RAIO-0918-61871

September 19, 2018

Docket No. 52-048

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

SUBJECT: NuScale Power, LLC Supplemental Response to NRC Request for Additional Information No. 312 (eRAI No. 9267) on the NuScale Design Certification Application

REFERENCES:
1. U.S. Nuclear Regulatory Commission, "Request for Additional Information No. 312 (eRAI No. 9267)," dated December 22, 2017
2. NuScale Power, LLC Response to NRC "Request for Additional Information No. 312 (eRAI No.9267)," dated February 01, 2018

The purpose of this letter is to provide the NuScale Power, LLC (NuScale) supplemental response to the referenced NRC Request for Additional Information (RAI).

The Enclosure to this letter contains NuScale's supplemental response to the following RAI Question from NRC eRAI No. 9267:

- 12.02-8

This letter and the enclosed response make no new regulatory commitments and no revisions to any existing regulatory commitments.

If you have any questions on this response, please contact Carrie Fosaaen at 541-452-7126 or at cfosaaen@nuscalepower.com.

Sincerely,

Zackary W. Rad
Director, Regulatory Affairs
NuScale Power, LLC

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Enclosure 1: NuScale Supplemental Response to NRC Request for Additional Information eRAI No. 9267

Enclosure 1:

NuScale Supplemental Response to NRC Request for Additional Information eRAI No. 9267

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Response to Request for Additional Information
Docket No. 52-048

eRAI No.: 9267
Date of RAI Issue: 12/22/2017

NRC Question No.: 12.02-8

The Regulatory Basis and Background are in RAI-9267 Question 30994

Key Issue 2:

The DSRS Acceptance Criteria 12.3-12.4, “Radiation Protection Design Features,” states that the areas inside the plant structures, as well as in the general plant yard, should be subdivided into radiation zones, with maximum design dose rate zones and the criteria used in selecting maximum dose rates identified. The source size, magnitude and configuration are elements of the model used to establish the effects of the contained sources on areas adjacent to the contained source. Because the geometry of the source described in the DCD does not appear to model the analytical method used to evaluate the radiation effects, the staff is unable to assess the validity of the radiation zone designations.

Question 2:

To facilitate staff understanding of the application information sufficient to make appropriate regulatory conclusions with respect to radiation exposures, the staff requests that the applicant:

- Explain/justify the parameters of the dose rate calculation model used to describe the SRST,
- As necessary, revise DCD Section Table 12.2-18 to include this information,
- As necessary, revise DCD Section 12.3-12.4 radiation zone figures,

OR

Provide the specific alternative approaches used and the associated justification.

NuScale Response:

The updated source term and source strength values for the spent resin storage tank (FSAR Tables 12.2-19 and 12.2-20) are provided as part of the NuScale response to RAI 9264.

Impact on DCA:

There are no impacts to the DCA as a result of this response.