



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

March 17, 2021

MEMORANDUM TO: Benjamin Beasley, Chief
Advanced Reactor Licensing Branch
Division of Advanced Reactors and
Non-Power Production and Utilization Facilities
Office of Nuclear Reactor Regulation

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

A handwritten signature in blue ink, appearing to read "Donna Williams", is placed over the "FROM:" line.

Signed by Williams, Donna
on 03/17/21

SUBJECT: SUMMARY OF FEBRUARY 23, 2021, PUBLIC MEETING TO
DISCUSS THE ADVANCED NON-LIGHT-WATER REACTOR
PROBABILISTIC RISK ASSESSMENT STANDARD

On February 23, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21040A145), the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with stakeholders, including the Nuclear Energy Institute (NEI), to discuss the staff's review of the American Society of Mechanical Engineers/American Nuclear Society (ASME/ANS) Advanced Non-light-water (LWR) probabilistic risk assessment (PRA) Standard. The staff's presentation slides are available at ADAMS Accession No. ML21050A240 and NEI's presentation is available at ADAMS Accession No. ML21055A732. The meeting attendees are included as an enclosure to this document.

The purpose of the meeting was to discuss the NRC Staff Draft White Paper "Demonstrating the Acceptability of Probabilistic Risk Assessment Results Used to Support Advanced Non-Light Water Reactor Plant Licensing" (ADAMS Accession No. ML21015A434) and staff observations of NEI 20-09, "Performance of PRA Peer Reviews Using the ASME/ANS Advanced Non-LWR PRA Standard" that was provided to the staff on November 23, 2020 (ADAMS Accession No. ML20339A485).

The NRC staff issued the draft white paper on January 19, 2021, to support ongoing discussions with external stakeholders. The paper provides staff views and perspectives on demonstrating the acceptability of PRA results used to support advanced non-LWR licensing.

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301-415-1322

The staff noted that the content of the white paper should not be interpreted as official agency positions but will help inform the staff's development of regulatory guidance.

Following the NRC staff's presentation, NEI provided industry feedback on the draft white paper (ADAMS Accession No. ML21055A732). Industry representatives provided general observations on the draft white paper including:

- The stated document purpose should reflect that the existing commission policy and rules related to PRA are specific to power reactors and are not applicable to non-power reactors;
- References to severe accident mitigation design alternatives should be eliminated;
- References to Level 3 PRA should be eliminated; and
- Expectations for relative risk significance criteria should be removed.

The NEI noted that additional dialogue is needed in several key areas outside the scope of the paper itself including:

- What PRA means for various technologies
- Use of a fully deterministic basis
- Use of PRA without use of the advanced non-LWR PRA Standard
- Need for durable, visible guidance from NRC

Industry representatives also provided several specific comments on the content of the white paper that are described in the NEI presentation (ADAMS Accession No. ML21055A732).

A comment was also received on the definition of bounding site, as presented on pages 11 and 12 of the draft White Paper, and proposed wording was suggested to provide clarification.

The staff did not respond to the feedback in this meeting but agreed that additional dialogue with the commenters would be needed to resolve the issues. The staff will consider the feedback received and schedule another public meeting to discuss with stakeholders.

The second topic on the agenda was to discuss NEI 20-09, submitted on November 23, 2020. The NEI provided a proposed revision of NEI 20-09 to address staff observations and the staff provided feedback at a public meeting held on December 9, 2020. At the February 23, 2021, meeting, the NRC staff noted issues that it believes are still outstanding. The staff noted that the feedback provides its current understanding on NEI 20-09, which it will use in drafting the draft guidance. If NEI decides to submit an updated version, the staff will include it as part of the regulatory guide development.

Enclosure:

List of attendees

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ADVANCED NONLIGHT-WATER REACTOR PROBABILISTIC RISK
ASSESSMENT STANDARD DATED: MARCH 17, 2021

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OFFICE	NRR/DANU/UARL/PM	NRR/DANU/UARL/LA	NRR/DANU/UARL/BC	NRR/DANU/UARL/PM
NAME	DWilliams	SLent	BBeasley	DWilliams
DATE	3/10/2021	3/10/2021	3/17/2021	3/17/2021

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List of Attendees (via Teams or conference call)	
Name	Organization
Michelle Gonzales	U.S. Nuclear Regulatory Commission (NRC)
Marty Stutzke	NRC
Hanh Phan	NRC
Anders Gilbertson	NRC
Matthew Humberstone	NRC
Donna Williams	NRC
Michelle Hayes	NRC
Shilp Vasavada	NRC
Krsek, Robert	NRC
Michelle Hayes	NRC
Donald Palmrose	NRC
Dale Yeilding	NRC
Tony Nakanishi	NRC
Nicholas Hansing	NRC
John Nakoski	NRC
Lucieann Vechioli Feliciano	NRC
Shakur Walker	NRC
Ian Jung,	NRC
Derek Widmeyer	NRC
Mehdi Reisi Fard	NRC
Farshid Shahrokhi	Framatome
Andrea Maioli	Nuclear Energy Institute (NEI)
Dennis Henneke	General Electric (GE) Power Portfolio
Emma Redfoot	
Kati Austgen	NEI
Victoria Andersen	NEI
Darrell Gardner	Kairos Power
Matt Denman	Kairos Power
Brian Johnson	TerraPower, LLC
Steven Cho	U.S. ARMY
Glenn Kelly	Nuclear Safety Management
Don Williams	
Michael Mayfield	
Antonio Godoy	
David Brown	
Lisa Schichlein	GE Power Portfolio
Willis Poore	
Dave Grabaskas	
Scott Bussey	
Lon Andrew Dawson	
Karl Fleming	
Mark Draxton	
Bryan Hummel	
Cindy Williams	
Mihai Diaconeasa	

Enclosure

Steve Short	
Heather Detar	
Mike Rowland	
Amir Afzali	
Aaron Sanders	
Rob Burg	
Jim Curry	
Dave Luxat	
Kurt Harris	
Kevin Fice	Canadian Nuclear Safety Commission
Michael Xu	
Durvis Davis	U.S. ARMY
Laverne Ogleste	U.S. ARMY
Nicolas Jenner	
Bob Beall	
Jianxin Liu	
Sam Sabatino	
George Flanagan	