



March 21, 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. 293 (eRAI No. 9210) on the NuScale Design Certification Application

REFERENCES: 1. U.S. Nuclear Regulatory Commission, "Request for Additional Information No. 293 (eRAI No. 9210)," dated December 06, 2017
2. NuScale Power, LLC Response to NRC "Request for Additional Information No. 293 (eRAI No. 9210)," dated January 29, 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. 9210:

- 06.02.01-4

The response to RAI Question 06.02.01-3 was previously provided in Reference 2. This completes all responses to eRAI 9210.

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 Marty Bryan at 541-452-7172 or at mbryan@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: Omid Tabatabai, NRC, OWFN-8G9A
Samuel Lee, NRC, OWFN-8G9A
Prosanta Chowdhury NRC, OWFN-8G9A

Enclosure 1: NuScale Response to NRC Request for Additional Information eRAI No. 9210



Enclosure 1:

NuScale Response to NRC Request for Additional Information eRAI No. 9210

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

eRAI No.: 9210

Date of RAI Issue: 12/06/2017

NRC Question No.: 06.02.01-4

During the NRC staff's audit of DCD Tier 2, FSAR, Section 3.13, the staff reviewed the use of lock plates in the NuScale design. These components are not described in the DCD. However, based on information obtained during the audit, the lock plates are used to hold the CNV main flange studs in place to allow the fastener bolts to be inserted from below. The lock plates are connected to the top flange by two studs which are screwed into the top flange and have a weld around the stud into the flange.

The lock plate welds provide a corrosion barrier to the base metal. Therefore, degradation of these welds may cause degradation of the underlying base metal. Depending on their location, the lock plate welds may be subject to stresses during normal operation, refueling tensioning and de-tensioning, and ECCS actuation. The DCD does not discuss the installation and inspection (construction and inservice) of the welds. During the audit, NuScale stated that the lock plates are not intended to be removed on a regular basis (i.e., they are not going to be removed at every refueling).

- Revise the DCD Tier 2, FSAR, Table 6.1-2 and Section 6.2.1 to state the locations that the lock plate components will be used for the CNV.
 - Revise the DCD to describe the use of lock plates, including the welding procedures and inspections that will be performed on the lock plate welds during fabrication/installation.
 - Provide justification that the lock plate welds will not degrade during service. If justification cannot be provided, revise the DCD to describe augmented inspections to provide reasonable assurance that the welds will remain intact during operation
-

NuScale Response:

Please refer to the response to RAI 9188, Question 05.03.01-4. The CNV lock plates are identical in design and function to the RPV lock plates. The response to RAI 9188, Question 05.03.01-4 will provide the design details, locations and installation details for the RPV and CNV lock plates.

Impact on DCA:

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