

## **NuScaleDCRaisPEm Resource**

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**From:** Cranston, Gregory  
**Sent:** Wednesday, May 10, 2017 11:59 AM  
**To:** RAI@nuscalepower.com  
**Cc:** NuScaleDCRaisPEm Resource; Lee, Samuel; Chowdhury, Prosanta; Dias, Antonio; Nolan, Ryan; Vera Amadiz, Marieliz  
**Subject:** RE: Request for Additional Information No. 20 (eRAI No. 8770) Section 03.05.01.01, SPSB  
**Attachments:** Request for Additional Information No. 20 (eRAI No. 8770).pdf

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.

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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**From:** Cranston, Gregory

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**Options**

**Priority:** Standard

**Return Notification:** No

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**Sensitivity:** Normal

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**Recipients Received:**

## **Request for Additional Information No. 20 (eRAI No. 8770)**

Issue Date: 05/10/2017

Application Title: NuScale Standard Design Certification - 52-048

Operating Company: NuScale Power, LLC

Docket No. 52-048

Review Section: 03.05.01.01 - Internally Generated Missiles (Outside Containment)

Application Section: 3.5

### QUESTIONS

#### 03.05.01.01-1

10 CFR 50, Appendix A, General Design Criteria 4 (GDC 4), in part, requires structures, systems, and components (SSCs) to be protected from internally generated missiles. In addition, 10 CFR 52.47(a)(2) requires the applicant to provide "a description and analysis of the SSCs of the facility, with emphasis upon performance requirements, the bases, with technical justification...required to show that safety functions will be accomplished."

FSAR Tier 2, Section 3.5.1.1.1 contains a discussion of components that are not considered credible missile sources; however, an adequate explanation or technical justification as to why bolted bonnet valves and pressure-seal bonnet valves are not credible missile sources is not provided. For example, the FSAR states, valves "constructed in accordance with ASME codes and standards are not considered credible missiles," without specifying the specific ASME code requirement to be applied. Typically, the staff only finds valves designed to ASME Section III standards to be non-credible pressurized missile sources.

The applicant is requested to provide in FSAR Tier 2, Section 3.5.1.1.1, the specific codes and standards applied that demonstrate a high level of quality (e.g. material, design, fabrication, examination, testing) assuring structural integrity of the valves in order to conclude that the missile sources are non-credible.