

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Sunday, January 28, 2018 4:13 PM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Tesfaye, Getachew; Cranston, Gregory
Subject: RE: Request for Additional Information No. 354 RAI No. 9359 (1)
Attachments: Request for Additional Information No. 354 (eRAI No. 9359).pdf

Attached please find NRC staff's request for additional information concerning review of the NuScale Design Certification Application.

Please submit your technically correct and complete response within 60 days of the date of this RAI to the NRC Document Control Desk. .

If you have any questions, please contact me.

Thank you.

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Licensing Branch 1 (NuScale)
Division of New Reactor Licensing
Office of New Reactors
U.S. Nuclear Regulatory Commission
301-415-0546

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From: Cranston, Gregory

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Request for Additional Information No. 354 (eRAI No. 9359)

Issue Date: 01/28/2018

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 01 - Introduction and Interfaces

Application Section: 1

QUESTIONS

01-1

In Section 4, "10 CFR 50, Appendix A, Electric Power Systems GDCs," of Part 7 of the NuScale Power, LLC (NuScale) Design Certification Application (DCA), NuScale requested an exemption from electrical power system general design criteria. As a partial basis for this exemption NuScale states the following in Section 4 of Part 7:

The NuScale Power Plant safety-related functions are achieved and maintained with no reliance on electrical power; therefore neither the AC power systems nor the DC power systems are required to be safety-related.

This statement is also made in the NuScale Final Safety Analysis Report (FSAR) Section 8.3, "Onsite Power Systems," and is supported with the following justification:

This conclusion is confirmed by the application of the evaluation methodology described in NuScale topical report TR-0815-16497-P.

NuScale FSAR Table 1.6-1, "NuScale Referenced Topical Reports," provides a list of TRs that are incorporated by reference in the NuScale FSAR. Specifically, NuScale FSAR, Chapter 8, "Electric Power," incorporates by reference TR-0815-16497, Revision 0. By letter dated December 13, 2017, the U.S. Nuclear Regulatory Commission (NRC) staff informed NuScale of the approval of topical report (TR)-0815-16497, "Safety Classification of Passive Nuclear Power Plant Electrical Systems," Revision 1 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML17340A524). This letter also informed NuScale that, when the report appears as a reference in applications, the NRC staff review will ensure that the material presented applies to the specific plant involved. In particular, the NRC staff needs to establish a finding that the NuScale DCA satisfies the conditions of applicability, provided in Table 3-1 of TR-0815-16497, and the five conditions identified by NRC staff in their safety evaluation (ADAMS Accession No. ML17340A524).

The NRC staff was not able to find the disposition of the conditions of applicability and the additional limitations and conditions in the NuScale DCA. In addition, there are several locations in the NuScale DCA (e.g., FSAR Table 1.6-1) that do not reference the approved version of TR-0815-16497. Accordingly, the staff requests the applicant to:

- a. Document in the NuScale DCA the disposition of the conditions of applicability provided in Table 3-1 of TR-0815-16497, and the five conditions identified by NRC staff in their safety evaluation.
- b. Add a table in the NuScale DCA to provide a cross reference of the conditions of applicability provided in Table 3-1 of TR-0815-16497, and the five conditions identified by NRC staff in their safety evaluation, with the NuScale DCA sections in which the dispositions are specifically addressed.
- c. Modify the NuScale DCA to change the revision number of TR-0815-16497 from "Revision 0" to the approved version.