

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Wednesday, August 02, 2017 1:00 PM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Yang, Yaguang; Tabatabai, Omid; Jung, Ian
Subject: Request for Additional Information No. 119, RAI 8996 (7.02)
Attachments: Request for Additional Information No. 119 (eRAI No. 8996).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.

Gregory Cranston, Senior Project Manager
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. 119 (eRAI No. 8996)

Issue Date: 08/02/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 07.02.DSRS - System Characteristics

Application Section: DCD, Part 2 - Tier 2, Section 7.2.1, "Quality"

QUESTIONS

07.02.DSRS-2

Title 10 of the *Code of Federal Regulations* (10 CFR), Part 50, Appendix A, General Design Criterion 1, "Quality Standards and Records," requires in part that systems and components important to safety be designed, fabricated, erected, and tested to quality standards commensurate with the importance of the safety functions to be performed. Where generally recognized codes and standards are used, they should be identified and evaluated to determine their applicability, adequacy, and sufficiency, and should be supplemented or modified as necessary to ensure a quality product consistent with the required safety function.

10 CFR Part 50, Appendix B, "Quality Assurance Criteria for Nuclear Power Plants and Fuel Reprocessing Plants," establishes quality assurance requirements for the design, manufacture, construction, and operations of safety-related structures, systems, and components.

NuScale Design Control Document (DCD), Part 2 – Tier 2, Section 7.2.1, "Quality," describes the NuScale Digital I&C Software Quality Assurance Plan and the Digital Instrumentation and Controls (I&C) Software Development Plan. The design-specific review standard (DSRS) for NuScale includes a description of system and software development activities to deliver a high-quality I&C safety system. In DCD, Part 2 – Tier 2, Section 7.2.1, the staff noticed that the following DSRS for NuScale items are not discussed in the DCD:

1. System and Software Development Activities, D, item iii.
2. System and Software Development Activities, F, item vii.
3. System and Software Development Activities, G, items i, ii, viii, ix, and x.
4. System and Software Development Activities, H, item ii, iii, iv, v, vii, and viii.
5. System and Software Development Activities, J, item iv and Software Development Activities, J, item iv.
6. Project Management and Organizational Processes, items A and C.

The staff requests NuScale to explain why these DSRS items are not addressed in NuScale DCD, Part 2 – Tier 2, Section 7.2.1.