



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

August 20, 2020

Mr. Eric Carr  
President and Chief Nuclear Officer  
PSEG Nuclear LLC - N09  
P.O. Box 236  
Hancocks Bridge, NJ 08038

SUBJECT: HOPE CREEK GENERATING STATION AND SALEM NUCLEAR  
GENERATING STATION, UNIT NOS. 1 AND 2 – REQUEST TO USE A  
PROVISION OF A LATER EDITION OF THE AMERICAN SOCIETY OF  
MECHANICAL ENGINEERS BOILER AND PRESSURE VESSEL CODE,  
SECTION XI (EPID L-2020-LLR-0105)

Dear Mr. Carr:

By letter dated August 6, 2020 (Agencywide Documents Access and Management System Accession No. ML20219A638), PSEG Nuclear LLC (PSEG, the licensee) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) to use a provision of a later edition of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, for Hope Creek Generating Station (Hope Creek), and Salem Nuclear Generating Station (Salem), Unit Nos. 1 and 2.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), PSEG requested to use IWA-4540(b) of the 2017 Edition of the ASME BPV Code, Section XI, in place of the code of record.

The NRC staff authorizes the use of IWA-4540(b) of the 2017 Edition of ASME BPV Code, Section XI, for the duration of the fourth inservice inspection (ISI) intervals for Salem, Unit Nos. 1 and 2, and Hope Creek, and the fifth ISI interval for Salem, Unit Nos. 1 and 2.

The fourth ISI interval for Salem, Unit No. 1, started on May 20, 2011, and ends on December 31, 2020. The fourth ISI interval for Salem, Unit No. 2, started on November 27, 2013, and ends on December 31, 2021. The fourth ISI interval for Hope Creek started on December 13, 2017, and ends on December 31, 2026. The fifth ISI intervals for Salem, Unit No. 1 and 2, start on January 1, 2021, and end on December 31, 2030. The overlap of the end and start dates for the Salem, Unit No. 2, fourth and fifth intervals is intentional to align Intervals for both Salem units.

All other ASME BPV Code, Section XI requirements which are not modified by the staff's approval of the licensee's request remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

E. Carr

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If you have any questions, please contact the Project Manager, James Kim, at 301-415-4125 or by e-mail to [James.Kim@nrc.gov](mailto:James.Kim@nrc.gov).

Sincerely,

James G. Danna, Chief  
Plant Licensing Branch I  
Division of Operating Reactor Licensing  
Office of Nuclear Reactor Regulation

Docket Nos. 50-354, 50-272, and 50-311

Enclosure  
Safety Evaluation

cc: Listserv



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
WASHINGTON, D.C. 20555-0001

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION  
REQUEST TO USE A PROVISION OF A LATER EDITION OF THE AMERICAN SOCIETY OF  
MECHANICAL ENGINEERS BOILER AND PRESSURE VESSEL CODE  
PSEG NUCLEAR LLC  
HOPE CREEK GENERATING STATION  
AND  
PSEG NUCLEAR LLC  
EXELON GENERATION COMPANY, LLC  
SALEM NUCLEAR GENERATING STATION, UNIT NOS. 1 AND 2  
DOCKET NOS. 50-354, 50-272, AND 50-311

1.0 INTRODUCTION

By letter dated August 6, 2020 (Agencywide Documents Access and Management System Accession No. ML ML20219A638), PSEG Nuclear LLC (PSEG, the licensee) submitted a request to use a provision of a later edition of the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel (BPV) Code, Section XI, for Hope Creek Generating Station (Hope Creek) and Salem Nuclear Generating Station (Salem), Unit Nos. 1 and 2.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee proposed to use subparagraph IWA-4540(b) of the 2017 Edition of the ASME BPV Code instead of the corresponding subparagraph from the current code of record. The time period applicable for the use of the requested subsequent ASME BPV Code edition and addenda is the fourth and fifth inservice inspection (ISI) interval. The licensee asserts that it meets all related requirements of the 2017 Edition of the ASME BPV Code.

2.0 PROPOSED USE OF SUBSEQUENT CODE EDITION AND ADDENDA

2.1 Components for Which the Subsequent Code Edition is Requested

All Class 1, 2, and 3 items located in the ASME BPV Code, Section XI, boundaries.

## 2.2 Current Code Requirement

Subparagraph IWA-4540(b) provides items that are exempt from pressure testing after repair/replacement activities.

## 2.3 Current Code Edition and Addenda of Record

The licensee provided the code of record and the duration of the fourth and fifth ISI intervals in the table below. The shifting of the 2013 Edition interval start and end dates for Salem, Unit No. 2, in the table is intentional to align intervals for both Salem units as allowed by the code.

<b>Plant</b>	<b>10-Year ISI Interval</b>	<b>ASME Code of Record</b>	<b>Interval Start</b>	<b>Interval End</b>
Salem, Unit 1	4	2004 Edition	05/20/2011	12/31/2020
	5	2013 Edition	01/01/2021	12/31/2030
Salem, Unit 2	4	2004 Edition	11/27/2013	12/31/2021
	5	2013 Edition	01/01/2021	12/31/2030
Hope Creek	4	2007 Edition, through 2008 Addenda	12/13/2017	2/31/2026

## 2.4 Proposed Subsequent Code Edition and Addenda

The proposed subsequent code edition and addenda to be used is Subparagraph IWA-4540(b) of the 2017 Edition of the ASME BPV Code, Section XI.

## 2.5 Duration of the Use of the Later Code Edition and Addenda

The duration of this request is for the fourth ISI intervals for Salem, Unit Nos.1 and 2, and Hope Creek, and the fifth ISI interval for Salem, Unit Nos. 1 and 2.

## 3.0 REGULATORY EVALUATION

This section of the safety evaluation considers only the regulatory basis for the licensee's request. The technical merits of the licensee's submission are addressed in later sections of this safety evaluation.

The licensee is proposing to use a section of a later edition and addenda of the ASME BPV Code in accordance with 10 CFR 50.55a(g)(4)(iv), which states:

Inservice examination of components and system pressure tests may meet the requirements set forth in subsequent editions and addenda that are incorporated by reference in paragraph (a) of this section, subject to the conditions listed in paragraph (b) of this section, and subject to Commission approval. Portions of editions or addenda may be used, provided that all related requirements of the respective editions or addenda are met.

Given that 10 CFR 50.55(g)(4)(iv) permits the U.S. Nuclear Regulatory Commission (NRC) staff to approve the use of subsequent ASME BPV Code edition and addenda, the NRC staff finds that, subject to the following technical evaluation, the licensee may propose to use a section of a later edition and addenda of the ASME BPV Code, Section XI, and the NRC staff has the

regulatory authority to approve the later edition and addenda of the ASME BPV Code, Section XI.

#### 4.0 NRC TECHNICAL EVALUATION

As previously stated in Section 3.0 of this safety evaluation, prior to approving the use of a subsequent edition and addenda of the ASME BPV Code under 10 CFR 50.55a(g)(4)(iv), the NRC staff must find that (1) the proposed subsequent edition and addenda are incorporated by reference in 10 CFR 50.55a(a); (2) the licensee has identified any conditions listed in 10 CFR 50.55a(b) appropriate to the request and will comply with those conditions; (3) the licensee has requested approval to use the subsequent edition and addenda; and (4) if only portions of edition or addenda are to be used, all related requirements of the respective edition or addenda are met. If these criteria are met, the NRC staff finds the use of the subsequent edition and addenda of the ASME BPV Code, Section XI, to be acceptable.

##### 4.1 Incorporation by Reference

In evaluating the first criterion, 10 CFR 50.55a(a) incorporates by reference the ASME BPV Code, Section XI, from the 1970 Edition through the 1976 Winter Addenda, and the 1977 Edition through the 2017 Edition. The licensee proposed to use the 2017 Edition, which is included in the list of editions and addenda incorporated by reference in the current edition of 10 CFR 50.55a(a). Therefore, the NRC staff finds that the first criterion has been satisfied.

##### 4.2 Subject to Conditions Listed in 10 CFR 50.55a(b)

In evaluating the second criterion, the NRC staff finds that 10 CFR 50.55a(b) contains no conditions relevant to this request. Therefore, the NRC staff finds that the second criterion has been satisfied.

##### 4.3 Requesting Commission Approval

In evaluating the third criterion, the licensee's request dated August 6, 2020, constitutes a request to the Commission for approval to use a subsequent edition/addendum of the ASME BPV Code, Section XI. Therefore, the NRC staff finds that the third criterion has been satisfied.

##### 4.4 All Related Requirements

In evaluating the fourth criterion, the NRC staff finds that there are no related requirements relevant to this request. Therefore, the NRC staff finds that the fourth criterion has been satisfied.

##### 4.5 Summary

Based on the review above, the NRC staff finds that the licensee has adequately addressed all regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv).

#### 5.0 CONCLUSION

As set forth above, NRC staff finds that the licensee has adequately addressed all of the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv). Therefore, the NRC staff concludes that the use of Section IWA-4540(b) the 2017 Edition of the ASME BPV Code,

Section XI is acceptable. The NRC staff authorizes the use of IWA-4540(b) of the 2017 Edition of the ASME BPV Code, Section XI, for the duration of the fourth ISI intervals for Salem, Unit Nos.1 and 2, and Hope Creek, and the fifth ISI interval for Salem, Unit Nos. 1 and 2.

All other ASME BPV Code, Section XI requirements which are not modified by the staff's approval of the licensee's request remain applicable, including third-party review by the Authorized Nuclear Inservice Inspector.

Principal Contributor: J. Kim

Date: August 20, 2020

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