

September 23, 2021

Docket No. 99902078

U.S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
One White Flint North  
11555 Rockville Pike  
Rockville, MD 20852-2738

**SUBJECT:** NuScale Power, LLC Submittal of Presentation Materials Entitled “SDAA Pre-Application Presentation: NuScale SDAA Topical Report – Treatment of DC Power in Safety Analysis (Open Session),” PM-106639, Revision 0

NuScale Power, LLC (NuScale) has requested a meeting with the NRC technical staff on September 29, 2021, to discuss the NuScale topical report “Treatment of DC Power in Safety Analysis.” The purpose of this submittal is to provide presentation materials to the NRC for use during this meeting.

The enclosure to this letter is the presentation entitled “SDAA Pre-Application Presentation: NuScale SDAA Topical Report – Treatment of DC Power in Safety Analysis (Open Session).”

This letter makes no regulatory commitments and no revisions to any existing regulatory commitments.

If you have any questions, please contact Rebecca Norris at 541-452-7539 or at [RNorris@nuscalepower.com](mailto:RNorris@nuscalepower.com).

Sincerely,



Mark W. Shaver  
Manager, Licensing  
NuScale Power, LLC

Distribution: Michael Dudek, NRC  
Getachew Tesfaye, NRC  
Bruce Bavol, NRC

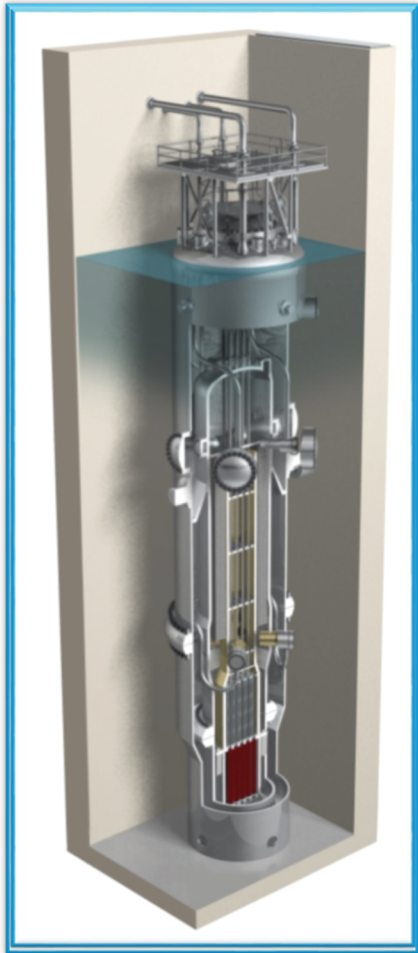
Enclosure: “SDAA Pre-Application Presentation: NuScale SDAA Topical Report – Treatment of DC Power in Safety Analysis (Open Session),” PM-106639

**Enclosure:**

“SDAA Pre-Application Presentation: NuScale SDAA Topical Report – Treatment of DC Power in Safety Analysis (Open Session),” PM-106639

# SDAA Pre-Application Presentation

## NuScale SDAA Topical Report Treatment of DC Power in Safety Analysis



September 29, 2021  
(Open Session)

# Presenters

---

**Kristopher Cummings**  
Licensing Engineer

**Meghan McCloskey**  
Thermal Hydraulic Engineer

**Ben Bristol**  
Supervisor, System Thermal Hydraulics

---

# Introductions & Opening Remarks

# Meeting Purpose

---

- Pre-application engagement for topical report “Treatment of DC Power in Safety Analysis”, estimated submittal in May 2022 as communicated by letters dated June 17, 2021 and August 3, 2021.
- Provide NRC management and staff with a high-level overview of approach for treatment of electrical power supply in the SDAA Ch. 15 safety analysis.
- Solicit preliminary NRC staff feedback on proposed approach in future topical report submittal.

# Overview

---

- NuScale is implementing a modified approach to the treatment of DC power supply in Ch. 15 design-basis events for the upcoming Standard Design Approval Application (SDAA).
  - Modified approach leverages the augmented quality DC power system design to eliminate event progressions with coincident loss of DC and AC power following turbine trip.
  - Treatment is consistent with identified design failure modes.
  - No change to loss of AC power timing assumptions.
- NuScale plans to use the topical report process to submit the identified approach for approval before implementation in the upcoming SDAA.

# Acronyms

---

AC – alternating current

DC – direct current

NRC – Nuclear Regulatory Commission

SDAA – Standard Design Approval Application



**Portland Office**

6650 SW Redwood Lane,  
Suite 210  
Portland, OR 97224  
971.371.1592

**Corvallis Office**

1100 NE Circle Blvd., Suite 200  
Corvallis, OR 97330  
541.360.0500

**Rockville Office**

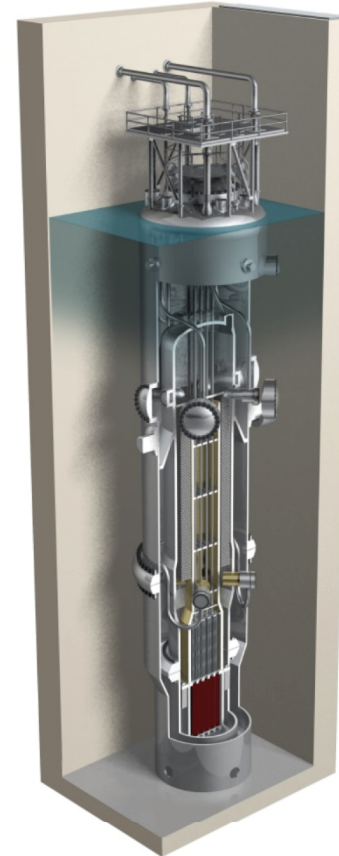
11333 Woodglen Ave., Suite 205  
Rockville, MD 20852  
301.770.0472

**Richland Office**

1933 Jadwin Ave., Suite 130  
Richland, WA 99354  
541.360.0500

**Charlotte Office**

2815 Coliseum Centre Drive,  
Suite 230  
Charlotte, NC 28217  
980.349.4804



<http://www.nuscalepower.com>

 [Twitter: @NuScale\\_Power](https://twitter.com/NuScale_Power)

