

RS-18-095

10 CFR 50.55a

July 31, 2018

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

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

Subject: Response to Request for Additional Information Regarding Braidwood Station
Fourth Inservice Inspection Interval Relief Request I4R-03

- References:
- 1) Letter from D. M. Gullott (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Braidwood Station, Units 1 and 2, Relief Requests Associated with the Fourth Inservice Inspection Interval," dated March 19, 2018 (ADAMS Accession No. ML18078A185)
 - 2) Letter from D. M. Gullott (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Braidwood Station, Units 1 and 2, Supplement to Relief Request I4R-03 Associated with the Fourth Inservice Inspection Interval," dated May 3, 2018 (ADAMS Accession No. ML18124A154)
 - 3) Email from J. Wiebe (U.S. Nuclear Regulatory Commission) to L. A. Simpson (Exelon Generation Company, LLC), "Preliminary RAIs for Braidwood Relief Request I4R-05," dated July 11, 2018

By letter dated March 19, 2018 (Reference 1), as supplemented by letter dated May 3, 2018 (Reference 2), Exelon Generation Company, LLC (EGC) submitted a request in accordance with Paragraph 50.55a(z)(2) of Title 10 of the Code of Federal Regulations (10 CFR) for a proposed alternative to the requirements of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for Braidwood Station, Units 1 and 2. The EGC proposed alternative, I4R-03, would permit performance of an alternative repair of leaking control rod drive mechanism canopy seal welds in lieu of specified ASME Code requirements.

In Reference 3, the NRC requested additional information to complete its review of Relief Request I4R-03. The requested information is provided in the attachment of this letter.

There are no regulatory commitments contained within this letter.

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Should you have any questions concerning this letter, please contact Ms. Lisa A. Simpson at (630) 657-2815.

Respectfully,

A handwritten signature in black ink, appearing to read 'D. M. Gullott', with a long horizontal line extending to the right.

David M. Gullott
Manager – Licensing
Exelon Generation Company, LLC

Attachment: Response to Request for Additional Information

cc: NRC Regional Administrator, Region III
NRC Senior Resident Inspector, Braidwood Station
NRC Senior Resident Inspector, Byron Station
Illinois Emergency Management Agency – Division of Nuclear Safety

ATTACHMENT
Response to Request for Additional Information

By letter dated March 19, 2018 (ADAMS Accession No. ML18078A185), as supplemented by letter dated May 3, 2018 (ADAMS Accession No. ML18124A154), Exelon Generation Company, LLC (EGC) submitted a request in accordance with Paragraph 50.55a(z)(2) of Title 10 of the Code of Federal Regulations (10 CFR) for a proposed alternative to the requirements of Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code) for Braidwood Station, Units 1 and 2. The proposed alternative, I4R-03, would permit performance of an alternative repair of leaking control rod drive mechanism canopy seal welds in lieu of specified ASME Code requirements.

In an email dated July 11, 2018, the U.S. Nuclear Regulatory Commission (NRC) requested additional information to complete its review of Relief Request I4R-03. The NRC's request for additional information (RAI) and EGC's response are provided below.

NRC RAI

Section 5, "Proposed Alternative and Basis for Use," of the licensee's proposed alternative states, "The CRDM canopy seal weld flaws will not be removed, but an analysis of the repaired weldment will be performed, prior to entering Mode 4, to assure that the remaining flaw will not propagate unacceptably." In a previous relief request dated September 19, 2013 (ADAMS Accession No. ML13263A372), with a supplement dated January 24, 2014 (ADAMS Accession No. ML14024A588), the licensee stated that it will use applicable portions of ASME Code Case N-504-4, "Alternative Rules for Repair of Class 1, 2, and 3, Austenitic Stainless Steel Piping, Section XI, Division 1," for repair by weld overlay to provide a new leakage barrier and that the remaining flaw analysis would be using Paragraph (g) of ASME Code Case N-504-4. Provide a description of methods to be used for the current design of the weld overlay and perform the flaw growth analysis and a basis for why the chosen methods are acceptable.

EGC Response

As referenced in the NRC RAI, EGC submitted Braidwood relief request I3R-11 by letter dated September 19, 2013 (ADAMS Accession No. ML13263A372), as supplemented by letter dated January 24, 2014 (ADAMS Accession No. ML14024A588), which proposed an alternative method of repair and nondestructive examination for control rod drive mechanism (CRDM) canopy seal welds. The alternative repair involved the use of applicable portions of ASME Code Case N-504-4, "Alternative Rules for Repair of Classes 1, 2, and 3 Austenitic Stainless Steel Piping, Section XI, Division 1." Relief request I3R-11 was authorized for the Braidwood third 10-year ISI interval of the Braidwood Station, Units 1 and 2, Inservice Inspection Program by NRC letter dated April 28, 2014 (ADAMS Accession No ML14084A549).

ASME Section XI Code Case N-504-4 was incorporated into Nonmandatory Appendix Q, "Weld Overlay Repair of Classes 1, 2, and 3 Austenitic Stainless Steel Piping Weldments," with the 2007 Edition of ASME Section XI. Weld overlays are addressed by Nonmandatory Appendix Q, which has been endorsed by the NRC. Since the Code of record for Braidwood, Units 1 and 2 fourth 10-year Inservice Inspection interval is the 2013 Edition, EGC would be performing required repairs to the reactor CRDM canopy seal welds in accordance with ASME Section XI, Nonmandatory Appendix Q, not ASME Code Case N-504-4.