



June 07, 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 Response to NRC Request for Additional Information No. 416 (eRAI No. 9460) on the NuScale Design Certification Application

REFERENCE: U.S. Nuclear Regulatory Commission, "Request for Additional Information No. 416 (eRAI No. 9460)," dated April 11, 2018

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

The Enclosure to this letter contains NuScale's response to the following RAI Question from NRC eRAI No. 9460:

- 14.03.03-11

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 Steven Mirsky at 240-833-3001 or at smirsky@nuscalepower.com.

Sincerely,

A handwritten signature in black ink, appearing to read "Zackary W. Rad".

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

Distribution: Gregory Cranston, NRC, OWFN-8G9A
Omid Tabatabai, NRC, OWFN-8G9A
Samuel Lee, NRC, OWFN-8G9A

Enclosure 1: NuScale Response to NRC Request for Additional Information eRAI No. 9460



Enclosure 1:

NuScale Response to NRC Request for Additional Information eRAI No. 9460

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

eRAI No.: 9460

Date of RAI Issue: 04/11/2018

NRC Question No.: 14.03.03-11

10 CFR 52.47(b)(1) requires “The proposed inspections, tests, analyses, and acceptance criteria that are necessary and sufficient to provide reasonable assurance that, if the inspections, tests, and analyses are performed and the acceptance criteria met, a facility that incorporates the design certification has been constructed and will be operated in conformity with the design certification, the provisions of the [Atomic Energy] Act, and the Commission’s rules and regulations.” In supporting this requirement, staff identified that clarifications are necessary for the inspections, tests, and analyses (ITA) associated with ITAAC 02.01.04 and 03.11.08 in order to clearly demonstrate that the acceptance criteria are met. Specifically, the ITA should mention an “inspection and analysis” instead of only “an inspection,” as in order to meet the acceptance criteria, the analysis associated with the as-built Pipe Break Hazard Analysis Report must be fully completed. This completed analysis guides the inspection and is necessary to demonstrate the acceptance criteria has been met.

NuScale Response:

For those safety-related structures, systems, and components (SSC) located inside the containment, NuScale performs the pipe rupture hazard analysis that will be used to conduct the inspection required by the acceptance criteria of ITAAC 02.01.04. COL Item 3.6-2 requires the applicant to verify that the pipe rupture hazard analysis (including dynamic and environmental effects) of the high- and moderate-energy lines in the reactor pool bay is applicable, and to update the analysis and design additional protection features as necessary.

COL Item 3.6-3 requires the applicant to perform the pipe rupture hazard analysis (including dynamic and environmental effects) of the high- and moderate-energy lines outside the reactor pool bay and design appropriate protection features.

Therefore, for those safety-related SSC located inside the reactor building, but outside of the containment, the COL applicant will perform the pipe rupture hazards analysis that will be used to conduct the inspection required by the acceptance criteria of ITAAC 03.11.08.



These COL items will result in reconciled pipe break hazard analysis reports that demonstrate safety-related SSC are protected against or qualified to withstand the dynamic and environmental effects associated with postulated failures in high- and moderate-energy piping systems. Therefore, an inspection to verify that protective features are installed in accordance with the as-built pipe break hazard analysis report is stipulated in ITAAC 02.01.04 and 03.11.08.

Because the completed as-built pipe break hazard analysis report is a necessary predecessor to conducting the inspection required by the acceptance criteria for the ITAAC, it is unnecessary to stipulate the performance of the analysis in the ITAAC.

Impact on DCA:

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