

November 4, 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 - REVIEW OF STEAM GENERATOR  
TUBE INSPECTION SUMMARY REPORTS FOR THE FALL 2003 REFUELING  
OUTAGE (TAC NO. MC5022)

Dear Mr. Muench:

By letters dated November 10, 2003, October 27, 2004, and July 14, 2005, Wolf Creek Nuclear Operating Corporation, the licensee for the Wolf Creek Generating Station, in accordance with the plant's technical specifications, submitted the steam generator tube inspection summary reports for the fall 2003 refueling outage.

The Nuclear Regulatory Commission (NRC) staff has completed its review of these reports and concludes that the licensee has provided the information required by its technical specifications. The NRC staff's review of the reports is attached.

With the issuance of this summary, all work under TAC No. MC5022 is complete. If you have any questions or comments regarding the summary, please call me at (301) 415-1307.

Sincerely,

/RA

Jack Donohew, Senior Project Manager  
Plant Licensing Branch G  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-482

Enclosure: Summary

cc w/encl: See next page

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REVIEW OF THE 2004 REFUELING OUTAGE  
STEAM GENERATOR TUBE INSPECTION REPORTS  
WOLF CREEK NUCLEAR OPERATING CORPORATION  
WOLF CREEK GENERATING STATION  
DOCKET NO. 50-482

## 1.0 INTRODUCTION

By letters dated November 10, 2003, October 27, 2004, and July 14, 2005 (Agencywide Documents Access and Management System Accession Numbers ML033240355, ML043080306, ML052080042, respectively), Wolf Creek Nuclear Operating Corporation, the licensee for the Wolf Creek Generating Station (Wolf Creek), in accordance with the plant's technical specifications, submitted the steam generator tube inspection summary reports for the fall 2003 refueling outage.

Wolf Creek has four Westinghouse Model F steam generators, each of which has 5,626 thermally-treated Alloy 600 tubes. The tubes have an outside diameter of 0.688 inch, a wall thickness of 0.040 inch and are supported by stainless steel tube supports with quatrefoil-shaped holes and V-shaped chrome-plated Alloy 600 anti-vibration bars.

## 2.0 SUMMARY

The licensee provided the scope, extent, methods, and results of their steam generator tube inspections in the documents referenced above. In addition, the licensee described corrective actions (i.e., tube plugging or repair) taken in response to the inspection findings.

The licensee stated that prior to Refueling Outage 13, it had evaluated whether any of the steam generator tubes at Wolf Creek had the same characteristic signal found at Seabrook Station (refer to NRC Information Notice 2002-21, Supplement 1, dated April 1, 2003). The licensee stated that none of the tubes were found to have such signal.

The licensee identified two tubes (R21C117 and R27C97) with volumetric indications located just below the top of the tubesheet. The licensee attributed the indication in R21C117 to wear. Wear is not common below the top of the tubesheet; however, the indication may actually be above the top of the tubesheet and the reported location may simply reflect the ability to accurately determine the actual location of the indication from the eddy current examination. Although less likely, the indication in this tube may be a result of a crevice that could exist as a result of the normal tube expansion process which may have resulted in the expansion transition being located slightly below the top of the tubesheet. The indication in tube R27C97 was most likely caused by a geometric anomaly that occurred during manufacturing such as expansion into an undercut remaining from the tubesheet drilling process. The licensee stated that neither of these indications are a challenge to the structural integrity of the tubes, and therefore, the tubes were allowed to remain in service. These indications will be monitored during future inspections.

Based on a review of the information provided, the Nuclear Regulatory Commission (NRC) staff concludes that the licensee provided the information required by their technical specifications. In addition, the NRC staff concludes that there are no technical issues that warrant follow-up action at this time since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Wolf Creek Generating Station

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