

**POLICY ISSUE**  
**NOTATION VOTE**

**RESPONSE SHEET**

**TO:** Annette Vietti-Cook, Secretary  
**FROM:** Commissioner Hanson  
**SUBJECT:** SECY-20-0032: RULEMAKING PLAN ON “RISK-  
INFORMED, TECHNOLOGY-INCLUSIVE  
REGULATORY FRAMEWORK FOR ADVANCED  
REACTORS (RIN-3150-AK31; NRC-2019-0062)”

Approved  Disapproved  Abstain  Not Participating

COMMENTS: Below  Attached  None

**Entered in STARS**

Yes

No

\_\_\_\_\_  
Signature

September 3, 2020

\_\_\_\_\_  
Date

**Commissioner Hanson's Comments on SECY-20-0032: Rulemaking Plan on  
"Risk-Informed, Technology-Inclusive Regulatory Framework for Advanced Reactors  
(RIN-3150-AK31; NRC-2019-0062)**

I thank the staff for initiating this rulemaking to establish regulations pertaining to the licensing of advanced reactors. This activity will support the development of a risk-informed, technology-inclusive regulatory framework for advanced reactors by 2027. I approve the staff's proposed rulemaking plan with the exception of using an advanced notice of proposed rulemaking (ANPR), which I disapprove. I find use of an ANPR in this case to be unnecessary, since the regulatory basis for this rulemaking is well-established by NEIMA and years of staff efforts.

We have a unique opportunity to start from a clean slate to develop a coherent regulatory framework. While I encourage the staff to move forward with a sense of urgency, speed should not take priority over a thoughtful rulemaking. This rulemaking will need to address the potential for a variety of different technologies and assure that associated safety considerations are appropriately identified and analyzed. Further, every new technology and associated review will generate new insights regarding advanced reactor licensing. I therefore expect the staff to methodically inform this rulemaking with lessons learned from early advanced reactor reviews. It is also crucial to gain sufficient external input on the approach and content of the rule, and to that end, I agree with the staff's plan to hold extensive interactions with our stakeholders.

In recent years, the staff has made significant progress in developing advanced reactor regulatory guidance in key areas, including the principal design criteria for non-light-water reactors, the functional containment performance criteria, a risk-informed performance-based licensing approach, emergency preparedness for small modular reactors and other new technologies, and population-related siting. Given the potential breadth of advanced reactor designs this rulemaking will need to consider, the staff may need to develop requirements at a high level and utilize guidance documents to address details and technology-specific considerations. Continued resolution of key technical and policy issues associated with advanced reactors will provide the foundation for the agency's regulatory framework. I encourage the staff to continue to work with stakeholders to proactively identify and develop necessary regulatory guidance and technical bases.

Finally, I want to make a note on fusion reactors, as there may be a need for the NRC to consider fusion reactor designs in the foreseeable future. With fusion using a fundamentally different atomic process and presenting a completely different risk profile, we need to consider the appropriate treatment of fusion reactor designs in our regulatory structure. Fusion designs do not use any special nuclear material or source material. Furthermore, major fission reactor concerns such as criticality accidents and loss of decay heat removal are not concerns for fusion designs. To that end, I ask the staff to develop options for Commission consideration on licensing and regulating fusion energy systems. Specifically, I would like the staff to consider existing frameworks, such as the regulatory structure in Parts 20 and 30.

I commend the staff for the progress already made with its development of the advanced reactor regulatory framework. I look forward to the progress that will be made with this rulemaking to develop and codify advanced reactor requirements that further the agency's mission to provide reasonable assurance of adequate protection of the public health and safety and common defense and security.