

**From:** Willingham, Laura  
**Sent:** Wednesday, April 1, 2020 5:07 PM  
**To:** Rountree, Marthea; Cushing, Jack  
**Cc:** Erwin, Kenneth  
**Subject:** RE: RE: NRC Preparing an Advance Nuclear Reactor Generic Environmental Impact Statement (GEIS)

Hi Marthea!  
The goal is to have the draft published around May 1, 2021.  
Thanks!

*Laura M. Willingham*  
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**From:** Rountree, Marthea <Rountree.Marthea@epa.gov>  
**Sent:** Wednesday, April 1, 2020 3:18 PM  
**To:** Cushing, Jack <Jack.Cushing@nrc.gov>  
**Cc:** Willingham, Laura <laura.willingham@nrc.gov>; Erwin, Kenneth <Kenneth.Erwin@nrc.gov>  
**Subject:** [External\_Sender] RE: NRC Preparing an Advance Nuclear Reactor Generic Environmental Impact Statement (GEIS)

Thanks Jack,

It is good to hear from you. What timeframe are you looking at for a draft?

Stay Safe!!

MR

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**From:** Cushing, Jack <[Jack.Cushing@nrc.gov](mailto:Jack.Cushing@nrc.gov)>  
**Sent:** Wednesday, April 1, 2020 1:45 PM

**To:** Rountree, Marthea <[Rountree.Marthea@epa.gov](mailto:Rountree.Marthea@epa.gov)>

**Cc:** Willingham, Laura <[laura.willingham@nrc.gov](mailto:laura.willingham@nrc.gov)>; Erwin, Kenneth <[Kenneth.Erwin@nrc.gov](mailto:Kenneth.Erwin@nrc.gov)>

**Subject:** NRC Preparing an Advance Nuclear Reactor Generic Environmental Impact Statement (GEIS)

Marthea

I want to inform you that the NRC is preparing an advance nuclear reactor generic environmental impact statement ( ANR GEIS) for small scale reactors. The staff conducted an exploratory process to determine if a GEIS for advanced reactors would be effective. Attached is the Commission paper 20-0020 that informed the Commission of the staff's approach.

An ANR GEIS would streamline the environmental review process for advanced nuclear reactor environmental reviews. The ANR GEIS would also determine which environmental impacts would result in essentially the same (generic) impact for various types of advanced nuclear power plants and which ones could result in different levels of environmental impacts requiring a plant-specific analysis. Environmental reviews for advanced nuclear reactor licenses would incorporate the ANR GEIS by reference and provide site-specific information in a supplemental EIS, thereby streamlining the environmental review process. In SECY-20-0020 (ADAMS Accession No. ML20052D175), the staff informed the Commission that the staff plans to use a technology-neutral plant parameter envelope (PPE) approach to bound small-scale ANR projects. For the purposes of the GEIS, the staff 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. The actual bounding thermal power level of the ANR and the environmental footprint used in the GEIS are topics to be determined during the scoping process for the ANR GEIS.

Because the small-scale advanced reactors could be any type of design and could be sited anywhere in the United States that meets NRC siting requirements, the NRC decided to pursue a technology neutral approach using a PPE will consist of a table of bounding values or parameters for different types of reactors located on a site. In addition, a table of site parameters envelope (SPE) (e.g., size of site, quantity of water used, demographics) will be developed to describe the affected environment. The GEIS will evaluate the impacts of reactor that fits within the bounds of the PPE on a site that fits within the bounds of the SPE to determine the environmental impact.

Each resource, (e.g., ecology, socioeconomics, accidents, historic and cultural, air and water quality) will determine if that resource has generic impacts or require site specific evaluation in the supplement environmental impact statement (SEIS). When an application is received for a small-scale ANR the NRC will issue a site specific SEIS. If impacts to the resource was resolved generically in the GEIS then the NRC will determine if the project is bounded by the PPE and SPE and there is no significant new information, then the NRC will incorporate by reference the GEIS and no further analysis is needed for that resource. If impacts to the resource cannot be resolved generically then the site specific SEIS will evaluate the impacts to the resource.

Construction and operation of a small scale ANR requires an application and a site specific SEIS. Any consultation under Section 106 of the National Historic Preservation Act or under Section 7 of the Endangered Species Act will be conducted when an application is received, not as part of the ANR GEIS.

If you have any questions you can call me at 240-423-0704.

Jack Cushing

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