

10 CFR 50.55a

RS-21-071  
JAFP-21-0064  
NMP1L3410

July 7, 2021

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001Braidwood Station, Units 1 and 2  
Renewed Facility Operating License Nos. NPF-72 and NPF-77  
NRC Docket Nos. STN 50-456 and STN 50-457Byron Station, Units 1 and 2  
Renewed Facility Operating License Nos. NPF-37 and NPF-66  
NRC Docket Nos. STN 50-454 and STN 50-455Calvert Cliffs Nuclear Power Plant, Units 1 and 2  
Renewed Facility Operating License Nos. DPR-53 and DPR-69  
NRC Docket Nos. 50-317 and 50-318Clinton Power Station, Unit 1  
Facility Operating License No. NPF-62  
NRC Docket No. 50-461Dresden Nuclear Power Station, Units 2 and 3  
Renewed Facility Operating License Nos. DPR-19 and DPR-25  
NRC Docket Nos. 50-237 and 50-249James A. FitzPatrick Nuclear Power Plant  
Renewed Facility Operating License No. DPR-59  
NRC Docket No. 50-333LaSalle County Station, Units 1 and 2  
Renewed Facility Operating License Nos. NPF-11 and NPF-18  
NRC Docket Nos. 50-373 and 50-374Limerick Generating Station, Units 1 and 2  
Renewed Facility Operating License Nos. NPF-39 and NPF-85  
NRC Docket Nos. 50-352 and 50-353Nine Mile Point Nuclear Station, Units 1 and 2  
Renewed Facility Operating License Nos. DPR-63 and NPF-69  
NRC Docket Nos. 50-220 and 50-410

Peach Bottom Atomic Power Station, Units 2 and 3  
Renewed Facility Operating License Nos. DPR-44 and DPR-56  
NRC Docket Nos. 50-277 and 50-278

Quad Cities Nuclear Power Station, Units 1 and 2  
Renewed Facility Operating License Nos. DPR-29 and DPR-30  
NRC Docket Nos. 50-254 and 50-265

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

Subject: Supplemental Information - Proposed Alternative Concerning ASME  
Section XI Repair/Replacement Documentation for Replacement of Pressure  
Retaining Bolting

- 1) Letter from D. Gudger (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Proposed Alternative Concerning ASME Section XI Repair/Replacement Documentation for Replacement of Pressure Retaining Bolting," dated December 1, 2020 (ML20336A008)
- 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 Proposed Fleet Alternative to Documentation Requirements for Pressure Retaining Bolting," dated March 1, 2021 (ML21062A065)
- 3) Letter from D. Gudger (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Response to Request for Additional Information - Proposed Alternative Concerning ASME Section XI Repair/Replacement Documentation for Replacement of Pressure Retaining Bolting," dated April 20, 2021 (ML21110A092)
- 4) Letter from D. Gudger (Exelon Generation Company, LLC) to U.S. Nuclear Regulatory Commission, "Supplemental Information Concerning Proposed Alternative Concerning ASME Section XI Repair/Replacement Documentation for Replacement of Pressure Retaining Bolting," date May 18, 2021 (ML21138A839)
- 5) "Summary of May 18, 2021, Meeting with Exelon Generation Company, LLC Regarding its Requested Alternative to Eliminate Certain Documentation Requirements for the Replacement of Pressure Retaining Bolting (EPIDS L-2020-0153, L-2020-0154, L-2020-0155, L-2021-LLR-0029, and L-2021-LLR-0030)," dated June 22, 2021 (ML21139A185)

In the Reference 1 letter, in accordance with 10 CFR 50.55a(z)(1), 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 the alternative

provides an acceptable level of quality and safety. This proposed alternative concerns completion of Form NIS-2, "Owner's Repair/Replacement Certification Record" (2017 Edition) or the NRC approved alternative Form NIS-2A, "Repair/Replacement Certification Record," contained in Code Case N-532-5. Specifically, Exelon proposes to forego preparation and completion of a Repair/Replacement Plan and Form NIS-2 (or NIS-2A) for pressure retaining bolting that is not classified as Examination Category B-G-1, B-G-2, or C-D.

In the Reference 3 letter, Exelon provided a response to the Staff's request for additional information contained in Reference 2. In the Reference 4 letter, Exelon provided supplemental information. Reference 5 provided meeting notes from a May 18, 2021 meeting between Exelon and the NRC concerning this relief request. Attached is supplemental information to address the issues identified in the May 18, 2021 meeting.

There are no commitments contained in this letter.

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

Respectfully,



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

Attachment: Supplemental Information - Proposed Alternative Concerning ASME Section XI  
Repair/Replacement Documentation for Replacement of Pressure Retaining  
Bolting

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 - Clinton Power Station  
NRC Senior Resident Inspector - Dresden Nuclear Power Station  
NRC Senior Resident Inspector - James A. FitzPatrick Nuclear Power Plant  
NRC Senior Resident Inspector - LaSalle County Station  
NRC Senior Resident Inspector - Limerick Generating Station  
NRC Senior Resident Inspector - Nine Mile Point Nuclear Station  
NRC Senior Resident Inspector - Peach Bottom Atomic Power Station  
NRC Senior Resident Inspector - Quad Cities Nuclear Power Station  
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 - Clinton Power Station  
NRC Project Manager - Dresden Nuclear Power Station  
NRC Project Manager - James A. FitzPatrick Nuclear Power Plant  
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NRC Project Manager - Limerick Generating Station  
NRC Project Manager - Nine Mile Point Nuclear Station  
NRC Project Manager - Peach Bottom Atomic Power Station  
NRC Project Manager - Quad Cities Nuclear Power Station  
NRC Project Manager - R. E. Ginna Nuclear Power Plant  
Maryland DNR - S. Seaman  
Pennsylvania DEP - W. DeHaas  
NYSERDA - A. L. Peterson  
Illinois Emergency Management Agency – Division of Nuclear Safety

## **Attachment**

**Supplemental Information - Proposed Alternative Concerning ASME Section XI  
Repair/Replacement Documentation for Replacement of Pressure Retaining Bolting**

## **Supplemental Information**

ASME Section XI contains specific requirements for examination, evaluation, correction, and/or modification for bolting showing signs of service induced degradation. When service induced degradation occurs, ASME Section XI does not allow a simple replacement of the affected bolting without completing the additional steps required under Section XI. For these replacements, processes and procedures other than the work control and procurement processes and procedures may be involved; therefore, completion of a Repair/Replacement Plan and associated Form NIS-2 (or NIS-2A) ensures the additional requirements are identified and completed. Exelon is not proposing to modify the ASME Section XI requirements for bolting where service induced degradation has been identified.

For routine replacement of bolting, where no service induced degradation has been identified (i.e., lost bolting, bolting damaged during disassembly), the only ASME Section XI requirements currently invoked beyond normal work and procurement processes are administrative in nature and include completion of a Repair/Replacement Plan and completion of a Form NIS-2 (or NIS-2A). For these replacements, the Repair/Replacement Plan provides no additional information other than reiteration of the work package instructions for bolting replacement. Similarly, since there are no additional technical requirements under Section XI for routine bolting replacement, completing the Form NIS-2 (or NIS-2A) is merely generating an additional document for activities that are already covered through the work control process and procedures, along with the procurement process and procedures. The NIS-2 (or NIS-2A) does not contain any specific information; therefore, it does not provide any information beyond indicating the bolting was replaced in accordance with the Owner's processes and procedures, which ensure the Owner's responsibilities under ASME Section XI have been met. Routine replacement of bolting is not required to be reported on the Owner's Report for Inservice Inspections (Form NIS-1) or the Owner's Activity Report (OAR-1).

While the relief request will eliminate the requirement for completion of a Repair/Replacement Plan and completion of a Form NIS-2 (or NIS-2A) for every work order involving routine bolting replacements, the Authorized Inspection Agency will have the opportunity to review the process for performing the replacements on a sample basis. Sampling has been identified as an acceptable practice under ASME Section XI with respect to bolting, as shown in Table IWB-2500-1 (B-G-1), Note 5 and Table IWB-2500-1 (B-G-2), Note 3, both of which state in part: "The examination of flange bolting in piping systems may be limited to one bolted connection among a group of bolted connections that are similar in design, size, function, and service...." In addition, sampling is an accepted practice by both ASME and the NRC for determining the acceptability of processes and procedures for ASME and safety-related work, procurement, traceability, and document control. Traceability of the bolting used for safety-related replacements is a requirement of 10 CFR 50, Appendix B, and the work package contains the required traceability to associated vendor supplied quality documentation, which is retrievable at any time.

Also, specific to the Authorized Inspection Agency, under IWA-2110 the Inspector has the duty to verify preservice and inservice examinations, as well as the repair/replacement program. Depending on the activity, the Inspector performs these duties in various ways. Another similar example of Owner and Inspector duties and how they are implemented is the conduct of system pressure tests. For these Code tests, the Inspector is notified of the activities; however, they only witness or review a sampling at their discretion as they deem necessary to fulfill verification of the program and its implementation to satisfy the requirements of IWA-2110 with no specific requirements to document witnessing the test.

This relief request recognizes the redundancy of completing a Repair/Replacement Plan and associated Form NIS-2 (or NIS-2A) every time bolting is routinely replaced, regardless of the reason for the replacement. Consequently, the relief request is intended to eliminate the administrative burden of completing redundant Repair/Replacement Plans and associated Forms NIS-2 (or NIS-2A), along with having an Authorized Inspection Agency as part of the in-line work process for routine bolting replacements. In lieu of completing Repair/Replacement Plans and associated Forms NIS-2 (or NIS-2A), a log will be maintained of work packages where the relief request has been invoked. The Authorized Inspection Agency will have access to the log, providing them the opportunity to review the work package instructions, along with the associated procurement documentation. Since there are no additional technical Section XI requirements for routine bolting replacements, the proposed alternative to eliminate repetitive administrative steps provides an acceptable level of quality and safety.