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

September 5, 2018

MEMORANDUM TO: Samuel S. Lee, Chief
Licensing Branch 1
Division of Licensing, Siting,
and Environmental Analysis
Office of New Reactors

FROM: Getachew Tesfaye, Senior Project Manager ***/RA/***
Licensing Branch 1
Division of Licensing, Siting,
and Environmental Analysis
Office of New Reactors

SUBJECT: SUMMARY OF THE AUGUST 16, 2018, CATEGORY 1 PUBLIC TELECONFERENCE TO DISCUSS THE NUSCALE POWER, LLC RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION ASSOCIATED WITH THE NUSCALE DESIGN CERTIFICATION APPLICATION

The U.S. Nuclear Regulatory Commission (NRC) held a Category 1 public teleconference on August 16, 2018, to discuss responses to the NRC staff requests for additional information associated with the NuScale Power, LLC (NuScale) design certification application. Participants included personnel from NuScale and members the general public.

The public meeting notice dated August 16, 2018, can be found in the NRC's Agencywide Documents Access and Management Systems under Accession No. ML18221A484. This meeting notice was also posted on the NRC public website.

Enclosed is the meeting agenda (Enclosure 1), list of participants (Enclosure 2), and overview (Enclosure 3).

Docket No. 52-048

Enclosures:
1. Meeting Agenda
2. List of Attendees
3. Meeting Overview

cc w/encl.: DC NuScale Power, LLC Listserv

CONTACT: Getachew Tesfaye NRO/DLSE
301-415-8013

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DATED: September 5, 2018

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ADAMS Accession No.: ML18242A044 **NRO-002**

OFFICE	DLSE/LB1:PM	DLSE/LB1:PM	DLSE /LB1:LA	DLSE/RPAC	DNRL/LB1:PM
NAME	GTesfaye	PChowdhury*	MMoore	EStutzcage *	GTesfaye (signed)
DATE	8/29/2018	9/4/2018	8/31/2018	9/5/2018	9/5/2018

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U.S. NUCLEAR REGULATORY COMMISSION

CATEGORY 1 PUBLIC TELECONFERENCE TO DISCUSS THE NUSCALE POWER, LLC RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION ASSOCIATED WITH THE NUSCALE DESIGN CERTIFICATION APPLICATION

MEETING AGENDA

August 16, 2018

1:00 – 1:15 PM

Introductions and Identification of topics

1:15 – 2:30 PM

Discussion of U.S. Nuclear Regulatory Commission Staff's Questions regarding NuScale Power LLC's Responses to Requests Additional Information 9303, 9263, 9257, 9283, 9282, and 9300.

2:30 – 2:45 PM

Public Comments/Questions

2:45

Meeting Closure

U.S. NUCLEAR REGULATORY COMMISSION

CATEGORY 1 PUBLIC TELECONFERENCE TO DISCUSS THE NUSCALE POWER, LLC RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION ASSOCIATED WITH THE NUSCALE DESIGN CERTIFICATION APPLICATION

LIST OF ATTENDEES

August 16, 2018

Name	Organization
Prosanta Chowdhury	U.S. Nuclear Regulatory Commission (NRC)
Sean Meighan	NRC
Edward Stutzcage	NRC
Ronald LaVera	NRC
Zachary Gran	NRC
Michael Dudek	NRC
Carrie Fosaaen	NuScale Power, LLC (NuScale)
Jon Bristol	NuScale
Jim Osborn	NuScale
Elizabeth English	NuScale
Carl Dumsday	NuScale
Mark Shaver	NuScale
Diane D'Arrigo	Member of the public
Sarah Fields	Member of the public
Timothy Judson	Member of the public

U.S. NUCLEAR REGULATORY COMMISSION

OVERVIEW OF THE AUGUST 16, 2018, TELECONFERENCE TO DISCUSS THE NUSCALE POWER, LLC RESPONSES TO REQUESTS FOR ADDITIONAL INFORMATION ASSOCIATED WITH THE NUSCALE DESIGN CERTIFICATION APPLICATION

The purpose of this teleconference was to discuss the results of the U.S. Nuclear Regulatory Commission (NRC) staff's review of NuScale Power LLC's (NuScale) Responses to Requests for Additional Information (RAI) Nos. 9303, 9263, 9257, 9283, 9282, and 9300.

The following is the summary of the NRC staff's feedback and agreed upon next steps for the resolution of the remaining issues.

1. RAI No. 9303, Question 12.03-52 Inspections, Tests, Analyses, and Acceptance Criteria (ITAAC):

    a. NRC Feedback: (Follow-up to the July 26, 2018 discussion) - The staff is ok with the idea of not specifically referencing Regulatory Guide (RG) 1.143, "Design Guidance for Radioactive Waste Management Systems, Structures, and Componenets Installed in Light-Water-Cooled Nuclear Power Plants Title," in the ITAAC. The intent of the ITAAC is to ensure the components are designed to the appropriate design criteria. The ITAAC was never intended to impose the other criteria in RG 1.143, such as the As As Low As Reasonably Achievable (ALARA) and minimization of contamination related criteria in the earlier sections of the RG.

    b. Next Step: NuScale requested more specifics on the RG 1.143 system and component ITAAC. It was agreed to hold a follow-up meeting in two weeks.

2. RAI No. 9161, "Failed Fuel Fraction":

    a. NRC Staff Feedback: The staff would like an update on how NuScale is addressing the changes to other design control document (DCD) information (e.g., tank activity, classification of systems and components, radiation zones etc.) as a result of the Design Basis Failed Fuel Fraction changes.

    b. Next Step: NuScale continues its work on failed fuel fraction source term revision with conforming changes to the final safety analysis report (FSAR) Sections 2.3 and 3.11. NuScale plans to complete its work by end of August 2018.

3. RAI Nos. 9282, 9283, 9291, and 9300 – Regarding neutron fluence information:

    a. NRC Staff Feedback: The staff would like to discuss RAI Nos. 9282, 9283, 9291, and 9300 with respect to the information provided to NuScale regarding the type of information provided in other designs, and how that type of information could be used to address the staff's questions.

b. Next Step: NuScale took action to evaluate the information and determine if a supplement to RAI No. 9282 response is needed and follow up with NRC staff by the end of August 2018.

4. RAI No. 9263, “RCS Crud burst clean up”:

   a. NRC Staff Feedback:

      - NRC asserts that no changes to existing NuScale calculations appear to be required (just for this topic, there may be other implications due to design basis failed fuel fraction, etc.)

      - NRC asserts that Section 12.2.1.8 (and the supporting tabular information) should be modified to say that 5 mR/hr at one meter above the refuel area pool surface corresponds to a dose rate on the refueling bridge of less than or equal to 2.5 mR/hr.

      - NRC asserts that having the response to RAI No. 9263 say that the 5 mR/hr corresponds to 2.5 mR/hr on the bridge because the bridge deck is 3 meters above the pool surface, and is covered by ¼ inch steel plate, would support the staff’s evaluation of the adequacy of the use of 5 mR/hr as a criteria.

      - NRC understands that the 5 mR/hr value at one meter above the pool surface corresponds to an assumed activity in the pool water.

      - NuScale should clarify in DCD Section 12.2 that the concentration of the activity in the refuel pool area will be based on the dispersal of the activity contained in the reactor vessel at the termination of the RCS cleanup (as based on the projected dose) distributed through *JUST* the volume of water in the Refueling/Disassembly area, and *NOT* the entire ultimate heat sink (UHS) pool volume.

      - NuScale should clarify in DCD 12.2 the dimensions of the Refueling/Disassembly area (length, width, and depth) to be used during the projected dose calculation.

      - NuScale should clarify that the projected dose to the worker on the bridge should be based on the concentration of the activity in the refueling area resulting from the contribution of the remaining activity in the reactor vessel dispersed through the baseline UHS pool concentration (i.e., RC Curies/Refueling Area mass (Ci/gm) + UHS baseline Ci/gm = total refueling area concentration used to determine 5 mR/hr at 1 meter above the refueling area pool water, *OR* provide justification why the baseline concentration need not be included).

   b. Next Step: NuScale took action to find out what discussion their management had with NRC management on this subject and get back to NRC staff. The NRC staff and NuScale agreed to have a follow up discussion on Aug 27, 2018.

5. RAI No. 9257

   a. NRC Staff Feedback:

- The NRC staff would like to understand NuScale's belief that using American National Standards Institute (ANSI) 18.1 and the Electric Power Research Institute (EPRI) derived crud burst factors double counts the amount of activity.

- The NRC staff would like to know how NuScale reconciles the value of 9 curies of Co-58 in the Chemical and Volume Control System (CVCS) MB, when using the operating experience (cited by NuScale in EC-0000-3076) would lead to much larger values.

- The NRC staff is interested in how NuScale assesses the reapportionment of the coolant activity from the demins where else it would go.

- The NRC staff would like to discuss how their review of the EPRI document could be used to address the staff question with minimal effort by NuScale

b. Next Step: NRC staff took action to follow up with management on this matter and get back to NuScale staff.