August 29, 2024 Docket No. 052-050

U.S. Nuclear Regulatory Commission
ATTN: Document Control Desk
One White Flint North
11555 Rockville Pike
Rockville, MD 20852-2738

SUBJECT: NuScale Power, LLC Submittal of the NRC's Request for Docketing of Resolved Audit Response

REFERENCES: NRC email to NuScale Power entitled, "Docketing request for NuScale SDAA Audit issue A-9.1.5-8" dated August 1, 2024

The purpose of this letter is to provide NuScale's response to the NRC's request to docket a audit response, noted in the reference above. The response to the invidual audit item is provided in the attachments.

This letter contains NuScale's response to the following audit questions from the NRC:

A-9.1.5-8 (nonproprietary)

This letter makes no regulatory commitments and no revisions to any existing regulatory commitments.

If you have any questions, please contact Thomas Griffith at 541-452-7813 or tgriffith@nuscalepower.com.

I declare under penalty of perjury that the foregoing is true and correct. Executed on August 29, 2024.

Sincerely,

Carrie Fosaaen
Vice President, Regulatory Affairs
NuScale Power, LLC

Distribution: Mahmoud Jardaneh, Chief New Reactor Licensing Branch, NRC
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Response to SDAA Audit Question

Question Number: A-9.1.5-8

Receipt Date: 08/14/2023

Question:

On August 8th, the NRC staff and NuScale held an audit call with regards to Audit Item A-9.1.5-1. This issue is related to the use of the non-endorsed standard NUM-1 as the standard for several Type I Jib Cranes in the SDAA. Regulatory Guidance 1.244, Regulatory Position C1.1.b.2 provides design criteria for an enhanced handling system that does not follows an endorsed standard. During the discussion, NuScale staff asked if the description on how their Jib Crane design met the RG.1.244 criteria can include direct reference to the non-endorsed standard NUM-1. The staff finds that the applicant's response should make specific references to the applicable portions of the standard (instead of a generic reference to the complete standard) for each of the criterion identified in RG 1.244. The response to item a. would be acceptable if it references the standard as a whole. When the standard provides several options as to how it meets the design criterion, the applicant may clarify which of the options apply to their design, if the design information is available. The staff intends to evaluate the adequacy of the response and the referenced portion of the standard, for this specific type of crane, and this application once a response has been submitted.

Response:

Regulatory Guide 1.244 regulatory position C.1 lists additional criteria necessary for review of ASME NML-1-2019 cranes not previously approved by the NRC. The RG 1.244 regulatory position C.1 criteria a) through g) are dissected below with examples of ASME NUM-1-2016 Type 1A crane requirements. Note that ASME NUM-1-2016 requirements for NUM-I are in addition to the requirements of NUM-II and NUM-III, except where specified.

a) *Meet applicable national consensus standard(s) identified within Section 1-2, "Scope," of ASME Std. NML-1–2019 for the type(s) of lifting system(s) used.*

ASME NUM-1 is identified for use in ASME NML-1-2019.

b) *Apply quality assurance in design, fabrication, installation, and initial testing commensurate with the component's importance to stopping or holding the load.*

ASME NUM-1 quality assurance requirements ensure that the quality assurance criteria specified in ASME NOG-1 is satisfied.

c) *Apply conservative design criteria to the structural elements essential to support the load (e.g., apply structural load combinations and design criteria consistent with those specified in the standards cited in Regulatory Position C.2).*

ASME NUM-1-2016 applies conservative design criteria for Type 1A cranes, consistent to those in NOG-1-2020 for Type 1 cranes.

d) *Apply conservative design criteria to the mechanical components essential to stopping or holding the load (e.g., apply mechanical design criteria consistent with those specified in the standards cited in Regulatory Position C.2).*

ASME NUM-1-2016 applies conservative design criteria for Type 1A cranes, consistent to those in NOG-1-2020 for Type 1 cranes.

e) *Include redundancy in the design of mechanical components essential to stopping or holding the load that are subject to fatigue or wear (i.e., active components that rotate or change configuration to accomplish a function necessary to stop or hold the load).*

ASME NUM-I Type 1A cranes include redundancy in the design of mechanical components essential to stopping or holding the load.

f) *Use fail-safe electrical systems and components when failure of the electrical system or component could affect the ability to stop or hold the load.*

ASME NUM-1-2016 applies single failure proof features for Type 1A cranes, which requires the electrical system to include such features, consistent to those in NOG-1-2020 for Type 1 cranes.

g) *Apply appropriate quality assurance measures to electrical components intended to detect equipment failures and that actuate following those equipment failures to stop or hold the load.*

ASME NUM-1 quality assurance requirements ensure that the quality assurance criteria specified in ASME NOG-1 is satisfied.

No changes to the SDAA are necessary.