



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

November 27, 2017

Mr. Bryan C. Hanson
Senior Vice President
Exelon Generation Company, LLC
President and Chief Nuclear Officer (CNO)
Exelon Nuclear
4300 Winfield Road
Warrenville, IL 60555

SUBJECT: BRAIDWOOD STATION, UNIT 1 - REVIEW OF THE FALL 2016 STEAM
GENERATOR TUBE INSPECTIONS DURING REFUELING OUTAGE 19
(CAC NO. MF9343; EPID L-2017-LLL-0007)

Dear Mr. Hanson:

By letter dated February 27, 2017 (Agencywide Documents Access and Management System Accession No. ML17058A085), Exelon Generation Company, LLC (the licensee), submitted information summarizing the results of its fall 2016 steam generator tube inspections performed during refueling outage 19 at Braidwood Station (Braidwood), Unit 1.

The U.S. Nuclear Regulatory Commission (NRC) staff has completed its review of the report and concludes that the licensee provided the information required by the Braidwood, Unit 1, technical specifications. No additional follow-up is required at this time. The NRC staff's review is enclosed.

If you have questions regarding this review, please contact me at (301) 415-6606 or Joel.Wiebe@nrc.gov.

Sincerely,

A handwritten signature in black ink that reads "Joel S. Wiebe".

Joel S. Wiebe, Senior Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. STN 50-456

Enclosure:
Summary of the Review of Steam
Generator Tube Inspections

cc: Listserv

SUMMARY OF U.S. NUCLEAR REGULATORY COMMISSION STAFF'S REVIEW OF THE
STEAM GENERATOR TUBE INSPECTIONS FOR REFUELING OUTAGE 19

EXELON GENERATION COMPANY, LLC

BRAIDWOOD STATION, UNIT 1

DOCKET NO. 50-456

By letter dated February 27, 2017 (Agencywide Documents Access and Management System Accession No. ML17058A085), Exelon Generation Company, LLC (the licensee), submitted information summarizing the results of the fall 2016 steam generator (SG) tube inspections performed at Braidwood Station (Braidwood), Unit 1, during refueling outage (RFO) 19.

Braidwood, Unit 1, has four recirculating SGs designed and fabricated by Babcock and Wilcox International. Each SG has 6,633 thermally treated Alloy 690 tubes that have an outside diameter of 0.6875 inches and a nominal wall thickness of 0.040 inches. The tubes are supported by Type 410 stainless steel, lattice-grid tube supports and flat fan bars. The tubes were hydraulically expanded at each end for the full depth of the tubesheet.

The licensee provided the scope, extent, methods, and results of the SG tube inspections in its February 27, 2017, letter. In addition, the licensee described corrective actions (i.e., tube plugging) taken in response to the inspection findings.

After a review of the information provided by the licensee, the U.S. Nuclear Regulatory Commission staff has the following comments/observations:

The licensee identified a total of 13 indications of secondary side foreign object (FO) wear in 12 tubes during RFO 19. In SG 1A, the licensee plugged and stabilized four tubes surrounding an FO that the licensee was unable to retrieve. The remaining tubes with FO wear were left in service since the FO presumed to have caused wear in these tubes was removed. The largest FO wear indication was measured to be 27 percent through-wall.

Based on a review of the information provided, the NRC staff concludes that the licensee provided the information required by the Braidwood, Unit 1, technical specifications. In addition, the staff concludes that there are no technical issues that warrant follow-up action at this time, since the inspections appear to be consistent with the objective of detecting potential tube degradation and the inspection results appear to be consistent with industry operating experience at similarly designed and operated units.

Enclosure

SUBJECT: BRAIDWOOD STATION, UNIT 1 - REVIEW OF THE FALL 2016 STEAM GENERATOR TUBE INSPECTIONS DURING REFUELING OUTAGE 19 (CAC NO. MF9343; EPID L-2017-LLL-0007) DATED NOVEMBER 27, 2017.

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*via memo dated

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