



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

September 14, 2022

MEMORANDUM TO: Michael I. Dudek, Chief
New Reactor Licensing Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

FROM: Bruce Baval, Project Manager */RA/*
New Reactor Licensing Branch
Division of New and Renewed Licenses
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE August 24, 2022, OBSERVATION PUBLIC MEETING TO DISCUSS THE PRE-SUBMITTAL OF THE NUSCALE NON LOSS-OF-COOLANT-ACCIDENT EVALUATION MODEL TOPICAL REPORT

The U.S. Nuclear Regulatory Commission (NRC) held an Observation Public Meeting on August 24, 2022, to discuss the pre-submittal of the NuScale's Topical Report (TR)-0516-49416, Revision 4, "Non-Loss-of-Coolant-Accident Topical Report." NRC and NuScale staff participated in the open portion of the meeting along with one external project stakeholders.

The public meeting notice dated August 24, 2022, can be found in the NRC's Agencywide Documents Access and Management Systems (ADAMS) under Accession No. ML22230A046. Presentation slides from NuScale can be found in under ML22223A180. This meeting notice was also posted on the NRC public website.

Enclosed is the meeting agenda (Enclosure 1), list of attendees (Enclosure 2), meeting overview - public (Enclosure 3), and the meeting overview - non-public (Enclosure 4).

Docket No. 99902052

Enclosures:

1. Meeting Agenda
2. List of Attendees
3. Summary of Open Session
4. Summary of Closed, Proprietary Session

CONTACT: Bruce M. Baval, NRR/DNRL
301-415-6715

SUBJECT: SUMMARY OF THE AUGUST 24, 2022, OBSERVATION PUBLIC MEETING TO
DISCUSS THE PRE-SUBMITTAL OF THE NUSCALE NON LOSS-OF-
COOLANT-ACCIDENT EVALUATION MODEL TOPICAL REPORT
DATED: SEPTEMBER 14, 2022

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| NAME | BBavol* | SGreen* | MDudek* | BBavol* |
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U.S. NUCLEAR REGULATORY COMMISSION

**OBSERVATION PUBLIC MEETING TO DISCUSS THE PRE-SUBMITTAL OF THE NUSCALE
NON LOSS-OF-COOLANT-ACCIDENT EVALUATION MODEL TOPICAL REPORT**

MEETING AGENDA

August 24, 2022

| <u>Time</u> | <u>Topic</u> |
|-----------------------|---|
| 1:30 p.m. – 1:35 p.m. | Welcome and Introductions |
| 1:35 p.m. – 1:55 p.m. | Opening Discussion & NuScale presentation |
| 1:55 p.m. – 2:00 p.m. | Public – Questions and Comments |
| 2:00 p.m. – 4:00 p.m. | Closed Portion |
| 4:00 p.m. | Adjourn |

U.S. NUCLEAR REGULATORY COMMISSION

**OBSERVATION PUBLIC MEETING TO DISCUSS THE PRE-SUBMITTAL OF THE NUSCALE
NON LOSS-OF-COOLANT-ACCIDENT EVALUATION MODEL TOPICAL REPORT**

LIST OF ATTENDEES

August 24, 2022

| <u>Name</u> | <u>Organization</u> |
|-------------------------|--|
| Bruce Bovol | U.S. Nuclear Regulatory Commission (NRC) |
| Patton, Rebecca | NRC |
| Miller, Joshua | NRC |
| Rau, Adam | NRC |
| Donoghue, Joseph | NRC |
| Yarsky, Peter | NRC |
| Barrett, Antonio | NRC |
| Nolan, Ryan | NRC |
| Tabatabai, Omid | NRC |
| Pohida, Marie | NRC |
| Gamble, Robert | NuScale |
| Griffith, Thomas | NuScale |
| Lingenfelter, Andy | NuScale |
| Lynn, Kevin (presenter) | NuScale |
| McCloskey, Meghan | Nuscale |
| Sawant, Pravin | NuScale |
| Shaver, Mark | NuScale |
| Song, Yong Jae | NuScale |
| Yoo, Yeon Jong | NuScale |
| Throckmorton, Dean | NuScale |
| Subaiya, Peter | NuScale |
| Thornsby, Eric | Electric Power Research Institute (EPRI) |

U.S. NUCLEAR REGULATORY COMMISSION

OBSERVATION PUBLIC MEETING TO DISCUSS THE PRE-SUBMITTAL OF THE NUSCALE NON LOSS-OF-COOLANT-ACCIDENT EVALUATION MODEL TOPICAL REPORT

The U.S. Nuclear Regulatory Commission (NRC) held an Observation Public Meeting on August 24, 2022, to discuss the pre-submittal of the NuScale's Topical Report (TR)-0516-49416, Revision 4, "Non-Loss-of-Coolant-Accident Topical Report." NRC and NuScale staff participated in the open portion of the meeting along with one external project stakeholders.

The Non - LOCA TR presentation provided an opportunity for NuScale to share overview and context of:

- Key design changes implemented between the Design Certification Application (DCA) [US600] design and the design for the Standard Design Approval (SDA) Application [US460]
- Preliminary identification of design change impacts to Chapter 15 safety analysis event progressions, phenomena, evaluation models (EM), and Non-LOCA Topical Report
- NuScale's plan to integrate effects of design changes, EM impacts into Non-LOCA Topical Report During the closed portion of the meeting NuScale proprietary information was discussed with the NRC staff asking questions on the design and testing changes since the DCA submittal.

At the end of the public portion, NRC staff opened up the meeting to questions from the general public with no questions being asked.

Below are notes taken from the NuScale Non-LOCA TR closed meeting.

- Staff asked about the TR submittal date - NuScale responded that the Non-LOCA TR is expected at {{ }}.
- Staff asked if Reactor Safety Valves setpoint changed – NuScale stated that, {{ }}.
- Staff asked about approach to {{ }}.
- Staff asked if more instrumentation is used for the NIST testing – NuScale stated that some adjustments were made to instrumentation.
- Staff asked about non-condensable gases (NCGs) in the test – NuScale stated that NCGs were considered and will be discussed at a later time during testing observation.
- NuScale presented several sample calculation results.
- NuScale intends to remove some Design Certification non-LOCA TR review L/Cs {{ }}

}}.

- NuScale intends to use Computational Fluid Dynamics analyses to support the heat transfer correlations used in NRELAP.
- NuScale stated TR Format updated to be design independent (Both Design Certification Application and Standard Design Approval Application).
- Staff asked about where conservative calculation methodology would be located/described – NuScale stated they were adding flexibility to use conservative inputs for dose assessment and rod drop analysis (add methodology to TR).
- Staff asked about the Critical Heat Flux (CHF) {{

}}.

- The staff noted that previous DCA non-LOCA TR requests for addition information responses will be looked at to see if previous bases or assumption justification are still valid with changes to the SDA non-LOCA TR.