

NuScaleDCRaisPEm Resource

From: Cranston, Gregory
Sent: Wednesday, February 07, 2018 1:01 PM
To: RAI@nuscalepower.com
Cc: NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Martinez Navedo, Tania; Sacko, Fanta; Markley, Anthony
Subject: Request for Additional Information No. 363 RAI No. 9311 (9.5.3)
Attachments: Request for Additional Information No. 363 (eRAI No. 9311).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.

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Licensing Branch 1 (NuScale)
Division of New Reactor Licensing
Office of New Reactors
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301-415-0546

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Request for Additional Information No. 363 (eRAI No. 9311)

Issue Date: 02/07/2018

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 09.05.03 - Lighting Systems

Application Section: 9.5.3

QUESTIONS

09.05.03-2

10 CFR 50.34(f)(2)(iii) states that an application shall provide, for Commission review, a control room design that reflects state-of-the-art human factor principles prior to committing to the fabrication or revision of fabricated control room panels and layouts. NUREG-0700, "Human-System Interface Design Review Guidelines," provides detailed acceptance criteria for HFE design attributes including lighting.

NUREG-0800, Standard Review Plan (SRP), Section 9.5.3, NUREG-0700, "Human-System Interface Design Review Guidelines," and the Illuminating Engineering Society of North America (IESNA) lighting handbook are guidance for Plant Lighting System.

1. In its response to RAI 8825, Question 09.05.03-1, Part A, NuScale stated that "FSAR [Tier 2] Section 9.5.3 has been revised to more clearly indicate that the illumination levels for normal operation in the main control room (MCR) and remote shutdown station (RSS) conform to the guidance of NUREG-0700 Table 12.1. Normal lighting in other areas of the plant is based on the IESNA Lighting Handbook, which may not in all cases conform to the guidance provided in Table 12.10 of NUREG-0700."

Based on markup of Table 9.5.3-1: Plant Illumination Levels, other areas of plant have an illumination of 2 foot-candles.

QUESTION: In the response to RAI 8825, Question 09.05.03-1, the applicant did not provide specific information regarding the areas identified as "other areas of the plant" and did not specify which cases do not conform to the guidance provided in Table 12.10 of NUREG-0700. Please specify what areas are covered by the term "other areas of plant." Where the applicant deviates from the guidance in NUREG - 0700, please describe how the application demonstrates compliance with 10 CFR 50.34(f)(2)(iii).

2. In its response to RAI 8825, Question 09.05.03-1, Part B, NuScale stated that "FSAR [Tier 2] Section 9.5.3 states that illumination levels are a minimum of 10 foot-candles in emergency operation areas and a minimum of 2 foot-candles in other 'areas of the plant.' The testing and inspection programs for emergency lighting will be determined and developed by the licensee."

QUESTION: Where in the FSAR is it stated that the testing and inspection programs (i.e., maintenance rule program) for emergency lighting will be determined and developed by the licensee? If not specified in the FSAR, provide a COL item that will require the COL applicant to determine and develop the testing and inspection programs.