

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Friday, August 04, 2017 6:12 PM
To: RAI@nuscaldpower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Samaddar, Sujit; Roche-Rivera, Robert; Vera Amadiz, Marieliz
Subject: Request for Additional Information No. 128, RAI 8966 (3.8.4)
Attachments: Request for Additional Information No. 128 (eRAI No. 8966).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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Request for Additional Information No. 128 (eRAI No. 8966)

Issue Date: 08/04/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 03.08.04 - Other Seismic Category I Structures

Application Section: 3.8

QUESTIONS

03.08.04-3

10 CFR 50, Appendix A, GDC 1, 2, and 4, provide requirements to be met by SSC important to safety. In accordance with these requirements, DSRS Section 3.8.4 provides review guidance pertaining to the design of seismic Category I structures, other than the containment. Consistent with DSRS Section 3.8.4, the staff reviews description of the structures, loads and loading combinations, and design and analysis procedures.

FSAR Figures in chapter 1, Section 3.8, and Appendix 3B show stiffener walls under the sloping portion of the roof. Clarify whether there are any stiffening members under the flat portion of the roof which has dimensions of approximately 82'-6" by 346'. If not, describe the process for determining that the flat roof plate without stiffening members is sufficiently stiff and strong to resist and transfer seismic demands from and to the two inclined roof plates. Provide maximum allowable roof deformation values for each of the North-South and East-West directions and the calculated corresponding roof deformation values. Provide the frequency, modal mass ratio, and mode shape, for the most significant torsional mode in the RXB.