



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

October 25, 2016

Mr. Charles R. Pierce
Regulatory Affairs Director
Southern Nuclear Operating Company, Inc.
P.O. Box 1295, Bin 038
Birmingham, AL 35201-1295

**SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 1 – REVIEW OF
REFUELING OUTAGE 1R19 STEAM GENERATOR TUBE INSPECTION
REPORT (CAC NO. MF7594)**

Dear Mr. Pierce:

By letter dated April 14, 2016 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML16105A176), as supplemented by e-mail dated September 9, 2016 (ADAMS Accession No. ML16291A009), Southern Nuclear Operating Company, Inc. (the licensee) submitted a report summarizing the results of the fall 2015 steam generator (SG) tube inspections performed at the Vogtle Electric Generating Plant (VEGP), Unit 1. These inspections were performed during the nineteenth refueling outage (1R19). The supplement provided on September 9, 2016, provided additional information on non-structurally significant anomalies observed during the inspection of the upper internals in SG4 and on the feeding inspection results in SG4.

VEGP, Unit 1, has four Westinghouse Model F SGs, each of which contains 5,626 U-bend thermally treated Alloy 600 tubes. Each tube has a nominal outside diameter of 0.688 inches and a nominal wall thickness of 0.040 inches. During SG fabrication, the tubes were hydraulically expanded, at both ends, over the full depth of the tubesheet. Type 405 stainless steel support plates, which have broached quatrefoil holes, support the vertical section of the tubes, and anti-vibration bars support the U-bend section of the tubes.

The licensee provided the scope, extent, methods, and results of the SG tube inspections in the letter and e-mail referenced above. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings. After review of the information provided by the licensee, the NRC staff has the following comments and observations:

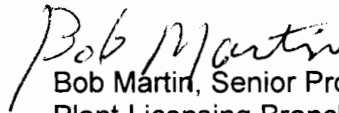
1. No crack-like indications were identified in the SG tubes during 1R19.
2. Two indications of anti-vibration bar wear were initially detected in one tube in SG3 during 1R19. The deepest of these indications was 30 percent through wall. This tube was plugged due to potential uncertainties surrounding the growth of these indications.

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Based on a review of the information provided, the staff concludes that the licensee provided the information required by its technical specifications. In addition, the NRC staff concludes that there are no technical issues that warrant followup 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.

Sincerely,

A handwritten signature in cursive script that reads "Bob Martin".

Bob Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-424

cc: Distribution via Listserv

C. Pierce

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Sincerely,

/RA/

Bob Martin, Senior Project Manager
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

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