



UNITED STATES
NUCLEAR REGULATORY COMMISSION
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March 18, 2016

Mr. David A. Heacock
President and Chief Nuclear Officer
Virginia Electric and Power Company
Innsbrook Technical Center
5000 Dominion Blvd.
Glenn Allen, VA 23060

SUBJECT: SURRY POWER STATION - REVIEW OF THE SPRING 2015 STEAM
GENERATOR TUBE INSERVICE INSPECTION REPORT REGARDING SURRY
POWER STATION, UNIT 1 REFUELING OUTAGE 26 (TAC NO. MF7123)

Dear Mr. Heacock:

By letter dated November 6, 2015, Virginia Electric Power and Co. (the licensee), submitted information summarizing the results of the spring 2015 steam generator tube inservice inspections performed at Surry Power Station, Unit 1.

The NRC staff has completed its review of the report and concludes that the licensee provided the information required by their technical specifications and that no additional follow-up is required at this time.

If you have any questions regarding this matter, I may be reached at (301) 415-1438 or via e-mail at karen.cotton@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Karen Cotton FOR KC". The signature is stylized and includes the initials "FOR KC" in a separate, blocky font.

Karen Cotton, Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-280

Enclosure:
As stated

cc w/encl: Distribution via Listserv

SURRY POWER STATION, UNIT 1

SUMMARY OF THE STAFF'S REVIEW OF THE SPRING 2015 STEAM GENERATOR TUBE

INSERVICE INSPECTIONS FOR REFUELING OUTAGE 26

CAC NO. MF7123

DOCKET NUMBER 50-280

By letter dated November 6, 2015 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML15324A014), Virginia Electric Power and Co. (the licensee), submitted information summarizing the results of the spring 2015 steam generator (SG) tube inservice inspections performed at Surry Power Station, Unit 1.

The three replacement SGs at Surry, Unit 1, were installed in 1981. Westinghouse fabricated the replacement SGs and each SG contains 3,342 thermally treated Alloy 600 tubes. Each tube has a nominal outside diameter of 0.875 inches and a nominal wall thickness of 0.050 inches. The 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 (TSPs). The U-bends of the tubes installed in rows 1 through 8 were thermally stress relieved after bending.

The licensee provided the scope, extent, methods, and results of their steam generator tube inspections in the document referenced above. In addition, the licensee described corrective actions (e.g., tube plugging) taken in response to the inspection findings. The following observation is noted regarding to the licensee's 2015 inspections:

- The licensee did not detect any cracking during the 2015 inspections; however, one pit indication was identified. This pit indication was discussed in a prior U.S. Nuclear Regulatory Commission review (ADAMS Accession No. ML102580831).

During a conference call on January 19, 2016, the licensee provided additional information regarding the results of the spring 2015 inspections. The contents of the call are summarized below:

- All tubes in SG A and SG C were inspected with bobbin and array probes during the 2015 inspections.
- The four restrictions listed in Table 1 were described as follows:
 - A dent between the fourth and fifth cold-leg TSPs at row 5, column 35 (R5C35) in SG A that limits the passage of a 0.720-inch bobbin probe, but allows passage of a 0.700-inch bobbin probe.

- A restriction is located at the U-bend tangent point in the tube located at R3C11 in SG A. Two additional restrictions are located at U-bend tangent points in the tubes located in R3C22 and R4C15 in SG C. The three U-bend tangent point restrictions would not allow passage of a 0.720-inch bobbin probe, but did allow passage of a 0.70-inch bobbin probe.
- There were no signs of tube degradation.

Based on a review of the information provided and discussions with the licensee, the NRC staff concludes that the licensee provided the information required by their technical specifications. The SG tube inspections at Surry, Unit 1, 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. Huynh, NRR

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Sincerely,

/RA GMiller for/

Karen Cotton, Project Manager
Plant Licensing Branch II-1
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