



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

August 18, 2020

Thomas Vogan
Chair, ASME Board on Nuclear Codes and Standards
American Society of Mechanical Engineers
Two Park Avenue
New York, NY 10016

SUBJECT: ASME REQUEST FOR ENDORSEMENT OF SECTION XI, DIVISION 2, AND
SECTION XI, DIVISION 1, NONMANDATORY APPENDIX R

Dear Mr. Vogan:

On behalf of the U.S. Nuclear Regulatory Commission (NRC) staff, I am responding in part to your letter dated October 31, 2019, regarding the American Society of Mechanical Engineers (ASME)'s requests for the NRC to endorse certain areas of the ASME Boiler and Pressure Vessel (B&PV) Code, Section XI.

One of the areas requested for endorsement is Section XI, Division 1, Nonmandatory Appendix R, "Risk-Informed Inspection Requirements for Piping." ASME's request for the NRC's endorsement is based, in part, on the industry-wide use of various risk-informed inspection alternatives. ASME noted that all the applications for risk-informed inservice inspection in the U.S. have been reviewed and approved by the NRC staff. As such, ASME stated that the industry has enough experience with implementing these types of alternative inspections such that prior NRC staff authorization should not be needed.

Further, Nonmandatory Appendix R provides two separate methodologies for performing risk-informed applications as provided in Supplements 1 and 2. ASME stated that both supplements have been updated on an ongoing basis to incorporate lessons learned from risk-informed applications. In addition, ASME stated that the principles and practices established in Supplement 2 serve as a basis for Code Case N-716-1, "Alternative Piping Classification and Examination Requirements, Section XI, Division 1." Because the NRC endorses this code case in Regulatory Guide 1.147, ASME suggested that the NRC staff prioritize the review of Nonmandatory Appendix R, Supplement 2.

The NRC staff has considered ASME's request and determined that it is appropriate for it to review Nonmandatory Appendix R, Supplement 2, for potential endorsement. The NRC endorses codes and standards in Section 50.55a of Title 10 of the *Code of Federal Regulations* (10 CFR 50.55a). Paragraph (b)(2)(xxix) of that section states that the entirety of Nonmandatory Appendix R, as contained in the 2005 Addenda through the 2017 Edition of the ASME B&PV Code, Section XI, Division 1, may not be implemented without prior NRC authorization. Based on the outcome of its review, the NRC staff will consider revising this condition to the extent that it applies to Nonmandatory Appendix R, Supplement 2, from the 2017 and 2019 Editions of the ASME B&PV Code. The NRC staff affirms that the condition with respect to the lesser-used Nonmandatory Appendix R, Supplement 1, should remain.

The NRC staff's review of Nonmandatory Appendix R, Supplement 2, will be included as part of its rulemaking activities concerning endorsement of the 2019 Edition of the ASME B&PV Code. The current status of this rulemaking can be viewed on the NRC's public website at <https://www.nrc.gov/reading-rm/doc-collections/rulemaking-ruleforum/active/RuleDetails.html?id=75>. Should the review identify any aspects that would require changes to the content of Nonmandatory Appendix R prior to endorsement, the NRC staff will communicate them to ASME.

The other area requested for endorsement is Section XI, Division 2, "Requirements for Reliability and Integrity Management (RIM) Programs for Nuclear Power Plants," and I will send a separate response on this topic. I trust that this reply is otherwise responsive to your request. Should you have any questions, Mr. Keith Hoffman is the NRC staff's technical lead for the rulemaking for the 2019 Edition of the ASME B&PV Code. You may contact him at (301) 415-1294 or Keith.Hoffman@nrc.gov.

Sincerely,

/RA/

Louise Lund, NRC Standards Executive
Office of Nuclear Regulatory Research

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