

March 30, 2005

Mr. Rick A. Muench  
President and Chief Executive Officer  
Wolf Creek Nuclear Operating Corporation  
Post Office Box 411  
Burlington, KS 66839

SUBJECT: WOLF CREEK GENERATING STATION - REQUEST FOR ADDITIONAL  
INFORMATION RELATED TO THE STEAM GENERATOR TUBE INSPECTION  
SUMMARY REPORTS FOR THE FALL 2003 OUTAGE (TAC NO. MC5022)

Dear Mr. Muench:

By letters dated November 10, 2003 (WO 03-0063), and October 27, 2004 (WM 04-0046), Wolf Creek Nuclear Operating Corporation submitted the steam generator tube inspection summary reports for the fall 2003 outage at Wolf Creek Generating Station (WCGS), in accordance with the Technical Specifications. These summary reports did not submit any request to change the WCGS operating license.

Enclosed is a request for additional information (RAI), which is needed by the Nuclear Regulatory Commission (NRC) staff to complete its review of these summary reports. The RAI has been discussed with your staff and they have agreed to submit the information in the RAI by July 15, 2005. Any changes to the attached RAI, related to the questions sent to your staff by email, were editorial in nature. Submitting the information by the above date will assist the NRC staff in completing its review by October 2005.

Sincerely,

/RA/  
Jack Donohew, Senior Project Manager, Section 2  
Project Directorate IV  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket No. 50-483

Enclosure: Request for Additional Information

cc w/encl: See next page

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**NRR-088**

OFFICE	PDIV-2/PM	PDIV-2/LA	EMCB/SC	PDIV-2/SC
NAME	JDonohew	LFeizollahi	LLund	RGramm
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Wolf Creek Generating Station

cc:

Jay Silberg, Esq.  
Shaw Pittman, LLP  
2300 N Street, NW  
Washington, D.C. 20037

Vice President Operations/Plant Manager  
Wolf Creek Nuclear Operating Corporation  
P.O. Box 411  
Burlington, KS 66839

Regional Administrator, Region IV  
U.S. Nuclear Regulatory Commission  
611 Ryan Plaza Drive, Suite 400  
Arlington, TX 76011-7005

Supervisor Licensing  
Wolf Creek Nuclear Operating Corporation  
P.O. Box 411  
Burlington, KS 66839

Senior Resident Inspector  
U.S. Nuclear Regulatory Commission  
P.O. Box 311  
Burlington, KS 66839

U.S. Nuclear Regulatory Commission  
Resident Inspectors Office/Callaway Plant  
8201 NRC Road  
Steedman, MO 65077-1032

Chief Engineer, Utilities Division  
Kansas Corporation Commission  
1500 SW Arrowhead Road  
Topeka, KS 66604-4027

Office of the Governor  
State of Kansas  
Topeka, KS 66612

Attorney General  
120 S.W. 10<sup>th</sup> Avenue, 2<sup>nd</sup> Floor  
Topeka, KS 66612-1597

County Clerk  
Coffey County Courthouse  
110 South 6<sup>th</sup> Street  
Burlington, KS 66839

Vick L. Cooper, Chief  
Air Operating Permit and Compliance  
Section  
Kansas Department of Health  
and Environment  
Bureau of Air and Radiation  
1000 SW Jackson, Suite 310  
Topeka, KS 66612-1366

REQUEST FOR ADDITIONAL INFORMATION  
RELATED TO STEAM GENERATOR TUBE INSPECTION SUMMARY REPORTS  
WOLF CREEK NUCLEAR OPERATING CORPORATION  
WOLF CREEK GENERATING STATION  
DOCKET NO. 50-482

By letters dated November 10, 2003, and October 27, 2004, Wolf Creek Nuclear Operating Corporation (the licensee) submitted the steam generator tube inspection summary reports for the fall 2003 outage at Wolf Creek Generating Station, in accordance with the Technical Specifications. Based on its review of the summary reports, the Nuclear Regulatory Commission (NRC) staff requests the following additional information:

1. Describe what actions, if any, were taken to verify that the steam generator tubes were manufactured (i.e., processing, heat treatment, etc.) as specified so as to exhibit optimal resistance to degradation (refer to NRC Information Notice 2002-21, Supplement 1, dated April 1, 2003). If tubes with non-optimal tube processing were identified, discuss the results of the inspections performed on these tubes.
2. On page one of its November 10, 2003 report, the licensee indicated that one damaged mechanical plug in steam generator D was replaced with a welded plug. Discuss what caused the damage to this mechanical plug and the extent of the damage, including if the plug was replaced for a reason other than inadequate structural integrity for plant restart from the outage (e.g., because of future inspection concerns, long-term cracking concerns, expected reduction in structural integrity during next operating cycle, etc.). If the plug was replaced because of inadequate structural integrity, discuss the implications this could have on the rest of the plugs in the steam generator.
3. On page two of its October 27, 2004 report, the licensee indicated that six possible loose parts indications were identified in steam generator A and four, in steam generator D. With respect to these indications, discuss the following:
  - a. Was there any wear associated with the loose part indications or were these signals just indications that a loose part may be present.
  - b. Was a visual inspection performed at these locations.
  - c. Was a foreign object search and retrieval performed and were any loose parts removed from the steam generators. If any loose parts were not removed, address whether an assessment was made of the impact that the loose parts could have on tube integrity during the interval between tube inspections.

4. On page two of the inservice inspection report submitted by letter dated October 27, 2004, the licensee indicated that two permeability variation indications were identified in steam generator A and three, in steam generator D. Because permeability variations can affect the ability to effectively assess the condition of the tube, discuss whether the tubes with the permeability variation indications were plugged or left in service. In addition, discuss whether these signals were of sufficient magnitude to effectively assess the condition of the tube. If the tubes were not plugged and the permeability variations affected the ability to assess the condition of the tubes, discuss the basis for leaving them in service.
5. On page two of its October 27, 2004 report, the licensee indicated that one volumetric indication was identified in steam generator A and five, in steam generator D. Discuss if these indications are the same as (1) the top of the tubesheet indications, and (2) the indication found near the fifth support plate on the hot leg side of steam generator D. If they are not, discuss the nature and cause of these indications.
6. On page 32 of its October 27, 2004 report, the licensee addressed four tubes with volumetric indications. The licensee judged these indications to be a result of wear with previous foreign objects or due to manufacturing anomalies. With respect to these indications, address the following:
  - a. Did the indications initiate from the inside or outside diameter of the tube.
  - b. Depending on whether the indications are initiated from either the inside or outside diameter of the tube, discuss the cause of these indications (e.g., previous loose parts or manufacturing anomalies). If the indications are initiated from the outside diameter, are located below the top of the tubesheet, and attributed to loose parts, discuss how the damage is postulated to have occurred. If the indications are in the interior of the bundle and are attributed to loose parts, discuss whether any loose parts were found in the vicinity of these tubes. In addition, discuss how it was confirmed that the indications were not caused by some other mechanism (e.g., inter-granular attack).
  - c. If the indications are attributed to manufacturing anomalies, discuss past inspection results of these tubes.
  - d. Given that some indications are located in the interior of the tube bundle, and this location is an unusual location for a loose part, discuss any theories and conclusions regarding the cause of the loose parts.