

October 12, 2016

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

FROM: Rocky D. Foster, Project Manager /RA/
Licensing Branch 1
Division of New Reactor Licensing
Office of New Reactors

SUBJECT: MEETING SUMMARY CLOSED MEETING WITH NUSCALE
POWER, LLC TO DISCUSS NUSCALE'S DRAFT TOPICAL
REPORT ON NON-LOSS OF COOLANT ACCIDENT
EVALUATION METHODOLOGY

On September 13, 2016, representatives of the U.S. Nuclear Regulatory Commission (NRC) staff and NuScale Power, LLC (NuScale) held a closed meeting at the NuScale office located at 11333 Woodglen Avenue, Suite 205, Rockville, Maryland, 20852, for the NRC staff to conduct a page-turn evaluation and discuss NRC staff's questions on the draft non-loss of coolant accident evaluation methodology topical report (TR).

To prepare for the meeting, the NRC staff performed an initial cursory review of the TR. The NRC staff identified potential issues that would prevent docketing of the TR for review by NRC staff. These issues are identified below. The NRC staff makes no claims that this list is complete, and that additional items could be revealed once a more thorough acceptance review is performed.

Items identified by NRC staff that would prevent docketing include:

- The TR needs to include detail on what approval is being sought. The current statement focuses on the evaluation model, but the contents of the TR extend beyond the evaluation model (e.g. input parameters and initial conditions, interface requirements with other evaluation models).
- The TR contains unjustified statements regarding the treatment of delayed neutron fraction and neutron lifetime. The treatment of these parameters in the TR appears to be unconservative and inconsistent with past precedent.

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- The conservative pressure bias direction to minimize the critical heat flux ratio is not consistent with known physical trends. The cited reference is the subchannel methodology. Further justification is required, as the subchannel methodology TR does not appear to justify this.
- Criteria for identification of the limiting case for subchannel analysis needs to be identified. These criteria need to be justified.
- Low flow and stagnation critical heat flux ratio evaluation needs further justification. The current discussion lacks sufficient detail to support a technical review. In particular, it remains unclear whether the correlation is implemented into NRELAP5. Additional justification regarding the applicability to the NuScale fuel design, within the context of how it is implemented into the evaluation model, needs to be provided (e.g. models used in data reduction as applicable).

At the conclusion of the meeting, the NRC project manager asked each NRC staff participant if they had any additional questions or concerns. No additional items were identified by the NRC staff. With no further discussion, the meeting was adjourned.

The list of meeting attendees is included in the Enclosure. The meeting notice and agenda are available in Agencywide Documents Access and Management System (ADAMS) with Accession No. ML16242A092. ADAMS is the system that provides text and image files of NRC's public documents and can be accessed at the NRC's 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.

Enclosure:
Meeting Attendees

cc: NuScale DC ListServ

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Enclosure:
Meeting Attendees

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***via email**

NRC-002

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| NAME | RFoster* | MBrown* | RKaras* | GCranston* |
| DATE | 10/03/2016 | 10/ 03 /2016 | 10/07/2016 | 10/12/2016 |

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List of Meeting Attendees

September 13, 2016

NuScale Power, LLC
11333 Woodglen Ave., Suite 205
Rockville, Maryland 20852

| Attendee Name | Affiliation |
|----------------------|---------------------|
| Tim Drzewiecki | NRC |
| Alex Burja | NRC |
| Rocky Foster | NRC |
| Michael Zavisca | ERI |
| Mohsen Khatir-Rahbar | ERI |
| Erick Ball | ERI |
| Steven Mirsky | NuScale |
| Steve Pope | NuScale |
| Meghan McCloskey | NuScale |
| Dean Throckmorton | NuScale |
| Albert Ghara Khanian | NuScale |
| Archie Manoharan | NuScale |
| Kent Welter | NuScale (Corvallis) |
| Clavoio Delfino | NuScale (Corvallis) |
| Ben Bristol | NuScale (Corvallis) |
| Kenny Anderson | NuScale (Corvallis) |
| Brian Wolfe | NuScale (Corvallis) |
| Yeuw June Yoo | NuScale (Corvallis) |
| Wendell Wagner | NuScale (Corvallis) |
| Jeannie Wike | NuScale (Corvallis) |
| Urmi Shome-Dinath | NuScale (Corvallis) |

Enclosure