

U.S. Nuclear Regulatory Commission

Summary of the December 15, 2022, Observation Public Meeting with NuScale Power to Discuss NuScale Topics Related to Cold Plant and Operator Exam Programs

On December 15, 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 the Carbon Free Power Project, LLC (CFPP) for NuScale to present an overview of the hot and cold license program requirement changes needed by NuScale from the existing requirements related to cold plant and operator exam programs. NuScale also described a proposal for updating the guidance. Additionally, NuScale discussed the status of the NuScale Operator Exam Methodology and Learning Objective Based Knowledge, Skills and Abilities Catalog that will be submitted for review. NuScale's public meeting presentation slides, "Carbon Free Power Project (CFPP) Combined License Application (COLA) Presentation, Operator Licensing and Cold License Plan," PM-130734-NP, Revision 0," are available in Agencywide Document Access and Management System (ADAMS) Accession No. ML22335A558. The meeting started with introductions by participants.

NuScale began its presentation providing an overview of the hot and cold license program requirements. NuScale discussed options for describing the cold licensing phase in the CFPP combined license application (COLA), operator licensing exam methodology, and the status of the NuScale Operator Exam Methodology and Learning Objective Based Knowledge, Skills, and Abilities Catalog. The presentation provided by NuScale included discussions about operator licensing documents that have been previously shared with the NRC staff which will be submitted for formal review at a later date.

NRC staff asked if these proposed program revisions would be submitted initially in a separate document, such as a topical report, or just incorporated into Chapter 13.2, "Training Program Description," of the COLA. NuScale stated that program revisions would be incorporated into Chapter 13.2 and that they will be using industry guidance documents, including interim guidance documents, described in the meeting presentation slides (ML22335A558) to revise their program. NuScale stated that the key industry guidance document they will be using is Nuclear Energy Institute (NEI) 06-13A, "Template for an Industry Training Program Description," which contains both the hot phase and the cold licensing phase guidance.

NuScale stated that they recognize that evolutions in plant design and operator staffing do not align with the latest revisions of associated documents, such as NEI 06-13A, and that they are working with NEI to develop new guidance. However, NuScale said there is concern that applicable revisions may not be ready for incorporation into the CFPP COLA and, consequently, are working on a standalone description of the cold license path for review by the NRC that would go in the CFPP COLA. NuScale stated that they have been participating in the draft 10 CFR Part 53 rulemaking discussions but do not anticipate that rulemaking will be complete prior to the CFPP COLA submittal.

Regarding documents made available to the NRC, NuScale stated that the operator exam methodology previously submitted to the NRC in July 2020 is not expected to change in the new Standard Design Approval (SDA) application for the US460 plant. The Learning Objective Based Knowledge, Skills and Abilities Catalog will be updated in 2023 and available at the end of the 2023 to reflect SDA US460 changes. NuScale has requested review of the Catalog be

completed by the first quarter of 2025 and review of the exam methodology be completed by the first quarter of 2026 to support their current schedule. NRC staff stated that for the exam methodology, that the current version is only available in the NuScale electronic reading room, which means NRC can only read the document and that makes it harder to review. A version submitted to the NRC that can be annotated, is sortable, and can be reviewed at the desk would be helpful. NuScale said they would take that for consideration.

NuScale is seeking changes to three industry guidance documents to improve their alignment with advanced design reactors. NuScale elaborated on the expected changes to the above documents as described in their presentation slides (ML22335A558). These include:

- NEI 06-13A, “Template for an Industry Training Program Description
- ACAD 08-01, “The Process for Initial Accreditation of Training in the Nuclear Power Industry”
- ACAD 10-001, “Guidelines for Initial Training and Qualification of Licensed Operators”

NEI-06-13A, for example, needs to be revised to reflect the acceptability of fewer reactor operators in the control room since NuScale power plant can operate safely with fewer reactor operators than nuclear plants currently operating. A key proposed change to ACAD 08-01 discussed by NuScale is to create a direct path to senior reactor operator qualification using an Associates Degree. This will necessitate changes to ACAD 10-001, “Guidelines for Initial Training and Qualification of Licensed Operators,” regarding the education and experience requirements for eligibility for advanced design reactors. NRC staff stated that they are very interested in the Associates Degree approach since it is a big change. Staff has been reviewing the concept to better understand how competency levels will be established, what operating experience would be required, what associate degree fields would be acceptable and other aspects of the proposal that need to be considered.

Related to plant operators, NRC staff asked what guidance and requirements will be in the new program to address pre-operational activities with the plant under construction to be able to meet the requirements stated in 10 CFR 55.53(e), Condition of Licenses, in order for operators to maintain active status. NuScale said that guidance in that area will be developed. NRC staff referenced NuScale to guidance that staff are currently reviewing (Operator Licensing Programs Draft Interim Staff Guidance September 2022, 10 CFR Part 53 (ML22272A047)).

Since proposed rulemaking on Incorporation of Lessons Learned from New Reactor Licensing Process (Parts 50 and 52 Licensing Process Alignment, that would amend the NRC's regulations for the licensing of new nuclear power reactors in 10 CFR Parts 50 and 52, will not be complete prior to submitting the COLA for CFPP, the use of exemptions to existing requirements was discussed. NuScale stated that in developing the COLA, they would request exemptions where needed and then when rulemaking finalizes, revisit removing the exemptions. (See <https://www.regulations.gov/docket/NRC-2009-0196>).

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. The meeting was adjourned.