

UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

November 9, 2021

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: Juan F. Uribe, 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 SEPTEMBER 16, 2021, PUBLIC MEETING TO

DISCUSS THE U.S. NUCLEAR REGULATORY COMMISSION'S DEVELOPMENT OF A REGULATORY FRAMEWORK FOR THE POSSIBLE COMMERCIAL DEPLOYMENT OF FUSION ENERGY

Signed by Uribe, Juan

on 11/09/21

SYSTEMS

On September 16, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff held a comment-gathering meeting public meeting with stakeholders to discuss the NRC's development of a regulatory framework for the 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. ML21250A190, and the presentation slides are available at ADAMS Accession No. ML21258A320. Due to technical difficulties, the attendees for the meeting (as captured by Microsoft Teams) were not available.

Meeting Highlights

- The NRC staff informed presenters and attendees that the meeting was being recorded. The purpose of the recording was to take advantage of the virtual environment tools available, and have the recording available on the NRC's fusion public website for future use. The NRC's fusion public website can be accessed by going to: https://www.nrc.gov/reactors/new-reactors/advanced/fusion-energy.html
- A total of seven presentations were made during the September 16, 2021, meeting. The first portion (six presentations) of the meeting focused on the United Kingdom's (UK's) efforts to develop a regulatory and licensing framework for commercial fusion systems. The second portion (one presentation) focused on the NRC staff providing a status update of recent activities related to fusion, and providing insights into decision-making criteria that would serve as the basis for a scalable, or graded approach.

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- 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 regulatory and licensing of commercial fusion systems, no decision has been made yet on a proposed regulatory framework for fusion. The NRC staff is even considering the option of providing a SECY paper to the Commission without a recommendation.
- As part of the NRC discussions to ensure openness and transparency, the NRC staff shared insights into the NRC's thought-process, which included a series of concepts and questions that the NRC staff is looking to address. The NRC staff clarified that while the NRC was sharing those insights publicly, the NRC was not seeking formal responses by stakeholders to the questions being shared. This clarification was done as a result of limitations from the Paperwork Reduction Act.
- The meeting was well attended with over 150 participants. Questions and comments from stakeholders included:
 - An appreciation of the importance of having a technically sound regulatory framework for fusion systems.
 - An understanding of the initial insights into siting criteria for commercial fusion systems in the UK.
 - An understanding of the development of information that accurately describes the risk hazards from Fusion systems.
 - An understanding of the advantages and challenges regarding international harmonization efforts for the advancement of technical and regulatory efforts to license a commercial fusion system.
- 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 late October or early November timeframe.

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