

From: Purnell, Blake
Sent: Monday, March 1, 2021 3:35 PM
To: Loomis, Thomas R:(GenCo-Nuc) (thomas.loomis@exeloncorp.com)
Cc: Salgado, Nancy; Gudger, David T:(GenCo-Nuc)
Subject: Exelon Generation Company, LLC - Request for Additional Information Regarding Proposed Fleet Alternative to Documentation Requirements for Pressure Retaining Bolting
Attachments: RAI - Exelon RR Bolting.pdf

Mr. Loomis:

By application dated December 1, 2020 (ADAMS Accession No. ML20336A008), Exelon Generation Company, LLC (the licensee) submitted a request in accordance with paragraph 50.55a(z)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR) for a proposed alternative to certain requirements of 10 CFR 50.55a, "Codes and standards," for Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 2 and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generation Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 2 and 3; Quad Cities Nuclear Power Station, Units 1 and 2; and R. E. Ginna Nuclear Power Plant.

Specific editions and addenda of Section XI of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code are incorporated by reference in 10 CFR 50.55a with conditions. Section XI specifies, in part, requirements for documentation of repair and replacement activities at nuclear power plants. The proposed alternative would allow the licensee to forgo preparation and completion of a repair and replacement plan and associated Form NIS-2 (or NIS-2A) for certain pressure retaining bolting at these facilities.

The U.S. Nuclear Regulatory Commission (NRC) staff is reviewing the application and has determined that additional information is needed to complete the review. The NRC staff discussed these questions with you on March 1, 2021. A response to the attached request for additional information is requested to be provided within 60 days from the date of this email. If you have any questions, please contact me by email or phone at (301) 415-1380.

Sincerely,

Blake Purnell, Project Manager
Plant Licensing Branch III
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission

Docket Nos. STN 50-456, STN 50-457, STN 50-454, STN 50-455, 50-317, 50-318, 50-461, 50-237, 50-249, 50-333, 50-373, 50-374, 50-352, 50-353, 50-220, 50-410, 50-277, 50-278, 50-254, 50-265, and 50-244

EPIDs L-2020-LLR-0153, -0154, and -0155

OFFICE	NRR/DORL/LPL3/PM	NRR/DRO/IQVB/BC	NRR/DORL/LPL3/BC
NAME	BPurnell	KKavanagh	NSalgado
DATE	3/1/21	2/10/21	2/17/21

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From: Purnell, Blake

Created By: Blake.Purnell@nrc.gov

Recipients:

"Salgado, Nancy" <Nancy.Salgado@nrc.gov>

Tracking Status: None

"Gudger, David T:(GenCo-Nuc)" <David.Gudger@exeloncorp.com>

Tracking Status: None

"Loomis, Thomas R:(GenCo-Nuc) (thomas.loomis@exeloncorp.com)" <thomas.loomis@exeloncorp.com>

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REQUEST FOR ADDITIONAL INFORMATION

EXELON GENERATION COMPANY, LLC

PROPOSED ALTERNATIVE REQUEST TO ELIMINATE CERTAIN DOCUMENTATION

REQUIREMENTS FOR PRESSURE RETAINING BOLTING

DOCKET NOS. STN 50-456, STN 50-457, STN 50-454, STN 50-455, 50-317, 50-318,

50-461, 50-237, 50-249, 50-333, 50-373, 50-374, 50-352, 50-353, 50-220, 50-410,

50-277, 50-278, 50-254, 50-265, AND 50-244

By application dated December 1, 2020 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML20336A008), Exelon Generation Company, LLC (Exelon, the licensee) submitted a request in accordance with paragraph 50.55a(z)(1) of Title 10 of the *Code of Federal Regulations* (10 CFR) for a proposed alternative to certain requirements of 10 CFR 50.55a, "Codes and standards," for Braidwood Station, Units 1 and 2; Byron Station, Unit Nos. 1 and 2; Calvert Cliffs Nuclear Power Plant, Units 1 and 2; Clinton Power Station, Unit No. 1; Dresden Nuclear Power Station, Units 2 and 3; James A. FitzPatrick Nuclear Power Plant; LaSalle County Station, Units 1 and 2; Limerick Generating Station, Units 1 and 2; Nine Mile Point Nuclear Station, Units 1 and 2; Peach Bottom Atomic Power Station, Units 2 and 3; Quad Cities Nuclear Power Station, Units 1 and 2; and R. E. Ginna Nuclear Power Plant (collectively, the facilities).

Specific editions and addenda of Section XI of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code are incorporated by reference in 10 CFR 50.55a with conditions. Section XI specifies, in part, requirements for documentation of repair and replacement activities at nuclear power plants. The proposed alternative would allow the licensee to forgo preparation and completion of a repair and replacement plan and associated Form NIS-2 (or NIS-2A) for certain pressure retaining bolting at these facilities.

The U.S. Nuclear Regulatory Commission (NRC) has reviewed the application and determined that the information below is needed to complete its review.

Regulatory Requirements

The regulations in 10 CFR 50.55a(z) state, in part, that alternatives to the requirements in paragraphs (b) through (h) of 10 CFR 50.55a may be authorized by the NRC if the licensee demonstrates that: (1) the proposed alternative provides an acceptable level of quality and safety, or (2) compliance with the specified requirements would result in hardship or unusual difficulty without a compensating increase in the level of quality and safety.

Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," to 10 CFR Part 50, establishes quality assurance requirements for the design, fabrication, construction, and testing of structures, systems, and components (SSCs). The pertinent requirements of Appendix B apply to all activities affecting the safety-related functions of those SSCs and include designing, purchasing, fabricating, handling, shipping, storing, cleaning, erecting, installing, inspecting, testing, operating, maintaining, repairing, refueling, and modifying SSCs.

Request for Additional Information (RAI) 1

Background

Section 3 of the application identifies the applicable requirements of the ASME BPV Code, Section XI, including the following:

- Paragraph IWA-4141 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.
- Paragraph IWA-4142 states, in part, that 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.

Section 5 of the application states, in part:

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.

...

Documentation of the work activity and replacement bolting is achieved through the normal processes of procurement, planning, and maintenance.

...

Replacement bolting will receive Construction Code and Owner's Requirements NDE [nondestructive examination] 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.

Request

Describe the normal planning, procurement, maintenance, and receipt inspection processes for pressure retaining bolting not included within Examination Categories B-G, B-G-2, or C-D. Explain how these processes will ensure that the replacement of such bolting will be performed in accordance with the requirements in the ASME BPV Code, Section XI, and that this activity will be adequately documented. Explain how the Quality Assurance Program and system/component specification requirements remain in place and applicable for such bolting in the absence of repair/replacement plans.

RAI 2

Background

Section 5 of the application states, in part:

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"))).

Request

Describe how Exelon's work control, procurement, and records retention processes will demonstrate that repair/replacement activities were adequately performed and the associated requirements of the ASME BPV Code, Section XI, were met. Describe how these processes will permit verification and certification by the Authorized Inspection Agency that the applicable Section XI requirements for repair/replacement activities have been met. Confirm that the licensee's processes discussed above will be readily available for review by NRC inspectors.

RAI 3

Background

The regulations in 10 CFR 50.55a(z) allow the NRC staff to authorize alternatives to the requirements in paragraphs (b) through (h) of 10 CFR 50.55a, but do not allow the staff to approve alternatives to requirements not currently in these paragraphs. The staff does not generally approve alternatives to the requirements in 10 CFR 50.55a beyond the current 10-year inservice inspection (ISI) interval, unless specific circumstances would justify a longer interval. For example, the staff can approve alternatives for the next ISI interval when it is near the end of the current interval and the applicable requirements for the next interval are known (see 10 CFR 50.55a(g)(4)(ii)).

The licensee requested use of the proposed alternative for the remainder of each plant's 10-year ISI interval and for the remainder of each plant's life. Section 2 of the application identifies the ASME BPV Code edition and addenda applicable to the current 10-year ISI interval for each plant, and Section 3 of the application identifies the specific Code requirements associated with this request. However, the application does not identify the ASME BPV Code edition and addenda nor the specific code requirements applicable to future 10-year ISI intervals. Thus, the licensee has not demonstrated that the proposed alternative is limited to the current requirements in paragraphs (b) through (h) of 10 CFR 50.55a.

Request

For each plant, either:

- (1) Limit the scope of the request to the current 10-year ISI interval; or
- (2) Identify the specific ASME BPV Code edition and addenda applicable to each future 10-year ISI interval in which the proposed alternative will be used. Identify the applicable code requirements in each future edition and addenda of the ASME BPV Code, unless they are already listed in Section 3 of the application.