

September 17, 2015

MEMORANDUM FOR: Mark Tonacci, Chief  
Licensing Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

FROM: Omid Tabatabai, Senior Project Manager /RA/  
Licensing Branch 1  
Division of New Reactor Licensing  
Office of New Reactors

SUBJECT: SUMMARY OF AUGUST 26, 2015, OPEN AND CLOSED  
MEETING WITH NUSCALE POWER, LLC, TO DISCUSS  
VARIOUS TOPICS RELATED TO DIGITAL INSTRUMENTATION  
AND CONTROL SYSTEMS

On August 26, 2015, an all-day meeting between representatives of the U.S. Nuclear Regulatory Commission (NRC) staff and NuScale Power, LLC, (NuScale) was held at NuScale office located at 11333 Woodglan Dr., Suite 205, Rockville, MD 20852. The morning portion of this meeting was open to public and the afternoon topics were discussed in a closed session. Enclosure 1 to this meeting summary provides the list of topics that were discussed at the meeting. The purpose of this meeting was for NuScale personnel to update the NRC staff on the status and various aspects of NuScale's digital instrumentation and control (I&C) design such as the platform; software quality assurance; and other design-specific technical changes to be included in the design certification application Chapter 7.

During the open (public) portion of the meeting, NuScale personnel provided a summary of the multinational design evaluation program (MDEP) digital instrumentation and control (I&C) working group's (DICWG) common positions and compared them with those of the applicable NRC regulations. NuScale's presentation on this topic focused on how important aspects of the NuScale's digital I&C design characteristics differ or conform to MDEP DICWG common positions. NuScale specifically described and highlighted their assessment results for nine MDEP DICWG common positions. The NRC staff inquired whether NuScale plans to use and reference any International Standards in their application and NuScale responded that they are considering using Canadian Standards. NuScale personnel inquired when the NRC staff would issue the final version of the NRC regulatory issue summary (RIS) 2013-xx. The NRC staff stated that the final version of the RIS is in its final stages of internal NRC review and concurrence process but the staff did not provide an exact date for issuing the RIS. The NRC staff inquired about NuScale's schedule for submitting its topical report (TR) related to digital I&C design and NuScale informed the NRC staff that they are on schedule to submit their TR in December 2015, if not sooner. At the conclusion of the public portion of the meeting, Mr. Marvin Lewis, a member of the public, raised a concern regarding recent hacking and breach of information in some Governmental agencies and private companies and encouraged the NRC staff to pay close attention to the information security aspects of NuScale small modular reactor design. The NRC staff responded that the staff will review NuScale's design certification

application to ensure it addresses and complies with all the cyber security regulatory requirements.

The purpose of the closed session in the afternoon was for the NuScale personnel to discuss their software quality assurance (QA) program and to describe how applicable regulations and requirements are being addressed in the Chapter 7 of the NuScale's design control document. NuScale started the session by citing key NRC guidance documents as well as applicable industry Standards and then continued the presentation with a more detailed discussion as to how NuScale's software and digital I&C design complies with the QA requirements. At the conclusion of the meetings, the NRC staff and NuScale agreed and planned for further interactions on additional topics related to digital I&C.

The agenda and list of meeting attendees are included in Enclosures 1 and 2, respectively. The meeting notice is available in the NRC Agencywide Documents Access and Management System (ADAMS) with Accession No. ML15201A246. The presentation slides for the public portion are available in ADAMS with Accession No. ML15229A278. The proprietary and non-proprietary versions of the presentation slides for the closed session are in ADAMS with Accession Nos. ML15229A280 and ML15229A279, respectively. Please direct any inquiries to Omid Tabatabai, at (301) 415-6616, or via email to [omid.tabatabai@nrc.gov](mailto:omid.tabatabai@nrc.gov).

ADAMS is the system that provides text and image files of NRC public documents and can be accessed at the NRC Electronic Reading Room at <http://www.nrc.gov/reading-rm/adams.html> . If you do not have access to ADAMS or have problems accessing the documents located in ADAMS, contact the NRC Public Document Room staff at (800) 397-4209, (301) 415-4737, or [pdr@nrc.gov](mailto:pdr@nrc.gov).

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Enclosure:

1. Meeting Agenda
2. Attendees

cc: NuScale DC Listserv

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**ADAMS ACCESSION No.: ML15253A399**

**\*via email**

**NRC-001**

<b>OFFICE</b>	NRO/DNRL/LB1:PM	NRO/DNRL/LB1:LA*	NRO/DNRL/LB1:PM
<b>NAME</b>	OTabatabai	JMcLellan	GCranston
<b>DATE</b>	09/11/2015	09/16/2015	09/17/2015

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## **Meeting Agenda**

### **Open Meeting**

- 9:00 a.m.-9:15 a.m. Introductions
- 9:15 a.m.-10:45 am NuScale Approach to Multinational Design Evaluation Program Digital I&C Working Group Common Positions
- 10:45 a.m.-11:00 a.m. Questions/Answers
- 11:00 a.m.-11:15 a.m. Public Comments/Questions

### **Closed Meeting**

- 1:00 p.m. – 1:30 p.m. NuScale Approach to Compliance for Software Quality Assurance
- 1:30 p.m. – 2:00 p.m. Suggested changes to DSRS related to Field Programmable Gate Array technology adaptation
- 2:00 p.m. – 2:30 p.m. Development process and what will be done for design certification application (DCA) vs. post-DCA/ combined license application
- 2:30 p.m. – 2:45 p.m. Break
- 2:45 p.m. – 3:30 p.m. Treatment of key regulatory guidance (RG 1.152/IEEE 7-4.3.2)
- 3:30 p.m. – 4:00 p.m. Level of detail to be represented in design control document for the above topics

## **List of Attendees**

### **Morning (Open) Session**

Omid Tabatabai, NRC  
Terry Jackson, NRC  
Joe Ashcraft, NRC  
Dinesh Taneja, NRC  
Jack Zhao, NRC  
Tung Truong, NRC  
Bernard Dittman, NRC (via telephone)  
Rossnyev Alvarado, NRC (via telephone)  
Steven Pope, NuScale  
Brian Arnholt, NuScale  
Jason Pottorf, NuScale  
Mark Burzynski, NuScale  
Paul Primavera, NuScale  
Marvin Lewis, Member of the public (via telephone)

### **Afternoon (Closed) Session**

Omid Tabatabai, NRC  
Terry Jackson, NRC  
Joe Ashcraft, NRC  
Dinesh Taneja, NRC  
Jack Zhao, NRC  
Tung Truong, NRC  
Paul Prescott, NRC  
Michael Waterman, NRC (via telephone)  
Bernard Dittman, NRC (via telephone)  
Rossnyev Alvarado, NRC (via telephone)  
Steven Pope, NuScale  
Brian Arnholt, NuScale  
Jason Pottorf, NuScale  
Mark Burzynski, NuScale  
Paul Primavera, NuScale  
Lloyd Heckle, NuScale