

January 15, 2008

Mr. David A. Christian  
Senior Vice President and  
Chief Nuclear Officer  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: KEWAUNEE POWER STATION - REVIEW OF STEAM GENERATOR TUBE  
INSERVICE INSPECTION REPORT FOR 2006 REFUELING OUTAGE  
(TAC NO. MC5226)

Dear Mr. Christian:

In a letter dated March 29, 2007, Dominion Energy Kewaunee, Inc. (DEK) submitted the steam generator (SG) tube inspection report for the 2006 refueling outage at Kewaunee Power Station, in accordance with Technical Specification (TS) Section 6.9.b.4, "Steam Generator Tube Inspection Report. By letter dated September 13, 2007, DEK provided additional information regarding this report in response to request to questions from the Nuclear Regulatory Commission (NRC) staff on August 9, 2007.

The NRC staff has completed its review of the SG tube inspection report for the 2006 outage, and concludes that DEK has provided the information required by the TSs and that no additional followup is required at this time. The NRC staff's review of the report is enclosed.

Sincerely,

*/RA/*

Patrick D. Milano, Senior Project Manager  
Plant Licensing Branch III-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-305

Enclosure:  
As stated

cc: See next page

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Kewaunee Power Station

cc:

Resident Inspectors Office  
U.S. Nuclear Regulatory Commission  
N490 Hwy 42  
Kewaunee, WI 54216-9510

Regional Administrator, Region III  
U.S. Nuclear Regulatory Commission  
Suite 210  
2443 Warrenville Road  
Lisle, IL 60532-4351

Ms. Leslie N. Hartz  
Dominion Energy Kewaunee, Inc.  
Kewaunee Power Station  
N 490 Highway 42  
Kewaunee, WI 54216

Mr. Chris L. Funderburk  
Director, Nuclear Licensing and  
Operations Support  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

Mr. Thomas L. Breene  
Dominion Energy Kewaunee, Inc.  
Kewaunee Power Station  
N490 Highway 42  
Kewaunee, WI 54216  
Ms. Lillian M. Cuoco, Esq.  
Senior Counsel  
Dominion Resources Services, Inc.  
Millstone Power Station  
Building 475, 5th Floor  
Rope Ferry Road  
Waterford, CT 06385

SUMMARY OF NUCLEAR REGULATORY COMMISSION STAFF REVIEW

STEAM GENERATOR TUBE INSERVICE INSPECTION REPORTS

FOR THE 2006 REFUELING OUTAGE

KEWAUNEE POWER STATION

DOCKET NO. 50-305

By letter dated January 10, 2007 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML070100524), Dominion Energy Kewaunee, Inc (the licensee) submitted its summary report of the inservice inspection (ISI) required by Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code for the Kewaunee Power Station (KPS). The ISI was performed during the 2006 refueling outage (RFO), which took place from September 2 through October 26, 2006. This report in part, included a summary of the ISI performed for the tubing in steam generators (SGs) 1A and 1B in accordance with Technical Specification (TS) 6.22, "Steam Generator (SG) Program." As required by TS 6.9.b.4, "Steam Generator Tube Inspection Report," a report must be submitted within 180 days after the initial entry into intermediate shutdown following completion of an inspection performed in accordance with TS 6.22. By letter dated March 29, 2007 (ADAMS No. ML071020161), the licensee submitted its SG Tube Inspection Report for the 2006 RFO.

In a letter dated September 13, 2007 (ADAMS No. ML072680850), the licensee responded to a Nuclear Regulatory Commission (NRC) staff request for additional information dated August 9, 2007 (ADAMS No. ML072190202), regarding the SG tube inspections in the 2006 RFO.

In 2001, the licensee replaced portions of each of its Westinghouse Model 51 SGs with the Westinghouse Model 54F replacement SG complete lower assembly and modified upper assembly. The replacement lower assemblies contain 3592 thermally-treated Alloy 690 tubes. Each tube has a nominal outside diameter of 0.875-inch, and a nominal wall thickness of 0.050-inch. The tubes were hydraulically expanded into the tubesheet and the Type 405 stainless steel tube support plates contain broached quatrefoil holes.

The fall 2006 inspection marked the second ISI since the SG lower assembly replacement. At the time of this inspection, the SGs had accumulated approximately 33 effective full power months of operation since the first ISI of the tubes. This is within the first half of the 144 effective full power month inspection period, as described in TS 6.22.d.2.

The licensee provided the scope, extent, methods, and results of its SG tube inspections in the documents referenced above. In addition, the licensee reported that no tubes were preventatively plugged and no degradation was found.

ENCLOSURE

After the review of the information provided by the licensee, the NRC staff has the following comment/observation:

The upper internal and mid-deck regions of the steam drum were inspected during the 2006 outage in both SGs. No foreign objects were observed in the steam drums of either SG; however, several disruptions in the magnetite layer were observed on the primary moisture separator riser barrel in the area of the J-nozzles. The disruptions were darker in appearance but not reflective. This indicated to the licensee that the surface was not completely stripped of magnetite.

Based on its review, the NRC staff concludes that the licensee provided the information required by the TSs and that at this time no additional information is required. In general, the SG tube inspections at KPS 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.