



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

July 26, 2018

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

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

SUBJECT: SUMMARY OF THE JULY 16, 2018, PUBLIC MEETING WITH
NUSCALE POWER, LLC, TO DISCUSS NUSCALE'S REVISED
METHODOLOGY FOR PROTECTION AGAINST A TURBINE
MISSILE EVENT

On July 16, 2018, representatives of the U.S. Nuclear Regulatory Commission (NRC) and NuScale Power, LLC (NuScale) held a public teleconference meeting to discuss NuScale's revised methodology to protect structures, systems, and components (SSCs) important to safety against a turbine missile event.

Enclosure 1 captures the summary of the topics discussed during the teleconference. The agenda and list of meeting attendees are included in Enclosures 2 and 3, respectively. The meeting notice for this meeting is available in the Agencywide Documents Access and Management System (ADAMS) under Accession No. ML18179A076.

Docket No. 52-048

Enclosures:

1. Meeting Summary
2. Agenda
3. Attendees

CONTACT: Omid Tabatabai, NRO/DLSE
301-415-6616

SUBJECT: SUMMARY OF THE JULY 16, 2018, PUBLIC MEETING WITH NUSCALE POWER, LLC, TO DISCUSS NUSCALE'S REVISED METHODOLOGY FOR PROTECTION AGAINST A TURBINE MISSILE EVENT
 DATED: July 26, 2018

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NRC-001

OFFICE	NRO/DLSE/LB1:PM	NRO/DLSE/LB1:LA*	NRO/DEI/SEB:BC*	NRO/DLSE/LB1:PM
NAME	OTabatabai	MMoore	SSamadar	OTabatabai
DATE	7/23/2018	7/26/2018	7/25/2018	7/26/2018

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U.S. NUCLEAR REGULATORY COMMISSION

SUMMARY OF THE JULY 16, 2018, PUBLIC MEETING WITH NUSCALE POWER, LLC,

TO DISCUSS NUSCALE'S REVISED METHODOLOGY FOR PROTECTION AGAINST A

TURBINE MISSILE EVENT

In a June 25, 2018, letter, "Nuscale Power, LLC - Submittal of Changes to Tier 1 and Tier 2 of the Nuscale Final Safety Analysis Report to Support Safeguarding Essential SSC from Turbine Missiles Using Barriers," (ADAMS Accession No. ML18176A394), NuScale Power, LLC (NuScale) provided a summary of its rationale for protecting essential structures, systems, and components (SSCs) from turbine missiles using a barrier-based versus a probabilistic-based approach.

During this public meeting on July 16, 2018, the U.S. Nuclear Regulatory Commission (NRC) staff from Materials and Chemical Engineering Branch and Structural Engineering Branch discussed the following questions with NuScale representatives.

1. Demonstrate that the turbine missile parameters (i.e. mass, velocity, impact area, shape, and hardness of missile) and/or its damage potential to concrete and steel barriers are bounded by the design basis tornado and hurricane missiles.
2. Justify the applicability of the formulas for penetration, spalling, etc. in FSAR Section 5.3 for the turbine missile barrier design.
3. Provide a technical basis for crediting the aircraft impact analysis that is a 'beyond design basis' event for the design basis turbine missile event.
4. Provide a summary of structural analysis of barriers for turbine missiles.
5. Provide a technical basis and justification for turbine missiles spectrum considered from the first-of-a-kind turbine with no operating experience, rotating at twice the speed of a typical PWR turbine.

The NRC staff requested NuScale to make available their supporting documentation to address the above questions including the barrier evaluation due to ostulated turbine missiles NuScale agreed to place its supporting documents on their electronic reading room for the staff's audit. Additionally, NRC NRO/SEB staff requested for an audit to be set up at the NuScale Rockville, Maryland office.

U.S. NUCLEAR REGULATORY COMMISSION

**SUMMARY OF THE JULY 16, 2018, PUBLIC MEETING WITH NUSCALE POWER, LLC. TO
DISCUSS NUSCALE'S REVISED METHODOLOGY FOR PROTECTION AGAINST A
TURBINE MISSILE EVENT**

MEETING AGENDA

Introduction	2:00 – 2:10 pm
Discussion of NuScl's Revised Methodology	2:10 – 2:50 pm
Public Comments	2:50 – 3:00 pm

U.S. NUCLEAR REGULATORY COMMISSION SUMMARY OF THE JULY 16, 2018.

TELECONFERENCE WITH NUSCALE POWER, LLC

LIST OF ATTENDEES

NuScale Power, LLC

Amber Berger
Carrie Fosaaen
Mark Chitty
Zack Houghton
Josh Parker
Ed Siener
Marty Bryan
Carl Dumsday
Chris Maxwell
Edan Engstrom

U.S. Nuclear Regulatory Commission Staff

Maryam Khan
John Honcharik
Matt Mitchell
BP Jain
Omid Tabatabai
Marieliz Vera
Raul Hernandez