



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

August 5, 2011

Mr. Robert J. Duncan, II, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant,
Unit No. 2
3581 West Entrance Road
Hartsville, South Carolina 29550

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2 - REQUEST FOR
ADDITIONAL INFORMATION REGARDING THE STEAM GENERATOR TUBE
INSERVICE INSPECTION REPORT (TAC NO. ME5411)

Dear Mr. Duncan:

By letter dated January 13, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No.ML110190222), Carolina Power & Light Company (the licensee), submitted the steam generator inspection report for the H. B. Robinson Steam Electric Plant , Unit 2, fall 2010 refueling outage in accordance with the plant's technical specifications. The NRC staff has reviewed the information provided and determined that additional information is required in order to complete the evaluation.

In order for the NRC staff to complete its review of the information provided, we need your responses to the enclosed request for additional information (RAI). Based on discussions with your staff, we understand that you plan to respond to the enclosed RAI within 30 days of the email that contains the same RAI questions (ADAMS Accession No.ML11202A173) or by August 22, 2011.

If you have any questions about this RAI, please contact me at (301) 415-2020.

Sincerely,

Farideh E. Sabze

for Brenda Mozafari, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosure: RAI

cc: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION

REGARDING H. B. ROBINSON STEAM ELECTRIC PLANT UNIT 2

STEAM GENERATOR TUBE INSERVICE INSPECTION REPORT

DOCKET NO. 50-261

1. Provide the cumulative effective full power years that the current steam generators (SG) had operated at the time refueling outages 25 and 26 commenced.
2. On page 12 of 14 of your letter dated January 13, 2011, a table provides the depth of wear indications at the antivibration bar. Discuss why the two different techniques (Z-22899 and Z-8652) provide significantly different sizing estimates. Identify which analysis is the analysis of record.
3. During the 2007 SG tube inspections, a pin-hole was found in one of the structures that hold the moisture separators in place. It was uncertain if the pinhole was due to fabrication or erosion. Discuss whether this area was inspected during Refining Outage (RFO) 26. If so, discuss the results of this inspection and any other secondary side inspections.
4. It appears that two tubes had the bottom of the expansion transition located greater than 1.0 inch from the top of the tubesheet. Clarify the location of the bottom of the expansion transition for these two tubes. It is the staff's understanding that most plants with thermally treated Alloy 600 tube material have plugged such tubes since the current H* analysis only supports a tube with a bottom of the expansion transition located approximately 1.0 inch from the top of the tubesheet and since the tube-to-tubesheet weld is potentially susceptible to cracking and no qualified examination exists for inspecting these welds. Clarify whether these tubes were plugged. If not plugged, discuss any plans to plug these tubes in a future outage.
5. Confirm that the bottom of the expansion transition for the tube in SG A at row 20, column 35 and the tube in SG B in row 11, column 70 are located between 0.96 and 1.0 inch from the top of the tubesheet. If the bottom of the expansion transition is located greater than 1.0 inch from the top of the tubesheet, address the previous question for these two tubes.
6. Clarify the following statement: "HBRSEP [H.B. Robinson Steam Electric Plant] inspected the tube ends (16 total) not fully expanded with the tubesheet to at least 0.5 inches from the top of the tubesheet." Is this statement implying that there are only 16 tubes in which the bottom of the expansion transition is located greater than 0.5 inches from the top of the tubesheet?

Enclosure

7. The table on page 4 and the discussion on page 13 of your letter dated January 13, 2011, implies that only 32 tubes have been plugged in your SGs at the commencement of refueling outage 26. The NRC staff was under the impression that 60 tubes had been plugged in your SGs (which includes 28 tubes plugged prior to the SGs being placed in operation). Confirm the total number of tubes plugged. If 60 tubes have been plugged, recalculate the plugging percentage for the SGs.
8. It was indicated that seven tubes were plugged in SG B and five tubes were plugged in SG C during RFO 26. In reviewing the information on pages 9 through 12 of your letter dated January 13, 2011, the NRC staff only identified six tubes in SG B that were plugged (five stabilized and plugged and one plugged) and four tubes in SG C that were plugged (two stabilized and plugged and two plugged). Identify the additional tubes plugged and provide the reason for plugging those tubes.
9. The number of tubes with bulges, overexpansions, or dents in the tubesheet region that were inspected to a depth of 17.28 inches below the top of tubesheet was provided in the table on page 4. Discuss what percentage of the total population of these indications were inspected (e.g., 50 percent of all bulges, overexpansions, or dents within the hot-leg tubesheet region were inspected from 4 inches above to 17.28 inches below the top of the tubesheet with a rotating probe).
10. Discuss whether the tube in row 1, column 67 in SG B (with an "indication not recordable" at the sixth cold leg tube support plate) was inspected with a rotating probe to confirm the absence of degradation. Provide any insights on why an indication detected since 2002 was no longer present during the refueling outage 26 (2010) inspection.

August 5, 2011

Mr. Robert J. Duncan, II, Vice President
Carolina Power & Light Company
H. B. Robinson Steam Electric Plant,
Unit No. 2
3581 West Entrance Road
Hartsville, South Carolina 29550

**SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2 - REQUEST FOR
ADDITIONAL INFORMATION REGARDING THE STEAM GENERATOR TUBE
INSERVICE INSPECTION REPORT (TAC NO. ME5411)**

Dear Mr. Duncan:

By letter dated January 13, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No.ML110190222), Carolina Power & Light Company (the licensee), submitted the steam generator inspection report for the H. B. Robinson Steam Electric Plant , Unit 2, fall 2010 refueling outage in accordance with the plant's technical specifications. The NRC staff has reviewed the information provided and determined that additional information is required in order to complete the evaluation.

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If you have any questions about this RAI, please contact me at (301) 415-2020.

Sincerely,

/RA by FSaba for/

Brenda Mozafari, Senior Project Manager
Plant Licensing Branch II-2
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosure: RAI

cc: Distribution via Listserv

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