

POLICY ISSUE
NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Hanson

SUBJECT: SECY-20-0020: Results of Exploratory Process for
Developing a Generic Environmental Impact
Statement for the Construction and Operation of
Advanced Nuclear Reactors

Approved x Disapproved Abstain Not Participating

COMMENTS: Below Attached x None

Entered in STARS

Yes x
No

Signature
August 28, 2020

Date

Commissioner Hanson's Comments on "SECY-20-0020: Results of Exploratory Process for Developing a Generic Environmental Impact Statement for the Construction and Operation of Advanced Nuclear Reactors"

I approve the staff's proposed approach under Option 2, to develop a generic environmental impact statement (GEIS) for the construction and operation of "small-scale" advanced nuclear reactors (ANRs) using a technology-neutral, plant parameter envelope (PPE) approach. This is a first of a kind GEIS and I appreciate the staff's efforts to identify creative alternatives and engage relevant stakeholders.

While I approve the staff's initiating the GEIS, I question the efficiencies to be gained here, and so I urge the staff to be openminded and refine its assumptions as it continues to develop the GEIS. A GEIS is most effective when analyzing technologies and sites that have enough in common to be considered generically. The universe of ANR technologies and their potential sites is wide and varied, such that the common ground that can be analyzed generically may be too small for a useful GEIS. Nonetheless, I do not want to stop the staff's process at this stage because I can also see potential benefits.

On April 30, 2020, after SECY-20-0020 was provided to the Commission, the staff announced its intent to conduct a scoping process and prepare the ANR GEIS (85 FR 24040). For the purposes of the ANR GEIS, the staff stated in SECY-20-0020 that it considers a "small-scale" ANR as having the potential to generate up to approximately 30 megawatts thermal (MWt) per reactor with a correspondingly small environmental footprint. In the federal register notice announcing the scoping process the staff indicated that the actual bounding thermal power level of the ANR and the environmental footprint used in the ANR GEIS are topics to be determined during the scoping process. I agree that it is best to determine the appropriate bounding thermal level as part of the scoping process rather than assume it should be 30 MWt. The scoping comment period closed on June 30, 2020. The staff is currently addressing public comments and establishing the scope of the ANR GEIS.

In establishing the scope of the ANR GEIS, to the extent possible, the staff should continue to consider a PPE that is inclusive of as many ANR technologies as possible. I understand this will be a challenging task, and it is possible that expanding the assumptions in the PPE could limit the resource areas that can be dispositioned generically. The staff's initial assessment, based on a power level of up to 30MWt, indicated that up to six resource areas may be resolved generically in the ANR GEIS. However, if the assumptions in the PPE are expanded and a different thermal power is used in the ANR GEIS, it is possible that fewer resources can be addressed generically. Also, if an applicant proposes a facility that does not meet all the assumptions within the PPE, the licensee may not be able to rely on the GEIS for the covered resource areas, and additional site-specific analysis would be needed. Because of these uncertainties, the cost and time savings presented in SECY-20-0020 might not be realized.

Therefore, the staff should inform the Commission of the outcome of the scoping process. In doing so, the staff should provide a discussion of the number of resource areas the staff expects to disposition generically and for which types of reactor technologies (e.g. microreactors, liquid-metal-cooled fast reactors, molten-salt reactors). The discussion should also address cost and schedule implications for the different ANR technologies. Alternatively, if after the scoping process the staff determines that the development of the GEIS is no longer viable or practicable, the staff should notify the Commission.

I agree with Commissioner Wright that the staff should prioritize any site-specific National Environmental Policy Act (NEPA) reviews for advanced reactors over efforts to develop an ANR GEIS. Experience gained with site-specific reviews will help inform the ANR GEIS development.

I agree with the staff that a rulemaking to codify the GEIS in 10 CFR Part 51 is currently not necessary. If in the future, after gaining some experience with ANR applications, the staff believes rulemaking could be beneficial, the staff should request Commission approval.