



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

June 5, 2023

Mr. John Volkoff
Manager, Combined License
Applications
NuScale Power, LLC
1100 Circle Boulevard, Suite 200
Corvallis, OR 97330

SUBJECT: PREAPPLICATION READINESS ASSESSMENT PLAN FOR THE DRAFT
CARBON FREE POWER PROJECT COMBINED LICENSE APPLICATION

Dear Mr. Volkoff:

By letter dated May 24, 2023, NuScale Power, LLC (NuScale) requested the U.S. Nuclear Regulatory Commission (NRC) staff to conduct a partial and phased preapplication readiness assessment (RA) of the draft Carbon Free Power Project (CFPP) LLC combined license application (COLA)¹.

The RA is not part of the NRC's official acceptance review process. The readiness assessment of the CFPP COLA will; however, allow the NRC staff to understand the level of detail in the COLA and identify any major regulatory compliance issues or information gaps between the draft COLA and the technical content required to be included in COLA that will be officially submitted to the NRC. As such, the observations from the RA do not predetermine whether CFPP COLA will be docketed upon submittal.

The attached RA plan provides the details and logistics of the requested assessment activities for the CFPP COLA. Per NuScale/CFPP's proposed schedule, the NRC staff will complete all four phases of the RA and issue the RA closure report by the end of October 2023, with an estimated 450 hours of staff time. Staff observations and feedback will be provided to NuScale/CFPP on any identified items on a daily and weekly basis; and the staff will endeavor to provide the RA's closure letter with a summary of the staff's feedback within 2 weeks of the RA's closure.

¹ Agencywide Documents Access and Management System (ADAMS) Accession No. ML23144A332

J. Volkoff

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If you have any questions regarding this matter, please contact Mr. Omid Tabatabai, Senior Project Manager, at (301) 415-6616 or Omid.Tabatabai@nrc.gov.

Sincerely,

Brian W. Smith, Director
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

Docket No.: 99902052

Enclosure:
CFPP COLA Readiness
Assessment Plan

cc w/enclosure: CFPP ListServ

SUBJECT: PREAPPLICATION READINESS ASSESSMENT PLAN FOR THE DRAFT
 CARBON FREE POWER PROJECT COMBINED LICENSE APPLICATION
 DATED: JUNE 5, 2023

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***via email**

NRR-106

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PREAPPLICATION READINESS ASSESSMENT PLAN FOR THE DRAFT CARBON FREE POWER PROJECT COMBINED LICENSE APPLICATION

Docket No. 99902052

LOCATION

NuScale/CFPP Electronic Reading Room (eRR)

PURPOSE

NuScale Power, LLC (NuScale), on behalf of Carbon Free Power Project, LLC (CFPP), has requested the U.S. Nuclear Regulatory Commission (NRC) staff to conduct a preapplication readiness assessment (hereinafter “readiness assessment” (RA)) of select portions of the draft CFPP’s combined license application (COLA), Part 2, “Safety Analysis Report,” before the COLA is submitted to the NRC for a formal review.

The readiness assessment will allow the NRC staff to:

- Identify information gaps between the draft submittal(s) and the technical content required in the COLA submitted to the NRC;
- Identify major technical or policy issues that may adversely impact the docketing or technical review of the COLA; and
- Become familiar with the COLA, particularly in areas where NuScale/CFPP is proposing new concepts or novel features.

The observations from the RA will help inform NuScale/CFPP in finalizing the technical content of the COLA, and will assist the NRC staff in planning the resources in preparation for the formal review of the COLA.

BACKGROUND

By letter dated May 24, 2023 (ML23144A332), NuScale, on behalf of CFPP, requested the NRC staff to conduct a phased preapplication RA of certain chapters and sections of the draft CFPP’s COLA.

READINESS ASSESSMENT SCOPE AND SCHEDULE

NuScale/CFPP’s May 24, 2023, letter identifies portions of the draft CFPP COLA for the staff’s RA review. NuScale/CFPP requested the NRC staff to conduct a RA according to the following schedule:

- **Phase 1: June 26 – July 7, 2023**, FSAR Chapters 10, 11, and 12
- **Phase 2: July 31 – August 11, 2023**, FSAR Chapters 6 and 17
- **Phase 3: August 14 – August 25, 2023**, FSAR Chapters 5, 7, 9, 13, 14, and 18

- **Phase 4: August 28 – September 8, 2023**, FSAR Chapters 2, 3, and 16 and COLA Parts 4, “Technical Specifications,” and Part 5, “Emergency Plans”

In accordance with the proposed schedule, NuScale/CFPP will upload the relevant information for each phase of the RA on the eRR no later than the entrance meeting date for that phase of the RA. During the entrance meeting for each phase, NuScale/CFPP will provide a presentation on the relevant material with technical justifications and the staff will have the opportunity to engage with questions. Throughout the proceeding week’s schedule for each phase, the NRC staff and NuScale/CFPP subject matter experts will engage, as necessary, to answer questions that arise.

Per NuScale/CFPP’s request, the following portions of the draft CFPP COLA are excluded from the RA review by the NRC staff:

FSAR Chapter 1,
 FSAR Sections 2.0, 2.3, 2.3.2, 2.4.2, 2.4.10, 2.4.14, 2.5.0, 2.5.4,
 FSAR Chapter 4,
 FSAR Chapter 8,
 FSAR Section 9.1.2,
 FSAR Sections 11.2 and 11.3,
 FSAR Chapters 15 and 19,
 COLA Part 1, “General Information,”
 COLA Part 6, “Security Plans,”
 COLA Part 7, “Exemptions, Departures, and Variances,”
 COLA Part 8, “License Conditions; Inspections, Tests, Analyses, and Acceptance Criteria,”
 COLA Part 9, “Withheld Information,”
 COLA Part 10, “Quality Assurance Program Description,” and
 COLA Part 11, “Supplemental Information (e.g., Limited Work Authorization).”

NRC READINESS ASSESSMENT TEAM

The following table identifies the NRC staff assigned to each readiness assessment phase.

Review Area	NRC Staff²
Phase 1: FSAR Chapters 10, 11, and 12 (<u>Excluding Sections 11.2 and 11.3</u>)	Ch. 10: Angelo Stubbs; Greg Makar, Leslie Terry, Paul Klein, Matt Yoder, Reena Boruk; John Honcharik Ch. 11: Zach Gran; Derek Scully; Joe Ashcraft, Dinesh Taneja, Liliana Ramadan, Jorge Cintron Ch. 12: Ed Stutzcage
Phase 2: FSAR Chapters 6 and 17	Ch. 17: Odunayo Ayegbusi; Alissa Neuhausen, Keith Tetter, Stacey Rosenberg; John Hughey Ch. 6: Hanry Wagage, David Nold, Nageswara Karipineni, Gordon Curran, Syed Haider, Dan Widrevitz, Cory Parker, Stephen Cumblidge, Bob

² During the readiness review, the NRC staff may determine that additional reviewers possibly from other technical disciplines are needed to complete the readiness assessment. The staff will communicate the need and the impact on resources with NuScale/CFPP accordingly.

Review Area	NRC Staff ²
	Davis; Greg Makar, Leslie Terry, Paul Klein, Matt Yoder, Reena Boruk, Shanlai Lu, Ryan Nolan, John Parillo
<p>Phase 3: FSAR Chapters 5, 7, 9, 13, 14, and 18</p>	<p>Ch. 5: Robert Hsu, Josh Miller, Ryan Nolan, Eric Reichelt, Gordon Curran, Dan Widrevitz, Cory Parker, Greg Makar, Leslie Terry, Paul Klein, Matt Yoder, Reena Boruk Ch. 7: Norbert Carte, Liliana Ramadan, Jorge Cintron, Ryan Nolan, Joshua Miller Ch. 9: Thinh Dinh, Naeem Iqbal, Daniel Ju, Marie Pohida; Ed Stutzcage; Adakou Foli, Sheila Ray Calvin Chung, Liliana Ramadan, Jorge Cintron, Tom Scarbrough, Amit Ghosh; Raul Hernandez, Gordon Curran, Angelo Stubbs, Brian Lee, Josh Miller, Ryan Nolan, Zhian Li; Greg Makar, Leslie Terry, Paul Klein, Matt Yoder, Reena Boruk, Ed Stutzcage Ch. 13: Maurin Scheetz, Ken Mott, Prosanta Chowdhury Stacy Prasad, Niry Simonian, Paul Harris, Brian Zaleski; Dan Warner, Ralph Costello, Don Johnson, Eric Schrader Ch. 14: Adakou Foli, Sheila Ray, Calvin Chung, Liliana Ramadan, Jorge Cintron, Tom Scarbrough, Amit Ghosh; Kamishan Martin; Stacy Prasad, Niry Simonian, Paul Harris, Brian Zaleski, Harry Wagage, Angelo Stubbs, Ed Stutzcage, Zach Gran, John Parillo, Ryan Nolan, John Budzynski, Charles Peabody Ch. 18: DaBin Ki</p>
<p>Phase 4: FSAR Chapters 2, 3, and 16 and COLA Parts 4, “Technical Specifications,” and Part 5, “Emergency Plans” (<u>Excluding Sections 2.0, 2.3, 2.3.2, 2.4.2, 2.4.10, 2.4.14, 2.5.0, and 2.5.4</u>).</p>	<p>Ch. 2: Jenise Thompson, Ken See, Kevin Quinlan, Scott Stovall, Amit Ghosh; Sunwoo Park, De (Wesley) Wu Ch. 3: Robert Hsu, Ken See, Amit Ghosh, Jack Zhao, Liliana Ramadan, Jorge Cintron; Sunwoo Park, De (Wesley) Wu; Gordon Curran, Raul Hernandez; John Honcharik, Eric Reichelt, Dan Widrevitz, Cory Parker Ch. 16: Craig Harbuck, Clint Ashley, Ravi Grover; Ming Li, Liliana Ramadan, Jorge Cintron COLA Part 4: Craig Harbuck, Clint Ashley, Ravi Grover; Ming Li, Liliana Ramadan, Jorge Cintron, Adakou Foli, Sheila Ray COLA Part 5: Ken Mott, Prosanta Chowdhury, Don Johnson, Eric Schrader, Elijah Dickson</p>

LOGISTICS

The staff plans to conduct the readiness assessments on NuScale's eRR. A virtual entrance meeting to start Phase 1 of the readiness assessment is scheduled on June 26, 2023. The NRC staff will review the readiness assessment documents that NuScale uploads on eRR in accordance with the "Carbon Free Power Project Online Reference Portal Information Access Agreement," dated March 7, 2023 (ML23037A015.) The staff will conduct an exit meeting at the end of each readiness assessment phase. The staff will strive to complete the review of each phase within two weeks after the entrance meeting for that phase. Daily and weekly debriefings with NuScale and CFPP will be scheduled, as needed. Additionally, the staff will endeavor to provide the RA's closure letter with a summary of the staff's observation and feedback within 2 weeks of the RA's completion.

NRC STAFF'S APPROACH TO CONDUCTING THE READINESS ASSESSMENT

The readiness assessment of CFPP COLA will be conducted by qualified NRC reviewers and/or contractors who are technical experts in the review areas assigned to them. The Project Team will conduct a streamlined readiness assessment that includes the following attributes:

- NuScale/CFPP has voluntarily requested a readiness assessment be performed by the NRC staff in a targeted and streamlined manner,
- NRC will control phase and session attendance and will specify charging codes for technical reviewers,
- NRC will implement the assessment in two-week phases on specified technical areas (i.e., on COLA chapters and/or topics),
- NuScale/CFPP will provide tailored presentations and discussions to staff,
- NRC will implement real-time problem/issue identification and documentation via SharePoint,
- NRC will facilitate weekly management discussions on the assessment's progress (NRC to NRC, and NRC to NuScale/CFPP),

NRC will target to complete all readiness assessments by the end of September 2023, as requested by NuScale/CFPP. The technical reviewers will perform the review consistent with the NRC Office Instructions LIC-116, "Preapplication Readiness Assessment" (ML20104B698).

COMMUNICATION OF THE READINESS ASSESSMENT OBSERVATIONS

The NRC staff will provide its readiness assessment observations to NuScale/CFPP on a daily and weekly basis including any identified technical concerns or major information gaps. Additionally, within 2 weeks after the completion of the readiness assessment, the staff will issue a publicly available report that will summarize the staff's observations and feedback for all phases of the readiness assessment.

The NRC estimates that this readiness assessment will require approximately 450 hours by the staff to complete. To protect the applicant's proprietary information, if needed, the staff will issue a proprietary version of the readiness assessment report. The staff's expectation is that

NuScale/CFPP will consider addressing the NRC staff's observations from the readiness assessment before submitting the CFPP's COLA, or, if needed, reevaluate the COLA submittal date.