



RS-20-149
NMP1L3366

December 1, 2020

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

Clinton Power Station, Unit 1
Facility Operating License No. NPF-62
NRC Docket No. 50-461

Dresden Nuclear Power Station, Units 2 and 3
Renewed Facility Operating License Nos. DPR-19 and DPR-25
NRC Docket Nos. 50-237 and 50-249

James A. FitzPatrick Nuclear Power Plant
Renewed Facility Operating License No. DPR-59
NRC Docket No. 50-333

LaSalle County Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-11 and NPF-18
NRC Docket Nos. 50-373 and 50-374

Limerick Generating Station, Units 1 and 2
Renewed Facility Operating License Nos. NPF-39 and NPF-85
NRC Docket Nos. 50-352 and 50-353

Nine 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

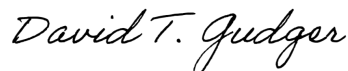
Subject: Proposed Alternative Concerning ASME Section XI Repair/Replacement
Documentation for Replacement of Pressure Retaining Bolting

In accordance with 10 CFR 50.55a(z)(1), Exelon Generation Company, LLC (Exelon) is requesting 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 a Repair/Replacement Plan and Form NIS-2, "Owner's Report for Repair/Replacement Activity" 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.

There are no regulatory commitments contained in this letter. Exelon requests your review and approval of this request by September 1, 2021 for use in the Fall 2021 refueling outages.

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

Respectfully,



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

Attachment: 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
 NRC Project Manager - LaSalle County Station
 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

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

10 CFR 50.55a RELIEF REQUEST
Revision 0
(Page 1 of 5)

**Proposed Alternative Concerning ASME Section XI Repair/Replacement Documentation
for Replacement of Pressure Retaining Bolting
in Accordance with 10 CFR 50.55a(z)(1)
– Alternative Provides Acceptable Level of Quality and Safety –**

1. ASME Code Component(s) Affected:

All ASME pressure retaining bolting that is not classified as Examination Category B-G-1 (Class 1 pressure retaining bolting, greater than 2 in. in diameter), B-G-2 (Class 1 pressure retaining bolting, 2 in. and less in diameter), or C-D (Class 2 pressure retaining bolting greater than 2 in. in diameter).

2. Applicable Code Edition and Addenda:

<u>PLANT</u>	<u>INTERVAL</u>	<u>EDITION</u>	<u>START</u>	<u>END</u>
Braidwood Station, Units 1 and 2	Fourth	2013 Edition	August 29, 2018 November 5, 2018	July 28, 2028 October 16, 2028
Byron Station, Units 1 and 2	Fourth	2007 Edition, through 2008 Addenda	July 16, 2016	July 15, 2025
Calvert Cliffs Nuclear Power Plant, Units 1 and 2	Fifth	2013 Edition	July 1, 2019	June 30, 2029
Clinton Power Station, Unit 1	Fourth	2013 Edition	July 1, 2020	June 30, 2030
Dresden Nuclear Power Station, Units 2 and 3	Fifth	2007 Edition, through 2008 Addenda	January 20, 2013	January 19, 2023
James A. FitzPatrick Nuclear Power Plant	Fifth	2007 Edition, through 2008 Addenda	August 1, 2017	June 15, 2027
LaSalle County Stations, Units 1 and 2	Fourth	2007 Edition, through 2008 Addenda	October 1, 2017	September 30, 2027
Limerick Generating Station, Units 1 and 2	Fourth	2007 Edition, through 2008 Addenda	February 1, 2017	January 31, 2027
Nine Mile Point Nuclear Station, Unit 1	Fifth	2013 Edition	August 23, 2019	August 22, 2029
Nine Mile Point Nuclear Station, Unit 2	Fourth	2013 Edition	August 23, 2018	August 22, 2028
Peach Bottom Atomic Power Station, Units 2 and 3	Fifth	2013 Edition	January 1, 2019	December 31, 2028

10 CFR 50.55a RELIEF REQUEST
Revision 0
(Page 2 of 5)

Quad Cities Nuclear Power Station, Units 1 and 2	Fifth	2007 Edition, through 2008 Addenda	April 2, 2013	April 1, 2023
R. E. Ginna Nuclear Power Plant	Sixth	2013 Edition	January 1, 2020	December 31, 2029

3. Applicable Code Requirements:

IWA-4141 [2007 Edition, 2008 Addenda and 2013 Edition] requires the Owner to provide or cause to be provided a Repair Replacement Program, a Repair Replacement Plan, and specification requirements for repair/replacement activities.

IWA-4142 [2007 Edition, 2008 Addenda and 2013 Edition] requires the organization that performs repair/replacement activities shall establish a Quality Assurance Program for control of their activities in accordance with the Repair/Replacement Program and Plans.

IWA-4150(c) [2007 Edition, 2008 Addenda and 2013 Edition] requires that a Repair/Replacement Plan be prepared in accordance with the Repair/Replacement Program whenever a repair/replacement activity is to be performed.

IWA-4150(d) [2007 Edition, 2008 Addenda and 2013 Edition] requires that Repair/Replacement Plans be subject to review by enforcement and regulatory authorities having jurisdiction at the plant site.

IWA-4511 [2007 Edition, 2008 Addenda and 2013 Edition] requires that personnel performing nondestructive examination required by the Construction Code shall be qualified and certified in accordance with the Construction Code identified in the Repair/Replacement Plan.

IWA-6210(e) [2007 Edition, 2008 Addenda] or IWA-6211(e) [2013 Edition] requires the Owner to prepare the Owner's Report for Repair/Replacement Activity, Form NIS-2 upon completion of all required activities associated with the Repair/Replacement Plan.

IWA-6210(f) [2007 Edition, 2008 Addenda] or IWA-6211(g) [2013 Edition] requires the Owner to submit Forms NIS-1 and NIS-2 to the inspector and obtain the required signatures.

IWA-6350 [2007 Edition, 2008 Addenda and 2013 Edition] requires that Repair/Replacement Plans and Form NIS-2 be retained.

Code Case N-532-5, "Repair/Replacement Activity Documentation Requirements and Inservice Inspection Summary Report Preparation and Submission, Section XI, Division 1," (unconditionally approved for use under Regulatory Guide 1.147, "Inservice Inspection Code Case Acceptability, ASME Section XI, Division 1," Revision 19) provides alternatives to the ASME Section XI requirements stated above and substitutes the Form NIS-2 with Form NIS-2A.

4. Reason for Request:

In accordance with 10 CFR 50.55a(z)(1), relief is requested on the basis that the proposed alternative will provide an acceptable level of quality and safety.

10 CFR 50.55a RELIEF REQUEST

Revision 0
(Page 3 of 5)

Exelon Generation Company, LLC (Exelon) is requesting relief from the current ASME Section XI requirements to initiate a Repair/Replacement Plan and complete a Form NIS-2 (or NIS-2A) for certain routine pressure retaining bolting replacement activities. Compliance with this ASME Code administrative requirement results in expending personnel resources that are better used on more safety significant activities. Eliminating this administrative burden will also streamline the planning and post maintenance review processes by involving fewer plant organizations (Engineering, Planning, Work Control, Maintenance, etc.) in the overall required maintenance activities. This proposed relief request is strictly limited to the administrative requirements of ASME Section XI and does not eliminate any ASME Section XI or Construction Code technical requirements associated with bolting materials or installation and maintenance requirements.

Based on the above discussion, reasonable assurance is still achieved by performing the remaining technical requirements when bolting is replaced.

5. Proposed Alternative and Basis for Use:

This relief request proposes to forego preparation and completion of a Repair/Replacement Plan and associated Form NIS-2 (or NIS-2A) for replacement of pressure retaining bolting that is not classified as Examination Category B-G-1, B-G-2, or C-D. This relief request will not be applied to activities that involve replacement of bolting that has experienced unacceptable service-induced degradation or when involving a design change. Bolting replacement during normal maintenance work activities due to damage or loss will apply this relief request unless involving Examination Category B-G-1, B-G-2, or C-D components. Unacceptable service-induced degradation that cannot apply this relief request is defined as follows:

- Fractures and crack like flaws not caused by maintenance activities.
- More than one deformed or sheared thread in the zone of thread engagement that is due to a service-induced condition. Threads can often get deformed or sheared during the removal process and may not be considered service-induced degradation.
- Corrosion (e.g., boric acid, raw water) that reduces the bolt cross sectional area by more than 5%.
- Bending, twisting, or deformation of bolts determined to be from a service-induced condition.
- Degradation of protective coatings on bolting surfaces.

Quality Assurance Program and system/component specification requirements remain in place during application of this relief request; therefore, these technical requirements remain unchanged. The specific requirements will not be documented in a Repair/Replacement Plan but are currently implemented through the normal planning, procurement, and maintenance processes.

IWA-4150 Repair/Replacement Program and Plan administrative requirements applicable to this relief request are addressed as follows:

1. The Section XI Repair/Replacement Program remains applicable with editions and addenda(s) defined through application of the Repair/Replacement Program and ISI Plan and are therefore defined. NRC enforcement of Section XI and Construction Code requirements remain applicable because this relief request maintains Code requirements other than a documented Repair/Replacement Plan and NIS-2 (or NIS-2A).

10 CFR 50.55a RELIEF REQUEST

**Revision 0
(Page 4 of 5)**

2. The applicable Construction Code Edition, Addenda, Cases, and Owners Requirements are included in plant records that may be retrieved when appropriate. Routine replacement of bolting is achieved through review of current component and procurement records with replacement material being of equal or more stringent requirements (e.g., replacing a Class 3 stud with a Class 1 stud).
3. This relief request will not be used for locations that have experienced unacceptable service-induced degradation or for a replacement involving a design change; therefore, there are no NDE detection methods, defect removal methods, welding requirements, acceptance NDE requirements, description of activity, life of component, or code stamping requirements involved.
4. Documentation of the work activity and replacement bolting is achieved through the normal processes of procurement, planning, and maintenance. Close-out reviews are completed through the normal post-work review process to assure appropriate documentation of work performed and traceability is satisfied. Authorized Inspection Agency Review will remain in place but will not be documented on the Form NIS-2 (or NIS-2A).
5. Availability of records for regulatory review of the Repair/Replacement Program and associated repair/replacement evaluations remain in place and available for review. There will be no Repair/Replacement Plan, but the associated work order and procurement documentation will be available for review by the Authorized Inspection Agency and regulatory authority when requested.

Replacement bolting will receive Construction Code and Owner's Requirements NDE as part of the normal procurement and receipt inspection processes which identify applicable Construction Code and Owner's Requirements. The Construction Code and Owner's Requirements for NDE will be documented in the procurement and receipt records.

The current Form NIS-2 (or NIS-2A) provides documented evidence of compliance with Section XI for repair/replacement activities by obtaining Owner and Authorized Inspection Agency signatures. The proposed alternative would use current work control, procurement, and records retention processes to assure that the Authorized Inspection Agency has access to records of bolting replacement in order to maintain Code oversight; however, there will be no Repair/Replacement Plan or Form NIS-2 (or NIS-2A) presented to the agency in order to complete the Form approval. Owner and Authorized Inspection Agency reviews of completed work orders applying this relief request will be documented in records associated with the work management process (e.g., hard copy signature in work order documentation and electronic work order review records (commonly referred to as "Post Work Review")).

As stated above, a replacement bolting Repair/Replacement Plan and associated Form NIS-2 (or NIS-2A) will not be completed for bolting replacement activities described above; therefore, these documents cannot be submitted as plant records. The procurement and work activity records will document technical requirements and work activities to allow subsequent review for adequacy and traceability, thereby meeting the intent of Code requirements and maintaining an acceptable level of quality and safety.

10 CFR 50.55a RELIEF REQUEST

**Revision 0
(Page 5 of 5)**

6. Duration of Proposed Alternative:

The proposed alternative to forego preparation and completion of a Repair/Replacement Plan and associated Form NIS-2 (or NIS-2A) will be applicable for the remainder of each plant's 10-year Inservice Inspection Interval as specified in Section 2 above and for the remainder of the plant's life or until such time as the NRC approves a similar administrative requirement relaxation in an NRC-approved applicable Code Edition in 10 CFR 50.55a or a Code Case in Regulatory Guide 1.147.

7. Precedent:

None