

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Monday, July 10, 2017 7:26 AM
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Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Dias, Antonio; D'Agostino, Amy; Tabatabai, Omid; Li, Chang
Subject: Request for Additional Information No. 91, RAI 8923
Attachments: Request for Additional Information No. 91 (eRAI No. 8923).pdf

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

Please submit your 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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Request for Additional Information No. 91 (eRAI No. 8923)

Issue Date: 07/10/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 20.01 - Mitigating Strategies for Beyond Design-Basis External Events (NuScale SMR design)

Application Section: 20.1

QUESTIONS

20.01-1

10 CFR 52.47(a)(2) requires that a standard design certification applicant provide a description and analysis of the structures, systems, and components (SSCs) of the facility, with emphasis upon performance requirements, the bases, with technical justification therefor, upon which these requirements have been established, and the evaluations required to show that safety functions will be accomplished.

NEI 12-06, Revision 2, Section 3.2.2, "Minimum Baseline Capabilities," Paragraph 17 indicates that the FLEX fluid connections for core and SFP cooling functions are expected to have a primary and an alternate connection or delivery point. Also stated is that these connections must be robust.

FSAR Tier 2, Section 20.1.2.2 states that a robust makeup line with an external connection point for providing inventory to the SFP is available to support SFP makeup following a BDBEE.

Based on the statement above, it appears that NuScale would make use of only one FLEX fluid connection for SFP makeup, which goes against the guidance in NEI 12-06, Revision 2, as endorsed with exceptions, additions, and clarifications, by the NRC in JLD-ISG-2012-01, Revision 1, "Compliance with Order EA-12-049, Order Modifying Licenses with Regard to Requirements for Mitigation Strategies for Beyond-Design-Basis External Events."

The applicant is requested to clarify how the NuScale design is consistent with the NEI guidance relating to having a primary and an alternate connection or delivery point for SFP makeup.