



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

December 22, 2020

MEMORANDUM TO: John P. Segala, Chief  
Advanced Reactor Policy Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

A handwritten signature in black ink that reads "Jordan P. Hoellman".

Signed by Hoellman, Jordan  
on 12/22/20

FROM: Jordan P. Hoellman, Project Manager  
Advanced Reactor Policy Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF OCTOBER 1, 2020, ADVANCED REACTOR  
STAKEHOLDER PUBLIC MEETING

On October 1, 2020, the U.S. Nuclear Regulatory Commission (NRC) held a Category 2 public meeting with industry stakeholders, including the Nuclear Energy Institute (NEI) and the U.S. Nuclear Industry Council (USNIC), to discuss ongoing initiatives related to the development and licensing of non-light-water reactors (non-LWRs or advanced reactors). The staff has posted the meeting notice in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML20274A091 and the presentation slides at Accession No. ML20274A057. Enclosure 1 lists the meeting attendees who participated remotely.

The NRC staff provided an overview of the Advanced Reactor Integrated Schedule of Activities on the NRC's public website at <https://www.nrc.gov/reactors/new-reactors/advanced/details.html#advSumISR>. The staff specifically noted the activities that have recently been completed or that have been added since the August 20, 2020, periodic advanced reactors stakeholder meeting.

The NRC staff provided an overview of its recent draft white paper, NRC Staff Draft White Paper Analysis of Applicability of NRC Regulations for Non-LWRs (ADAMS Accession No. ML20241A017), which provides staff position on the presumed applicability of various regulations to non-LWR applicants under either Title 10 of the Code of Federal Regulations (10 CFR) Part 50 or 10 CFR Part 52. The staff discussed expected exemptions from regulations identified by the staff in specific areas applicable to non-LWR designs and discussed that the staff anticipates non-LWR applicants will request exemptions, but this should not be negatively perceived. The staff noted that in its analysis, the regulations were evaluated generically and if

Enclosure:  
List of Attendees

CONTACT: Jordan Hoellman, NRR/DANU  
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it was not possible to preclude all non-LWR designs from the regulation, it was denoted as applicable. Stakeholders noted that the draft white paper is helpful and that they appreciate the staff for being proactive on this issue. Stakeholders provided comments and questions about if the draft white paper is applicable to applicants implementing the Licensing Modernization Project (LMP) described in NEI 18-04, endorsed by Regulatory Guide (RG) 1.233, "Guidance for Technology-Inclusive, Risk-Informed, and Performance-Based Approach to Inform the Licensing Basis and Content of Applications for Licenses, Certifications, and Approvals for Non-Light-Water Reactors," dated June 2020 (ADAMS Accession No. ML20091L698). The staff discussed that guidance does not supersede a rule and that exemptions would still be required, but streamlined to provide an efficient avenue to reduce unnecessary burden. NEI noted that they would provide their comments in writing, and the staff and stakeholders agreed that further engagement on this topic would be beneficial.

The NRC staff provided an update on the staff's development of an advanced reactor Generic Environmental Impact Statement (GEIS), including the direction from the Commission in SRM-SECY-20-0020 (ADAMS Accession No. ML20265A112) to codify the results of the GEIS. The staff provided a summary of the Scoping Summary Report (ADAMS Accession No. ML20260H180) and that the staff is currently drafting sections of the GEIS. The staff noted that the goal is to develop an effective GEIS to disposition generically as many issues as practicable and that the staff is evaluating the schedule impacts of rulemaking. Stakeholders provided comments in support of the GEIS and asked questions about the schedule for rulemaking. The staff discussed that they are currently developing the schedule and that the rulemaking process is a standard process that needs to be followed. The rulemaking package will include the GEIS, and other guidance documents will be updated with the rulemaking process.

The NRC staff provided an overview of its recent draft white paper, NRC Staff White Paper - Fuel Qualification for Advanced Reactors (Draft) (ADAMS Accession No. ML20191A259). The staff briefly discussed the background and engagement with stakeholders at the May 7, 2020, periodic advanced reactor stakeholder meeting and recent activities affecting fuel qualification guidance. The staff discussed the fuel qualification framework provided in the draft white paper and that the top level goal of "fuel is qualified" is broken down into lower level objective goals that can be satisfied with direct evidence. The staff described how stakeholder feedback from the May 7, 2020, meeting was incorporated into the draft white paper and that the staff plans to convert the draft white paper into a formal regulatory document that will include a formal public comment period.

Staff from Sandia National Laboratories (SNL) provided an overview of their report, "Assessment of the [MELCOR Accident Consequence Code System] MACCS Code Applicability for Nearfield Consequence Analysis," (ADAMS Accession No. ML20059M032) to determine whether MACCS can be used in the nearfield and how MACCS be used to generate results that are bounding of other codes intended for nearfield analysis. SNL staff discussed the objectives of the assessment to compare the results from several candidate codes assumed to be adequate in the nearfield to the results from MACCS to assess the adequacy of MACCS for assessing exposures in the nearfield and how MACCS can be used to generate bounding results. SNL staff summarized that MACCS can be used at distances significantly shorter than 500 m downwind (50 –200 m) from a containment or reactor building; however, the MACCS user needs to select the MACCS input parameters appropriately to generate results that are adequately conservative for a specific application. SNL staff also concluded that a conservative nearfield result may be obtained using certain MACCS parameter choices.

The NRC staff provided an overview of the Oak Ridge National Laboratory (ORNL) report, "Proposed Guidance for Preparing and Reviewing a Molten Salt Non-Power Reactor Application" (ADAMS Accession No. ML20219A771), which was developed in response to the Nuclear Energy Innovation and Modernization Act (NEIMA) as the NRC staff identified an opportunity to enhance its readiness to license non-power reactors that will use molten salt reactor (MSR) technology. The staff noted that they plan to endorse the report for use by potential non-power MSR applicants by January 2021 and that subsequently, the report will likely be incorporated in the next revision of NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors."

The meeting ended with an open discussion. The NRC requested feedback about how these meetings can be more engaging and how to increase participation by prospective applicants. The next periodic advanced reactors stakeholder meeting was scheduled for November 5, 2020.

SUBJECT: SUMMARY OF OCTOBER 1, 2020, ADVANCED REACTOR STAKEHOLDER  
PUBLIC MEETING DATED: December 22, 2020

**DISTRIBUTION:**

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JSegala, NRR  
JHoellman, NRR

**ADAMS Accession No.: ML20350B457**

**NRR-106**

OFFICE	NRR/DANU/UARP/PM*	NRR/DANU/UARP/BC*	NRR/DANU/UARP/PM
NAME	JHoellman	JSegala	JHoellman
DATE	12 /16/2020	12/21/2020	12/22/2020

**OFFICIAL RECORD COPY**

**PUBLIC MEETING**  
**U.S. NUCLEAR REGULATORY COMMISSION**  
**Thursday, October 1, 2020**  
**10:00 a.m. – 2:00 p.m.**

<b>List of Attendees* (on phone)</b>	
<b>Blank Fields = Indecipherable Information</b>	
<b>Name</b>	<b>Organization</b>
Amy Cabbage	U.S. Nuclear Regulatory Commission (NRC)
John Segala	NRC
Jordan Hoellman	NRC
Hanh Phan	NRC
Bill Reckley	NRC
Tim Drzewiecki	NRC
Jason Schaperow	NRC
Eric Oesterle	NRC
Ben Beasley	NRC
Martin Stutzke	NRC
Juan Uribe	NRC
Tim Lupold	NRC
Adrian Muniz	NRC
Mo Shams	NRC
John Tappert	NRC
Donna Williams	NRC
Peyton Doub	NRC
Robert Weisman	NRC
Marcia Carpentier	NRC
Salman Haq	NRC
Shakur Walker	NRC
Dan Barnhurst	NRC
Samuel Cuadrado de Jesus	NRC
James Rubenstone	NRC
Pete Lee	NRC
Steven Vitto	NRC
Patricia Vokoun	NRC
Robert Taylor	NRC
Ian Jung	NRC
David Desaulniers	NRC
Jessie Quichocho	NRC
Richard Rivera	NRC
Russell Felts	NRC
Dayna Dority	NRC

Antonio Barrett	NRC
Jack Cushing	NRC
Brian Smith	NRC
Wendy Reed	NRC
Jan Mazza	NRC
Maryam Khan	NRC
Michael Spencer	NRC
Chris Van Wert	NRC
Laura Willingham	NRC
Arlon Costa	NRC
Ricardo Torres	NRC
Steve Bajorek	NRC
Julie Ezell	NRC
Stu Magruder	NRC
Mallecia Sutton	NRC
Ken Erwin	NRC
Tamara Bloomer	NRC
Michelle Hart	NRC
Nanette Valliere	NRC
James Hammelman	NRC
Stephen Philpott	NRC
Lucas Kyriazidis	NRC
Boyce Travis	NRC
Scott Bussey	NRC
Shawn Campbell	NRC
Bob Fitzpatrick	NRC
Derek Widmayer	NRC
Kevin Coyne	NRC
Dennis Andrukat	NRC
Jonathan Barr	NRC
Jim Beardsley	NRC
Dawnmathews Kalathiveettil	NRC
Shawn Harwell	NRC
Andrew Yeshnik	NRC
Joe Giacinto	NRC
William Kennedy	NRC
Christopher Regan	NRC
Irene Wu	NRC
Meraj Rahimi	NRC

Kati Austgen	Nuclear Energy Institute (NEI)
Marc Nichol	NEI
Everett Redmond	NEI
Cyril Draffin	U.S. Nuclear Industry Council (USNIC)
Jeffrey Merrifield	USNIC
Ed Lyman	Union of Concerned Scientists (UCS)
Nicole Schlichting	
Chris Stanek	Sandia National Laboratories (SNL)
Dan Clayton	SNL
Nate Bixler	SNL
Francis Akstulewicz	A to Z Reactor Consulting Services
Farshid Shahrokhi	Framatome
Jana Bergman	Curtis Wright
Christopher Courtenay	
Drew Peebles	Kairos Power
Darrell Gardner	Kairos Power
Peter Hastings	Kairos Power
Jim Tomkins	Kairos Power
Nadar Satvat	Kairos Power
Brian Glowacki	
Niko McMurray	ClearPath
Clint Medlock	Southern Nuclear
Brandon Chisholm	Southern Company
Jason Redd	Southern Nuclear
George Wadkins	GE Power
Ross Moore	Oklo
John Hanson	Oklo
Alex Renner	Oklo
Ashley Meredith	
Pete Gaillard	TerraPower
James Vollmer	TerraPower
Richard Paese	Westinghouse
Robert Schaaf	
Christopher Chwasz	Idaho National Laboratory (INL)
Wayne Moe	INL
Marty O'Neill	
Kurt Harris	
Alfred Hathaway	
David Holcomb	Oak Ridge National Laboratory
Christina Back	General Atomics
Rob Faibish	General Atomics
David Andersson	
Jessica Gee	

Rob Burg	
Don Williams	
James Andersen	
Andrew Barto	
Kelvin Montague	
Bruce Hilton	
James Corson	
Aslak Stubsgaard	
Stewart Schneider	
Josh White	
Dave Goodman	
Brian Morris	
John Fulton	
Vincent Lackowski	
Nathan Hall	
Andrew Pessin	

\* Attendance list based on Microsoft Teams Participant list. List does not include 47 individuals that connected via phone.