May 8, 2019 Docket No. 52-048

U.S. Nuclear Regulatory Commission
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SUBJECT: NuScale Power, LLC Submittal of "Updated Scope and Schedule for Component Stress Evaluations"

REFERENCE: Letter from NuScale Power, LLC to Nuclear Regulatory Commission, "NuScale Power, LLC Submittal of 'Scope and Schedule for Component Stress Evaluations,'" dated February 4, 2019 (ML19035A682)

The referenced letter defined 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. In followup public meetings with NRC on February 19, 2019, February 26, 2019, and April 3, 2019, the subject of how Reactor Vessel Internals (RVI) would be addressed in this DCA-scope Component Stress Evaluation Schedule was further discussed.

This letter provides an update to the reference letter to include the scope and schedule for the RVI core support structures analysis.

As communicated in the April 3, 2019 public meeting, for the DCA-scope component stress evaluation effort, primary stress and fatigue analysis will be performed for select core support structures, a subset of the RVI. An ASME Subsection NG primary plus secondary stress intensity range and fatigue evaluation is to be performed on the limiting core support structure locations. A three-dimensional finite element model will include load bearing components of the core support structures and their interfaces, and the components subjected to the appropriate loads (e.g. forces, moments, accelerations, etc.), thermal/structural transients (Service Levels A, B, and Test conditions), and seismic conditions. Stress contour plots are then to be interrogated to establish the limiting locations, and those locations evaluated in detail.

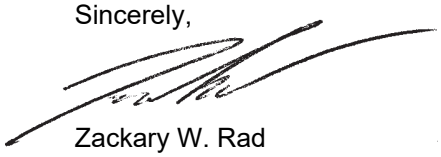
The methodology for determining the most limiting core support structures is to be documented in the May 2019 submittal of the "ASME Component Fatigue Screening Report."

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

This letter makes no regulatory commitments and no 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
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Attachment: "Updated 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	Currently available
CNV FW Nozzle Analysis	Primary and Secondary, including Fatigue	Currently available
RPV Main Steam Plenum Analysis	Primary and Secondary, including Fatigue	Currently available
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
RVI Limiting Core Support Structure 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