NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Saturday, August 05, 2017 1:45 PM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Lupold, Timothy; Scarbrough, Thomas; Vera Amadiz, Marieliz
Subject: RE: Request for Additional Information No. 148, RAI 8954 (3.9.6)
Attachments: Request for Additional Information No. 148 (eRAI No. 8954).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
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301-415-0546

Hearing Identifier: NuScale_SMR_DC_RAI_Public
Email Number: 170

Mail Envelope Properties (58792c17a12f4ab297c6e2c543f8569b)

Subject: RE: Request for Additional Information No. 148, RAI 8954 (3.9.6)
Sent Date: 8/5/2017 1:44:31 PM
Received Date: 8/5/2017 1:44:35 PM
From: Cranston, Gregory

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Files	**Size**	**Date & Time**	
MESSAGE	565	8/5/2017 1:44:35 PM	
Request for Additional Information No. 148 (eRAI No. 8954).pdf			90217

Options
Priority: Standard
Return Notification: No
Reply Requested: No
Sensitivity: Normal
Expiration Date:
Recipients Received:

Request for Additional Information No. 148 (eRAI No. 8954)

Issue Date: 08/05/2017
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

03.09.06-12

NRC Commission Paper SECY-95-132, "Policy and Technical Issues Associated with the Regulatory Treatment of Non-Safety Systems (RTNSS) in Passive Plant Designs (SECY-94-084)," includes several provisions to be applied to new reactors with passive emergency cooling systems to provide assurance of proper component performance. For example, these designs should incorporate provisions to test safety-related power-operated valves (POVs) under design-basis differential pressure and flow. In its SRM dated June 28, 1995, the Commission approved those provisions and directed the staff clarify the IST recommendations to demonstrate design capability of safety-related POVs prior to installation, to verify valve capability during a preoperational test, and to periodically verify valve capability during the operational phase. In a public memorandum dated July 24, 1995, the NRC staff provided a consolidated list of the approved policy and technical positions for passive plant designs discussed in applicable Commission papers and their associated SRMs. The NRC issued Regulatory Issue Summary (RIS) 2000-03, "Resolution of Generic Issue 158: Performance of Safety-Related Power-Operated Valves Under Design Basis Conditions," to discuss the application of lessons learned from valve operating experience and research programs to POVs.

NuScale FSAR Tier 2, Section 3.9.6.3.2, "Inservice Testing Program for Power-Operated Valves Other Than MOVs," states that POVs in the IST program and their testing provisions are summarized in tables attached to NuScale FSAR Tier 2, Section 3.9.6. NuScale Tier 2, Section 3.9.6.3.2 and the referenced tables do not provide a full description of the IST program for POVs in the NuScale Power Plant. For example, the NuScale FSAR Tier 2 does not address the lessons learned from operating experience at nuclear power plants for the POV testing program.

Discuss the plans to provide a full description of the IST program for POVs for a NuScale Power Plant, or to specify a COL action item regarding POV testing.