

AGENDA

Title: BRIEFING ON REGULATORY APPROACHES FOR FUSION ENERGY DEVICES (PUBLIC MEETING)

Purpose: To update the Commission on the development of regulatory approaches for fusion energy devices and industry progress in commercializing fusion energy devices.

Scheduled: November 8, 2022
9:00am

Duration: Approximately 3.5 hours

Location: Commissioners' Conference Room, 1st floor OWFN

External Panel **49 mins.***

Dr. Kathryn McCarthy, Associate Laboratory Director for Fusion and Fission Energy and Science, Oak Ridge National Laboratory (ORNL) 7 mins.

Topic:

- ORNL activities to support commercial fusion

Dr. Richard Hawryluk, Senior Technical Advisor, Office of Science, U.S. Department of Energy (DOE) 7 mins.

Topic:

- DOE's vision for commercial fusion energy

Edward Lewis-Smith, Head of Domestic Fusion Policy and Programmes UK Government Department of Business, Energy and Industrial Strategy 7 mins.

Topic:

- The United Kingdom's approach to fusion regulation

Megan Shober, Nuclear Safety Specialist, Wisconsin Division of Public Health 7 mins.

Topic:

- Agreement State experience with licensing and oversight of fusion research and development activities

Sachin Desai, General Counsel, Helion Energy 7 mins.

Topic:

- Fusion industry perspective on appropriate regulatory framework

Dr. Bob Mumgaard, Chief Executive Officer,
Commonwealth Fusion Systems (CFS) 7 mins.

Topics:

- CFS progress towards development of a fusion power plant
- Regulatory experience constructing the Affordable, Robust, Compact (ARC) fusion reactor

Dr. Seth Hoedl, President, Post Road Foundation 7 mins.

Topic:

- Engaging communities on health, safety, and environmental risks of fusion

Commission Q & A 50 mins.

Break 5 mins.

Staff Panel 45 mins.*

Catherine Haney, Deputy Executive Director for Materials, Waste, Research, State, Tribal, Compliance, Administration, and Human Capital Programs

Topic:

- Opening remarks on the NRC's fusion efforts

Andrea Veil, Director, Office of Nuclear Reactor Regulation

Topics:

- Nuclear Energy Innovation and Modernization Act direction to develop a regulatory framework for fusion energy systems
- Background on the regulation of fusion energy systems in the United States

Duncan White, Senior Health Physicist, Division of Materials Safety, Security, State, and Tribal Programs; Office of Nuclear Material Safety and Safeguards

Topics:

- Similarities and differences between fusion devices, accelerators, and fission reactors
- Fusion energy system risks and hazard considerations

Andrew Proffitt, Project Manager, Division of Advanced Reactors and Non-Power Production and Utilization Facilities, Office of Nuclear Reactor Regulation

Topic:

- Options for regulating commercial fusion energy systems, including NRC stakeholder engagement during development

Dr. Joseph Staudenmeier, Senior Reactor Systems Engineer,
Division of Systems Analysis, Office of Nuclear Regulatory Research

Topics:

- Current and planned NRC research activities on fusion
- Development of NRC capabilities to license and regulate commercial fusion energy systems

Commission Q & A

50 mins.

Discussion – Wrap-Up

5 mins.

*For presentation only and does not include time for Commission Q & A