



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

June 25, 2024

MEMORANDUM TO: Josh M. Borromeo, Chief  
Advanced Reactor Licensing Branch 1  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

FROM: Roel A. Brusselmans, Project Manager */RA/*  
Advanced Reactor Licensing Branch 1  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE DECEMBER 13, 2023, OBSERVATION  
MEETING WITH TERRAPOW, LLC TO DISCUSS COOLING  
WATER AVAILABILITY FOR THE NATRIUM DESIGN (EPID NO.  
L-2021-LRM-0071)

**Meeting Information:**

Applicant: TerraPower, LLC (TerraPower)

Project No.: 99902100

Meeting Title: Pre-Application Meeting with TerraPower to discuss Cooling Water Availability for the Natrium design.

Meeting Date: December 13, 2023

Meeting Type: Observation

Public Meeting Notice Agencywide Documents Access and Management System (ADAMS)  
Accession No.: ML23346A155

Applicant Presentation Slides ADAMS Accession No.: ML23345A038

CONTACT: Roel A. Brusselmans, NRR/DANU  
(301) 415-0829

**Meeting Summary:**

On December 13, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff held an observation meeting for TerraPower to provide the NRC staff with an overview of the cooling water availability for the Sodium pilot plant, Kemmerer Power Station Unit 1 (Kemmerer 1), to be sited near Kemmerer, Wyoming. Meeting participants included representatives from TerraPower, Bechtel Corporation, U.S. Department of Energy, and members of the public. The NRC staff conducted the meeting in accordance with NRC Management Directive 3.5, "Attendance at NRC Staff-Sponsored Meetings" (ML21180A271).

The meeting began with TerraPower providing an overview of the Sodium design including discussion of project goals and a plant overview. TerraPower presented on the current arrangement for cooling water supplying the Naughton Power Plant, a three-unit fossil fueled electricity generating site located northwest of the proposed Kemmerer 1 site. TerraPower stated that the Kemmerer 1 site is planned to be an additional user of Naughton Power Plant's water supply and infrastructure. TerraPower discussed the water supply's usage at the planned Kemmerer 1 which includes cooling makeup water, demineralized water for power cycle makeup, fire water storage, and potable water. TerraPower stated that water would not be needed for safety functions at the planned Kemmerer 1. Lastly, TerraPower gave an overview of the permitting process and status.

At the end of the meeting, TerraPower representatives and the NRC staff discussed the next steps for future interactions regarding the Sodium Reactor design.

No regulatory decisions were made as a result of this meeting.

Enclosure:  
List of Attendees

cc: TerraPower Sodium via GovDelivery

SUBJECT: SUMMARY OF THE DECEMBER 13, 2023, OBSERVATION MEETING WITH TERRAPOWER, LLC TO DISCUSS COOLING WATER AVAILABILITY FOR THE NATRIUM DESIGN (EPID NO. L-2021-LRM-0071) DATED: JUNE 25, 2024

**DISTRIBUTION:**

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MSutton, NRR

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RBrusselmans, NRR

RAnzalone, NRR

PDoub, NMSS

BGlowacki, NMSS

JBorromeo, NRR

PVokoun, NMSS

JO'Hara, NMSS

DGreene, NRR

**ADAMS Accession No.: ML24178A029**

**NRR-001**

<b>OFFICE</b>	NRR/DANU/UAL1:PM	NRR/DANU/UAL1:LA	NRR/DANU/UAL1:BC	NRR/DANU/UAL1:PM
<b>NAME</b>	RBrusselmans	DGreene	JBorromeo	RBrusselmans
<b>DATE</b>	6/9/2024	6/12/2024	6/25/2024	6/25/2024

**OFFICIAL RECORD COPY**

## List of Attendees

### Summary of the December 12, 2023, Open Public Meeting with TerraPower, LLC to Discuss Cooling Water Availability for the Sodium Design (EPID NO. L-2021-LRM-0071)

December 13, 2023

<b>Name</b>	<b>Organization</b>
Reed Anzalone	U.S. Nuclear Regulatory Commission (NRC)
Roel Brusselmans	NRC
Peyton Doub	NRC
Brian Glowacki	NRC
Joe O'Hara	NRC
Patricia Vokoun	NRC
Nick Garstka	TerraPower, LLC (TerraPower)
Michael Green	TerraPower
Nick Kellenberger	TerraPower
Mike Montecalvo	TerraPower
Olu Omotowa	TerraPower
Ryan Sprengel	TerraPower
Erin Wisler	TerraPower
Anita Alexander	Bechtel Corporation (Bechtel)
Vince Frasco	Bechtel
Teresa Heuver	Bechtel
Steven Kline	Bechtel
Katherine Plasket	Bechtel
Michael Rider	Bechtel
Gabrielle Smyly	Bechtel
Nathan Chapman	General Electric-Hitachi (GEH)
Gabrielle Schreier	GEH
Mark Natale	Department of Energy (DOE)
Tim Stuhldreher	DOE