

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

In the Matter of Application of)	
Kansas City Power & Light Company)	
for Approval of the Accrual and Funding)	Case No. EO-2012-_____
of Wolf Creek Generating Station)	
Decommissioning Costs at Current Levels)	

**APPLICATION OF KANSAS CITY POWER & LIGHT COMPANY
FOR APPROVAL OF THE ACCRUAL AND FUNDING OF WOLF CREEK
GENERATING STATION DECOMMISSIONING COSTS AT CURRENT LEVELS**

Pursuant to 4 CSR 240-3.185(3), Kansas City Power & Light Company ("KCP&L") hereby submits its application to the Missouri Public Service Commission ("Commission") for approval of the accrual and funding of Wolf Creek Generating Station ("Wolf Creek") decommissioning costs at current levels. In support thereof, KCP&L states as follows:

1. KCP&L is a corporation duly authorized and existing under the laws of the State of Missouri, with its principal office at 1200 Main St., Kansas City, Missouri, and is an "electrical corporation" and "public utility" as defined in Mo. Rev. Stat. §§ 386.020 (12) and (32), respectively. KCP&L is engaged primarily in the generation, transmission, distribution, and sale of electric energy and power in western Missouri and eastern Kansas. KCP&L is a 47% co-owner of Wolf Creek and has established and is funding a decommissioning trust to ensure that adequate funds are available to decommission Wolf Creek.

2. KCP&L has filed with the Commission certified copies of its Articles of Incorporation and all amendments thereto. These documents are incorporated herein by reference.

3. Communications concerning this submission should be addressed to:

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Director - Regulatory Affairs
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4. 4 CSR 240-3.185(3) requires KCP&L to file by September 1, 1990, and every three years thereafter, a cost study detailing KCP&L's latest cost estimate for decommissioning Wolf Creek. The Wolf Creek Generating Station Decommissioning Cost Estimate Update for September 1, 2011 ("2011 Study") is filed herewith.

5. The current approved decommissioning cost estimate for Wolf Creek, as established in Case No. EO-2009-0072 is approximately \$593.5 million in 2008 dollars. The currently approved annual decommissioning trust fund accrual, as established in KCP&L's 2010 general rate case in Case No. ER-2010-0355 is \$1,281,264 (Missouri jurisdictional amount).

6. The 2011 Study shows the decommissioning cost estimate to be \$630.135 million in 2011 dollars. This amount is a 6.2% increase from the 2008 decommissioning cost estimate of \$593.5 million in 2008 dollars. KCP&L believes that it is reasonable and prudent to continue the annual accruals at the current level of \$1,281,264. KCP&L therefore requests that the Commission approve the continuation of the annual accrual at the current level.

7. Because an emerging issue has been developing related to whether the federal government will be able to remove all spent fuel from the Wolf Creek site before the plant is decommissioned, KCP&L presents this new issue to the commission. Attachment A to this Application and new Appendix E to the cost analysis, provide additional details. KCP&L is not proposing that this new issue be reflected in the current cost analysis.

WHEREFORE, KCP&L requests an order from the Commission: (i) finding that the 2011 Study satisfies the requirements of 4 CSR 240-3.185(3); (ii) approving the 2011 decommissioning cost estimate of \$630,135,000; (iii) approving the continuation of the annual accrual at the current level of \$1,281,264; and (iv) finding that the Wolf Creek decommissioning costs are included in KCP&L's current cost of service and are properly reflected in current rates for ratemaking purposes.

Respectfully submitted,

/s/ Roger W. Steiner

Roger W. Steiner, MBN 39586

Corporate Counsel

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Attorney for

Kansas City Power & Light Company

Dated August 31, 2011

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Application was served either by electronic mail or by first class mail, postage prepaid, on this 31st day of August 2011, upon:

Kevin Thompson
Missouri Public Service Commission
P.O. Box 360
200 Madison St., Suite 800
Jefferson City, MO 65102

Steven Reed
Missouri Public Service Commission
P.O. Box 360
200 Madison St., Suite 800
Jefferson City, MO 65102

Lewis Mills
Office of the Public Counsel
P.O. Box 2230
200 Madison St., Suite 650
Jefferson City, MO 65102

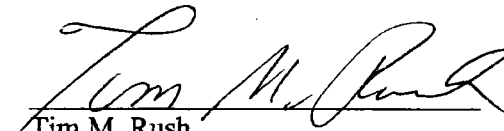
/s/ Roger W. Steiner
Roger W. Steiner

**Attorney for
Kansas City Power & Light Company**

VERIFICATION

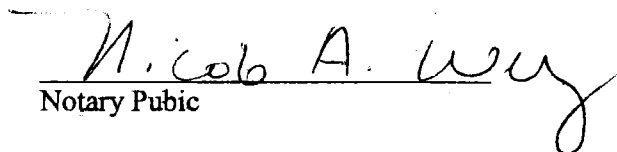
STATE OF MISSOURI)
) ss.
COUNTY OF JACKSON)

Tim M. Rush, being first duly sworn, on his oath and in his capacity as Director, Regulatory Affairs for Kansas City Power & Light Company, states that he is authorized to execute on behalf of Kansas City Power & Light Company this Application for Approval of the Accrual and Funding of Wolf Creek Generating Station Decommissioning Costs, and has knowledge of the matters stated in this Application, and that said matters are true and correct to the best of his knowledge, information and belief.



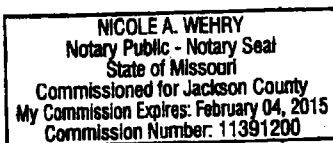
Tim M. Rush

Subscribed and sworn to before me this 29th day of August, 2011.



Notary Public

My Commission expires:



Potential for Spent Fuel Handling and On-Site Storage Post-Decommissioning

The accompanying “Decommissioning Cost Analysis for Wolf Creek Generating Station” (“Decommissioning Report”) for 2011 is similar in format to analyses that Wolf Creek Nuclear Operating Corporation (“WCNOC”) has had prepared triennially in the past. This year’s filing, however, contains an additional element that requires explanation. This new element, addressed in Appendix E to the Decommissioning Report, discusses the possibility that the federal government may not have removed all of Wolf Creek’s spent nuclear fuel and high-level radioactive waste (hereafter, simply “spent fuel”) from the station by the time the rest of the plant has been decommissioned.

Congress passed the Nuclear Waste Policy Act (“NWSA”) in 1982, assigning the federal government’s long-standing responsibility for disposal of the spent fuel created by commercial nuclear generating plants to the Department of Energy (“DOE”). The NWSA provided that DOE would enter into contracts with generators in which DOE would promise to take the generator’s spent fuel and the generators would pay the cost of the disposition services for that material. The NWSA, along with individual contracts with the generators, specified that the DOE was to begin accepting spent fuel by January 31, 1998.

Since the original legislation, the DOE has announced several delays in the program schedule. By January 1998, the DOE had failed to accept any spent fuel as required by the NWSA and its contracts. Delays continue and, as a result, generators are no closer to shipping spent fuel today than in 1998.

Politically, the country is at an impasse on spent fuel disposal. In 2009 President Obama’s administration began taking various actions to cease development of the planned disposal site for the nation’s spent fuel at Yucca Mountain, Nevada. The administration appointed a “Blue Ribbon Commission on America’s Nuclear Future” (“Blue Ribbon Commission”) with a goal of recommending a new national plan for dealing with this waste material. The Blue Ribbon Commission issued a draft plan for review and comment in late July 2011, but many months likely will pass before the final plan is issued, and that is no guarantee that a new plan then would be implemented.

Completion of the decommissioning process at Wolf Creek, *i.e.*, release of the entire site for unrestricted use, is highly dependent upon the DOE’s ability to remove spent fuel from the site in a timely manner. Before the administration essentially stopped work on the Yucca Mountain site, the best estimates of when even an interim off-site storage facility might be available to the nation’s spent fuel generators suggested a date no earlier than 2020. Based on recent assumptions of where Wolf Creek resides in the “queue” for DOE to begin accepting Wolf Creek’s spent fuel (around 2028), and the rate at which DOE might pick up spent fuel from Wolf Creek and the nation’s other nuclear plants, it is possible that spent fuel could remain stored in dry casks at the Wolf Creek site well after decommissioning of the rest of the plant is assumed to be completed (2053).

Previous Wolf Creek Decommissioning Reports have assumed that all spent fuel will have been removed from the site before decommissioning is completed. If that turns out not to be the case, Wolf Creek’s owners will incur additional costs for on-site spent fuel handling and storage until DOE removes all such material from the site. Therefore, it may be appropriate for those post-decommissioning spent fuel storage and handling costs to be deemed part of the plant’s

decommissioning costs. A significant portion of those costs, however, may be recoverable from the federal government as damages for the government's partial breach of its contract. Wolf Creek's owners already have obtained a trial court judgment for damages they incurred through 2008 because of the government's partial breach. (That judgment currently is on appeal.) To the extent that the owners may incur additional spent fuel storage costs because of DOE's continuing partial breach, e.g., for installation and operation of an on-site dry spent fuel storage facility, the owners likely would seek additional damages from the government. Those damages would offset costs that otherwise would be includable in future decommissioning cost analyses.

At this point, key factors regarding whether and for how long Wolf Creek may still have spent fuel on site after 2053, what the related extra cost might be, and the extent to which that cost might be recoverable from the government, are all extremely uncertain. Therefore, Wolf Creek's owners believe it is premature to include possible post-decommissioning spent fuel-related costs in the 2011 Decommissioning Report. However, the owners believe it is prudent to apprise the Missouri Public Service Commission ("Commission") of this emerging issue. To that end, TLG Services, Inc., has developed a set of assumptions for a hypothetical scenario involving continued handling and storage of spent fuel at Wolf Creek post-decommissioning and has applied some cost factors to those assumptions for illustrative purposes only. The result of that exercise appears in Appendix E to the Decommissioning Report.

Because this report is updated every three years, the Commission periodically will be able to revisit this issue. Once the future picture of spent fuel disposal in the U.S. becomes clearer, an informed decision may be made on whether the decommissioning cost analysis should be modified.