



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

August 24, 2021

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

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

A handwritten signature in black ink, appearing to read "Jordan P. Hoellman".

Signed by Hoellman, Jord  
on 08/24/21

SUBJECT: SUMMARY OF APRIL 15, 2021, ADVANCED REACTOR  
STAKEHOLDER PUBLIC MEETING

On April 15, 2021, the U.S. Nuclear Regulatory Commission (NRC) held an Information with Questions and Answers 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). The staff has posted the meeting notice in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21102A067 and the presentation slides at ADAMS Accession No. ML21103A423. 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#advSumISRA>. The staff specifically noted the activities that have recently been completed, updated, or added since the January 21, 2021, advanced reactor stakeholder meeting. The staff discussed the preparation of the report to Congress required by Section 103(e) of the Nuclear Energy Innovation and Modernization Act (NEIMA) and sought stakeholder feedback, as required. Stakeholders provided insights regarding the regulation of fusion energy, specifically indicating that fusion energy should not be regulated like utilization facilities. The staff noted that they would make appropriate revisions to the report to ensure the comments were considered.

The NRC staff provided an overview of annual fee alternatives for non-LWRs including microreactors, noting that three alternatives are currently under consideration and that the staff may modify the alternatives or develop other alternatives based on feedback through continued engagement with stakeholders. The staff discussed the feedback provided by NEI in November 2020 and how the staff had considered the input in its alternatives. Stakeholders asked

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clarifying questions and provided comments related to the annual fees proposed for microreactors. The staff noted that they would continue engaging stakeholders as they work to develop the fee rule to support a rulemaking in fiscal year 2023. The staff noted that any fee rule policy change will go through formal notice and comment.

The NRC staff provided a summary and status update regarding a number of environmental topics. Regarding the proposed rulemaking to update and streamline Title 10 of the *Code of Federal Regulations* (10 CFR) Part 51, the staff noted that they delivered the rulemaking plan to the Commission in SECY-21-0001 (ADAMS Accession No. ML20212L389). The staff noted that they believe an update to Part 51 would be beneficial and allow the staff to apply best practices and lessons learned from many past environmental reviews to improve the regulations and future National Environmental Policy Act (NEPA) analyses. Regarding the rulemaking to amend categorical exclusions, the staff noted that SECY-20-0065 (ADAMS Accession No. ML20021A158) recommended rulemaking to establish new and amend existing categorical exclusions. In SRM-SECY-20-0065 (ADAMS Accession No. ML20336A009), the Commission directed the staff to initiate the rulemaking. The staff stated that they will issue an Advance Notice of Proposed Rulemaking (ANPR) that will identify potential modification the NRC is considering, to seek public comment to inform the development of the proposed rule. Regarding the Advanced Nuclear Reactor Generic Environmental Impact Statement (ANR GEIS), the staff noted that a technology inclusive approach is being applied so that any advanced reactor could use the ANR GEIS, provided that the reactor and site meet the plant and site envelope values and assumptions used in the ANR GEIS, and there is no significant new information. In September 2020, the Commission directed the staff in SRM-SECY-20-0020 to conduct rulemaking to codify the results of the ANR GEIS (ADAMS Accession No. ML20265A112). The staff provided an overview of the Scoping Summary Report (ADAMS Accession No. ML20260H180) and noted that they are finalizing the draft ANR GEIS. The staff noted that they plan to submit the proposed rule to the Commission in November 2021. Stakeholders noted that they are encouraged by the staff's efforts and asked clarifying questions regarding the proposed rulemakings.

The project team led by the Southern Ohio Diversification Initiative (SODI) provided an overview of their site reuse deployment guidance project, which sets out to evaluate and document the challenges and benefits of reuse of an existing nuclear facility undergoing decommissioning for siting and construction of an advanced reactor. The team noted that they are using the former Portsmouth Gaseous Diffusion Plant as a case study and intend to develop an Early Site Permit (ESP) application template for guidance with advanced reactors and to revise the Electric Power Research Institute (EPRI) Siting Guide with a focus on advanced reactors and site reuse.

The NRC staff provided an update on activities for risk-informed performance-based approaches to seismic design and on adopting seismic isolation (SI) technologies. The staff described the objectives of the activities to provide an alternative risk-informed performance-based seismic design approach for advanced reactors that works within the licensing modernization project framework and consensus codes and standards. The approach is technology inclusive, leads to more balanced design that considers both safety and cost benefits, allows seismic design to be tailored to the role in achieving safety for each structure, system, and component, and provides design flexibilities. The staff described in detail some proposed requirements and the technical details associated with them and noted that they are developing a draft regulatory guide that will be completed in 2023. The staff described the objectives of their efforts to provide a pathway for applicants to use SI technologies in support of its deployment for advanced reactors. Applying SI technologies could provide a better management strategy for seismic risk in certain situations and could lead to a more streamlined

review process, which may be a desirable option for some advanced reactor designs. The staff noted that they are developing a new regulatory guide that will be completed in 2023 focusing on important SI characteristics, such as materials, design/analysis, testing, inspection and maintenance, and aging management.

Southern Company staff presented on a project describing guidelines for implementing SI in advanced reactors to reduce risk and overnight capital cost. Southern Company noted that the planned outcomes from their project is to provide guidelines to enable licensing SI for advanced reactors that will cover analysis procedure for isolated reactor buildings, design of isolation systems and substructures, requirements for prototype and production testing, and requirements for maintenance, among others. Southern Company stated that they plan to submit a topical report on these efforts for NRC review, which is intended to support the NRC's regulatory guide development.

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 staff discussed the various upcoming public meetings focused on advanced reactor initiatives, including Part 53. The next advanced reactors stakeholder meeting would be scheduled for May 27, 2021.

Enclosure:  
List of Attendees

SUBJECT: SUMMARY OF APRIL 15, 2021, ADVANCED REACTOR STAKEHOLDER  
PUBLIC MEETING DATED: August 24, 2021

**DISTRIBUTION:**

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JSegala, NRR

JHoellman, NRR

**ADAMS Accession No. ML21232A429**

**NRC-001**

OFFICE	NRR/DANU/UARP/PM*	NRR/DANU/UARP/BC*
NAME	JHoellman	JSegala
DATE	08/23/2021	08/24/2021

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**PUBLIC MEETING**  
**U.S. NUCLEAR REGULATORY COMMISSION**  
**Thursday, April 15, 2021**  
**10:00 a.m. – 3:00 p.m. EST**

<b>List of Attendees* (on phone)</b>
Hoellman, Jordan
Choi, Han Kwon
frank akstulewicz - TEUSA (Guest)
Segala, John
Sutton, Mallecia
Cushing, Jack
Cubbage, Amy
Afzali, Amir
Machalek, Woody
Willingham, Laura
Drzewiecki, Timothy
Grabaskas, Dave
Erwin, Kenneth
Schaaf, Robert
Philpott, Stephen
Muniz, Adrian
Schmidt, Jeffrey
Reed, Beth
Albert, Michelle
Kristin Ulmer (Guest)
Dreke, Ryan Christopher
Krsek, Robert
Uribe, Juan
Palmrose, Donald
Lee, Min
Oesterle, Eric
Stutzke, Martin
Xu, Jim
Wright, Megan

Enclosure

<b>List of Attendees* (on phone)</b>
Dowling, Kate
KARKOUR, SUZANNE (GE Power Portfolio)
Henderson, Ryan Donald
Kalathiveettil, Dawnmathews
Phan, Hanh
Tom Bergman (Guest)
Miller, Fred
Lance Sterling (Guest)
Brian Song -Kairos (Guest)
Taylor, Robert
Barnhurst, Daniel
Deb Luchsinger (NuScale Power) (Guest)\""
Stamatakos, John
Redd, Jason P.
Kati Austgen (NEI) (Guest)
Sanfilippo, Nathan
Widmayer, Derek
Paese, Richard M
Roche-Rivera, Robert
Hartage, Kayleh
Chisholm, Brandon Michael
Mazza, Jan
Travis, Boyce
Dolley, Steven
Courtenay, Christopher C
Riner, Kelly
Nakanishi, Tony
Rossi, Anthony
Siwy, Alexandra
Martinez, Nancy
Dunevant (Guest)
Smith - NRR, Brian
Ross Moore (Guest)

<b>List of Attendees* (on phone)</b>
Van Wert, Christopher
Davis, Jennifer
Beall, Bob
Gomez, Antonio
Cyril Draffin (USNIC) (Guest)
Wadkins, George (GE Power Portfolio)
Khan, Maryam
Vrahoretis, Susan
Shams, Mohamed
Peter Hastings (Guest)
Lupold, Timothy
Curtis L. Smith
Vechioli Feliciano, Lucieann
Magruder, Stewart
Kuyler, Ray P.
Merrifield, Jeffrey S.
Weijun Wang (Guest)
Marc Nichol
Chandran, Parthasarathy
Armstrong, Kenneth
Vitto, Steven
Mossman, Tim
Martin O'Neill (NEI) (Guest)
Ezell, Julie
Lindsay Robinson (Guest)
Waites, Brandon Wiley
george flanagan (Guest)
Diaz Maldonado, Marilyn
Austin Clark (Guest)
Darrell Gardner (Kairos Power) (Guest)
Green, Matthew
Jung, Ian
Milton Gorden (Guest)\""

<b>List of Attendees* (on phone)</b>
Glowacki, Brian
Weisman, Bob
Pessin, Andrew
Andrew Sowder (Guest)
Walker, Shakur
Sweeney (Guest)
Rachel Turney
Doyle, Dan
Marty Bryan (Guest)
Gillespie, Joe
Joe G (Guest)
Blaney, Billy
Don McGee (Guest)
Williams, Donna
Hayes, Michelle
Doub, Peyton
Mark Denton (Guest)
Carmichael, Benjamin M.
Andrew S. (Guest)\''''
Wendolyn (Guest)
Thomas Braudt (Guest)
Henneke, Dennis (GE Power Portfolio)
Niko McMurray (ClearPath) (Guest)
Sebrosky, Joseph
Stephen J. Burdick
Jacobs, Jo
Cuadrado de Jesus, Samuel
Gascot Lozada, Ramon
Steve Vaughn (X-energy) (Guest)
Seber, Dogan
Grady, Anne-Marie
Mark Peres (Guest)
Trussell, Gregory



<b>List of Attendees* (on phone)</b>
Wu, Irene
Carl Perez
Dennis, Matthew
Ian Cotten (Guest)
Marty Phalen (Guest)
Tammy Morin
Valliere, Nanette
Kock, Andrea
Carpentier, Marcia
Kevin Shoemaker (Guest)
Beasley, Benjamin
Kim, Grace
Imtiaz Madni (Guest)
Khan, Nadim
John Bolin (Guest)
Costa, Arlon
Feltus, Madeline
Ron Faibish (Guest)
Lane Howard (Guest)
Zach, Andrew (EPW)
mike keller (Guest)
Robert Budnitz (Guest)
enver odar (Guest)
Braunstein, Ariel E.
Rob Riverstone (Guest)
Pires, Jose
Bauer, Laurel
joe (Guest)
\frank akstulewicz - TEUSA\" (Guest)\"
nilesh chokshi
\Robert Budnitz (Guest)\"\"
Kyung Tae Kim
Anis Baig (Guest)

<b>List of Attendees* (on phone)</b>
Andrew Whittaker (Guest)
Benjamin D. Kosbab
Charlie Kircher (Guest)
Glen Lawson (X-energy) (Guest)
Bis (Guest)
Charlie Kircher (Guest)
Luke McSweeney (Guest)
Sircar, Madhumita
Caroline - Oklo (Guest)
Orders, William
Sweeney (Guest)
Milton Gorden (Guest)
Luke McSweeney (Guest)
Staci Wheeler

\* Attendance list based on Microsoft Teams Participant list. List does not include 22 individuals that connected via phone.