



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

August 12, 2020

Mr. Thomas Vogan, Chair  
ASME Board on Nuclear Codes and Standards  
Two Park Avenue  
New York, NY 10016-5990

**SUBJECT: RESPONSE TO ASME REQUEST FOR NRC ENDORSEMENT OF SECTION XI, DIVISION 2**

**Reference: ASME letter dated October 31, 2019 "ASME Request for Endorsement of Section XI, Division 2 and Section XI, Division 1, Nonmandatory Appendix R" (ML19312B650)**

Dear Mr. Vogan:

The purpose of this letter is to respond to the referenced American Society of Mechanical Engineers (ASME) letter requesting that the U.S. Nuclear Regulatory Commission (NRC) take action to endorse the 2019 Edition of the ASME Boiler and Pressure Vessel Code (BPVC), Section XI, Division 2 "Requirements for Reliability and Integrity Management (RIM) Programs for Nuclear Power Plants" in 50.55a of Title 10 of the Code of Federal Regulations (CFR). The NRC will respond to ASME's request for endorsement of Section XI, Division 1, Nonmandatory Appendix R "Risk-Informed Inspection Requirements for Piping" in a separate letter.

ASME developed Section XI, Division 2 to provide requirements for the creation of the RIM Program for all types of nuclear power plants. The RIM Program allows flexibility for Owners to implement alternative strategies from Section XI, Division 1 requirements for maintaining the reliability of structures, systems, and components in the plant. ASME BPVC, Section XI, Division 2 is currently not referenced in the NRC's regulations or guidance.

The NRC recognizes that having a standardized set of requirements for the design, construction, and in-service inspection would be beneficial to the non-light water reactor (LWR) designers. The NRC is initiating efforts to review the 2019 Edition of ASME BPVC Section XI, Division 2 for potential endorsement for non-LWR applications. Section XI, Division 2 may be appropriate for advanced non-LWRs due to different safety profiles and to offer flexibility for these new designs. Should the NRC determine Section XI, Division 2 acceptable (with conditions, if necessary), the NRC plans to endorse it in a new regulatory guide (RG) to indicate to the public and stakeholders that this could be one acceptable method for use. The NRC expects to issue the draft RG for public comment in the Fall of 2021. The NRC staff does not recommend endorsement in 10 CFR 50.55a. 10 CFR 50.55a has typically been used when mandating the use of a certain code or standard. The need to mandate the use of ASME BPVC, Section XI, Division 2 is not apparent at this time.

The NRC staff will engage with the relevant ASME Code groups, as necessary, if additional information is needed in the process of reviewing 2019 Edition of BPVC Section XI, Division 2. The NRC staff will provide any insights gained through the course of that review to the

cognizant ASME BPVC Section XI, Division 2 Subgroups and Working Groups. If you have questions or concerns, please contact Timothy Lupold at [Timothy.Lupold@nrc.gov](mailto:Timothy.Lupold@nrc.gov) or 301-415-6448, or Bruce Lin at [Bruce.Lin@nrc.gov](mailto:Bruce.Lin@nrc.gov) or 301-415-2446.

Sincerely,

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Louise Lund, NRC Standards Executive  
Office of Nuclear Regulatory Research

