



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

CHAIRMAN

September 21, 2022

The Honorable Thomas R. Carper  
Chairman, Committee on Environment  
and Public Works  
United States Senate  
Washington, DC 20510

Dear Mr. Chairman:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your August 18, 2022, letter regarding the NRC's efforts to develop a risk-informed, technology-neutral regulatory framework necessary to be ready for the development and deployment of commercial fusion energy devices. We appreciate your recognition of the NRC staff's considerable 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. As noted in your letter, the NRC staff has had substantial stakeholder engagement to inform its work, including the following:

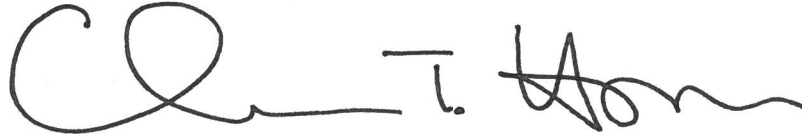
- six NRC public meetings held from January 2021 through June 2022;
- a joint public workshop sponsored by the NRC, U.S. Department of Energy (DOE), and the Fusion Industry Association;
- NRC staff participation in the White House summit, "Developing a Bold Decadal Vision for Commercial Fusion Energy," 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 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 consideration of 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.

If you have any questions or need additional information, please contact me or have your staff contact Eugene Dacus, Director of the Office of Congressional Affairs, at (301) 415-1776.

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

Identical letter sent to:

The Honorable Thomas R. Carper  
Chairman, Committee on Environment  
and Public Works  
United States Senate  
Washington, DC 20510

The Honorable Shelley Moore Capito  
Ranking Member, Committee on Environment  
and Public Works  
United States Senate  
Washington, DC 20510