



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

September 14, 2023

MEMORANDUM TO: Steven T. Lynch, Chief
Advanced Reactor Policy Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

FROM: Katherine L. Wagner, Project Manager */RA/*
Advanced Reactor Policy Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF JULY 20, 2023, PERIODIC ADVANCED
REACTOR STAKEHOLDER PUBLIC MEETING

On July 20, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff held an information meeting with a question-and-answer session with stakeholders to discuss advanced reactor topics including:

- Environmental Center of Expertise Licensing Review Overview and Enhancements
- Introduction to the New Fuels Atlas
- Update on SCALE/MELCOR Non-LWR Source Term and Fuel Cycle Demonstration Project
- Nuclear Supplier QA Program Qualification: ISO 9001 Supplemental Requirements
- Insights on Role of Advisory Committee on Reactor Safeguards (ACRS) During Initial Licensing Reviews
- Advanced Reactor Population-Related Siting Considerations
- MACCS Consequence Analysis Demonstration Calculations
- Factory-Fabricated Transportable Micro-Reactor Licensing and Deployment Considerations
- Risk-Informed Approach to Package Approval for Transportable Microreactors

The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. [ML23201A038](#), and the presentation slides are available under Accession No. [ML23200A301](#). The Enclosure to this summary provides the attendees for the meeting as captured by Microsoft Teams.

For each topic listed above, the NRC staff provided information and allotted time for stakeholder comments and questions. Stakeholders provided feedback on several topics and asked clarifying questions. NRC staff stated that the feedback was appreciated. No follow-up actions were identified.

CONTACT: Katherine L. Wagner, NRR/DANU
301-415-6202

The NRC staff provided updates of the Advanced Reactor Integrated Schedule of Activities on the NRC's public website at <https://www.nrc.gov/reactors/new-reactors/advanced/integrated-review-schedule.html>. The NRC staff noted that the schedule reflects activities that have recently been completed, updated, or added since the June 7, 2023, advanced reactor stakeholder meeting.

Kenneth Erwin delivered a presentation on the Environmental Center of Expertise's (ECO) licensing process and enhancements. This presentation was a follow on to those given on April 26, 2023, from the Nuclear Innovation Alliance (Patrick White) and the NRC's Division of Advanced Reactors and Non-Power Production and Utilization Facilities (John Segala) related to NRC licensing process recommendations and enhancements (slides at [ML23115A004](#)). Mr. Erwin's presentation discussed the environmental licensing process at the NRC, how it's different than the safety process, resource areas analyzed, and coordination with external entities and stakeholders. The presentation also discussed the centralization of NRC's environmental review staff, environmental review transformation efforts and outcomes, participation in and implementation of Congressional and Administration efforts (such as the recent changes to NEPA itself from the Fiscal Responsibility Act (FRA)), and several next steps in the ECOE's transformation effort.

NRC staff provided an introduction to the New Fuels Atlas, a tool staff is developing to help communicate NRC's readiness for the front and back ends of potential new fuel cycles and to maintain awareness of the evolving new fuels environment.

The NRC staff presentation, "Update on SCALE/MELCOR Non-LWR Source Term and Fuel Cycle Demonstration Project," consisted of an overview of NRC's Non-LWR Demonstration Projects which included highlights of current and future capabilities of NRC's computer code SCALE and MELCOR. Also included, in the presentation, was a summary of upcoming deliverables.

Mark Richter of the Nuclear Energy Institute (NEI) staff presented on nuclear supplier quality assurance program qualification, specifically regarding NEI 22-04 "Nuclear Supplier Quality: ISO 9001 supplemental requirements." The working draft of NEI 22-04 will undergo broad industry review in Quarter 3 of 2023 followed by submittal to NRC for review and endorsement in Quarter 4 of 2023 (for further details on next steps please see Slide 58 of [ML23200A301](#)).

The presentation entitled "Insights on Role of ACRS During Initial Licensing Reviews" contained two presentations. First, NRC staff presented a summary of the interactions with the ACRS on the Kairos Hermes Construction Permit safety review. Then Dr. Joy Rempe's presentation focused on providing insights on topics, such as how ACRS review differed from staff reviews, including typical review topics, types of meetings, and engagement options. In response to stakeholder questions, Dr. Rempe emphasized recent actions taken by ACRS to prepare for advanced reactor applications, such as the use of committee engagement plans, development of member best practice guidance (which will be posted on the ACRS external website), and new members (in addition to new members added within the last month, there is a posting for two additional members in the *Federal Register*).

Kati Austgen of the NEI staff and Paul Amico of Jensen Hughes, Inc., presented on advanced reactor population-related siting considerations. Detailed key take-aways for further discussion were listed in Slide 91 of the presentation slides ([ML23200A301](#)).

NRC staff from the Office of Nuclear Regulatory Research presented a research project to assess the capabilities of the MACCS code to analyze a selected conceptual advanced reactor design. The results of the evaluation confirmed that, despite some limitations, analysts can use the flexibility of the MACCS code to analyze the offsite consequences of an advanced reactor postulated accident scenario.

The NRC staff provided an update on its work to develop a Commission paper on licensing and deployment considerations for factory-fabricated transportable micro-reactors, including regulatory approaches for loading fuel and operational testing at the factory. The NRC staff presentation also provided information on other related topics and the NRC staff's near-term strategies to address them. The NRC staff additionally discussed its plan to publish a draft white paper to further stakeholder engagement in August 2023. The NRC staff published the draft white paper on August 29, 2023, and it is available in ADAMS at [Draft White Paper on Factory-Fabricated Micro-Reactor Licensing and Deployment Considerations \(ML23236A598\)](#) and [Enclosure to the Draft White Paper on Factory-Fabricated Micro-Reactor Licensing and Deployment Considerations \(ML23236A597\)](#).

The presentation provided a high-level overview of the risk-informed methodology that NRC is reviewing for the U.S. Department of Defense's Strategic Capabilities Office for Project Pele, how it could be applied to package approval, the proposed Commission paper on it, and who NRC staff know that may use the risk-informed methodology. The NRC staff's due date to complete the Commission paper is mid-January 2024. The NRC staff are still looking for engagement on transportation package approval for transportable microreactor vendors.

To see information regarding previously held periodic advanced reactor stakeholder public meetings, please visit the NRC's public website at <https://www.nrc.gov/reactors/new-reactors/advanced/stakeholder-engagement/meetings.html>.

Please direct any inquires to Katherine Wagner at 301-415-6202 or via email at Katie.Wagner@nrc.gov.

Enclosure:
Attendance List

SUBJECT: SUMMARY OF JULY 20, 2023, PERIODIC ADVANCED REACTOR
STAKEHOLDER PUBLIC MEETING DATED: SEPTEMBER 14, 2023

DISTRIBUTION:

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RidsNrrDanu Resource

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SLynch, NRR

JSegala, NRR

ACubbage, NRR

KWagner, NRR

LBurkhart, ACRS

KErwin, NMSS

ADAMS Accession Number: ML23244A234

OFFICE	NRR/DANU/UARP/PM	NRR/DANU/UARP/BC	NRR/DANU/UARP/PM
NAME	KWagner	SLynch	KWagner
DATE	9/05/2023	9/13/2023	9/14/2023

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Periodic Advanced Reactor Stakeholder Public Meeting Attendance List*

July 20, 2023

<u>Name</u>	<u>Organization</u>
Eric Bowman	U.S. Nuclear Regulatory Commission (NRC)
Roel Brusselmans	NRC
Larry Burkhart	NRC
Scott Bussey	NRC
Shawn Campbell	NRC
Amy Cabbage	NRC
Candace de Messieres	NRC
Kenneth Erwin	NRC
Ossy Font	NRC
Greg Galletti	NRC
Anders Gilbertson	NRC
Matthew Gordon	NRC
Michelle Hart	NRC
Shana Helton	NRC
Jorge Hernandez Munoz	NRC
Matthew Hiser	NRC
Jordan Hoellman	NRC
Olivia Hunsberger	NRC
Christian Jacobs	NRC
Steve Jones	NRC
William Kennedy	NRC
Lucas Kyriazidis	NRC
Steven Lynch	NRC
Chris Markley	NRC
Don Marksberry	NRC
Scott Moore	NRC
Adrian Munoz	NRC
Tony Nakanishi	NRC
AJ Nosek	NRC
Stephen Philpott	NRC
Jason Piotter	NRC
Andrew Proffitt	NRC
William Reckley	NRC
John Segala	NRC
Belkys Sosa	NRC
Michael Spencer	NRC
Marty Stutzke	NRC
Scott Tonsfeldt	NRC
Katherine Wagner	NRC
Robert Weisman	NRC
Bernard White	NRC

Enclosure

Joy Rempe	Advisory Committee on Reactor Safeguards
Frank Akstulewicz	Public
Paul Amico	Public
Kati Austgen	Public
Brett Banks	Public
Jana Bergman	Public
Stephen Burdick	Public
Rob Burg	Public
Raymond Burski	Public
Blaise Collin	Public
Arlon Costa	Public
Cyril Draffin	Public
Michael Ellett	Public
Madeline Feltus	Public
Charlotte Geiger	Public
Kurt Harris	Public
Brandon Hartle	Public
Alex Hashemian	Public
Lane Howard	Public
Nicolas Jenner	Public
James Kinsey Jr	Public
Bobby Kunkle	Public
Leigh Lloveras	Public
Deb Luchsinger	Public
Edwin Lyman	Public
Ian Lynch	Public
Eric Oesterle	Public
Martin O'Neill	Public
Trace Orf	Public
Steven Pope	Public
Narasimha Prasad Kadambi	Public
Mark Richter	Public
RJ Roux	Public
Robert Schaaf	Public
Farshid Shahrokhi	Public
Melanie Snyder	Public
Rick Stadlander	Public
Adam Stein	Public
Grant Teagarden	Public
Cher Truett	Public
Stew Yuen	Public

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