

NuScaleDCRaisPEm Resource

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Sent: Saturday, July 29, 2017 4:05 PM
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Subject: Request for Additional Information No. 109, RAI 8949 (21.0)
Attachments: Request for Additional Information No. 109 (eRAI No. 8949).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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Office of New Reactors
U.S. Nuclear Regulatory Commission
301-415-0546

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Request for Additional Information No. 109 (eRAI No. 8949)

Issue Date: 07/29/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 21.0 - Multi-Module Design Considerations (NuScale SMR design)

Application Section: Ch. 21 Multi-Module Design Considerations

QUESTIONS

21.0-1

10 CFR 52.47(c)(3) states that “[a]n application for certification of a modular nuclear power reactor design must describe and analyze the possible operating configurations of the reactor modules with common systems, interface requirements, and system interactions.” 10 CFR 50 Appendix A General Design Criteria 5—*Sharing of structures, systems, and components* states that “Structures, systems, and components important to safety shall not be shared among nuclear power units unless it can be shown that such sharing will not significantly impair their ability to perform their safety functions, including, in the event of an accident in one unit, an orderly shutdown and cooldown of the remaining units.”

NuScale Design Certification Application (DCA), Final Safety Analysis Report (FSAR) Tier 2, Chapter 9, Section 9.4.2, “Reactor Building and Spent Fuel Pool Area Ventilation System,” identifies a presence of an Annex Building HVAC System (ANBVS) and, NuScale document ER-P070-3938, “Shared System Hazards Analysis,” Revision 0, which was provided for staff audit, identified ANBVS as serving 12 nuclear power modules. However, NuScale DCA, FSAR Tier 2, Chapter 21, “Multi-Module Design Considerations,” does not identify ANBVS as a shared system.

Staff requests that NuScale update Chapter 21 to include and describe ANBVS, or justify why it is not necessary.