



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

August 16, 2018

Mr. Richard D. Porco, Chair  
ASME Board on Nuclear Codes and Standards  
American Society of Mechanical Engineers  
Two Park Avenue  
New York, NY 10016-5990

SUBJECT: NRC RESPONSE TO ASME LETTER OF REQUEST FOR NRC  
ENDORSEMENT OF ASME BOILER AND PRESSURE VESSEL CODE,  
SECTION III, DIVISION 5

Dear Mr. Porco:

In a letter dated June 21, 2018, (Agencywide Documents Access and Management System Accession No. ML18184A065) the American Society of Mechanical Engineers (ASME) Board of Nuclear Codes and Standards provided letters from both industry consortia and individual companies requesting that the Nuclear Regulatory Commission (NRC) review and endorse the 2017 Edition of the ASME Boiler and Pressure Vessel Code (BPVC), Section III, Division 5, "High Temperature Reactors."

The NRC is required to consider consensus standards prepared by standards development organizations when developing its regulations and guidance, consistent with the National Technology Transfer and Advancement Act (NTTAA). In general, the NRC considers standards in lieu of either: (i) NRC-developed regulations (government-unique standards under the NTTAA), or (ii) NRC-developed guidance (such as regulatory guides) as an acceptable approach for meeting NRC regulatory requirements. ASME BPVC, Section III, Division 5 is currently not referenced in the NRC's regulations or guidance.

The purpose of this letter is to provide you the NRC's plans related to the use of consensus standards for advanced reactors. The NRC recognizes that an NRC-endorsed standard for nuclear reactors designed to operate at elevated temperatures could be valuable for advanced reactor designers. NRC review of the ASME BPVC Section III, Division 5 standard during a licensing review of an advanced reactor would result in substantial costs to the first-use applicant. NRC review of this standard prior to licensing actions for advanced reactors would result in a substantial cost savings to applicants.

The NRC is initiating efforts to review the 2017 Edition of ASME BPVC Section III, Division 5. If the NRC finds the standard acceptable (with conditions, if necessary), the NRC will endorse in a new regulatory guide the 2017 Edition of ASME BPVC Section III, Division 5 as one way of meeting the NRC's regulatory requirements.

As necessary and appropriate, the NRC staff will engage with the relevant ASME Code groups if additional information is needed in the process of reviewing 2017 Edition of ASME BPVC

Section III, Division 5. The NRC staff will provide any insights gained through the course of that review to the cognizant ASME BPVC Section III, Division 5 Subgroups and Working Groups.

Sincerely,

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Brian E. Thomas  
NRC Standards Executive  
Office of Nuclear Regulatory Research

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