



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

January 21, 2010

Mr. David A. Heacock  
President and Chief Nuclear Officer  
Virginia Electric and Power Company  
Innsbrook Technical Center  
5000 Dominion Boulevard  
Glen Allen, VA 23060-6711

SUBJECT: NORTH ANNA POWER STATION, UNIT NO. 1 - REVIEW OF THE 2009 STEAM  
GENERATOR TUBE INSPECTIONS PERFORMED DURING SPRING 2009 (TAC  
NO. ME1827)

Dear Mr. Heacock:

By letter dated July 13, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML091940536), Virginia Electric and Power Company, Inc. (the licensee), submitted information summarizing the results of the spring 2009 steam generator tube inspections performed at the North Anna Power Station, Unit No. 1 (NAPS) during the 2009 outage.

The U.S. Nuclear Regulatory Commission (NRC) has completed its review of these reports and concludes that the licensee provided the information required by the NAPS Technical Specifications and that no additional follow-up action is required at this time. The results of the NRC staff's review of the reports submitted by the licensee are summarized in the enclosure to this letter. If you have any questions, please contact me at 301-415-2597 or via e-mail at [v.sreenivas@nrc.gov](mailto:v.sreenivas@nrc.gov).

Sincerely,

A handwritten signature in black ink, appearing to read "V. Sreenivas", is written over a horizontal line.

Dr. V. Sreenivas, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-338

Enclosure:  
Inservice Inspection Report

cc w/encl: Distribution via Listserv



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NUCLEAR REGULATORY COMMISSION  
VIRGINIA ELECTRIC AND POWER COMPANY  
NORTH ANNA POWER STATION, UNIT NO. 1  
REVIEW OF THE STEAM GENERATOR TUBE  
INSERVICE INSPECTION REPORT  
FOR THE SPRING 2009 REFUELING OUTAGE  
DOCKET NO. 50-338

By letter dated July 13, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML091940536), Virginia Electric and Power Company, Inc. (the licensee), submitted a report summarizing the results of their spring 2009 steam generator (SG) tube inspections at North Anna Power Station, Unit No.1 (NAPS). The U.S. Nuclear Regulatory Commission held a follow-up phone call with the licensee to clarify a few minor points of information, the details of which are summarized below.

NAPS has three Westinghouse Model 54F replacement SGs that were installed in 1993, each containing 3592 thermally treated Alloy 690 tubes. The tubes have a nominal outside diameter of 0.875 inches, a nominal wall thickness of 0.050 inches, and are supported by seven stainless steel tube support plates and a baffle plate. Most of the tube support plate holes are quatrefoil-shaped. The U-bend region of the tubes in rows one through eight was stress relieved after bending.

The licensee provided the scope, extent, methods, and results of the NAPS SG tube inspections in the document referenced above. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings.

As a result of the report review and phone call, the staff has the following observations:

1. SGs B and C were inspected during the 2009 outage. No tubes were plugged during this refueling outage.
2. No indications of tube degradation were identified in SG B or C. Some superficial scratching/wear was identified on the secondary side of SG A, when a foreign object (a carbon steel shaving) was removed after sludge lancing,

Enclosure

3. Secondary side visual inspections of the upper internals in SGs B and C were performed during the 2009 outage. There was no appreciable change in the condition of the J-nozzles from the previous inspection; some minor flow accelerated corrosion was noted, but no ultrasonic inspections were needed. There were no clearance issues noted between the moisture separator drain pipes and their corresponding supporting brackets and there was no wear at these locations.
4. Visual inspection of the plugs in two SG C tubes showed no discrepancies and the plugs were in good condition. These are the only two plugged tubes in NAPS.

Based on a review of the information provided, the staff concludes that the licensee provided the information required by the Technical Specifications. In addition, the 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.

Principal Contributor: A. Johnson

Date: January 21, 2010

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Sincerely,

/RA/

Dr. V. Sreenivas, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-338

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Inservice Inspection Report

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**ADAMS Accession No.** ML100191920

\*Transmitted by memo dated 1/14/2010

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DATE	1/19/2010	1/20/2010	1/14/2010	1/21/2010	1/21/2010

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