at de minimis levels.

APPLICABLE REQUIREMENTS

City Utilities of Springfield - James River Power Station shall comply with the following applicable requirements. The Missouri Air Conservation Laws and Regulations should be consulted for specific record keeping, monitoring, and reporting requirements. Compliance with these emission standards, based on information submitted in the application, has been verified at the time this application was approved. For a complete list of applicable requirements for your installation, please consult your operating permit.

GENERAL REQUIREMENTS

- *Submission of Emission Data, Emission Fees and Process Information*, 10 CSR 10-6.110
The emission fee is the amount established by the Missouri Air Conservation Commission annually under Missouri Air Law 643.079(1). Submission of an Emissions Inventory Questionnaire (EIQ) is required April 1 for the previous year's emissions.
- *Operating Permits*, 10 CSR 10-6.065
- *Restriction of Particulate Matter to the Ambient Air Beyond the Premises of Origin*, 10 CSR 10-6.170
- *Restriction of Emission of Visible Air Contaminants*, 10 CSR 10-6.220
- *Restriction of Emission of Odors*, 10 CSR 10-3.090

SPECIFIC REQUIREMENTS

- *Restriction of Emission of Particulate Matter From Industrial Processes*, 10 CSR 10-6.400
- *New Source Performance Regulations*, 10 CSR 10-6.070 – *New Source Performance Standards (NSPS) Standards of Performance for Coal Preparation Plants*, 40 CFR Part 60, Subpart Y

STAFF RECOMMENDATION

On the basis of this review conducted in accordance with Section (5), Missouri State Rule 10 CSR 10-6.060, *Construction Permits Required*, I recommend this permit be granted with special conditions.

Susan Heckenkamp
Environmental Engineer

Date

PERMIT DOCUMENTS

The following documents are incorporated by reference into this permit:

- The Application for Authority to Construct form, dated May 3, 2007, received May 4, 2007, designating City Utilities of Springfield, Missouri as the owner and operator of the installation.
- U.S. EPA document AP-42, *Compilation of Air Pollutant Emission Factors*, Fifth Edition.
- Southwest Regional Office Site Survey, dated May 18, 2007.

Mr. Daniel S. Hedrick
Environmental Analyst
City Utilities of Springfield - James River Power Station
P.O. Box 551
Springfield, MO 65801-0551

RE: New Source Review Permit - Project Number: 2007-05-041

Dear Mr. Hedrick:

Enclosed with this letter is your permit to construct. Please study it carefully. Also, note the special conditions, if any, on the accompanying pages. The document entitled, "Review of Application for Authority to Construct," is part of the permit and should be kept with this permit in your files. The reverse side of your permit certificate has important information concerning standard permit conditions and your rights and obligations under the laws and regulations of the State of Missouri. Operation in accordance with these conditions, your new source review permit application and with your operating permit is necessary for continued compliance.

The installation of this equipment qualifies as an off-permit change for your Part 70 Operating Permit. As specified in 10 CSR 10-6.065 paragraph (6)(C)9.B, an off permit change requires "written notice of the change to the permitting authority and to the administrator." In order to fulfill the notification requirement to the administrator, please send a written notice to Tamara Freeman, Environmental Protection Agency Region VII, 901 N. 5th Street, Kansas City, KS 66101. As detailed in 10 CSR 10-6.065 paragraph (6)(C)9.B, "...the written notice shall describe each change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply as a result of the change." Please send this notification at least 30 but not more than 60 days prior to anticipated start up of this air contaminant source.

If you have any questions regarding this permit, please do not hesitate to contact Susan Heckenkamp at the Department of Natural Resources' 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

Kendall B. Hale
New Source Review Unit Chief

KBH:shl

Enclosures

c: Southwest Regional Office
PAMS File: 2007-05-041
Permit Number: