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Docket No.: 50-424

NL-15-0597

U. S. Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D. C. 20555-0001

Vogtle Electric Generating Plant, Unit 1
Response to Request for Additional Information
on Spring 2014 Steam Generator Tube
Inspections (TAC NO. MF4987)

Ladies and Gentlemen:

By letter dated October 3, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML14276A430), Southern Nuclear Operating Company, Inc. (SNC) submitted information summarizing the results of the spring 2014 steam generator (SG) tube inspections performed at Vogtle Electric Generating Plant (VEGP) Unit 1. These inspections were performed during the VEGP eighteenth Unit 1 maintenance/refueling outage (1R18). By letter dated March 10, 2015 (ADAMS Accession Number ML15062A447), the U.S. Nuclear Regulatory Commission (NRC) staff issued a request for additional information. The enclosure to this letter contains the SNC response to that request.

This letter contains no NRC commitments. If you have any questions, please contact Ken McElroy at (205) 992-7369.

Respectfully submitted,

A handwritten signature in black ink that reads "C. R. Pierce". The signature is written in a cursive, flowing style.

C. R. Pierce
Regulatory Affairs Director

CRP/EGA

References:

1. SNC letter to the NRC dated October 3, 2014, NL-14-1520, *Vogtle Electric Generating Plant – Unit 1 Eighteenth Maintenance/Refueling Outage Steam Generator Tube Inspection Report*
2. NRC letter to SNC dated March 10, 2015, ML15062A447, *Vogtle Electric Generating Plant, Unit 1(VEGP) – Request for Additional Information on Spring 2014 Steam Generator Tube Inspections (TAC NO. MF4987)*
3. SNC letter to the NRC dated September 21, 2011, NL-11-1904, *Vogtle Electric Generating Plant – Unit 1 Sixteenth Maintenance/Refueling Outage Steam Generator Tube Inspection Report*
4. SNC letter to the NRC dated April 2, 2013, NL-13-0631, *Vogtle Electric Generating Plant – Unit 1 Seventeenth Maintenance/Refueling Outage Steam Generator Tube Inspection Report*

Enclosure: SNC Response to Request for Additional Information

cc: Southern Nuclear Operating Company
Mr. S. E. Kuczynski, Chairman, President & CEO
Mr. D. G. Bost, Executive Vice President & Chief Nuclear Officer
Mr. D. R. Madison, Vice President – Fleet Operations
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Mr. B. K. Taber, Vice President – Vogtle 1 & 2
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Mr. G.W. Gunn, Regulatory Affairs Manager – Vogtle 1 & 2
RType: CVC7000

U. S. Nuclear Regulatory Commission
Mr. V. M. McCree, Regional Administrator
Mr. R. E. Martin, NRR Senior Project Manager – Vogtle 1 & 2
Mr. L. M. Cain, Senior Resident Inspector – Vogtle 1 & 2

**Vogtle Electric Generating Plant, Unit 1
Response to Request for Additional Information
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Inspections (TAC NO. MF4987)**

Enclosure

SNC Response to Request for Additional Information

Enclosure to NL-15-0597
SNC Response to Request for Additional Information

NRC Question 1

SNC's letter stated that some of the indications identified during this outage have been present for several cycles. Please clarify whether the indications found on the tubes at row 24, column 66 (R24C66), R40C57, and R49C89 were present in prior inspections since they do not seem to have been reported in previous inspection reports.

SNC Response to RAI 1

The wear indications in SG1 R24C66, SG4 R40C57 and SG4 R49C89 were initially reported in the Vogtle Electric Generating Plant (VEGP) eighteenth Unit 1 maintenance/refueling outage (1R18) and determined to be present in prior inspections based on historical data review. These locations exhibited similar bobbin response signals during the 1R16 inspections, they were not inspected in 1R17 because the bobbin program alternates SGs every cycle, and they were assigned a percent through-wall (%TW) value at 1R18.

NRC Question 2

Previously, an indication was reported in R32C35 in SG 2. During RFO 18, this indication was not reported. Please discuss.

SNC Response to RAI 2

This tube was not tested in 1R18. There were no bobbin exams performed on SG2 during 1R18. The bobbin program alternates SGs every cycle, and the indication has been present for several cycles.

NRC Question 3

Please confirm that 199 indications of anti-vibration bar (AVB) wear were detected in 110 tubes in SG 4.

Please confirm that 128 indications of AVB wear were detected in 75 tubes in SG 1.

SNC Response to RAI 3

199 indications of anti-vibration bar (AVB) wear were detected in 110 tubes in SG 4, and 128 indications of AVB wear were detected in 75 tubes in SG 1.

NRC Question 4

SNC's letter stated that some indications in SG 2 were inspected during RFO 18. Were only the indications actually listed in Table 5 inspected? Were those inspections performed using only a rotating probe? If more inspections were performed, please discuss the scope and results of those inspections (include all information required by the technical specifications for these inspections).

SNC Response to RAI 4

An examination of all indications (in Table 5 of the October 3, 2014 letter) in SG2 was completed with the exception of tubes R1C91 and R10C101 during 1R18 using +Point. The SG2 indications in tubes R1C91 and R10C101 will be tested during 1R19.

NRC Question 5

In Table 5 of SNC's letter, there are several indications in SG 2 at the baffle plates. Please discuss the cause of these indications (e.g., pressure pulse cleaning).

SNC Response to RAI 5

The cause of these indications was attributed to pressure pulse cleaning.

NRC Question 6

Please confirm that all tube plugs were present and in the proper locations.

SNC Response to RAI 6

All tube plugs were present and in the proper locations. A 100% visual inspection of tube plugs from the primary side was completed in all four SGs. No anomalous conditions, such as a degraded tube plug or surrounding boron deposits, were reported during performance of these visual inspections.

NRC Question 7

Please discuss the results of the channel head inspections.

SNC Response to RAI 7

A visual inspection of the SG channel head bowl inclusive of the entire divider plate to channel head weld and all visible clad surfaces was performed in all four SGs during VEGP 1R18. Satisfactory inspection results were observed in all four SGs.

NRC Question 8

At the bottom of page E-2 of SNC's report, two new wear indications are discussed. Please discuss the cause of these indications. If the suspected cause is a loose part or foreign object, were any visual inspections performed to ensure the part was no longer present? If not, how was the integrity of this tube assessed for future operation (since eddy current examinations may not detect a part that has moved away from the tube or that is nonconducting)?

SNC Response to RAI 8

The two new indications of wear were identified near the flow distribution baffle plate in SG1 and are suspected to be caused by a transient foreign object. A +Point expansion of at least two tubes in all directions was performed at the baffle plate. Tube integrity was assessed based on the inspection results using the +Point technique. No visual inspections were performed. It was determined that this region of the SG was not accessible for inspection from the secondary side due to the elevation of the flow distribution baffle.