



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

October 22, 2014

Site Vice President  
H. B. Robinson Steam Electric Plant, Unit 2  
Duke Energy Progress, Inc.  
3581 West Entrance Road  
Hartsville, SC 29550

SUBJECT: H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2 - REQUEST FOR  
ADDITIONAL INFORMATION REGARDING REFUELING OUTAGE 28  
STEAM GENERATOR TUBE INSPECTION REPORT (TAC NO. MF4120)

Dear Sir/Madam:

By letter dated April 29, 2014 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML14127A066), Duke Energy Progress, Inc. (the licensee), submitted the Refueling Outage 28 Steam Generator Tube Inspection Report in accordance with H. B. Robinson Steam Electric Plant, Unit 2, Technical Specifications Section 5.6.8, "Steam Generator Tube Inspection Report."

The U. S. Nuclear Regulatory Commission staff has reviewed the licensee's submittal and determined that additional information is needed in order to complete our review. The enclosed document describes this request for additional information (RAI). The RAI was e-mailed to the licensee in draft form on October 7, 2014 (ADAMS Accession No. ML14286A032), with a response requested by November 14, 2014.

If you have any questions, please call me at 301-415-2760.

Sincerely,

*/RA/*

Martha Barillas, Project Manager  
Plant Licensing Branch II-2  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket No. 50-261

Enclosure:  
Request for Additional Information

cc w/encl: Distribution via Listserv

REQUEST FOR ADDITIONAL INFORMATION  
H. B. ROBINSON STEAM ELECTRIC PLANT, UNIT 2  
REFUELING OUTAGE 28 STEAM GENERATOR TUBE INSPECTION REPORT  
TAC NO. MF4120

By letter dated April 29, 2014 (Agencywide Documents Access and Management System Accession No. ML14127A066), Duke Energy Progress, Inc., submitted the Refueling Outage (RFO) 28 Steam Generator Tube Inspection Report in accordance with H. B. Robinson Steam Electric Plant, Unit 2, Technical Specifications Section 5.6.8, "Steam Generator Tube Inspection Report".

To complete its review, the Nuclear Regulatory Commission staff requests the following request for additional information:

1. Please clarify the scope of your inspections in the U-bend region of the tubes located in Rows 1, 2, and 9. For example, were the U-bend regions of the tubes in Rows 1 and 2 inspected with a bobbin coil? Were 50 percent of Rows 1 and 2 tubes and 20 percent of the Row 9 tubes inspected with an array probe or were some not inspected as a result of probe availability?
2. Please clarify the scope of the primary bowl cladding inspection. Was just the region around the central, bottom portion of the channel head inspected or were all clad surfaces inspected? Please confirm that no degradation was detected during the primary channel head cladding inspections.
3. In 2008, low levels of primary-to-secondary leakage were observed in steam generator A. Please discuss whether any indications detected during RFO 28 could be the source of that leakage.
4. On the cold-leg side of the steam generator array probe, examinations were performed in a "two-tube" pattern. Please clarify the "two-tube" pattern. Were all tubes in the periphery (two tubes deep) inspected?
5. Please clarify what technology was being "bridged" during the rotating probe examinations. Were these examinations performed to accommodate the use of the array probe?
6. Please provide the effective full-power years the steam generators had operated for, as of RFOs 27 and 28.
7. Please clarify the tubes that were plugged. Were all tubes with expansion transitions located more than 1-inch below the top of the tube sheet plugged (i.e., R20C35 and R1C47 in steam generator A, and R11C70 and R25C10 in steam generator B)?

Enclosure

8. Please confirm that all of the indications detected at the tube support plates were a result of interactions with a loose part.
9. There appears to be a significant decline in the number of indications reported during RFO 28 when compared to RFO 26, especially when the number of new indications (as reported in the January 30, 2014, letter) is taken into account. Since all tubes with historic bobbin coil indications were inspected, please clarify the reason for this decline. Was the eddy current data quality during RFO 28 as good, or better, than that in RFO 26?
10. Please confirm that a location with an "A" (e.g., 04A) as reported in the attachment to your April 29, 2014, letter represents an anti-vibration bar.
11. Please discuss the results of your anti-vibration bar insertion depth study.

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**ADAMS Accession No.: ML14289A473**

**\* via e-mail**

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DATE	10/22/14	10/21/14	10/07/14	10/22/14	10/22/14

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