



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

April 8, 2022

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

FROM: Samantha Lav, 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 blue ink, appearing to read "S. Lav".

Signed by Lav, Samantha  
on 04/08/22

SUBJECT: SUMMARY OF MARCH 23, 2022, PUBLIC MEETING TO DISCUSS  
THE U.S. NUCLEAR REGULATORY COMMISSION'S DEVELOPMENT  
OF A REGULATORY FRAMEWORK FOR THE POSSIBLE  
COMMERCIAL DEPLOYMENT OF FUSION ENERGY SYSTEMS

On March 23, 2022, the U.S. Nuclear Regulatory Commission (NRC) staff held a Comment Gathering public meeting with stakeholders, to discuss the NRC's development of a regulatory framework for the possible commercial deployment of fusion energy systems. The meeting notice is available in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. [ML22081A146](#), and the presentation slides are available at ADAMS Accession No. [ML22081A057](#). The Enclosure to this summary provides the attendees for the meeting as captured by Microsoft Teams.

#### Meeting Highlights

- The NRC staff informed attendees that the purpose of the meeting was to gather insights to inform the development of a notation vote paper on the regulation of commercial fusion energy systems that will be provided to the Commission by Fall 2022.
- A total of four presentations were scheduled for the meeting. These presentations covered a methodology for identifying and characterizing fusion hazards, an overview of the operational and off-normal safety case for various fusion device designs, an overview of tritium handling systems, the Commonwealth Fusion Systems' path to commercialization, and a supplemental discussion of the Helion Energy device safety case.
- As part of the NRC discussions, the NRC staff reaffirmed and emphasized to stakeholders that while there are three options currently being considered by the NRC staff for the regulation and licensing of commercial fusion systems, no decision has been made yet on a proposed regulatory framework for fusion. The NRC also clarified that fusion-related research and development can be performed now under NRC or Agreement State licenses using the existing byproduct material framework.

- The meeting was well attended with over 134 participants. Questions and comments from stakeholders included:
  - The differences between fusion and fission,
  - The similarities between fusion energy systems and particle accelerators,
  - The potential use of a byproduct material approach to regulating commercial fusion energy systems,
  - The type and magnitude of potential hazards associated with commercial fusion energy systems and the assumptions used in calculating potential offsite consequences, and
  - Design and Construction codes for fusion.
  
- There were no significant or major actions for NRC staff as a result of the meeting. The NRC staff stated that the next public meeting is tentatively scheduled for the April or May 2022 timeframe.

Enclosure:  
Attendance List

SUBJECT: SUMMARY OF MARCH 23, 2022, PUBLIC MEETING TO DISCUSS THE U.S. NUCLEAR REGULATORY COMMISSION'S DEVELOPMENT OF A REGULATORY FRAMEWORK FOR THE POSSIBLE COMMERCIAL DEPLOYMENT OF FUSION ENERGY SYSTEMS DATED: APRIL 8, 2022

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OFFICE	NRR/DANU/UARP/PM	NRR/DANU/UARP/BC (A)
NAME	SLav	SLynch
DATE	03/30/2022	04/08/2022

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March 23, 2022, Public Meeting to Discuss the NRC's Development of a  
Regulatory Framework for the Possible Commercial Deployment of Fusion Energy Systems  
Attendance List\*

<b>Name</b>	<b>Affiliation</b>	<b>Name</b>	<b>Affiliation</b>
Betancourt, Luis	NRC	Hsu, Scott C	ARPA-E
Costa, Arlon	NRC	Landry, Scott	California Department of Public Health
Cubbage, Amy	NRC	Tyler Ellis	Commonwealth Fusion Systems
Dimmick, Lisa	NRC	Derek Sutherland	CT Fusion
Esmaili, Hossein	NRC	Clark, Daniel	Department of Energy
Gaskins, Farrah	NRC	Myhre, Kristian	Department of Energy
Harris, Brian	NRC	Nardella, Gene	Department of Energy
Hull, Amy	NRC	Paul Humrickhouse	Department of Energy
Lav, Samantha Crane	NRC	Shaw, Guinevere	Department of Energy
Lynch, Steven	NRC	Jane Hotchkiss	Energy for the Common Good
Malik, Shah	NRC	Andrew Holland (Guest)	Fusion Industry Association
Miller, Ed	NRC	David Kirtley	Helion Energy
Mott, Kenneth	NRC	Michael Hua	Helion Energy
Nakanishi, Tony	NRC	Sachin Desai	Helion Energy
Oberson, Greg	NRC	Mudrewicz, Szymon	Massachusetts Department of Public Health
Palmrose, Donald	NRC	Patrick White	Nuclear Innovation Alliance
Reckley, William	NRC	Fowler, Sidney L.	Pillsbury Winthrop Shaw Pittman LLP
Reed, Beth	NRC	Merrifield, Jeffrey S.	Pillsbury Winthrop Shaw Pittman LLP
Sebrosky, Joseph	NRC	Dale Meade	Princeton University
Sosa, Belkys	NRC	B. Chisholm	Southern Company
Spencer, Michael	NRC	Marzano, Matthew	U.S. Senate Committee on Environment and Public Works
Staudenmeier, Joseph	NRC	Clayton Cox	University of Rochester
Tharakan, Binesh	NRC	Tim Bohm	University of Wisconsin

Enclosure

<b>Name</b>	<b>Affiliation</b>	<b>Name</b>	<b>Affiliation</b>
Tomon, John	NRC	Diego Saenz	Wisconsin Department of Health Services
Walker, Shakur	NRC	Saenz, Diego S - DHS	Wisconsin Department of Health Services
White, Duncan	NRC	Shober, Megan L	Wisconsin Department of Health Services
Aaron Khandros		O'Neill, Mike L.	
Alan Masinter		Osteen, Rebecca Diane	
Albright, James		Patrick Sagisi	
Alexis Rustam Devitre		Philip H Lippel	
Allan Offenberger		R. David Edelman	
Ann Weeks		Randall Volberg	
Axel Meisen		Robin Langtry	
Ball Justin Richard		Ronald Lippy	
Ben Byboth		Ryan Crihfield	
Burg, Rob		Schultheisz, Daniel	
Cameron D. Tarry		Steve Seeger	
Colling, Bethany		Steven Pope	
DI PACE, Luigi		Stuart Belva	
Fishman, Stephanie B.		Susan Gallier	
Forbes, Sally		THOMAS, CLIFF	
Harris, Robert C.		Valerie Roberts	
Humrickhouse, Paul		VIRGILI, Nicole	
Huning, Alex		Vogan, Thomas J	
Jennifer Ganten		Williams, Laurence G	
Jennings, Robert		Zachary Johnson	
Jessie Barton			
Jim C. Kinsey			
Jonathan Musgrove			
Mason YU			
Matthew Torrico			

\* Attendance list based on Microsoft Teams Participant list. Phone numbers of participants who participated by phone are not included.