

**From:** Haans Petruschke <haans42@gmail.com>  
**Sent:** Tuesday, June 30, 2020 12:28 PM  
**To:** AdvancedReactors-GEIS Resource  
**Subject:** [External\_Sender] Small scale reactors generic environmental impact and license

Dear Commissioners and Staff,

The time has long past for generic environmental impact statements and licencing of standardized reactor designs, especially small scale reactors. Even light water reactors have an excellent safety record in spite of their inherent difficulties and especially given the one off approach to their design in most of the US fleet. Small standardized designs using advanced technology will only improve on this. (boilerplate follows)

I am writing in support of the U.S. Nuclear Regulatory Commission's proposal to produce a generic environmental impact statement (GEIS) for small-scale advanced nuclear reactors. This action directly supports the NRC's primary mission to protect the public health and safety, by ensuring that clean, emission-free power plants can be effectively evaluated and brought online. There are several reasons supporting this effort, including:

- 1) NRC has decades of experience evaluating and overseeing small scale and advanced nuclear reactors (ANRs).
- 2) While the category of advanced reactors covers a far wider variety of potential reactor designs than exist today, fundamentally, lower material, the lack of use of incredible amounts of natural watersheds, and more inherent safety

characteristics means lower overall impact and significant topic areas which may be ruled on in a generic fashion for these technology types.

3) There is significant basis for assuming small-scale ANRs would not be able to cause significant offsite radiation releases. The U.S. has had experience with literally hundreds of small-scale reactors without a single significant release.

4) Similarly, non-light water reactor microreactors contemplated in the GEIS would, by definition, have a dramatically smaller environmental footprint than large light water reactor plants traditionally evaluated in large plant EIS analysis, and these non-LWR microreactors lend themselves to a generic evaluation.

5) Advanced reactors that utilize a fast spectrum are the only effective tool in the world to both produce clean electricity as well as reduce radioactive waste. In fact, they are key to closing the fuel cycle and turning current hazards into valuable assets to the public.

6) All of the environmental impacts of small-scale ANRs will have significantly positive environmental justice impacts, especially due to their fundamental ability to have more distributed and smaller footprints, as well as the ability to reduce cost overruns, and for communities to "opt-in" as opposed to having large plants of any kind which are generally forced on small, underprivileged, or remote communities. Dirty, polluting power plants and activities have been located disproportionately on indigenous peoples' lands and in African-American, Latinx,

and other communities of color, and the health effects of living near emissions sources should be accounted for in the generic environmental impact statement.

The NRC must consider the importance of streamlining the environmental review and licensing process for ANRs due to the realities of climate change, since nuclear power still provides a majority of U.S. emission-free power, and represents the best option for scaling up clean electricity to meeting emissions targets before broader environmental collapse and further impacts on health due to emissions.

Thank you for continuing to ensure health and safety, in particular by enabling efficient review of clean power plants.

Sincerely,

Haans Petruschke  
Kirtland Ohio

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