

**Proprietary Information - Withhold from Public Disclosure Under 10 CFR 2.390**

July 7, 2021  
BW210048

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

Braidwood Station, Unit 1  
Renewed Facility Operating License No. NPF-72  
NRC Docket No. STN 50-456

Subject: Submittal of Analytical Evaluation in Accordance with ASME Code Section XI

References: 1. Letter BW180116 from Marri Marchionda-Palmer (Exelon Generation Company, LLC) to U. S. NRC, "Submittal of Analytical Evaluation in Accordance with ASME Code Section XI," dated December 12, 2018

On December 12, 2018, in accordance with the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," 2001 Edition through 2003 Addenda, IWB-3134, "Review by Authorities" paragraph (b) Braidwood Station submitted an analytical evaluation associated with indications recorded in the reactor vessel head dome closure head ring weld inspection (Reference 1).

The Reference 1 letter transmitted the Westinghouse Electric Company LLC ("Westinghouse") evaluation of the weld indications. The evaluation, based on ASME Section XI IWB-3600 requirements, demonstrated the structural integrity of the closure head for at least two fuel cycles of operation.

The reactor vessel head dome closure head ring weld was inspected, as required by the ASME Section XI Code, in the Spring 2021 Refueling Outage for Braidwood Unit 1. No changes were recorded from the 2018 inspection.

An additional evaluation of the recorded indications has been completed and is provided in Attachment 1 to this transmittal. The evaluation has determined that the recorded indications are acceptable per IWB-3600 for at least 60 years of plant operation, which will cover the remaining design life of the plant.

**Attachment 1 contains Proprietary Information. Withhold from public disclosure under 10 CFR 2.390. When separated from Attachment 1, this document is decontrolled.**

Attachment 1 contains information proprietary to Westinghouse. It is supported by an affidavit (Attachment 3) signed by Westinghouse, the owner of the information. The affidavit sets forth the basis on which the information may be withheld from public disclosure by the Nuclear Regulatory Commission and addresses with specificity the considerations listed in 10 CFR 2.390(a)(4). Westinghouse and Exelon Generation Company, LLC (EGC) request that the information which is proprietary to Westinghouse be withheld from public disclosure in accordance with 10 CFR Section 2.390, "Public inspection, exemption, requests for withholding." Attachment 2 contains a nonproprietary version of Attachment 1 with brackets showing where the proprietary information has been deleted.

There are no regulatory commitments contained in this letter.

Please direct any questions you may have regarding this submittal to Mr. Kevin Lueshen, Regulatory Assurance Manager, at (815) 417-2800.

John Keenan  
Site Vice President  
Braidwood Station

Attachments:

1. Westinghouse WCAP-18596-P Revision 0, Braidwood Unit 1 Reactor Vessel Closure Head Dome-to-Ring Weld ASME Section XI Evaluation of As-Found Indications (Proprietary)
2. Westinghouse WCAP-18596-NP Revision 0, Braidwood Unit 1 Reactor Vessel Closure Head Dome-to-Ring Weld ASME Section XI Evaluation of As-Found Indications (Non-Proprietary)
3. Westinghouse Affidavit for Withholding Proprietary Information from Public Disclosure, CAW-20-5133

cc: Regional Administrator - NRC Region III  
NRC Senior Resident Inspector - Braidwood Station  
NRR Project Manager - Braidwood Station  
Illinois Emergency Management Agency - Division of Nuclear Safety

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