Exelon Generation®

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10 CFR 50.55a

RS-20-017

February 1, 2021

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

Byron Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-37 and NPF-66
NRC Docket Nos. STN 50-454 and STN 50-455

Calvert Cliffs Nuclear Power Plant, Units 1 and 2
Renewed Facility Operating License Nos. DPR-53 and DPR-69
NRC Docket Nos. 50-317 and 50-318

R.E. Ginna Nuclear Power Plant
Renewed Facility Operating License No. DPR-18
NRC Docket No. 50-244

Subject: Response to Request for Additional Information - Proposed Alternative to Utilize Code Case N-885

References:
1) Letter from D. Gudger (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, “Proposed Alternative to Utilize Code Case N-885,” dated April 28, 2020

2) Email from B. Purnell (U.S. Nuclear Regulatory Commission) to T. Loomis (Exelon Generation Company, LLC), “Exelon Generation Company, LLC - Request for Additional Information Regarding Fleet Alternative Request to Use ASME Code Case N-885,” date January 29, 2021

In the Reference 1 letter, Exelon Generation Company, LLC (Exelon) requested a proposed alternative to the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, "Rules for Inservice Inspection of Nuclear Power Plant Components," on the basis that compliance with the code results in hardship without a compensating increase in quality and safety. Specifically, this proposed alternative concerns the use of Code

Case N-885 ("Alternative Requirements for Table IWB-2500-1, Examination Category B-N-1, Interior of Reactor Vessel, Category B-N-2, Welded Core Support Structures and Interior Attachments to Reactor Vessels, Category B-N-3, Removable Core Support Structures Section XI, Division 1"). This Code Case addresses alternative requirements for examination of reactor vessel interior accessible areas, welds, and surfaces required to be examined.

In the Reference 2 email, the U.S. Nuclear Regulatory Commission requested additional information. Attached is our response.

If you have any questions, please contact Tom Loomis (610) 765-5510.

Respectfully,

David T. Gudger

David T. Gudger
Senior Manager - Licensing
Exelon Generation Company, LLC

Attachment: Response to Request for Additional Information

cc: Regional Administrator - NRC Region I
Regional Administrator - NRC Region III
NRC Senior Resident Inspector - Braidwood Station
NRC Senior Resident Inspector - Byron Station
NRC Senior Resident Inspector - Calvert Cliffs Nuclear Power Plant
NRC Senior Resident Inspector - R.E. Ginna Nuclear Power Plant
NRC Project Manager - Braidwood Station
NRC Project Manager - Byron Station
NRC Project Manager - Calvert Cliffs Nuclear Power Plant
NRC Project Manager - R.E. Ginna Nuclear Power Plant
IEMA Department of Nuclear Safety
A. L. Peterson, NYSERDA

Attachment

Response to Request for Additional Information

Request for Additional Information 1:

With respect to the components subject to VT-3 visual examinations under Code Case N-885, demonstrate that either:

A. the proposed alternative acceptance standard (-3520.2) for VT-3 visual examinations in Code Case N-885 provides an acceptable level of quality and safety, or

B. compliance with subparagraph IWB-3520.2 of the ASME BPV Code, Section XI, would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Response:

The proposed alternative to utilize Code Case N-885 eliminates the acceptance standards of ASME Section XI, IWB-3520.2(c), "foreign materials or accumulation of corrosion products that could interfere with control rod motion or could result in blockage of coolant flow through the fuel." This is done within the Code Case to parallel the removal of the Category B-N-1 vessel interior visual examination, as the IWB-3520.2(c) provision only applies to the removed visual exam of the reactor vessel interior accessible areas. The proposed alternative provides an acceptable level of quality and safety based on numerous activities that occur each refueling outage, more frequently than that of the current ASME Section XI requirement of each inspection period. These outage activities, which are discussed in the proposed alternative and in the associated EPRI report, provide opportunities for the detection of foreign materials or accumulation of corrosion products as well as other adverse conditions in the interior of the reactor vessel. Further, the Exelon Foreign Material Exclusion (FME) program provides the governing requirements for maintaining FME integrity by preventing introduction of foreign materials into systems, structures, or components as well as controls for investigation and recovery of items when FME integrity is lost or unexpected foreign material (FM) is discovered. These controls and the proposed alternative to utilize Code Case N-885 provide an acceptable level of quality and safety.

Request for Additional Information 2:

Describe how other regulatory requirements would continue to ensure that control rod motion and coolant flow through reactor fuel is acceptable. Discuss how these regulatory requirements would continue to be met with the proposed change in the acceptance standard for VT-3 visual examinations. The discussion should include the following regulatory requirements:

- Criterion XVI of 10 CFR Part 50, Appendix B, and
- Technical specification requirements (e.g., operability definition, limiting conditions for operations, surveillance requirements) related to control rods, reactor fuel, and the emergency core cooling system.

Response:

This request is made in accordance with 10 CFR 50.55a(z)(2) as an alternative to certain ASME BPV XI requirements: therefore, this relief request does not address and cannot modify the Exelon Corrective Action Process that would be utilized if conditions that could interfere with

control rod motion or result in blockage of coolant flow through reactor fuel were identified. Exelon is required to have a corrective action process that fulfills regulatory requirements. Specifically, 10 CFR 50 Appendix B, Criterion XVI requires that Conditions Adverse to Quality are corrected. To meet this requirement, Exelon utilizes Computer Programs to document the corrective actions that address the Conditions Adverse to Quality. This relief request does not alter these requirements. The Exelon Corrective Action Process also ensures compliance with Technical specification requirements (e.g., operability definition, limiting conditions for operations, surveillance requirements) related to control rods, reactor fuel, and the emergency core cooling system.

Request for Additional Information 3:

The application states, in part:

> The proposed alternative is for use of Code Case N-885 for the remainder of each plant's 10-year inspection interval as specified in Section 2 or such time as the NRC approves the Code Case in the Regulatory Guide or other document.

This statement does not clearly indicate that Exelon would discontinue use of the proposed alternative at the end of the current 10-year inservice inspection interval for each plant if the NRC has not approved the Code Case N-885 for generic use.

Confirm that the duration of the proposed alternative would not go beyond the current 10-year inservice inspection interval for each plant.

Response:

Exelon would discontinue use of the proposed alternative at the end of the current 10-year inservice inspection interval for each plant if the NRC has not approved the Code Case N-885 for generic use. Otherwise, Exelon will request re-use of this Code Case for the next interval if not yet incorporated in the Regulatory Guide.