

November 21, 2019

Docket No. PROJ0769

U.S. Nuclear Regulatory Commission  
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**SUBJECT:** NuScale Power, LLC Submittal of errata to "Evaluation Methodology for Stability Analysis of the NuScale Power Module," TR-0516-49417, Revision 1


**REFERENCE:** Letter from NuScale Power, LLC to Nuclear Regulatory Commission, "NuScale Power, LLC Submittal of 'Evaluation Methodology for Stability Analysis of the NuScale Power Module,' TR-0516-49417, Revision 1," dated September 17, 2019 (ML19262J750)

In an exchange with NRC staff, NuScale Power, LLC (NuScale) discussed a potential clarification for Revision 1 of TR-0516-49417, "Evaluation Methodology for Stability Analysis of the NuScale Power Module." As a result of this discussion, NuScale changed the "Evaluation Methodology for Stability Analysis of the NuScale Power Module," TR-0516-49417, Revision 1. The Enclosure to this letter provides a mark-up of the report page incorporating a revision to Section 10.4.1, in a blackline version of the page with the change marked as "E-1," denoting this change as the first errata to TR-0516-49417, Revision 1. NuScale will include this change as part of any further revision of "Evaluation Methodology for Stability Analysis of the NuScale Power Module," TR-0516-49417.

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

If you have any questions, please feel free to contact Matthew Presson at 541-452-7831 or at [mpresson@nuscalepower.com](mailto:mpresson@nuscalepower.com).

Sincerely,



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Enclosure: Errata to "Evaluation Methodology for Stability Analysis of the NuScale Power Module," TR-0516-49417, Revision 1

**Enclosure:**

Errata to "Evaluation Methodology for Stability Analysis of the NuScale Power Module," TR-0516-49417,  
Revision 1

### 10.4.1 Stability Analysis Application Methodology Conditions

The following conditions and limitations must be met for a stability analysis using the methodology in this report:

- Fuel designs that are different than the reference design used in this topical report must be hydraulically compatible with the reference fuel design.
- The assumed decay heat must be a conservative value for the conditions at which stability is being calculated as described in Section 10.4.
- A default boiling coefficient value of  $\gamma = 5000 \text{ kg/m}^3\text{-s}$  must be used. Any modification to the boiling model must preserve the degree of the intended conservatism which reduces subcooled boiling in a single-channel core application.
- A core average pellet-clad gap conductance must be determined in accordance with the methodology defined in Section 5.6.4.3 of this topical report. Different gap conductance values are used if obtained from an NRC-approved thermo-mechanical code calculation.
- Nuclear parameters used in the stability analysis must be the limiting values over the entire cycle, whether this is beginning of cycle (BOC), end of cycle (EOC), or any time during the cycle.

E-1