



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

August 29, 2024

Steven M. Snider
Vice President, Oconee Nuclear Station
Duke Energy Carolinas, LLC
7800 Rochester Highway
Seneca, SC 29672-0752

SUBJECT: OCONEE NUCLEAR STATION, UNIT 3 - REQUEST TO UTILIZE A LATER EDITION OF THE ASME BOILER AND PRESSURE VESSEL CODE, SECTION XI (EPID L-2024-LLR-0034)

Dear Steven M. Snider:

By letter RA-24-0152 dated May 22, 2024, Duke Energy Carolinas, LLC (the licensee) submitted a request to the U.S. Nuclear Regulatory Commission (NRC) to utilize a later edition of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI requirements at the Oconee Nuclear Station (Oconee), Unit 3, for the remainder of the fifth 10-year inservice inspection (ISI) interval.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee requested to use the requirements in IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI, subject to conditions in 50.55a(b), for analytical evaluation and deposition of the flaws in the pressure-retaining piping and components.

On May 22, 2024, the NRC verbally authorized the use of IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI, subject to conditions in 50.55a(b), for the remainder of the Oconee, Unit 3 fifth 10-year ISI interval. This safety evaluation documents the technical basis for the NRC's verbal authorization.

S. Snider

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If you have any questions, please email Shawn.Williams@nrc.gov.

Sincerely,

Michael T. Markley, Chief
Plant Licensing Branch II-1
Division of Operating Reactor Licensing
Office of Nuclear Reactor Regulation

Docket No. 50-287

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 FOR USE OF LATER CODE EDITION OF

ASME CODE SECTION XI

DUKE ENERGY CAROLINAS, LLC

OCONEE NUCLEAR STATION, UNIT NO. 3

DOCKET NO. 50-287

1.0 INTRODUCTION

By letter RA-24-0152 dated May 22, 2024 (Agencywide Documents Access and Management System (ADAMS) Accession Number ML24143A005), Duke Energy Carolinas, LLC (the licensee) requested to utilize a later edition of the American Society of Mechanical Engineers Boiler and Pressure Vessel Code (ASME Code), Section XI, during the remainder of the fifth 10-year inservice inspection (ISI) interval of the Oconee Nuclear Station (Oconee), Unit 3.

Specifically, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.55a(g)(4)(iv), the licensee requested to use the requirements in IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI, subject to conditions in 50.55a(b), for analytical evaluation and deposition of the flaws in the pressure-retaining piping and components.

On May 22, 2024 (ML24143A132), the NRC verbally authorized the use of IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI, subject to conditions in 50.55a(b), for the remainder of the Oconee, Unit 3, fifth 10-year ISI interval.

2.0 REGULATORY EVALUATION

Pursuant to 10 CFR 50.55a(a)(1)(ii), the ASME Code, Section XI from the 1974 Edition through the 2019 Edition have been approved for incorporation by reference but limited to those provisions identified in paragraph (b)(2) of Section 50.55a.

Pursuant to 10 CFR 50.55a(g)(4)(iv), 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 Section 50.55a, subject to the conditions listed in paragraph (b) of Section 50.55a, 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.

Enclosure

3.0 TECHNICAL EVALUATION

3.1 ASME Code Components Affected

All pressure-retaining piping and components described in the ASME Boiler and Pressure Vessel Code, Section XI, 2019 Edition, Articles IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C.

3.2 Applicable Code Edition and Addenda

The code of record for the fifth 10-year ISI interval is the 2007 Edition with 2008 Addenda of the ASME Code.

3.3 Duration of Request

The request is for the remainder of the fifth 10-year ISI interval which commenced on July 15, 2014, and ended on July 14, 2024.

3.4 Request and Basis for Request

The licensee requested to use the requirements of IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI, in order to expand the applicability of analytical flaw evaluation procedures for the pressure-retaining piping and components (i.e., from nominal pipe size (NPS) 4 or greater to NPS 1 or greater).

3.5 NRC Staff Evaluation

The NRC staff evaluated the request pursuant to 10 CFR 50.55a(g)(4)(iv). The NRC staff's evaluation focused on: (1) the subsequent editions and addenda of the ASME Code as requested for use is incorporated by reference in paragraph (a) of Section 50.55a, (2) the Code requirements subject to the conditions listed in paragraph (b) of Section 50.55a are met, (3) a request is submitted for the NRC approval, and (4) all related requirements of the respective editions and addenda are met. The NRC staff finds that if these four criteria are met, the requirements of 10 CFR 50.55a(g)(4)(iv) will also be met.

In evaluating the licensee's request, the NRC staff independently confirmed that,

1. The 2019 Edition of ASME Code, Section XI as requested for use, is incorporated by reference in 10 CFR 50.55a, and subject to conditions in paragraph (b)(2) of Section 50.55a.
2. There are no applicable provisions in 10 CFR 50.55a.
3. The submittal served as the licensee's request for NRC approval to use portions of the 2019 Edition of ASME Code, Section XI, for analytical evaluation and disposition of flaws detected in the pressure-retaining piping and components.
4. There are no related requirements or applicable conditions.

Based on the above, the NRC staff finds that each of the four regulatory requirements for use of certain portions of later editions and addenda of the Code have been met, and that use of

IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI during the remainder of the fifth 10-year ISI interval are acceptable.

4.0 CONCLUSION

As set forth above, the NRC staff determines that the use of IWB-3640, IWB-3641, IWB-3642, and Nonmandatory Appendix C of the 2019 Edition of the ASME Code, Section XI during the remainder of the fifth 10-year ISI interval are acceptable. Accordingly, the NRC staff concludes that the licensee has adequately addressed the regulatory requirements set forth in 10 CFR 50.55a(g)(4)(iv).

Therefore, the NRC staff approves this request for the remainder of the fifth 10-year ISI interval which commenced on July 15, 2014, and ended on July 14, 2024.

Principal Contributor: Ali Rezai, NRR

Date: August 29, 2024

SUBJECT: OCONEE NUCLEAR STATION, UNIT 3 - REQUEST TO UTILIZE A LATER EDITION OF THE ASME BOILER AND PRESSURE VESSEL CODE, SECTION XI (EPID L-2024-LLR-0034) DATED AUGUST 29, 2024

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