RAIO-0418-59381

April 03, 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. 214 (eRAI No. 8858) on the NuScale Design Certification Application

REFERENCES:
1. U.S. Nuclear Regulatory Commission, "Request for Additional Information No. 214 (eRAI No. 8858)," dated September 01, 2017
2. NuScale Power, LLC Response to NRC "Request for Additional Information No. 214 (eRAI No.8858)," dated October 27, 2017

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. 8858:

- 03.08.02-13

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,

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. 8858

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NuScale Supplemental Response to NRC Request for Additional Information eRAI No. 8858

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

eRAI No.: 8858
Date of RAI Issue: 09/01/2017

NRC Question No.: 03.08.02-13

DCD Section 3.8.2.1.5 describes the CNV boundary being “at the end of the safe ends furthest from the CNV shell”.

However, DCD Section 3.8.2.1.7 describes the CNV boundary being “at the valve assembly-to-safe end welds and the welds are part of the CNV.”

These two statements are inconsistent as to where the CNV boundary is. Clarify in DCD Sections 3.8.2.1.5, 3.8.2.1.7, and any other related sections where the CNV boundary ends.

NuScale Response:

The following response replaces NuScale's original response to RAI 8858 Question 03.08.02-13.

The boundaries defined in FSAR Tier 2, Section 3.8.2.1.5 (Mechanical Penetration) and FSAR Tier 2, Section 3.8.2.1.7 (Emergency Core Cooling System (ECCS) Valve Penetrations) do not overlap. They cover distinct elements of the containment vessel (CNV). Section 3.8.2.1.5 discusses the nozzles with piping attached, with the welds attaching the pipe to the safe end belonging to the pipe. This puts the boundary at the end of the safe end farthest from the CNV shell. The ECCS trip/reset and trip valves discussed in Section 3.8.2.1.7, and shown in FSAR Tier 2, Figure 6.2-3a (CNV33-CNV35, CNV40-CNV41), attach directly to the CNV nozzle safe ends, with no piping between the valve and safe end. The CNV design specification has defined this boundary at the valve attachment weld. The weld therefore, belongs to the CNV. ASME Boiler and Pressure Vessel Code (BPVC) Subparagraph NB-1131(a) permits the boundary to be defined at this location if specified in the design specification.

Impact on DCA:

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