



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

September 21, 2022

CHAIRMAN

Tyler Ellis, PhD
Commonwealth Fusion Systems
148 Sidney Street
Cambridge, MA 02139

Dear Dr. Ellis:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your August 16, 2022, letter regarding the NRC's development of a regulatory framework for commercial fusion energy devices. We appreciate your recognition of the NRC staff's efforts to evaluate how best to approach regulation of nuclear fusion devices.

The NRC staff is currently preparing regulatory framework options for Commission consideration and is on schedule to provide a recommendation to the Commission this fall. The NRC staff has had substantial stakeholder engagement to inform its work, including the following:

- six NRC public meetings held from January 2021 through June 2022,
- a joint public workshop sponsored by the NRC, U.S. Department of Energy (DOE), and the Fusion Industry Association,
- NRC staff participation in the White House summit, "Developing a Bold Decadal Vision for Commercial Fusion Energy," and the follow-on DOE workshop,
- international engagement through bilateral government-to-government interactions and International Atomic Energy Agency activities, and
- coordination with the Organization of Agreement States and the inclusion of Agreement State representatives on the NRC's fusion working group.

From these activities, the NRC staff gathered information on proposed designs and potential risks associated with fusion energy devices. Consistent with the Nuclear Energy Innovation and Modernization Act, the staff is evaluating the NRC's existing regulatory framework and using the information from stakeholder engagement to inform possible regulatory approaches commensurate with anticipated technologies and associated risk.

The Commission plans to conduct a public Commission meeting later this year to discuss the NRC staff's work and hear from the NRC staff and external stakeholders. This interaction will further inform our deliberations on the NRC staff's forthcoming recommendation for establishing a risk-informed, performance-based regulatory framework for commercial fusion energy devices to be in place before the end of 2027.

Thank you for your continued interest in this topic. If you have any questions or need additional information, please contact Steven Lynch, Chief of the Advanced Reactors Policy Branch, at (301) 415-1524 or by sending an email to steven.lynch@nrc.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "C. T. Hanson". The signature is fluid and cursive, with a large initial "C" and a distinct "T" and "H".

Christopher T. Hanson