



10 CFR 50.55a

October 27, 2017

LR-N17-0165

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

Salem Generating Station Unit 1  
Renewed Facility Operating License No. DPR-70  
NRC Docket No. 50-272

Subject: Request to Use a Portion of a Later Edition of the ASME Boiler and Pressure Vessel Code, Section XI, for Inservice Inspection Activities

Pursuant to 10 CFR 50.55a(g)(4)(iv) and in accordance with the guidance provided in NRC Regulatory Issue Summary (RIS) 2004-12, dated July 28, 2004, PSEG Nuclear, LLC (PSEG) hereby requests NRC approval to use the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code, Section XI, 2007 Edition with the 2008 Addenda in lieu of the 2004 Edition for the inspection of Primary Containment Structures. As noted in RIS 2004-12, licensees seeking to use later editions and addenda of the ASME Code, Section XI, pursuant to 10 CFR 50.55a(f)(4)(iv) or 10 CFR 50.55a(g)(4)(iv), are not required to request an alternative pursuant to 10 CFR 50.55a(a)(3) (now 10 CFR 50.55a(z)), or to request relief pursuant to 10 CFR 50.55a(f)(5)(iv) or 10 CFR 50.55a(g)(5)(iv).

This request is being made for the second ten-year Containment Inservice Inspection (CISI) Interval for Salem Unit 1. The applicable ASME Section XI Code of Record for the CISI Interval is the 2004 Edition, no Addenda. The second CISI Interval for Unit 1 began on April 22, 2010 and is currently scheduled to end on April 21, 2020.

Per this letter, PSEG Nuclear, LLC is requesting to use the ASME Boiler and Pressure Vessel Code, Section XI, 2007 Edition with the 2008 Addenda paragraph IWE-2200(c) and Article IWE-5000, subject to the conditions in 10

CFR 50.55a(b)(2), in lieu of the requirements of ASME Section XI 2004 Edition Article IWE-5000 for system pressure tests of the Primary Containment Structures. PSEG plans on using the proposed later Code edition and addenda as part of the current Salem Unit 1 25<sup>th</sup> Refueling Outage (S1R25).

During the S1R25 refueling outage, examination of the Salem Unit 1 containment liner has currently identified four liner locations that require repair or evaluation for continued operation. Additional containment liner examinations are currently in progress. The examinations conducted to date identified areas of wall thickness degradation as a result of corrosion on the inside of the containment liner plates (outside of the liner is concrete). The current repair plans under development consist of weld repairs followed by required non-destructive examination (NDE) in accordance with the ASME Code.

Paragraph IWE-5221 of the 2004 edition of ASME Section XI requires a pneumatic leakage test for repair / replacement activities performed on the pressure retaining boundary of Class MC or Class CC components. IWE-5240, Visual Examination, states "During the pressure test required by IWE-5220, a detailed visual examination (IWE-2310) shall be performed on areas affected by the repair/replacement activities."

If a pneumatic leakage test is performed on the repaired areas, the test rig will make the containment liner internal surface areas affected by the repair activities inaccessible for direct visual examination during the pneumatic leakage test. Therefore the requirements of IWE-5240 from the 2004 Edition of ASME Section XI cannot be met.

Paragraph IWE-2200(c) and subarticle IWE-5240 of the 2007 Edition with the 2008 Addenda of Section XI allow performance of the visual examinations upon completion of the pneumatic leakage test. Following completion of any pneumatic leakage tests, the test rig will be removed allowing visual examination of the repaired containment liner surfaces.

Additionally IWE-5224 of the 2007 Edition with the 2008 Addenda of Section XI allows a bubble test – vacuum box technique to be performed as an alternative to the requirements for a pneumatic leakage test for repair/replacement activities performed by welding on metallic shell and penetration liners of Class CC components and on non-structural pressure-retaining metallic liners of Class MC components embedded in concrete. The vacuum box test can be performed with lower potential for damage to the containment liner associated with attaching and removing a pneumatic leakage test rig.

As discussed in RIS 2004-12, if portions of a later Code edition and addenda are used, licensees must assure that all related requirements of the respective

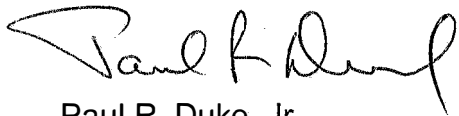
editions and addenda are met. PSEG will meet the requirements referenced in the 2007 Edition with the 2008 Addenda of Section XI of Article IWE-5000.

PSEG requests approval of the proposed request by November 5, 2017 to support Salem Unit 1 Mode 4 entry during the current S1R25 outage.

There are no regulatory commitments contained in this letter.

Should you have any questions concerning this matter, please contact Mr. Brian Thomas at 856-339-2022.

Sincerely,

A handwritten signature in black ink, appearing to read "Paul R. Duke, Jr.", written in a cursive style.

Paul R. Duke, Jr.  
Manager - Licensing  
PSEG Nuclear LLC

cc: Administrator, Region I, NRC  
NRC Senior Resident Inspector, Salem  
C. Parker, Project Manager, Salem, USNRC  
P. Mulligan, Chief, NJBNE  
L. Marabella, Corporate Commitment Tracking Coordinator  
T. Cachaza, Salem Commitment Tracking Coordinator