

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

February 15, 2023

MEMORANDUM TO: William T. Jessup, Chief

Advanced Reactor Licensing Branch 1

Division of Advanced Reactors and Non-Power

Production and Utilization Facilities Office of Nuclear Reactor Regulation

FROM: Matthew A. Hiser, Senior Project Manager

Advanced Reactor Licensing Branch 1

Division of Advanced Reactors and Non-Power

Production and Utilization Facilities

Office of Nuclear Reactor Regulation

Mutthew Signed by Hiser, Matthew

SUBJECT: SUMMARY OF THE NOVEMBER 14, 2022, OPEN OBSERVATION

> PUBLIC MEETING TO DISCUSS ASME BOILER AND PRESSURE VESSEL CODE SECTION III ALTERNATE REQUIREMENTS FOR ITEMS WITH MINIMAL CONTRIBUTION TO SAFETY OR RISK

Meeting Information:

Industry Organization: Nuclear Energy Institute

Project No.: 99902028

Meeting Type: Open Observation

Public Meeting Notice: Agencywide Documents Access and Management System Accession

No.: ML22313A080

Industry Presentation Slides: ML22313A054

NRC Presentation Slides: ML22313A047

Meeting Attendees: See Enclosure for list of meeting attendees.

Meeting Summary

The U.S. Nuclear Regulatory Commission (NRC) staff conducted the meeting in accordance with NRC Management Directive 3.5, "Attendance at NRC Staff-Sponsored Meetings" (ML21180A271).

- On November 14, 2022, the NRC staff held a public meeting with the Nuclear Energy Institute (NEI) to discuss the technical basis for proposed alternate requirements for the construction of American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC) Section III nuclear items commensurate with an item's contribution to safety or risk. Participants included representatives from NEI, MPR Associates, Curtiss Wright, Oklo, Jensen Hughes, Structural Integrity Associates, Westinghouse, Constellation Energy, Framatome, the Breakthrough Institute, GSE Solutions, the Union of Concerned Scientists, Tecnatom, and members of the general public.
- The NRC staff began the public meeting with introductions and an explanation of logistical information. During the meeting, representatives from NEI and MPR Associates described how the proposed alternate requirements for the construction of ASME BPVC Section III nuclear items commensurate with an item's contribution to safety or risk would work. The industry representatives explained how rules for the design and construction of certain components in the middle tier (between safety-related and non-safety related) would benefit from additional clarity. Now that advanced reactors with many components expected to be in the middle tier are moving closer to deployment, industry stakeholders are seeking to fully develop expectations for this middle tier of components through the codes and standards development process.
- The proposal calls for using ASME BPVC Section III rules for design, while allowing
 other commercial codes and standards to be used for construction to balance costs with
 the component's risk or safety significance. Various details, such as quality assurance,
 conformity assessments, and non-destructive examination, will need to be worked out
 through the development of the alternate requirements.
- The NRC staff presented its perspectives on the alternate requirements. The NRC staff described the various frameworks that have historically been used to categorize or classify systems, structures, and components by risk or safety significance, including Title 10 of the Code of Federal Regulations, Section 50.69, "Risk-informed categorization and treatment of structures, systems and components for nuclear power reactors," and NEI 18-04, "Risk-Informed Performance-Based Technology Inclusive Guidance for Non-Light Water Reactor Licensing Basis Development."

- The NRC staff posed questions to industry stakeholders seeking clarity on the scope and technical aspects of the alternate requirements. The NRC staff also provided the perspective that some of these issues may need to be addressed on a case-by-case basis or at least differentiated between light water reactors and advanced non-light water reactors.
- The public had an opportunity to ask questions of the NRC staff at the end of the
 meeting. Industry representatives expressed an interest in continuing dialogue on this
 topic in future public meetings covering other topics related to codes and standards for
 advanced reactors.

CONTACT: Matthew A. Hiser, NRR/DANU (301) 415-2454

Enclosure: List of Meeting Attendees W. Jessup 4

SUBJECT: SUMMARY OF THE NOVEMBER 14, 2022, OPEN OBSERVATION PUBLIC

MEETING TO DISCUSS ASME BOILER AND PRESSURE VESSEL CODE SECTION III ALTERNATE REQUIREMENTS FOR ITEMS WITH MINIMAL CONTRIBUTION TO SAFETY OR RISK DATED: FEBRUARY 14, 2023

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NAME	MHiser	DGreene	WJessup	MHiser
DATE	2/1/2023	2/14/2023	2/15/2023	2/15/2023

OFFICIAL RECORD COPY

List of Attendees

Open Observation Public Meeting to Discuss ASME Boiler and Pressure Vessel Code Section III Alternate Requirements for Items with Minimal Contribution to Safety or Risk

November 12, 2022

Name	Organization
Matthew Hiser	U.S. Nuclear Regulatory Commission (NRC)
William Jessup	NRC
Kamal Manoly	NRC
Meg Audrain	NRC
Alexander Chereskin	NRC
David Rudland	NRC
Robert Davis	NRC
Kerri Kavanagh	NRC
John Honcharik	NRC
Yamir Diaz-Castillo	NRC
Ian Tseng	NRC
Carol Nove	NRC
Siva Lingam	NRC
Bruce Lin	NRC
Michelle Hayes	NRC
Joseph Bass	NRC
Carol Moyer	NRC
Chakrapani Basavaraju	NRC
Michele Sampson	NRC
Stephen Cumblidge	NRC
Kaihwa Hsu	NRC
Joseph Sebrosky	NRC
Adrienne Brown	NRC
Phil O'Bryan	NRC
Stewart Bailey	NRC
Tom Basso	Nuclear Energy Institute
Rachel Romano	MPR Associates
Suzanne McKillop	MPR Associates
Paige Upright	MPR Associates
Robert Keating	MPR Associates
Rani Franovich	Breakthrough Institute
Leigh Lloveras	Breakthrough Institute
Arthur Mills	Constellation Energy
Kevin Yontosh	Constellation Energy
Bergman, Jana	Curtiss Wright
Marc Albert	Electric Power Research Institute

Name	Organization	
Dale Matthews	Framatome	
Daniel Lamond	GSE Solutions	
Brian Nolan	Jensen Hughes	
Frank Hope	Jensen Hughes	
Jie Wen	Jensen Hughes	
Trace Orf	Oklo	
Tom Roberts	Public Citizen	
Dick Mattson	Structural Integrity Associates	
Maria Luisa Garcia Heras	Tecnatom	
Edwin Lyman	Union of Concerned Scientists	
Matthew Golliet	Westinghouse	
Ingrid Nordby	X-Energy	