

July 20, 2017

Note From: William Reckley, Senior Project Manager  
NRO/DSRA/ARPB

SUBJECT: Feedback on NEI/NIA Paper on Clarifying Major Portions for Standard Design Approvals

The attached email provided feedback to the Nuclear Energy Institute (NEI) and Nuclear Innovation Alliance (NIA) on the paper "Clarifying "Major Portions" of a Reactor Design in Support of a Standard Design Approval," dated April 2017 (Agencywide Documents Access and Management System (ADAMS) Accession No ML17128A507). The feedback was provided to support a public meeting held on June 22, 2017 (see meeting summary at ADAMS Accession No. ML17181A516). The staff is preparing a letter to the Nuclear Energy Institute, which will provide a more formal response to the paper.

Address any questions to Bill Reckley at (301) 415-7490.

**From:** Reckley, William  
**To:** Thomas Zachariah (NEI), Ashley Finan (NIA) Peter Hastings (NIA), Kati Austgen (NEI)  
**Cc:** [Segala, John](#); [Cabbage, Amy](#)  
**Subject:** Clarifying Major Portions for SDAs  
**Date:** Friday, June 16, 2017 11:41:00 AM

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In support of our discussions planned for next week's periodic stakeholder meeting (June 22), I am providing some feedback on the paper "Clarifying "Major Portions" of a Reactor Design in Support of a Standard Design Approval," dated April 2017. We plan to follow up in the near future with a letter.

First, thank you for preparing the paper and we believe it will be a useful part of the collection of guidance documents being prepared to describe the options available to non-light water reactor (non-LWR) developers in engaging the NRC on possible licensing approaches. The staff has not identified concerns with the discussions in the paper related to how "major portions" might be used to define the scope of an application for a Standard Design Approval (SDA). As mentioned in the paper, the criteria for selecting a possible scope for a "major portion" might be influenced by factors such as the goals of the applicant, the ability to establish interfacing systems and boundary conditions, and the various practical considerations. As such, the staff does not foresee a need to revise the paper and we will plan to reference it within our planned update of the draft regulatory roadmap providing guidance for developers preparing licensing project plans (LPPs) or regulatory engagement plans (REP). Specific discussions with a developer on a proposed scope for an SDA being a "major portion" of a nuclear power plant design will occur during the development of the LPP/REP. Those discussions – or possibly the Phase 2/3 activities of your project that were discussed in past stakeholder meetings - would provide an opportunity to identify and resolve remaining issues associated with the first use of an SDA application and the related "major portions" scope

Our planned revision to the roadmap and/or your Phase 2/3 activities might further expand the guidance to include detailed discussion of boundary conditions and integration with related activities, such as the Licensing Modernization Project. Our review did identify a few topics that we might discuss and clarify as we proceed with the additional guidance. These include

- Mention of possible differences of an SDA supporting construction permit versus design certification in terms of level of detail needed to support regulatory decisions. The appropriate level of effort to expand the discussion on this distinction would depend on assessments of whether developers would want to keep flexibility to use either Part 50 or Part 52 or develop a licensing plan specific to pursuing a construction permit.
- This topic would also relate to other aspects of the expanding the regulatory roadmap (or the Phase 2/3 efforts) to:
  - Update guidance on information needed to support a construction permit application for an advanced reactor design, and
  - Focus the submitted information and NRC review of applications for operating licenses and Part 52 licenses, certifications, and approvals on matters relevant to the management of risks associated with an advanced reactor design (i.e., the finding that the facility poses no undue risk to public health

and safety). Within this discussion, we might clarify reference to “an essentially complete nuclear power plant design” for a design certification and “safety analysis of the structures, systems, and components and of the facility as a whole” for an operating license/combined license, with the goal of limiting applications and NRC review to matters of importance to safety/risk management.

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