



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

November 20, 2012

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, UNITS NO. 1 AND 2, REVIEW OF THE 2011
STEAM GENERATOR TUBE INSPECTION REPORT (TAC NOS. ME7908 AND
ME7909)

Dear Mr. Heacock:

The U.S. Nuclear Regulatory Commission (NRC) staff formally reviews all steam generator (SG) inservice inspection summary reports submitted by licensees in accordance with the plant's Technical Specification requirements. By letters dated January 25, 2012 (Agencywide Documents Access and Management System (ADAMS) Accession Nos. ML12039A160 and ML12039A161, respectively), Virginia Electric and Power Company, Inc. (the licensee), submitted reports summarizing the results of their fall 2011 steam generator (SG) tube inspections at North Anna Power Station (NAPS), Units No.1 and 2. The licensee submitted further information regarding the SG tube inspections in letters dated October 3, 10, 18, and 28, 2011 (ADAMS Accession Nos. ML11277A267, ML11286A018, ML11292A198, and ML11305A090 respectively). In addition to these reports, the U.S. Nuclear Regulatory Commission (NRC) staff summarized a conference call about the 2011 SG tube inspections at NAPS, Unit 2, in a letter dated December 7, 2011 (ADAMS Accession No. ML11333A126).

The NRC staff has completed its review of the submittals pertaining to the NAPS, Units No. 1 and 2, SG inspections, and the associated review summary is enclosed. The NRC staff finds that the licensee has provided the information required by the TSs. In addition, the staff did not identify any technical issues that warrant follow-up action at this time. Based on these considerations, the subject TACs are being closed.

Please contact me at (301) 415-2597, if you have any questions regarding this issue.

Sincerely,

A handwritten signature in black ink, appearing to read "V. Sreenivas", with a stylized flourish at the end.

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

Docket Nos. 50-338 and 50-339
Enclosure: As stated
cc w/encl: Distribution via Listserv



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UNITED STATES NUCLEAR REGULATORY COMMISSION

OFFICE OF NUCLEAR REACTOR REGULATION

REVIEW OF THE 2011 STEAM GENERATOR

TUBE INSERVICE INSPECTION REPORT

VIRGINIA ELECTRIC AND POWER COMPANY

NORTH ANNA POWER STATION, UNITS NO. 1 AND 2

DOCKET NOS. 50-338 AND 50-339

By two letters dated January 25, 2012 (Agencywide Documents Access and Management System Accession Nos. ML12039A160 and ML12039A161, respectively), Virginia Electric and Power Company, Inc., (the licensee), submitted reports summarizing the results of their fall 2011 steam generator (SG) tube inspections at North Anna Power Station (North Anna), Unit 1 and Unit 2. The licensee submitted further information regarding the SG tube inspections in letters dated October 3, 10, 18, and 28, 2011 (ADAMS Accession Nos. ML11277A267, ML11286A018, ML11292A198, and ML11305A090 respectively). In addition to these reports, the U.S. Nuclear Regulatory Commission staff summarized a conference call about the 2011 SG tube inspections at North Anna Power Station, Unit 2, in a letter dated December 7, 2011 (ADAMS Accession No. ML11333A126).

North Anna Unit 1 and Unit 2 each have three Westinghouse Model 54F replacement steam generators designated A, B, and C, each SG containing 3592 thermally treated Alloy 690 tubes. The tubes have an outside diameter of 0.875 inches, a wall thickness of 0.050 inches, and are supported by seven stainless steel (Type 405) tube support plates and a baffle plate. 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 North Anna Unit 1 and Unit 2 SG tube inspections in the documents referenced above. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings.

Based on the above listed letters and phone call, the staff has the following observation:

In Unit 2, a region of sludge located outside the critical area region was identified in the cold leg of SGs A and C. The licensee noted that if this is observed during future outages, an adjustment of the critical area may be warranted.

Enclosure

The NRC staff had previously reviewed the results of the 2011 steam generator inspections as documented in a letter dated November 11, 2011 (ML11308B404). The results provided in the subsequent letters were consistent with what had been previously evaluated in the November 11, 2011 letter.

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.

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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 Nos. 50-338 and 50-339

Enclosure: As stated

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ADAMS Accession No.: ML12320A137

* By Memo Dated

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