

POLICY ISSUE
NOTATION VOTE

RESPONSE SHEET

TO: Brooke P. Clark, Secretary
FROM: Chair Hanson
SUBJECT: SECY-23-0001: Options for Licensing and Regulating Fusion Energy Systems

Approved X Disapproved X Abstain Not Participating

COMMENTS: Below Attached X None

Entered in STAR

Yes X

No

Signature

Christopher T. Hanson

Date **03/31/2023**

Chair Hanson's comments on
SECY-23-0001, Options for Licensing and Regulating Fusion Energy Systems

I thank the staff for preparing a thoughtful paper proposing options to regulate fusion energy systems. The staff's paper is the culmination of extensive public stakeholder outreach and feedback, as well as consultation and coordination with the Advisory Committee on Reactor Safeguards and the Agreement States. In this paper, staff assessed the potential risks posed by near-term fusion designs and identified three regulatory pathways to ensure adequate protection of the public health and safety for Commission consideration: use of the utilization facility framework, a byproduct material approach, or a hybrid option that utilizes decision criteria for regulating fusion energy systems based on anticipated hazards.

There are dozens of developers racing toward pilot scale commercial fusion. While the precise future of fusion energy in the United States is uncertain, it is incumbent on the agency to provide as much regulatory certainty as possible given what we know today.

I believe the licensing of near-term fusion energy systems under a byproduct material framework provides for a technology-neutral, scalable regulatory approach protective of public health and safety that can cover a spectrum of hazards and risks. Therefore, I approve Option 2 proposed by the staff. This pathway will provide a framework that can accommodate foreseeable fusion technologies in time for likely application submittals. Option 2 also provides jurisdictional certainty for the Agreement States to regulate near-term fusion energy systems.

As the staff notes, questions may remain as to NRC and State regulatory authority over certain fusion energy systems that only generate radioactive material incidental to the production of energy. I approve the staff's proposal to undertake a separate assessment and provide a recommendation to the Commission if the staff determines legislative changes relating to jurisdiction over these types of fusion energy systems is worth pursuing.