

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Friday, August 04, 2017 12:14 PM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Vera Amadiz, Marieliz; Scarbrough, Thomas; Lupold, Timothy
Subject: Request for Additional Information No. 123, RAI 8952 (3.9.6)
Attachments: Request for Additional Information No. 123 (eRAI No. 8952).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. The NRC Staff recognizes that NuScale has preliminarily identified that the response to one or more questions in this RAI is likely to require greater than 60 days. NuScale is expected to provide a schedule for the RAI response by email within 20 days.

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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Options

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Request for Additional Information No. 123 (eRAI No. 8952)

Issue Date: 08/04/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 03.09.06 - Functional Design Qualification and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints

Application Section: 3.9.6

QUESTIONS

03.09.06-5

The U.S. Nuclear Regulatory Commission (NRC) regulations in 10 CFR 50.55a require that nuclear power plant applicants and licensees satisfy ASME *Operation and Maintenance of Nuclear Power Plants*, Division 1 (OM Code) incorporated by reference with specified conditions for the preservice testing (PST) and inservice testing (IST) programs. In addition, NRC Staff Requirements Memorandum (SRM) dated September 11, 2002, regarding Commission Paper SECY-02-0067 (August 15, 2002), "Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC) for Operational Programs (Programmatic ITAAC)," stated that ITAAC for an operational program, such as the PST and IST programs, are unnecessary if the program and its implementation are fully described in a combined license (COL) application and found to be acceptable by the NRC. In its SRM dated May 14, 2004, regarding Commission Paper SECY-04-0032 (February 26, 2004), "Programmatic Information Needed for Approval of a Combined License without Inspections, Tests, Analyses, and Acceptance Criteria," the Commission defined "fully described" as when the program is clearly and sufficiently described in terms of the scope and level of detail to allow a reasonable assurance finding of acceptability. The Commission also noted that required programs should always be described at a functional level and at an increasing level of detail where implementation choices could materially and negatively affect the program effectiveness and acceptability. Commission Paper SECY-05-0197 (October 28, 2005), "Review of Operational Programs in a Combined License Application and Generic Emergency Planning Inspections, Tests, Analyses, and Acceptance Criteria," summarizes the NRC position regarding the full description of PST and IST operational programs to be provided by COL applicants.

NuScale Final Safety Analysis Report (FSAR) Tier 2, Section 3.9.6, "Functional Design, Qualification, and Inservice Testing Programs for Pumps, Valves, and Dynamic Restraints," provides a summary of the PST and IST programs to be developed by a COL applicant that references the NuScale design certification. The NuScale FSAR does not fully describe the PST or IST programs to satisfy the Commission policy on operational programs for COL applicants. For example, the IST tables attached to NuScale FSAR Tier 2, Section 3.9.6 provide only examples of the IST program for specific components.

In light of the planned NRC staff approach to rely on the PST and IST programs as part of the risk-informed review of the NuScale design certification application, describe the intent regarding fully describing the PST and IST programs for reference by a COL applicant, or relying on the COL applicant to supplement the NuScale FSAR to fully describe the PST and IST programs consistent with the Commission policy for operational programs for new reactors.