



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

September 28, 2022

Sachin Desai  
General Counsel  
Helion Energy  
1415 75th St SW  
Everett, WA 98203

Dear Mr. Desai:

On behalf of the U.S. Nuclear Regulatory Commission (NRC), I am responding to your August 12, 2022, letter on the classification of fusion devices as particle accelerators and supplementing common defense & security discussions. We appreciate your recognition of the strong work 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 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 their 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.

Thank you for your continued interest in this topic. If you have any questions or need additional information, please contact me at (301) 415-1524 or by e-mail to [steven.lynch@nrc.gov](mailto:steven.lynch@nrc.gov).

Sincerely,



Signed by Lynch, Steven  
on 09/28/22

Steven T. Lynch, Branch Chief  
Advanced Reactor Policy Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

SUBJECT: RESPONSE TO SACHIN DESAI OF HELION ENERGY ON CLASSIFICATION OF FUSION DEVICES AS PARTICLE ACCELERATORS; AND SUPPLEMENTING COMMON DEFENSE AND SECURITY DISCUSSIONS DATED SEPTEMBER 28, 2022

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