



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

October 6, 2023

ALL AGREEMENT STATES
CONNECTICUT, INDIANA, WEST VIRGINIA

NOTIFICATION OF UPCOMING PUBLIC MEETINGS TO PROVIDE AN UPDATE ON THE
REGULATORY FRAMEWORK FOR FUSION SYSTEMS RULEMAKING (STC-23-070)

Purpose: To provide notice that the U.S. Nuclear Regulatory Commission (NRC) will conduct a series of three public meetings to share staff's progress on the preliminary proposed rule language, preliminary draft guidance (NUREG-1556, Volume 22), and specific topics of the proposed rule that would form the regulatory framework for fusion systems (formerly fusion energy systems) under Part 30 of Title 10 of the *Code of Federal Regulation* (10 CFR), "Rule of General Applicability to Domestic Licensing of Byproduct Material."

Background: In 2019, through the Nuclear Energy Innovation and Modernization Act (NEIMA; Public Law 115-439), Congress directed the NRC to develop the regulatory infrastructure to support the development and commercialization of advanced nuclear reactors, including both nuclear fission reactors and fusion reactors. Section 103(a)(4) of NEIMA requires the NRC to "complete a rulemaking to establish a technology-inclusive, regulatory framework for optional use by commercial advanced nuclear reactor applicants" by December 31, 2027. The development of a regulatory framework is intended to provide clarity and predictability for developers of fusion technologies. In response to NEIMA and the continued development of fusion technologies, the Commission directed the NRC staff in 2020 to "consider appropriate treatment of fusion reactor designs in our regulatory structure by developing options for Commission consideration on licensing and regulating fusion energy systems." In its response to this Commission direction, dated November 2, 2020 (ML20288A251), the NRC staff stated that it would assess the potential risks posed by fusion technologies and possible regulatory approaches separate from the ongoing rulemaking for advanced nuclear fission reactors that would create 10 CFR Part 53, "Risk-Informed, Technology-Inclusive Regulatory Frameworks for Commercial Nuclear Plants."

On January 3, 2023, staff submitted SECY-23-0001, "Options for Licensing and Regulating Fusion Energy Systems," to the Commission with a rulemaking plan enclosed (ML22273A178) detailing options for licensing and regulating fusion energy systems.

On April 13, 2023, the Commission issued SRM-SECY-23-0001, "Options for Licensing and Regulating Fusion Energy Systems" (ML23103A449) approving the staff's Option 2 to license and regulate fusion energy systems under the NRC's byproduct material framework contained in 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," and associated regulations. Under the limited-scope rulemaking approved under Option 2, the Commission directed staff to take into account the existence of fusion systems that already have been licensed and are being regulated by the Agreement States, as well as those that may be licensed prior to the completion of the rulemaking. The NRC will develop a new volume of NUREG-1556, "Consolidated Guidance About Materials Licenses," dedicated to fusion energy systems, so as to provide consistent guidance across the National Materials Program. On July 17, 2023, the NRC issued STC-23-053, "Notification of Proposed Rulemaking: Regulatory Framework for Fusion Energy Systems," in which the NRC offered consultation to all federally recognized Tribes.

Discussion: The NRC staff will hold a series of three online public meetings to share the staff's progress on the preliminary proposed rule language, preliminary draft guidance (NUREG-1556, Volume 22), and specific topics of the proposed rule that would form the regulatory framework under 10 CFR Part 30 for fusion systems. The staff encourages feedback from all stakeholders during these meetings. The meetings will be held virtually on October 11, 2023, from 1:00 PM to 3:00 PM ET, November 1, 2023, from 1:00 PM to 4:00 PM ET, and November 9, 2023, from 1:30 PM to 3:30 PM ET. Specific details about the meetings, including how to join by webinar or phone, can be found on the NRC's public meeting webpage at <https://www.nrc.gov/pmns/mtg>.

If you have questions regarding this communication, please contact Dennis Andrukat, Rulemaking Project Manager, Division of Rulemaking, at (301) 415-3561, or by e-mail at Dennis.Andrukat@nrc.gov.

Sincerely,



Signed by Giantelli, Adelaide
on 10/06/23

Adelaide Giantelli, Chief
State Agreement Liaison Programs Branch
Division of Materials Safety, Security, State,
and Tribal Programs
Office of Nuclear Material Safety
and Safeguards

STC-23-070 Notification of Public Meetings on the Proposed Rulemaking for a Regulatory Framework for Fusion Systems DATE October 6, 2023

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DAndrukat, NMSS/REFS/RRPB

DBearde, NMSS/REFS/MRPB

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OFFICE	NMSS/REFS/MRPB	NMSS/MSST/SMPB		
NAME	CKenny	CKAGiantelli	AG	
DATE	Oct 3, 2023	Oct 6, 2023		

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