



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

April 11, 2022

MEMORANDUM TO: William Kennedy, Acting Chief  
Advanced Reactor Licensing Branch  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

FROM: Mallecia Sutton, Senior Project Manager *Mallecia Sutton* Signed by Sutton, Mallecia  
Advanced Reactor Licensing Branch on 04/11/22  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF NOVEMBER 29, 2021, CLOSED PRE-APPLICATION  
MEETING WITH TERRAPOWER, LLC TO DISCUSS THE FUEL  
QUALIFICATION METHODOLOGY FOR THE NATRIUM REACTOR  
(EPID NO. L-2021-LRM-0071)

On November 29, 2021, the U.S. Nuclear Regulatory Commission (NRC) staff held a closed videoconference meeting with TerraPower, LLC (TerraPower) to provide the NRC staff with an overview of the fuel qualification methodology for the Natrium Reactor. The presentation slides can be found in the NRC's Agencywide Documents Access and Management System (ADAMS) at Accession No. ML21328A183 (nonpublic). Participants included personnel from the NRC staff, TerraPower, General Electric Hitachi, Duke Energy, and Pacificorp.

The public meeting notice, dated November 15, 2021, can be found in ADAMS at Accession No. ML21319A398. The list of meeting attendees is provided as an enclosure to this memorandum.

The NRC staff began the meeting with an introduction and explanation of logistical information. During the meeting, TerraPower provided the NRC staff with an overview of the fuel qualification methodology for the Natrium Reactor. The NRC staff asked questions about the information presented and Terrapower representatives responded. Finally, the TerraPower representatives and the NRC staff discussed next steps for future pre-application activities.

Project No. 99902100

Enclosure:  
As stated

CONTACT: Mallecia Sutton, NRR/DANU  
301-415-0673

SUBJECT: SUMMARY OF NOVEMBER 29, 2021, CLOSED PRE-APPLICATION MEETING  
WITH TERRAPOWER, LLC TO DISCUSS THE FUEL QUALIFICATION  
METHODOLOGY FOR THE NATRIUM REACTOR (EPID NO. L-2021-LRM-0071)  
DATED: APRIL 11, 2022

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MSutton, NRR

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ASiwy, NRR

TDrzewiecki, NRR

BAdams, NRR

CVan Wert, NRR

**ADAMS Accession No.: ML22073A276****NRR-106**

<b>OFFICE</b>	NRR/DANU/UAL/PM	NRR/DANU/UAL/PM	NRR/DANU/UAL/LA
<b>NAME</b>	KWagner	MSutton	DGreene
<b>DATE</b>	3/28/2022	3/29/2022	3/31/2022
<b>OFFICE</b>	NRR/DANU/UAL/BC(A)	NRR/DANU/UAL/PM	
<b>NAME</b>	WKennedy	MSutton	
<b>DATE</b>	4/6/2022	4/11/2022	

**OFFICIAL RECORD COPY**

**List of Attendees**

**Closed Pre-Application Meeting with TerraPower, LLC to Discuss the Fuel Qualification**

**Methodology for the Sodium Reactor**

**Monday, November 29, 2021**

**1:00 p.m. – 3:00 p.m.**

<b><u>Name</u></b>	<b><u>Organization</u></b>
Mallecia Sutton	U.S. Nuclear Regulatory Commission (NRC)
William Kennedy	NRC
Chris Van Wert	NRC
Katherine Wagner	NRC
Alex Siwy	NRC
Tim Drzewiecki	NRC
Ben Adams	NRC
Ryan Sprengel	TerraPower, LLC (TerraPower)
Eric Williams	TerraPower
Mark Werner	TerraPower
Tara Neider	TerraPower
Ian Gifford	TerraPower
Bryan Evers	TerraPower
James Vollmer	TerraPower
Sam Miller	TerraPower
Bruce Hilton	TerraPower
Philip Schloss	TerraPower
Lisa Schichlein	General Electric Hitachi
Chris Nolan	Duke Energy
Chuck Tack	PacifiCorp

Enclosure