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10 CFR 50.90

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Nuclear

RS-08-046 April 9, 2008

U. S. Nuclear Regulatory Commission Attn: Document Control Desk Washington, DC 20555-0001

> Braidwood Station, Units 1 and 2 Facility Operating License Nos. NPF-72 and NPF-77 NRC Docket Nos. 50-456 and 50-457

- Subject: Supplemental Information Related to Steam Generator Tube Interim Alternate Repair Criteria Technical Specification
- Reference: (1) Letter from P. R. Simpson (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Response to Request for Additional Information Regarding Application for Steam Generator Tube Interim Alternate Repair Criteria Technical Specification," dated March 27, 2008
  - (2) Letter from P. R. Simpson (Exelon Generation Company, LLC) to U. S. Nuclear Regulatory Commission, "Application for Steam Generator Tube Interim Alternate Repair Criteria Technical Specification Amendment," dated February 25, 2008

In the Reference 1 submittal, Exelon Generation Company, LLC (EGC) provided additional information in support of the Reference 2 amendment request to Appendix A Technical Specifications (TS), of Facility Operating License Nos. NPF-72 and NPF-77 for Braidwood Station, Units 1 and 2. The proposed changes were requested to revise the TS requirements related to steam generator (SG) tube integrity for one cycle of operation for Braidwood Station Unit 2 by the application of an interim alternate repair criteria (IARC). The changes were supported by Westinghouse Electric Company LLC, LTR-CDME-08-11 P-Attachment, "Interim Alternate Repair Criterion (ARC) for Cracks in the Lower Region of the Tubesheet Expansion Zone."

In the course of their review of the EGC submittal, as well as similar submittals provided by Wolf Creek Nuclear Operating Corporation (WCNOC) and the Southern Nuclear Operating Company (SNC), the NRC determined that a regulatory commitment detailing the appropriate multiplication factor to be used for Braidwood Unit 2 SG leakage assessments following implementation of the IARC is needed. The attachment to this letter provides the requested commitment. April 9, 2008 U. S. Nuclear Regulatory Commission Page 2

In addition, the NRC requested modifications to the reporting requirements of Braidwood Station TS 5.6.9, "Steam Generator (SG) Tube inspection Report" provided in the Reference 1 submittal. These changes are highlighted in the TS markup provided in Attachment 2.

In accordance with 10 CFR 50.91(b), "State consultation," EGC is providing the State of Illinois with a copy of this letter and its attachment to the designated State Official. The No Significant Hazards Consideration and the Environmental Consideration provided in Attachment 1 of Reference 2 are not affected by this additional information.

If you have any questions about this letter, please contact David Chrzanowski at (630) 657-2816.

I declare under penalty of perjury that the foregoing is true and correct. Executed on the 9th day of April 2008.

Respectfully,

Patrick R. Summon

Patrick R. Simpson Manager – Licensing

Attachment 1: Regulatory Commitment Related to the Implementation of the Steam Generator Tube Interim Alternate Repair Criteria Technical Specification Amendment

Attachment 2: Braidwood Station Marked-up Technical Specifications Pages

Attachment 1

#### BRAIDWOOD STATION UNITS 1 AND 2

## Docket Nos. STN 50-456 and STN 50-457 License Nos. NPF-72 and NPF-77

Regulatory Commitment Related to the Implementation of the Steam Generator Tube Interim Alternate Repair Criteria Technical Specification Amendment

## Attachment 1 Regulatory Commitment Related to the Implementation of the Steam Generator Tube Interim Alternate Repair Criteria Technical Specification Amendment

	COMMITTED DATE OR "OUTAGE"	COMMITMENT TYPE	
COMMITMENT		One-Time Action (Yes/No)	PROGRAMMATIC Action (Yes/No)
For integrity assessments, the ratio of 2.5 will be used in the completion of both the condition monitoring (CM) and operational assessment (OA) upon implementation of the IARC. For example, for the CM assessment, the component of leakage from the lower 4 inches for the most limiting steam generator during the prior cycle of operation will be multiplied by a factor of 2.5 and added to the total leakage from any other source and compared to the allowable accident analysis leakage assumption. For the OA, the difference in leakage between the allowable limit during the limiting design basis accident and the leakage from the other sources will be divided by 2.5 and compared to the observed leakage. An administrative limit will be established to not exceed the calculated value.	Required to be included in the CM and OA following implementation of the IARC in A2R13	Yes	No

Attachment 2

#### BRAIDWOOD STATION UNITS 1 AND 2

# Docket Nos. STN 50-456 and STN 50-457 License Nos. NPF-72 and NPF-77

Supplemental Information Related to Steam Generator Tube Interim Alternate Repair Criteria Technical Specification

**Braidwood Station** 

Marked-up Technical Specifications Page

5.6-6

# 5.6 Reporting Requirements

## 5.6.8 <u>Tendon Surveillance Report</u>

Any abnormal degradation of the containment structure detected during the tests required by the Pre-Stressed Concrete Containment Tendon Surveillance Program shall be reported in the Inservice Inspection Summary Report in accordance with 10 CFR 50.55a and ASME Section XI, 1992 Edition with the 1992 Addenda.

### 5.6.9 <u>Steam Generator (SG) Tube Inspection Report</u>

A report shall be submitted within 180 days after the initial entry into MODE 4 following completion of an inspection performed in accordance with Specification 5.5.9, Steam Generator (SG) Program. The report shall include:

- a. The scope of inspections performed on each SG,
- b. Active degradation mechanisms found,
- c. Nondestructive examination techniques utilized for each degradation mechanism,
- d. Location, orientation (if linear), and measured sizes (if available) of service induced indications,
- e. Number of tubes plugged or repaired during the inspection outage for each active degradation mechanism,
- f. Total number and percentage of tubes plugged or repaired to date,
- g. The results of condition monitoring, including the results of tube pulls and in-situ testing,
- h. The effective plugging percentage for all plugging and tube repairs in each SG, and
- i. Repair method utilized and the number of tubes repaired by each repair method,

Insert B

		Insert B
, ,	j.	For Unit 2, following completion of an inspection performed in Refueling Outage 13 (and any inspections performed in the subsequent operating cycle), the number of indications and location, size, orientation, and whether initiated on primary or secondary side for each service induced flaw detected within the thickness of the tubesheet, and the total of the circumferential components and any circumferential overlap <i>below 17 inches from the</i> <i>top of the tubesheet</i> , as determined in accordance with TS 5.5.9 c.4.i
	k.	For Unit 2, following completion of an inspection performed in Refueling Outage 13 (and any inspections performed in the subsequent operating cycle), the operational primary to secondary leakage rate observed (greater than three gallons per day) in each steam generator (if it is not practical to assign the leakage to an individual steam generator, the entire primary to secondary leakage should be conservatively assumed to be from one steam generator) during the cycle preceding the inspection which is the subject of the report, and
	1.	For Unit 2, following completion of an inspection performed in Refueling Outage 13 (and any inspections performed in the subsequent operating cycle), the calculated accident leakage rate from the lowermost 4- inches of tubing for the most limiting accident in the most limiting steam generator. In addition, if the calculated accident leakage rate from the most limiting accident is less than 2 times the maximum operational primary to secondary leakage rate, the report should describe how it was determined.