

U.S. Nuclear Regulatory Commission

Summary of the September 20, 2022, Observation Public Meeting to Discuss Carbon Free

Power Project Licensing Plans for Addressing Regulatory Requirements Associated with

Physical Security and Emergency Planning

Meeting Summary

The U.S. Nuclear Regulatory Commission (NRC) staff held an observation public preapplication meeting on September 20, 2022, with NuScale Power, LLC (NuScale) and Carbon Free Power Project, LLC (CFPP) to get an overview of CFPP's licensing plans for addressing regulatory requirements associated with emergency planning (EP) and physical security. This public meeting also included a closed portion to allow participants to discuss proprietary information regarding physical security. Presentation slides for the open session on emergency planning and physical security are available in the NRC's Agencywide Document Access and Management System (ADAMS) under Accession Nos. ML22252A027 and ML22252A004, respectively. NuScale's submittal, entitled, "NuScale Power, LLC Submittal on behalf of Carbon Free Power Project (CFPP) Combined License Application (COLA) Licensing Strategy for Emergency Planning," dated August 17, 2022, is available in ADAMS under Accession No. ML22229A510.

This hybrid meeting had attendees from the NRC, NuScale, CFPP, Fluor, Union of Concerned Scientists, Snake River Alliance, Xcel Energy Nuclear Services, Beyond Nuclear, Uranium Watch, Breakthrough Institute, Hogan Lovells, TVA, Curtiss Wright, and members of the public.

NuScale/CFPP started the presentation by presenting slides related to emergency planning, specifically stating that the combined license application (COLA) for CFPP is being prepared consistent with the proposed regulations in 10 CFR 50.160, "Emergency preparedness for small modular reactors, non-light-water reactors, and non-power production or utilization facilities," which provides alternative performance-based EP requirements. The proposed regulations in 10 CFR 50.160 are performance-based, technology-inclusive, risk-informed, and consequence-oriented approach to EP that provides an alternative to the EP requirements under 10 CFR 50.47. The proposed regulations in 10 CFR 50.160 were submitted to the Commission for approval in January 2022 as part of SECY-22-0001¹. The Commission vote on the SECY-22-0001 is expected in January 2023. NuScale/CFPP also stated that CFPP COLA will follow the methodology presented in the NuScale Topical Report (TR)-0915-17772², with site- and design-specific information for CFPP.

NuScale/CFPP continued by stating that because the guidance provided in neither NEI 10-05, "Assessment of On-Shift Emergency Response Organization (ERO) Staffing and Capabilities, nor in NSIR/DPR-ISG-01, "Emergency Planning for Nuclear Power Plants," applies to SMRs, NuScale/CFPP plans to submit a topical report prior to submitting the CFPP's COLA for staff's approval to provide CFPP's methodology for addressing on-shift emergency response organization staffing levels.

¹ SECY-22-0001, "Final Rule: Emergency Preparedness for Small Modular Reactors and Other New Technologies (RIN 3150-AJ68; NRC-2015-0225)," January 3, 2022, (ADAMS Package ML21200A055.)

² "Methodology for Establishing the Technical Basis for Plume Exposure Emergency Planning Zones," Revision 2, dated August 4, 2020, (ML20217L422.)

NuScale/CFPP also stated that, similarly, because NEI 99-01, “Development of Emergency Action Levels for Non-Passive Reactors,” or NEI 07-01, “Development of Emergency Action Levels for Passive Reactors,” do not apply to SMRs, NuScale plans to submit a topical report prior to submitting the CFPP’s COLA for staff’s approval to provide CFPP’s methodology for addressing emergency action levels (EALs). The NRC staff asked if or how the LTRs would consider the impact of emergency plans, specifically, emergency action levels, currently in place at Idaho National Laboratory (INL). NuScale/CFPP responded that the details would have to be coordinated with INL and that this topic will be discussed with the staff at a future meeting.

At the conclusion of the emergency planning presentation, NuScale/CFPP stated that CFPP COLA will include inspections, tests, analyses, and acceptance criteria regarding EALs, ERO, and EP performance-based matrix in accordance with 10 CFR 50.160. The NRC staff requested NuScale/CFPP to consider the timing of submitting its topical reports on ERO and EALs for the staff’s review such that it would not adversely impact the efficiency or effectiveness of the staff’s review of the COLA.

NuScale/CFPP continued the open portion of the meeting by discussing CFPP’s proposed strategy for addressing physical security requirements in 10 CFR 73.55, “Requirements for physical protection of licensed activities in nuclear power reactors against radiological sabotage.” NuScale/CFPP stated that CFPP’s goal is to meet the intent of the requirements in 10 CFR 73.55 and that in developing its COLA, CFPP is considering the performance-based alternatives for meeting certain physical security requirements as described in SECY-22-0072³.

Before closing the public portion of the meeting, the NRC staff opened the meeting to members of the public for questions and comments. One commenter raised concerns that the Commission delaying the staff’s rulemaking regarding new EP requirements would not be helpful to prospective applicants. The commenter also indicated that the chat function in the Microsoft Teams was not working for participants from their organization. The staff took an action to investigate this issue. After the meeting, the staff reached out to the commenter and informed them that the chat function had been enabled during the meeting and recommended that the commenter discuss this issue with their organization’s information technology personnel.

Another member of the public raised a concern about CFPP wanting to reference a design in its COLA that has not yet been approved by the NRC. The staff responded that 10 CFR Part 52 allows COL applicants to reference an approved design or not reference any specific designs. Another member of the public requested that the staff clarify the difference between “high assurance” and “reasonable assurance” since NuScale had used the term “high assurance” in its slides. The staff responded that these terms are used interchangeably, and the staff did not have any concerns with CFPP using the term “high assurance.”

During the closed portion of the meeting, the NRC staff engaged in high-level discussions to gain a general understanding of NuScale/CFPP methodology for implementing physical security requirements, including use of alternative methods to meet existing requirements and requesting exemptions. NRC staff noted that development of the physical protection system should pay specific attention to guidance within NUREG-0800 with respect to the scope of the technical review for physical security, addressing the necessary information for the NRC staff to determine that the regulatory requirements are met. In addition, NRC staff noted that early

³ “Proposed Rule: Alternative Physical Security Requirements for Advanced Reactors (RIN 3150-AK19)”, dated August 02, 2022, (ML21334A003.)

identification of any potential target sets may aid in effectively designing their physical protection program. There were no further discussions during the closed session on NuScale/CFPP's emergency planning licensing strategy.