February 4, 2019 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 Submittal of "Scope and Schedule for Component Stress Evaluations"

As discussed during a public meeting with NRC on December 18, 2018, NuScale agreed to define the scope and schedule for the American Society of Mechanical Engineers (ASME) Boiler and Pressure Vessel Code (BPVC) Section III stress analyses (including fatigue) to be completed for the NuScale Power Module (NPM) during the Design Certification Application (DCA) review of the NuScale plant. These stress analyses evaluate the loading combinations as required by the ASME design specifications for primary, secondary, and peak stresses, including the calculation of cumulative usage factors (fatigue). At this meeting, NuScale noted that although these stress evaluations are at varying stages of completion given ongoing design finalization, analyses made available for audit have been checked and approved.

In addition to the summary of stress analyses, a report documenting the NuScale methodology for selecting components for ASME BPVC Section III stress analysis, including fatigue, at the design certification stage was also agreed to be provided.

This letter also provides a schedule for updating the ASME primary stress analyses, some of which have already been audited by the NRC, to incorporate updated seismic loads. Primary stress analysis evaluates the stresses derived from applicable loadings as defined in the ASME design specification, against the primary stress limits in ASME BPVC Section III.

Finally, this letter documents the schedule for completion of the flange bolt stress evaluation for the Emergency Core Cooling System (ECCS) valves, as discussed during review of NuScale eRAI 9358 Question 03.06.02-17.

The scope and schedule for completion of the analyses described above are provided in the attached table.

This letter makes no regulatory commitments or revisions to any existing regulatory commitments.

If you have any questions, please contact Marty Bryan at (541) 452-7172 or at mbryan@nuscalepower.com.

Sincerely,

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

Distribution: Samuel Lee, NRC, OWFN-8G9A
Gregory Cranston, NRC, OWFN-8G9A
Marieliz Vera, NRC, OWFN-8G9A

Attachment: “Scope and Schedule for Component Stress Evaluations”

Scope and Schedule for Component Stress Evaluations

ASME Stress Analysis Audit	Type	Evaluation Ready for Audit
ASME Design Report for RVV	Primary and Secondary, including Fatigue	Currently available
ASME Design Report for RRV	Primary and Secondary, including Fatigue	Currently available
CRDM Pressure Housing Fatigue Analysis	Primary and Secondary, including Fatigue	Currently available
ASME Component Fatigue Screening Report	N/A	May 2019
CNV MS Nozzle Analysis	Primary and Secondary, including Fatigue	April 2019
CNV FW Nozzle Analysis	Primary and Secondary, including Fatigue	April 2019
RPV Main Steam Plenum Analysis	Primary and Secondary, including Fatigue	April 2019
RPV Feedwater Plenum Analysis	Primary and Secondary, including Fatigue	June 2019
RPV Refueling Flange Analysis	Primary and Secondary, including Fatigue	June 2019
CNV Refueling Flange Analysis	Primary and Secondary, including Fatigue	June 2019
RVV and RRV ECCS Flange Bolt Analysis	Primary and Secondary, including Fatigue	July 2019
CNV CVCS Nozzle Analysis	Primary and Secondary, including Fatigue	July 2019
DHRS Condenser Analysis	Primary and Secondary, including Fatigue	July 2019
RPV-CNV Upper Support Primary Stress Analysis	Primary Stress	July 2019
RPV Primary Stress Analysis	Primary Stress	July 2019
CNV Primary Stress Analysis	Primary Stress	July 2019
RVI Primary Stress Analysis	Primary Stress	July 2019
SG Primary Stress Analysis	Primary Stress	July 2019