

July 21, 2021

Secretary, U.S. Nuclear Regulatory Commission  
Washington, DC 20555-0001  
ATTN: Rulemakings and Adjudications Staff

**SUBJECT:** NuScale Power, LLC Comments on *Approval of American Society of Mechanical Engineers' Code Cases*, Docket ID NRC-2017-0025

**REFERENCES:** 1. *Approval of American Society of Mechanical Engineers' Code Cases*, 86 Fed. Reg. 7820, February 2, 2021  
2. Draft Regulatory Guide DG-1366, (Proposed Revision 39 of Regulatory Guide 1.84, dated January 2021), Design, Fabrication, and Materials Code Case Acceptability, ASME Section III (ADAMS Accession No. ML20120A633)

The subject Federal Register Notice requested comments on the proposed rule, *Approval of American Society of Mechanical Engineers' Code Cases*, and associated draft regulatory guidance by April 5, 2021. NuScale Power, LLC respectfully requests that NRC consider the attached late-filed comments.

If you have any questions, please contact me at 541-452-7126 or at [cfojaaen@nuscalepower.com](mailto:cfojaaen@nuscalepower.com).

Sincerely,



Carrie Fosaaen  
Director, Regulatory Affairs  
NuScale Power, LLC

**Attachment:** NuScale Comments on *Approval of American Society of Mechanical Engineers' Code Cases*

### Comments and Basis

The purpose of Code Case N-883 (the Code Case) is to allow an ASME certificate holder to fabricate components prior to identifying an Owner. This Code Case is essential for fabricators of components for highly standardized designs, particularly those supplying small modular reactors and advanced reactors that use modular construction. The supply chain supporting the deployment of such designs demands the fabrication of standardized components in advance of identifying a specific Owner.

Contrary to that purpose and need, the NRC's proposed condition would limit use of the Code Case to "construction of items by a holder of a construction permit [CP], operating license [OL], or combined license [COL]." A holder of a CP, OL, or COL is an Owner. Therefore the only entity that could make use of the code case would be an ASME N-certificate holder (a fabricator) that is also an NRC licensee. Even if such an entity existed, they would have no need for the Code Case because the Owner—the fabricator/licensee—would already be identified; it is doubtful such a licensee would enter the business of fabricating components for other, yet-to-be-identified Owners. Thus the conditions proposed on the Code Case render it practically useless.

The stated basis for the proposed condition is that "without the designation of an Owner, the NRC would not be able to provide regulatory oversight of the ASME certificate holder manufacturing the items, which is not consistent with Appendix B to 10 CFR Part 50 and the requirements in § 50.55(a) for a basic component," that the condition "provides this specific regulatory authorization thereby ensuring the appropriate regulatory oversight" (86 Fed. Reg. 7827). The intent of 10 CFR 50 Appendix B is to install and empower a licensee as the principal guarantor of quality in their facility. Although regulatory oversight is used to verify Appendix B compliance, it is not the regulatory oversight that ensures quality; the licensee is responsible for quality assurance. It is inconsistent with that intent for the NRC to presume that regulatory oversight is a prerequisite to a successful QA program.

Nevertheless, adequate regulatory oversight is ensured without the proposed condition. The Code Case, as written, does not permit placing an ASME component into service in a nuclear facility without first identifying an Owner and performing a full reconciliation of the lifetime quality records with the Owner, in accordance with the ASME Code and the NRC's regulatory requirements. Since an Owner must be licensed under 10 CFR Part 50 or 52, and thus is subject to 10 CFR 50 Appendix B, the NRC would provide regulatory oversight of the reconciliation performed by the ASME N-certificate holder. At that point the NRC would be able to inspect the fabricator's QA program and verify that the fabricated components were produced in accordance with it, consistent with the intent of Appendix B and the requirements in § 50.55(a) for a basic component. Additionally, 10 CFR Part 21 assures that any defects and noncompliances subsequently discovered by the fabricator for a component placed into nuclear service are identified and corrected.

In addition to regulatory oversight at the reconciliation phase, ASME Section III itself provides for rigorous quality assurance throughout the fabrication process. An N-certificate holder must comply with ASME Section III's quality assurance requirements as set forth in NCA-4000. For component fabrication, that would require the N-certificate holder to have a QA program meeting, and inspected by ASME to meet, NQA-1. NQA-1 is based on and satisfies Appendix B requirements.

This approach of (1) relying on a non-licensee to establish an acceptable QA program and (2) retrospectively verifying QA compliance has ample precedent within the NRC's regulatory framework. For example, 10 CFR Part 52 requires that an applicant for a design certification (DC), standard design approval (SDA), COL, or manufacturing license (ML) describe the QA program applied to the design of the facilities SSCs. In other words, the application must show that the applicant—during the design phase prior to application submittal—correctly developed and implemented an acceptable Appendix B QA program. While many applicants gain early approval of their QA program prior to application submittal, that is not a requirement; NRC's first review and potential inspection of a Part 52 applicant's QA program may come only after the design is completed and submitted for NRC review. NRC is able to reach a safety finding on the design (a basic component under 10 CFR Part 21) using this approach.

It is also worth noting that the NRC allows for commercial grade dedication (CGD) under 10 CFR Part 21. In that case, a commercial grade item fabricated without an Appendix B QA program, and without regulatory oversight thereof, is able to be dedicated to nuclear service. The CGD process is conducted under an Owner's Appendix B QA program, and is thus subject to regulatory oversight. This is analogous to the approach set forth in the Code Case, but with the added assurance of ASME Section III QA requirements discussed above.

### Recommendations

Because the Code Case provides adequate measures for QA and for regulatory oversight thereof, NuScale requests that the Code Case be endorsed without the proposed condition and moved to Regulatory Guide 1.84, Table 1.

Although NuScale believes no conditions on the use of N-883 are necessary, if NRC proceeds to condition the Code Case then less restrictive approaches should be considered. Simply allowing use of the condition by any holder of an approved QA program would be the least restrictive condition that allows the additional regulatory oversight sought by NRC. A QA program approval is subject to oversight and enforcement under NRC's vendor QA inspection program (<https://www.nrc.gov/reactors/new-reactors/oversight/quality-assurance/vendor-insp.html>). Thus, conditioning the use of the Code Case on NRC's QA program approval would ensure that the fabricator is subject to both ASME's QA requirements and Appendix B, and oversight under each.

Alternatively, if specific Part 50 and 52 licensees are to be identified in the condition, then other holders of NRC approvals should also be included:

- ML holders: an ML holder has a nuclear facility design approved for construction and is subject to similar QA provisions as other Part 50 and 52 license holders, and thus should be treated equivalently to the holder of a CP, OL, or COL under the Code Case (note that an ML holder, like a CP/OL/COL holder would seem to qualify as an Owner under ASME Section III such that the Code Case would not be needed).
- Applicants for a DC and applicants for and holders of an SDA: these entities are subject to QA inspections as part of their DC/SDA application process. If such an entity is also an ASME N-certificate holder, fabrication activities permitted under the Code Case prior to identifying an Owner would be subject to regulatory oversight.



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In conclusion, NuScale believes that no condition on Code Case N-883 is necessary to reasonably assure adequate protection of public health and safety, because appropriate quality assurance and regulatory oversight is provided for in the use of the Code Case. Alternatively, a condition encompassing additional NRC-regulated entities would be less restrictive while meeting NRC's objective for additional regulatory oversight can be developed. Each of these alternatives to the proposed condition is consistent with the efficiency and clarity objectives of the NRC's principles of good regulation.