

NuScaleDCRaisPEm Resource

From: Chowdhury, Prosanta
Sent: Sunday, March 18, 2018 9:13 PM
To: Request for Additional Information
Cc: Lee, Samuel; Cranston, Gregory; Murray, Demetrius; Kent, Lauren; Green, Brian; NuScaleDCRaisPEm Resource
Subject: Request for Additional Information No. 388 eRAI No. 9220 (18)
Attachments: Request for Additional Information No. 388 (eRAI No. 9220).pdf

Attached please find NRC staff's request for additional information (RAI) 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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Licensing Branch 1 (NuScale)
Division of New Reactor Licensing
Office of New Reactors
U.S. Nuclear Regulatory Commission
301-415-1647

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From: Chowdhury, Prosanta

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Options

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Request for Additional Information No. 388 (eRAI No. 9220)

Issue Date: 03/19/2018

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 18 - Human Factors Engineering

Application Section: FRA/FA

QUESTIONS

18-22

Title 10 of the *Code of Federal Regulations* (10 CFR) Section 52.47(a)(8) requires an applicant for a design certification to provide an FSAR [Final Safety Analysis Report] which includes the information necessary to demonstrate compliance with any technically relevant portions of the Three Mile Island requirements set forth in 10 CFR 50.34(f), with certain exceptions. Section 10 CFR 50.34(f)(2)(ii) requires an applicant to "Establish a program, to begin during construction and follow into operation, for integrating and expanding current efforts to improve plant procedures. The scope of the program shall include.....human factors engineering..." The current NRC guidance for developing a human factors engineering (HFE) program is NUREG-0711, Rev 3, "Human Factors Engineering Program Review Model."

NUREG-0711 Criterion 4.4(2) indicates that the functional requirements analysis/function allocation Functional Requirements Analysis/Function Allocation (FRA/FA) should be performed iteratively starting during the design phase and kept current through the decommissioning of the plant.

Section 18.3.2 of the Tier 2 document and Section 2.1 of the FRA/FA results summary report both make statements that the processes are performed iteratively throughout the life cycle of the plant, but it is unclear how this responsibility is communicated to a combined operating license (COL) holder and how the FRA/FA analyses will be shared with the COL.

Describe the controls used to ensure that COLs maintain the FRA/FA iteratively throughout the lifecycle of the plant. Clarify how this is possible while using the strategy described in the results summary report (RSR) and no COL items. Additionally, please identify the frequency by which iterations are expected to occur.