POLICY ISSUE
NOTATION VOTE

RESPONSE SHEET

TO: Annette Vietti-Cook, Secretary

FROM: Commissioner Baran

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 ____ **Disapproved** X **Abstain** ____ **Not Participating** ____

COMMENTS: **Below** ____ **Attached** X **None** ____

Entered in "STARS"
Yes X
No ____

Jeffery M. Baran
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Date: 2020.09.03 16:47:23 -04'00'

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9/3/20

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Commissioner Baran'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"

It is important for NRC to conduct thorough and efficient National Environmental Policy Act (NEPA) reviews for advanced reactor applications. I am not convinced that a Generic Environmental Impact Statement (GEIS) for advanced reactors is the way to achieve that goal for two primary reasons.

First, it is not clear that a GEIS would be very useful. An effective GEIS requires commonality among the projects to which it would be applied. But the numerous, diverse advanced reactor concepts being developed do not have much in common with each other. Because of the significant variation in advanced reactor technologies, designs, and sizes, there is only a narrow set of resource categories that could potentially be considered generically, such as land use and water resource impacts. Several major areas of environmental analysis that are often quite involved, including design basis accidents, severe accident mitigation alternatives, and fuel cycle impacts, could not be addressed by a GEIS at this time. The resource categories that could be considered generically will require multiple assumptions that may not be met for particular applications. Applications that cannot meet the specified criteria would not be able to rely on the GEIS analysis. For example, the treatment of land use impacts in the GEIS would almost certainly assume that the site of a proposed reactor is on previously disturbed land rather than in an old growth forest, on a wetland, or on prime agricultural land. Of course, if the GEIS section on land use impacts can only be used for reactors situated on a small number of already disturbed acres, it would not be terribly useful since a site-specific environmental analysis would be relatively straightforward under those circumstances.

Second, the GEIS approach outlined by the staff risks turning the NEPA environmental review into a check-the-box exercise of limited value rather than a meaningful evaluation of environmental impacts. NRC cannot conduct a credible environmental review of a hypothetical reactor of unknown size and unknown design using unknown fuel with unknown accident scenarios and unknown safety features at an unknown site. It is hard to see that kind of environmental review being useful to decision-makers or the public. As a result, the proposed GEIS approach would not meet the basic purposes of NEPA.

For these reasons, I disapprove proceeding with an advanced reactor GEIS. In my view, a better approach would be to tier off Environmental Impact Statements (EISs) as they are prepared for individual projects. Once meaningful environmental reviews are conducted for one or more reactors with established designs and sizes, future applicants and the NRC staff could reference sections of a completed EIS that are applicable to subsequent reactor submittals. For example, large portions of an EIS for the first reactor of a particular design would surely be applicable to additional reactors of that design. Likewise, portions of an EIS for a reactor of a certain size most likely could be referenced in EISs for later, similarly sized reactors. This approach would be efficient while avoiding extremely broad plant parameter envelopes that cannot analyze the actual attributes of individual reactor projects.

I also do not support a rulemaking to codify the results of an advanced reactor GEIS, if one were prepared. Such a rulemaking would expend agency resources that would be better used to further develop the advanced reactor safety framework and to review specific applications. Moreover, with so many first-of-a-kind advanced reactor technologies being considered, locking environmental findings into regulation will reduce flexibility and require additional rulemakings to make any necessary changes. Ultimately, the only purpose of a

rulemaking to codify the findings of a GEIS is to “limit the potential issues that could be permissibly raised during the hearing process on advanced reactor applications.” We should not be intentionally erecting procedural hurdles for interested stakeholders to raise concerns about the completeness or accuracy of aspects of an NRC environmental review. That sort of “efficiency” is not in the public interest.