

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Wednesday, May 31, 2017 11:13 AM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Zimmerman, Jacob; Ray, Sheila; Tabatabai, Omid
Subject: RE: Request for Additional Information No. 40, RAI 8839
Attachments: Request for Additional Information No. 40 (eRAI No. 8839).pdf

[This time with attachment.](#)

Attached please find NRC staff's request for additional information concerning review of the NuScale Design Certification Application.

Please submit your 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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301-415-0546

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Request for Additional Information No. 40 (eRAI No. 8839)

Issue Date: 05/26/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 08.02 - Offsite Power System

Application Section: 8.2

QUESTIONS

08.02-8

FSAR Tier 2 Table 8.1-1, "Acceptance Criteria and Guidelines for Electric Power Systems" states that 10 CFR 50.65(a)(4) is guidance (G) for Section 8.2 on offsite power systems. FSAR Tier 2 Section 8.2.3.2, "Analysis of Offsite Power System Conformance with Regulatory Framework," states that the development and implementation of the maintenance rule (10 CFR 50.65) including the identification of SSCs that require assessment in accordance with 10 CFR 50.65(a)(4), is described in FSAR Tier 2 Section 17.6, "Maintenance Rule." FSAR Tier 2 Section 17.6 includes COL item 17.6-1 that a COL applicant that references the NuScale Power Plant design certification will describe the program for monitoring the effectiveness of maintenance required by 10 CFR 50.65.

Also, for the offsite power system, FSAR Tier 2 Table 8.1-1 states that the maintenance rule is guidance (G) whereas FSAR Tier 2 Section 8.2.3.2 indicates that the maintenance rule is applicable per COL item 17.6-1.

QUESTION: Please explain whether the maintenance rule should be listed as A (applicable) in FSAR Tier 2 Table 8.1-1 for the offsite power system

08.02-9

DSRS Table 8.1-1, "Acceptance Criteria and Guidelines for Electric Power Systems" states that SECY 94-084, "Policy and Technical Issues Associated with RTNSS in Passive Plant Designs, 1994" and SECY 95-132, "Policy and Technical Issues Associated with RTNSS in Passive Plant Designs, 1995" are guidance (G) as it relates to the inclusion of an alternate power source to non-safety loads at evolutionary plant designs. DSRS Section 8.2.III.3.A states that for SECY 94-084 and SECY 95-132, the NuScale design review should identify any offsite power requirements to support non-safety-related, risk-significant active systems identified through the Regulatory Treatment of Non-safety Systems (RTNSS) process.

FSAR Tier 2 Section 8.1.4.3, "Regulatory Requirements and Guidance" states that the design of NuScale electrical systems conforms to the Commission-approved positions in Sections F, "Station Blackout" and G, "Electrical Distribution" of SECY-94-084 related to passive plant electrical systems. Also, FSAR Tier 2 Table 8.1-1, "Acceptance Criteria and Guidelines for Electric Power Systems" states that SECY 94-084, and SECY 95-132 are guidance (G) for the offsite power system. However, FSAR Tier 2 Section 8.2 does not provide any discussions on the above Commission papers.

QUESTION: Please provide a discussion regarding how the NuScale design conforms to SECY 94-084 and SECY 95-132 for the offsite power system and include a discussion in FSAR Tier 2 Section 8.2.

08.02-10

DSRS Table 8.1-1, "Acceptance Criteria and Guidelines for Electric Power Systems" states that SECY 91-078, "Electric Power Research Institute Requirements Document and Additional Evolutionary Light Water Reactor Certification Issues, 1991" is guidance for offsite power systems as it relates to the inclusion of an alternate power source to non-safety loads at evolutionary plant designs. However, FSAR Tier 2 Table 8.1-1, "Acceptance Criteria and Guidelines for Electric Power Systems" states that SECY 91-078 is not applicable for the offsite power system. In addition, FSAR Tier 2 Section 8.1.4.3, "Regulatory Requirements and Guidance" states that SECY 91-078 is not directly applicable to passive plant designs.

QUESTION: Please clarify the applicability of SECY 91-078 to the offsite power system.