NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Tuesday, November 28, 2017 2:24 PM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Dias, Antonio; Andrukat, Dennis; Murray, Demetrius
Subject: Request for Additional Information No. 288 RAI No. 9119 (14.02)
Attachments: Request for Additional Information No. 288 (eRAI No. 9119).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 this question in this RAI is likely to require greater than 60 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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Request for Additional Information No. 288 (eRAI No. 9119)

Issue Date: 11/28/2017
Application Title: NuScale Standard Design Certification - 52-048
Operating Company: NuScale Power, LLC
Docket No. 52-048
Review Section: 14.02 - Initial Plant Test Program - Design Certification and New License Applicants
Application Section: 14.2

QUESTIONS

14.02-6

GDC 60 requires, in part, that the nuclear power unit design shall include means to control suitably the release of radioactive materials in...liquid effluents...during normal reactor operation, including anticipated operational occurrences. Sufficient holdup capacity shall be provided for retention of...liquid effluents containing radioactive materials..."

SRP 14.2 describes how the staff reviews an applicant's initial test program. Section IV, "Evaluation Findings," states in part that "the staff has reviewed the information provided in the FSAR on the applicant's test program in accordance with SRP Section 14.2. This review included an evaluation of the applicant's administrative measures to control...the methods for conducting individual tests and the acceptance criteria to be used in evaluating the test results for plant SSCs..."

In reviewing the pre-operation testing provided under FSAR Section 14.2, the staff noticed several areas in Table 14.2-24, "Balance-of-Plant Drain System," System Level Test #24-1, that require further clarification and updating:

a) Regarding Test Method item #iv, clarify whether the primary first pump needs to be isolated (turned off) to allow the alternate pump to be able to start (i.e., upon a HI level signal). If the primary needs to be isolated to allow the alternate pump to be able to start, the applicant is requested to update the FSAR, including Table 14.2-24, with this testing sequence information to properly allow testing of the alternate pump.

b) Regarding the balance-of-plant drain system (BPDS) fire water removal pumps in the BPDS sumps, the staff noticed there was no test for these pumps. These pumps are in addition to the primary and alternate pumps but are relied upon to prevent sump overflow. Clarify why the BPDS fire water removal sump pumps should not be tested to ensure their ability to start and stop on the appropriate signals. The applicant is requested to update the FSAR, including Table 14.2-24, with the testing information for these BPDS fire water removal sump pumps.