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February 14, 2013

The Honorable Dennis Hedke Chairman, House Energy and Environment Committee Room 581 - W State Capitol Topeka, Kansas 66612

Dear Chairman Hedke,

I am responding to your request for more information regarding the quantity and storage of radioactive waste at the Wolf Creek Generating Station.

- 1: What is the volume of the storage area for used nuclear fuel? Used nuclear fuel assemblies are stored in the spent fuel pool, located in the fuel building. The spent fuel pool dimensions are 50' long by 28.5' wide by 41' deep. Water level in the pool normally is 1.5' below the top of the pool wall. (Source: UFSAR, Tables 9.1-2 and 9.1-4)
- 2: What is the volume/quantity of radioactive waste generated at Wolf Creek? It is difficult to provide a single value for the annual volume or low-level radwaste generated because the amount is significantly greater in years when we have a refueling outage versus years when we do not have a refueling outage. (Refueling outages normally are about every 18 months.) Another factor causing variations in yearly numbers is that the numbers provided here are based on amounts determined at the time of shipping off-site versus when the waste is actually generated, and the shipping date may be delayed from one year to the next if we temporarily store the waste on-site for a period of time before making a consolidated shipment. Also, the numbers provided represent volumes before any waste reduction occurs at the waste processor (off-site) before final disposal. Volumes are reduced by various means such as segregation of some waste for free release, incineration, and compaction. The attached table (Attachment 1) provides more information. (Source: WCNOC's "Annual Radioactive Effluent Release Reports," No. 34 [for 2010] and No. 35 [for 2011].)
- 3: Has Wolf Creek joined in the litigation against the Department of Energy (DOE)? The Wolf Creek Owners (Westar Energy, KCPL and KEPCo, but not WCNOC) are parties to a lawsuit against the U.S. government for damages resulting from DOE's failure to begin accepting spent fuel for disposal in 1998. The case was filed in January 2004 and tried to a Court of Federal Claims judge in the summer of 2010, resulting in a judgment of \$10.6 million issued in November 2010. (Original claim was for \$14.2 million, primarily related to the cost to rerack the spent fuel pool.) Both sides appealed, and the Court of Appeals partially reversed the trial court's decision in July 2012, increasing the judgment to \$12.7 million. On January 28, 2013, the government decided not to seek US Supreme Court review of the decision, and it now is preparing to pay the judgment. Each Owner company will receive its respective share of the judgment. Uncertain when the payments will be made.

Attachment 1

Wolf Creek Generating Station

Low-Level Radioactive Waste (LLRW) Generated (Shipped), 2010 & 2011

Waste Class	2010 Vol.	2011 Vol.
	(cu. ft.)	(cu. ft.)
А	4240	20900
В	194	95.1
С	75	86.9
All	4510	21100

Notes:

- 1. Numbers do not quite add up due to rounding.
- 2. 2010 volumes were in a non-refueling outage year, whereas 2011 volumes were in a refueling outage year. Significantly more LLRW is generated in a refueling outage year than in a non-refueling outage year. (Refueling outages generally occur about every 18 months.) The volumes shown above are as of dates the LLRW was shipped off-site from Wolf Creek. Class "B" and Class "C" waste occasionally is held on-site for some period of time, and therefore some of that waste may have been generated in one year but not shipped until the next year, thus skewing the numbers somewhat.
- 3. These volumes are determined prior to any processing which occurs off-site. Processing can include various means of volume reduction such as free release of non-radioactive items, incineration and compaction, all of which will reduce the volume ultimately disposed of.
- 4. The Nuclear Energy Institute (NEI) provides the following description for low-level radioactive wastes.

"The NRC places low-level waste in one of three categories based on the concentration, half-life and types of radionuclides it contains, and has set requirements for packing and disposal of each class of waste. Class A accounts for 95 percent of all low-level waste and represents the lowest hazard, with its radioactivity fading to background levels within 100 years. Classes B and C represent greater potential hazards, with its radionuclides fading to background levels in less than 500 years. The NRC and the states govern the siting, operation and closure of all LLW disposal facilities. "