

U.S. Nuclear Regulatory Commission

Summary of the October 31, 2022, Observation Public Meeting with NuScale Power to

Discuss NuScale's Proposed Strategy for a Four-Phase Review of Carbon Free Power

Project Combined License Application

On October 31, 2022, at the request of NuScale Power, LLC (NuScale), the U.S. Nuclear Regulatory Commission (NRC) staff held an observation public meeting with NuScale and Carbon Free Power Project, LLC (CFPP) to receive further information about NuScale's request for the staff to conduct a four-phase review of the CFPP combined license application (COLA)¹. CFPP expects to submit its COLA to the NRC in January 2024. NuScale's presentation slides for this public meeting are available in Agency-wide Document Access and Management System (ADAMS) Accession No. ML22298A208.

The meeting started with introductions by participants and then NuScale began its presentation on their proposed four-phase COLA review process. According to NuScale, as compared to a six-phase review, a four-phase review would result in elimination of issuing the staff's safety evaluation report (SER) with open items (OIs), and a briefing of the Advisory Committee on Reactor Safeguards (ACRS) on the staff's SER w/OI. Under a four-phase COLA review, the staff would publish an SER with no open item (or advance SER) and would brief the ACRS on the advance SER. The NRC staff participating at the meeting did not identify any near-term concerns with NuScale's request for the staff to conduct a four-phase review of the CFPP COLA.

In addition to the topic of four-phase review request, NuScale proposed an approach for receiving staff's feedback regarding the content of the COLA before the COLA is submitted. This approach is envisioned to be separate from a readiness assessment review by the NRC staff. NuScale's proposed approach would involve submitting white papers and COLA content notices during the 2nd and 3rd quarters of 2023. Within each COLA content notice, NuScale would provide the NRC staff with an overview of the COLA content for the applicable Chapters/Sections of the COLA, applicable precedent, supporting information available for the staff to audit, any supplemental or departures from the referenced design, and applicable topical reports. NuScale stated that it would expect the staff to provide written feedback for each COLA content notice and white paper similar to the feedback that the staff provided to NuScale on CFPP's volcano hazard assessment white paper².

NuScale also identified select technical areas such as mechanical, electrical, instrumentation and controls, radiological, civil, and operational programs to seek NRC staff's feedback before the COLA is submitted using the COLA content notices and white papers. NuScale further stated that it plans to continue its preapplication public meetings with the NRC staff on topics such as security plans, environmental report, quality assurance program description, and emergency preparedness.

¹ Carbon Free Power Project (CFPP) Regulatory Engagement Plan, Rev. 1, dated August 12, 2022, (ML22224A238).

² U.S. Nuclear Regulatory Commission Feedback Regarding NuScale/Carbon Free Power Project White Paper: Volcanic Hazards Analysis Approach Methodology, dated October 12, 2022, (ML22279A894).

At the conclusion of the meeting, the NRC staff and NuScale agreed to continue their discussions regarding NuScale's proposed approach in a future public meeting. The staff also requested NuScale to discuss the following subjects at the next public meeting:

1. The NRC staff requested NuScale to provide a sample COLA content notice for illustration purposes so the staff would better understand the level of detail and the information that would be provided to the staff for review.
2. The NRC staff requested NuScale to clarify how the proposed preapplication engagement with the NRC staff using COLA content notices and white papers would be different from, overlapping with, or complementing a readiness assessment review by the staff.
3. The NRC staff requested NuScale to clarify whether it would expect the NRC staff to review the same information in a COLA content notice again as part of a readiness assessment review.
4. The NRC staff requested NuScale to clarify whether NuScale plans to use the proposed approach to engage the staff prior to submitting any potential limited work authorization requests.

Additionally, an ACRS senior staff engineer speaking on his own behalf and not for the Committee, recommended that NuScale/CFPP review the ACRS letter, titled, "Report on the Safety Aspects of the NuScale Small Modular Reactor,"³ dated July 29, 2020. This report identifies certain technical areas that the ACRS expects a COL applicant to address in its application. These areas include operator response and recovery procedures, site-specific probabilistic risk assessment, and emergency planning for the Committee's review. He also recommended that NuScale and NRC staff plan some interactions with the ACRS during the first 18 months of the COLA review, as opposed to later in the COLA review process. He stated that early interactions with the ACRS would reduce the risk of delaying the ACRS review.

The technical portion of the meeting then concluded, and members of the public were invited to ask questions. The staff did not receive any questions or comments from the public.

³ (ML20211M386).