




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

June 21, 2023

MEMORANDUM TO: Joseph A. Proffitt, Acting Chief
Advanced Reactor Licensing Branch 1
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

FROM: Donna M. Williams, Senior Project Manager
Advanced Reactor Licensing Branch 1
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

SIGNED:  Signed by Williams, Donna
on 06/21/23

SUBJECT: SUMMARY OF THE NOVEMBER 8, 2022, PUBLIC MEETING
BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND
MULTIPLE STAKEHOLDERS TO DISCUSS PUBLIC COMMENTS
ON THE TRIAL REGULATORY GUIDE 1.247, "ACCEPTABILITY OF
PROBABILISTIC RISK ASSESSMENT RESULTS FOR NON-LIGHT
WATER REACTOR RISK-INFORMED ACTIVITIES"

On November 8, 2022, the U.S. Nuclear Regulatory Commission (NRC) held a public meeting with stakeholders. The announcement for this public meeting is available in the Agencywide Document and Access and Management System (ADAMS) under accession number ML22298A213. The subject of this meeting was to discuss the NRC staff's review and endorsement of the American Society of Mechanical Engineers/American Nuclear Society (ASME/ANS) advanced non-light-water reactor (NLWR) consensus probabilistic risk assessment standard designated as ASME/ANS RA-S-1.4-2021, "Probabilistic Risk Assessment Standard for Advanced Non- Light Water Reactor Nuclear Power Plants." The enclosure to this document lists the meeting attendees. The NRC staff's presentation slides are available in ADAMS (ML22318A284).

The purpose of this meeting was to discuss comments received on trial Regulatory Guide 1.247 "Acceptability of Probabilistic Risk Assessment Results for Non-Light Water Reactor Risk-Informed Activities" (ML21235A008) and next steps in finalizing the RG with the nuclear industry and other stakeholders. The comments were addressed in a *Federal Register* notice dated October 17, 2022 (87 FR 62894).

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In its remarks, the NRC staff provided background on the development of trial RG 1.247 and noted that comments were received from the Nuclear Energy Institute and X-Energy, LLC. No changes were made to the trial RG as a result of the comments. The NRC staff provided a brief discussion of the comments received. The NRC staff considers the comments related to errors of commission (comments on requirements HLR-HR-E and HR-E4) significant. Therefore, these comments were discussed in detail, as described below.

Regulatory Guide 1.247 takes exceptions to the ASME and ANS NLWR PRA standard regarding the treatment of errors of commission (EOCs) in a PRA. The exceptions provide for the consideration of EOCs that result in adverse safety impacts for Capability Category I, (CC-I). The comments indicate that these exceptions are not consistent with the current PRA state of practice, and broadly considering EOCs goes above and beyond the requirement for the current operating fleet. The NRC staff is keeping the exceptions related to EOCs, in this trial use RG. Because there is limited operating experience regarding EOCs for NLWRs and the scope of the ASME/ANS NLWR PRA standard is broader than the scope of the ASME/ANS Level 1/LERF LWR PRA standard, EOCs may play a more important role in the NLWR PRA than for the LWR PRA and, therefore, NLWR PRA developers will need to address that EOCs are not an issue before eliminating them from consideration.

The trial period for this RG is expected to last for approximately 2 years to allow time to incorporate any changes related to a revision of ASME/ANS RA-S-1.4-2021. The NRC staff will also incorporate changes or comments that arise from the trial use. The NRC staff will consider other comments received during the trial use period in preparing a final draft of RG 1.247 and will consider the experience obtained through the trial use of the RG.

Enclosure:
As stated

SUBJECT: SUMMARY OF THE NOVEMBER 8, 2022, PUBLIC MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION AND MULTIPLE STAKEHOLDERS TO DISCUSS PUBLIC COMMENTS ON THE TRIAL REGULATORY GUIDE 1.247, "ACCEPTABILITY OF PROBABILISTIC RISK ASSESSMENT RESULTS FOR NON-LIGHT WATER REACTOR RISK-INFORMED ACTIVITIES" DATED: JUNE 21, 2023

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OFFICE	NRR/DANU/UAL1/PM	NRR/DANU/UAL2/LA	NRR/DANU/UAL1/BC	NRR/DANU/UAL1/PM
NAME	DWilliams	CSmith	JProffitt	DWilliams
DATE	1/27/2023	5/30/2023	6/7/2023	6/21/2023

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List of Attendees

Public Meeting Between the U.S. Nuclear Regulatory Commission and Multiple Stakeholders to Discuss Public Comments on the Trial Regulatory Guide 1.247

November 8, 2022

<u>Name</u>	<u>Organization</u>
Michelle Gonzales	U.S. Nuclear Regulatory Commission (NRC)
Harriet Karagiannis	NRC
Hanh Phan	NRC
Anders Gilbertson	NRC
Matthew Humberstone	NRC
Donna Williams	NRC
Shilp Vasavada	NRC
Mehdi Reisi Fard	NRC
JS Hyslop	NRC
John Grasso	NRC
William Reckley	NRC
Madhumita Sircar	NRC
Jing Xing	NRC
Bridget Curran	NRC
David Holcomb	NRC
Jeffery Wood	NRC
James Chang	NRC
De Wu	NRC
Scott Bussey	NRC
Weijun Wang	NRC
Susan Cooper	NRC
Ian Jung	NRC
Christopher Tyree	NRC
Emma Redfoot	Oklo, Inc.
Victoria Andersen	NEI
Raymond Burski	ARC Clean Technology
Schichlein, Lisa	GE Power Portfolio
Edwin Lyman	
Connie Kline	
Ingrid Nordby	X-energy

Enclosure

<u>Name</u>	<u>Organization</u>
Alaina Vivanco	X-energy
Ben Chen	
Matt Hendrickson	
Yolanda Combrink	
Robert Fortner	
Ethan Graven	
Harry Liao	X-Energy
Dave Grabaskas	
Pearle Lipinski	
Andrea Maioli	
Stephen Hess	
Matthew Degonish	
Donald H.Behnke	
Emma Redfoot	
Timothy Enfinger	GE Power Portfolio
Eric Thornsbury	
Sarah Fields	
Randy Belles	
Farshid Shahrokhi	Framatome
Mihai Aurelian Diaconeasa	
Mark Cursey	X-energy
Brian Johnson -	TerraPower
Elliott Korb	
Frank Schaaf	
Siavash Dorvash	
Drew Peebles	Kairos Power