



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

June 16, 2010

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

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION (RAI) – VOGTLE ELECTRIC
GENERATING PLANT, UNIT 1 (VOGTLE UNIT 1) STEAM GENERATOR TUBE
INSPECTIONS PERFORMED DURING FALL 2009 OUTAGE AND
DESTRUCTIVE EXAMINATION OF 2008 PULLED TUBES (TAC NO. ME3825)

Dear Mr. Ajluni:

By letter dated April 13, 2010 (Agencywide Documents Access and Management System (ADAMS), Accession Number ML101040084), Southern Nuclear Operating Company, Inc. (SNC), submitted information summarizing the results of the 2009 steam generator (SG) tube inspections at Vogtle Unit 1. In addition, by letter dated February 1, 2010 (ML100560265), SNC submitted the results of the destructive examination of two tubes removed from Vogtle Unit 1 during the 2008 outage. In order for the Nuclear Regulatory Commission (NRC) staff to complete its review of these documents, the NRC staff requests responses to the enclosed questions.

Please provide a response within sixty (60) calendar days of the date of this letter. Please contact me at (301) 415-1493, should you have any questions.

Sincerely,

A handwritten signature in cursive script that reads "Robert E. Martin".

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

Docket No. 50-424

Enclosure:
RAI

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REQUEST FOR ADDITIONAL INFORMATION
2009 STEAM GENERATOR TUBE INSPECTIONS AND
DESTRUCTIVE EXAMINATION OF 2008 PULLED TUBES
VOGTLE ELECTRIC GENERATING PLANT, UNIT 1
DOCKET NO. 50-424, TAC NO ME3825

By letter dated April 13, 2010 (ML101040084), Southern Nuclear Operating Company, Inc. (SNC), submitted information summarizing the results of the 2009 steam generator (SG) tube inspections at Vogtle Electric Generating Plant, Unit 1 (Vogtle Unit 1).¹ In addition, by letter dated February 1, 2010 (ML100560265), SNC submitted the results of the destructive examination of two tubes removed from Vogtle, Unit 1 during the 2008 outage. In order for the Nuclear Regulatory Commission (NRC) staff to complete its review, the NRC staff requests responses to the following questions.

1. Please discuss the scope and results of the secondary side inspections.
2. SNC indicated that upon approval of H* for cycle 16 that "35% at HL TTS [hot leg top of tube sheet] ± 3"/-14" [inches] captured the required BLG/OXP [bulge and overexpansion] locations down to the H* depth of 13.1". Please clarify this statement. For example, is this statement implying that by inspecting 35% of the tubes from 3 inches above to 14 inches below the top of the tube sheet that 100% of the bulges and over expansions were inspected?
3. On page 3 of 10 in the April 13, 2010, letter, there is a table of the outside diameter stress corrosion cracking indications detected during the 2009 outage. Please verify the voltages for the indications located in the tube in row 7, column 106 of SG 1 since 13.00 volts is large and appears to contradict a statement on page 10 that indicates the maximum voltage was only 0.31 volts.
4. On page 4 of 10 in the April 13, 2010, letter, there is a table summarizing indications of wear attributed to loose-parts. In referencing the table, SNC states that the indications referenced in the table were "re-confirmed" during the 2009 outage. Please confirm that all of these indications were present in prior outages since the staff was not able to locate the prior history for the indications in row 1, column 70; row 1, column 78; row 1, column 82; row 1, column 91; and row 40, column 106, from its review of some of the more recent reports summarizing the inspection findings at Vogtle. In addition, the indication in row 41, column 100 in SG 1, appears to have grown since the last inspection (i.e., more than the staff would typically expect based on normal eddy current sizing variability). Please discuss whether a visual inspection was performed to confirm the absence of a loose part at this location and all other locations (even if no possible loose part signal was present since the part may be non-conducting). Please discuss whether the loose part was removed from this location

¹ The NRC staff summarized additional information concerning the 2009 SG tube inspections at Vogtle, Unit 1 in a letter dated November 5, 2009 (ML093070375).

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please confirm that an analysis was performed confirming that tube integrity would be maintained until the next scheduled inspection.

5. On page 10 of 10 of the April 13, 2010, letter, SNC indicates that no new axial outside diameter stress corrosion cracking indications have been found since 1R13. Please verify. Wasn't an axial indication found during 1R14 in 2008 (i.e., in row 11, column 62 in SG 4)?
6. On page 1 of 10 in the third bullet, SNC states that several tubes have been identified with non-optimal (Seabrook-type) tube processing (through review of eddy current data). Please discuss the extent to which cracking (at any location) has been observed in these tubes.
7. On page 1-1 of the Westinghouse report submitted with the February 1, 2010, letter, it was indicated that the flow distribution baffle has octofoil shaped holes; however, on page 2-3, SNC indicates that the holes are drilled (presumably round). Please clarify the shape of the holes in the flow distribution baffle.
8. On page 1-1 and 1-2 of the Westinghouse report submitted with your February 1, 2010, letter, it was stated that all of the outside diameter stress corrosion cracking indications reported during the 2009 outage were present in the 2008 inspection data but were allowed to remain in service as TRA (presumably trackable anomaly) signals. Please discuss if tubes with such flaw signals were left in service during the 2009 inspections and if so, the basis for the decision.
9. Please explain the markings in the 225-degree portion of Figure 2-7 in the Westinghouse report submitted with the February 1, 2010, letter since it is not clear to the staff, where the wear indication is located.

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Sincerely,

/RA/

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

Docket No. 50-424

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RAI

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*RAI transmitted by memo dated

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