

UNITED STATES NUCLEAR REGULATORY COMMISSION WASHINGTON, D.C. 20555-0001 April 2, 2009

Mr. Charles G. Pardee President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNIT 2 - REQUEST FOR ADDITIONAL INFORMATION RELATED TO 2008 STEAM GENERATOR TUBE INSERVICE INSPECTIONS (TAC NO. ME0129)

Dear Mr. Pardee:

By letter to the Nuclear Regulatory Commission (NRC) dated November 11, 2008, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML083220444), Exelon Generation Company, LLC (the licensee) submitted information summarizing the results of the 2008 steam generator (SG) tube inspections at Braidwood Station, Unit 2, performed during the 13<sup>th</sup> refueling outage (A2R13).

The NRC staff is reviewing your submittal and has determined that additional information is required to complete its review. The specific information requested is addressed in the enclosed Request for Additional Information (RAI). Your staff has agreed to provide a response to this RAI within 45 days after the date of this letter.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1547.

Sincerely, 2 / Gi stall

Marshall J. David, Senior Project Manager Plant Licensing Branch III-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. STN 50-457

Enclosure: **Request for Additional Information** 

cc w/encl: Distribution via ListServ

## REQUEST FOR ADDITIONAL INFORMATION

## BRAIDWOOD STATION, UNIT 2

## DOCKET NO. STN 50-457

By letter to the Nuclear Regulatory Commission (NRC) dated November 11, 2008, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML083220444), Exelon Generation Company, LLC (the licensee) submitted information summarizing the results of the 2008 steam generator (SG) tube inspections at Braidwood Station, Unit 2, performed during the 13<sup>th</sup> refueling outage (A2R13). In order to complete its review, the NRC staff requests the following additional information.

- 1. For each refueling outage and SG tube inspection outage since installation of the SGs, please provide the cumulative effective full power months that the SGs have operated.
- 2. Please provide the results of your foreign object search and retrieval. Also, confirm that all detected loose parts were removed from the SG. If loose parts were left in the SG, please discuss whether analyses were performed to assess whether tube integrity would be maintained with the loose parts left in the SG.
- 3. You state in Section 4.2.1 that 15 tubes in SG 2A were plugged, prior to bobbin eddy current testing being performed on the cold-leg straight section of these tubes. Please discuss how you assessed the integrity of these 15 tubes.
- 4. Regarding information provided in Attachments B.1 through B.9:
  - a. Please define the acronyms used in these attachments.
  - b. Please clarify the "CEG" column in Table B.8. This column appears to be related to the circumferential extent of the indications; however, it is listed for both axially and circumferentially-oriented flaws. The reason for a "large" circumferential component for an axial indication is not clear.
- 5. Please clarify the discussion in Section 6.4 as it relates to your condition monitoring assessment for tubesheet indications. The NRC staff recognizes that it approved a method for addressing tubesheet indications in A2R13 that was different than what was approved for use in the prior outage (A2R12). A different method was necessary in A2R13 given the technical questions raised by the NRC staff with the prior approach. As a result, please discuss whether the tubes with indications in the lower 4 inches of tubing (i.e., below 17-inches from the top of the tubesheet) had adequate integrity.
- 6. In Section 6.5, you indicate that no primary-to-secondary leakage greater than 3 gallons per day was observed in the cycle prior to A2R13. You further indicate that no operational leakage was observed above the detection threshold. Since the first statement implies that some measurable leakage was detected, please clarify whether any primary-to-secondary leakage was observed (i.e., leakage above the detection threshold).

ENCLOSURE

- 7. You had planned to perform visual inspections of the preheater region in one SG, but later concluded that the inspections were not necessary (presumably based on the eddy current results and the results of prior inspections). Please discuss the results of the prior inspections in this region (including the inspection results from the waterbox cap plate region).
- 8. Inspections were performed on the secondary side of the SG (in this outage and prior outages). Please discuss whether the condition of the tube support plate holes was monitored during these inspections and the extent of any deposit buildup in these holes.

Mr. Charles G. Pardee President and Chief Nuclear Officer Exelon Nuclear 4300 Winfield Road Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNIT 2 - REQUEST FOR ADDITIONAL INFORMATION RELATED TO 2008 STEAM GENERATOR TUBE INSERVICE INSPECTIONS (TAC NO. ME0129)

Dear Mr. Pardee:

By letter to the Nuclear Regulatory Commission (NRC) dated November 11, 2008, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML090370190), Exelon Generation Company, LLC (the licensee) submitted information summarizing the results of the 2008 steam generator (SG) tube inspections at Braidwood Station, Unit 2, performed during the 13<sup>th</sup> refueling outage (A2R13).

The NRC staff is reviewing your submittal and has determined that additional information is required to complete its review. The specific information requested is addressed in the enclosed Request for Additional Information (RAI). Your staff has agreed to provide a response to this RAI within 45 days after the date of this letter.

The NRC staff considers that timely responses to requests for additional information help ensure sufficient time is available for staff review and contribute toward the NRC's goal of efficient and effective use of staff resources. If circumstances result in the need to revise the requested response date, please contact me at (301) 415-1547.

Sincerely,

/RA/

Marshall J. David, Senior Project Manager Plant Licensing Branch III-2 Division of Operating Reactor Licensing Office of Nuclear Reactor Regulation

Docket No. STN 50-457

Enclosure: Request for Additional Information

cc w/encl: Distribution via ListServ

DISTRIBUTION: PUBLIC RidsNrrPMBraidwood Resource RidsAcrsAcnw\_MailCTR Resource RidsRgn3MailCenter Resource

LPL3-2 R/F RidsNrrLATHarris Resource RidsNrrDciCsgb Resource RidsNrrDorlDpr Resource RidsNrrDorlLpl3-2 Resource AJohnson, NRR RidsOgcRp Resource

ADAMS Accession Number: ML090890593			*RAI memo date	NRR <u>-088</u>	
OFFICE	LPL3-2/PM	LPL3-2/LA	DCI/CSGB/BC(A)	LPL3-2/BC	
NAME	MDavid	THarris	MYoder*	RGibbs	
DATE	4/2/09	4/1/09	03/05/09	4/2/09	

OFFICIAL RECORD COPY