

January 3, 2005

Mr. David A. Christian  
Senior Vice President - Nuclear  
Virginia Electric and Power Company  
5000 Dominion Blvd.  
Glen Allen, Virginia 23060

SUBJECT: SURRY POWER STATION, UNITS 1 AND 2 - REVIEW OF 2003 ANNUAL  
STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT (TAC NOS.  
MC2072 AND MC2073)

Dear Mr. Christian:

By letter dated February 23, 2004, as supplemented by letter dated November 1, 2004, Virginia Electric and Power Company (VEPCO) submitted the results of the annual steam generator tube inspections conducted during the 2003 refueling outages at Surry Power Station, Units 1 and 2. The U.S. Nuclear Regulatory Commission (NRC) staff reviewed the results of these inspections in order to determine whether additional followup activities were warranted.

Based on a review of the information provided by VEPCO, the NRC staff concludes that VEPCO has provided sufficient information to determine that there are not any issues that warrant additional followup at this time. The NRC staff's review of VEPCO's report is enclosed.

Sincerely,

*/RA/*

Stephen R. Monarque, Project Manager, Section 1  
Project Directorate II  
Division of Licensing Project Management  
Office of Nuclear Reactor Regulation

Docket Nos. 50-280, 50-281

Enclosure: NRC Staff Review of 2003 Annual Steam Generator  
Inservice Inspection Summary Report

cc w/encl: See next page

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Based on a review of the information provided by VEPCO, the NRC staff concludes that VEPCO has provided sufficient information to determine that there are not any issues that warrant additional followup at this time. The NRC staff's review of VEPCO's report is enclosed.

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NRC STAFF REVIEW OF 2003 ANNUAL STEAM GENERATOR

INSERVICE INSPECTION SUMMARY REPORT

SURRY POWER STATION, UNITS 1 & 2

DOCKET NOS.: 50-280, 50-281

By letter dated February 23, 2004, as supplemented by letter dated November 1, 2004, Virginia Electric and Power Company (the licensee) submitted the Annual Steam Generator Inservice Inspection Summary Report for the 2003 refueling outages at Surry Power Station, Units 1 and 2. As part of its review of this report, the U.S. Nuclear Regulatory Commission (NRC) staff participated in a conference call with the licensee on May 1, 2004, to discuss the steam generator tube inspection activities at Surry, Unit 1.

Each unit has three steam generators. The steam generators at Surry, Units 1 and 2, were replaced in 1981 and 1980, respectively, with Westinghouse-fabricated steam generators. Each Westinghouse steam generator nominally contains 3,342 thermally treated Alloy 600 tubes. Each tube has a nominal outside diameter of 0.875-inch and a nominal wall thickness of 0.050-inch. These tubes were hydraulically expanded at both ends for the full length of the tubesheet and are supported by a number of stainless steel tube support plates. The U-bends of the tubes installed in Rows 1 through 8 were thermally stress relieved after bending.

In its submittal, the licensee provided the scope, extent, methods, and results of the steam generator tube inspections. Within these inspection results, the licensee described corrective actions (e.g., tube plugging or repair) taken in response to the inspection findings. One item of particular interest to the NRC staff is a pattern of denting on peripheral tubes at the 6<sup>th</sup> and 7<sup>th</sup> tube support plates for both units. The licensee's inspections of the "B" steam generators confirm that these dents tend to be located near tube support wedge locations in upper elevations of periphery tubes. The dents tend to be low voltage and are not expected to cause a significant increase in stresses to the tubes. No stress corrosion cracking has been identified at these locations. These signals will continue to be monitored. Data from future inspections should serve as a tool to understanding the apparent denting phenomena.

Based on a review of the licensee's submittals, the NRC staff concludes that the licensee has 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 licensee's inspections appear to be consistent with the objective of detecting potential tube degradation, and the inspection results obtained appear to be consistent with industry operating experience at similarly designed and operated units.

Enclosure

Surry Power Station, Units 1 & 2

cc:

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