



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

September 9, 2009

Mr. Mark J. Ajluni  
Manager, Nuclear Licensing  
Southern Nuclear Operating Company, Inc.  
40 Inverness Center Parkway  
PO Box 1295  
Birmingham, AL 35201

SUBJECT: VOGTLE ELECTRIC GENERATING PLANT, UNIT 2 (VOGTLE 2) – REVIEW OF  
THE 2008 REFUELING OUTAGE STEAM GENERATOR TUBE INSERVICE  
INSPECTION REPORT (TAC NO. ME1059)

Dear Mr. Ajluni:

By letter dated April 9, 2009 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090990606), Southern Nuclear Operating Company, Inc. (the licensee), submitted information summarizing the results of the 2008 steam generator (SG) tube inspections performed at Vogtle 2. These inspections were performed during refueling outage 13.

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. The NRC staff's review of the report is enclosed.

Sincerely,

A handwritten signature in black ink, appearing to read "Donna N. Wright".

Donna N. Wright, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-425

Enclosure:  
Inspection Summary Report

cc w/encl: Distribution via Listserv

OFFICE OF NUCLEAR REACTOR REGULATION  
REVIEW OF THE 2008 REFUELING OUTAGE STEAM GENERATOR  
TUBE INSPECTION REPORT  
SOUTHERN NUCLEAR OPERATING COMPANY, INC.  
VOGTLE ELECTRIC GENERATING PLANT, UNIT 2  
DOCKET NO. 50-425

By letter dated April 9, 2009 (Agencywide Documents Access System Accession No. ML090990606), Southern Nuclear Operating Company, Inc. (the licensee), submitted information summarizing the results of the 2008 steam generator (SG) tube inspections performed at Vogtle Electric Generating Plant Unit 2 (Vogtle 2) during refueling outage 13.

Vogtle 2 has four Westinghouse Model F SGs (denoted SG 1 through SG 4). Each SG contains 5626 thermally treated Alloy 600 tubes with a nominal outside diameter of 0.688 inches and a wall thickness of 0.040 inches. The tubes were hydraulically expanded at both ends for the full length of the tubesheet and are supported by seven stainless steel tube support plates with quatrefoil-shaped holes and a flow distribution baffle. The U-bend region of the tubes in rows 1 through 10 was thermally stress relieved after bending.

The licensee provided the scope, extent, methods, and results of the Vogtle 2 SG tube inspections in the document referenced above. In addition, the licensee described corrective actions, such as tube plugging, taken in response to the inspection findings. Only the tubes in SGs 1 and 4 were inspected this outage.

After reviewing the information provided by the licensee, the NRC staff has the following comments or observations:

- The Vogtle 2 SGs have accumulated approximately 206 effective full power months (EFPM) of operation. At the time of the 2R13 outage, the SGs had operated approximately 73 EFPM in the 90-EFPM sequential period. This is the last planned SG eddy current inspection in the 90-EFPM sequential period.
- No crack-like indications were detected during this refueling outage.
- The licensee performed a 40-percent sample inspection of the hot leg tube ends this refueling outage. Inspection of this region was performed due to a change in the repair criteria for the portion of tube near the tube ends, refer to ADAMS Accession No. ML082530038. One hundred percent of the tube ends may not have been inspected during the 90-EFPM period; however, the prorating of inspection sample size is discussed in Regulatory Information Summary (RIS) 2009-04, "Steam Generator Tube Inspection Requirements." The above mentioned RIS indicates that prorating the 100-percent inspection in a period is acceptable when a degradation mechanism was not anticipated during prior inspections in that period. In addition, the previously approved repair criteria for this portion of the tube did not require inspection of the region.

Enclosure

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by the technical specifications. In addition, the NRC 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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Donna N. Wright, Project Manager  
Plant Licensing Branch II-1  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-425

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Inspection Summary Report

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ADAMS Accession No. ML092470273

\*transmitted by memo dated

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