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

July 16, 2018

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

FROM: Bruce M. Bavol, Project Manager ***/RA/***
Licensing Branch 1
Division of Licensing, Siting,
and Environmental Analysis
Office of New Reactors

SUBJECT: SUMMARY OF THE MAY 30, 2018, CATEGORY 1, PUBLIC TELECONFERENCE TO DISCUSS NUSCALE POWER LLC'S REQUEST FOR ADDITIONAL INFORMATION RESPONSES 9273 AND 9188

The U.S. Nuclear Regulatory Commission (NRC) held a Category 1 public teleconference on May 30, 2018, to discuss the NuScale Power, LLC (NuScale) request for additional information responses pertaining to reactor vessel materials and steam generator tube plugging criteria. Participants included personnel from NuScale. No members of the general public participated via bridgeline during the meeting.

The public meeting notice dated May 30, 2018, can be found in the NRC's Agencywide Documents Access and Management Systems under Accession No. ML18117A344. This meeting notice was also posted on the NRC public website.

Enclosed is the meeting agenda (Enclosure 1), list of participants (Enclosures 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: Bruce M. Bavol, NRO/DLSE
301-415-6715

SUBJECT: SUMMARY OF THE MAY 30, 2018, CATEGORY 1, PUBLIC TELECONFERENCE TO DISCUSS NUSCALE POWER LLC'S REQUEST FOR ADDITIONAL INFORMATION RESPONSES 9273 AND 9188
DATE: July 16, 2018

DISTRIBUTION:
PUBLIC
Reading File
RidsNroDnrl
GCranston, NRO
RidsAcrsAcnwMailCenter
BBavol, NRO
GMakar, NRO
LTerry, NRO
PKlein, NRR
RidsOgcMailCenter
MBrown, NRO
RidsRgn2MailCenter
SLee, NRO
MMitchell, NRO

ADAMS Accession No.: ML18192A140 *By email **NRO-002**

OFFICE	DLSE/LB1:PM	DLSE/LB1:LA	DEIA/MCB	DLSE/LB1:PM
NAME	BBavol	MBrown	MMitchell*	BBavol (signed)
DATE	7/11/2018	7/10/2018	7/12/2018	7/16/2018

OFFICIAL RECORD COPY

U.S. NUCLEAR REGULATORY COMMISSION

CATEGORY 1 PUBLIC TELECONFERENCE TO DISCUSS

NUSCALE POWER, LLC'S REQUEST FOR ADDITIONAL

INFORMATION RESPONSES 9273 AND 9188

MEETING AGENDA

May 30, 2018

The purpose of this teleconference was for the U.S. Nuclear Regulatory Commission (NRC) staff to seek clarification from NuScale Power, LLC (NuScale) on request for additional information (RAI) 9188 response on 05.03.01, "Reactor Vessel Materials," and RAI 9273 response on 05.04.02.01, "Steam Generator Materials."

Time	***Topic***	***Speaker***
1:00-1:15	Introductions and identification of topics	NRC
1:15-2:30	RAI discussions	NuScale
2:30-2:45	Questions from the public	Public
2:45-2:50	Break	All
2:30-3:00	Closed Portion	NuScale

U.S. NUCLEAR REGULATORY COMMISSION

CATEGORY 1 PUBLIC TELECONFERENCE TO DISCUSS

NUSCALE POWER LLC'S DESIGN CERTIFICATION APPLICATION

LIST OF ATTENDEES

May 30, 2018

Name	Organization
Bruce Bavol	U.S. Nuclear Regulatory Commission (NRC)
Greg Makar	NRC
Nicholas McMurray	NRC
Leslie Terry	NRC
Carrie Fosaaen	NuScale Power, LLC (NuScale)
John Fields	NuScale
Matt Mallet	NuScale
HQ Xu	NuScale
JJ Arthur	NuScale
Heqin Xu	NuScale
Gery Wilkowski	Engineering Mechanics Corporation of Columbus (Emc^2)
Elizabeth Kurth-Twombly	Emc^2

Enclosure 2

U.S. NUCLEAR REGULATORY COMMISSION

CATEGORY 1 PUBLIC TELECONFERENCE TO DISCUSS

NUSCALE POWER LLC'S REQUEST FOR ADDITIONAL

INFORMATION RESPONSES

The purpose of this teleconference was for the U.S. Nuclear Regulatory Commission (NRC) staff to seek clarification on request for additional information (RAI) RAI 9273 response on 05.04.02.01, "Steam Generator Materials," and RAI 9188 response on 05.03.01, "Reactor Vessel Materials."

RAI 9273, question 05.04.02.01-1, the NRC staff requested clarification of several technical aspects of how NuScale Power, LLC (NuScale) determined the criterion for plugging steam generator tubes. To clarify how the tube plugging analyses were performed, the NuScale staff explained that they used finite element analysis to evaluate thinning from wear, and closed-form analytical equations to evaluate cracking. The NuScale staff also provided the source of the Alloy 690 stress-strain behavior they used for the analyses, and they identified the corresponding values of yield stress, ultimate tensile strength (engineering and true), and the strain at the ultimate tensile strength. With respect to the geometric details of the analyses, the NuScale staff confirmed that they included the helical geometry (segment with curvature representative of helical curvature), 2.4 percent ovalization of the tube diameter, and the nominal tube diameter. The NuScale staff also confirmed that they did not include thickness variations in the analyses. The NuScale staff explained the length of tubing included in the analyses and how the ends of the analyzed tube section were modeled. Finally, the NRC staff and NuScale staff discussed considerations in the length of postulated wear flaws as they relate to the plugging criterion determination. The NuScale staff explained that they did not analyze flaw lengths longer than the steam generator tube support tabs because longer flaws are not anticipated, and that they did not analyze flaws from foreign objects because they consider it unnecessary since they are managed through operational programs (i.e., Steam Generator Program and Foreign Object Exclusion Program).

The information provided in the call enables the NRC staff to complete its evaluation of the response to Question 05.04.02.01-1 in RAI 9273.

Regarding RAI 9188, question 05.03.01-4, at the request of NuScale, this discussion has been rescheduled for July 10, 2018.

Enclosure 3