



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

July 19, 2023

MEMORANDUM TO: Joseph A. Proffitt, Acting Chief
Advanced Reactor Licensing Branch 1
Division of Advanced Reactors and Non-power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

FROM: Mallecia Sutton, Senior Project Manager
Advanced Reactor Licensing Branch 1
Division of Advanced Reactors and Non-power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Mallecia Sutton

Signed by Sutton, Mallecia
on 07/19/23

SUBJECT: SUMMARY OF THE MARCH 21, 2023, CLOSED MEETING
WITH TERRAPOWER, LLC, FUEL AND CONTROL ROD
PERFORMANCE ANALYSIS AND FUEL QUALIFICATION
PLANS (EPID NO. L-2021-LRM-0071)

Meeting Information:

Applicant: TerraPower, LLC (TerraPower)

Docket/Project No.(s): 99902100

Public Meeting Notice Agencywide Documents Access and Management System (ADAMS)
Accession No.: ML23053A177

Applicant Presentation Slides ADAMS Accession No.: ML23066A331

Meeting Summary:

The U.S. Nuclear Regulatory Commission (NRC) staff conducted the meeting in accordance with NRC Management Directive 3.5, "Attendance at NRC Staff-Sponsored Meetings" (ADAMS Accession No. [ML21180A271](#)).

- On March 21, 2023, the NRC staff held a closed meeting with TerraPower to discuss the Fuel and Control Rod Performance Analysis and Fuel Qualification Plans for the Sodium design. Participants included representatives from TerraPower, General Electric Hitachi, Bechtel, and the Department of Energy. The enclosure provides the list of meeting attendees.
- The NRC staff began the public meeting with introductions and explained that the meeting was closed due to proprietary information. During the meeting, TerraPower representatives presented a comparison of historic fuel designs and histories and Sodium™ fuel. The discussion focused on the testing program and modeling tools for the Sodium design.
- The NRC staff and TerraPower representatives discussed the next steps for future interactions regarding the Sodium reactor design.

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

Enclosure:
List of Meeting Attendees

SUBJECT: SUMMARY OF MARCH 21, 2023, CLOSED PRE-APPLICATION MEETING WITH TERRAPOWER, LLC TO DISCUSS FUEL AND CONTROL ROD PERFORMANCE ANALYSIS AND FUEL QUALIFICATION PLANS (EPID NO. L-2021-LRM-0071) DATED: JULY 19, 2023

DISTRIBUTION:

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 LKyriazidis, RES
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ADAMS Accession Number: ML23157A332

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| OFFICE | NRR/DANU/UAL1/PM | NRR/DANU/UAL1/PM | NRR/DANU/UAL1/LA | NRR/DANU/UAL1/BC |
| NAME | CBanks | MSutton | DGreene | JProffitt |
| DATE | 6/12/2023 | 6/12/2023 | 7/5/2023 | 7/19/2023 |
| OFFICE | NRR/DANU/UAL1/PM | | | |
| NAME | MSutton | | | |
| DATE | 7/19/2023 | | | |

OFFICIAL RECORD COPY

List of Meeting Attendees

Closed Pre-Application Meeting with TerraPower, LLC to Discuss [Fuel and Control Rod Performance Analysis and Fuel Qualification Plans]

March 21, 2023

| Name | Organization |
|---------------------|--|
| Mallecia Sutton | U.S. Nuclear Regulatory Commission (NRC) |
| Courtney Banks | NRC |
| Reed Anzalone | NRC |
| Alex Siwy | NRC |
| Andrew Bielen | NRC |
| James Corson | NRC |
| Jeff Poehler | NRC |
| Lucas Kyriazidis | NRC |
| Michele Hart | NRC |
| Ryan Sprengel | TerraPower, LLC (TerraPower) |
| Tara Neider | TerraPower |
| Philip Schloss | TerraPower |
| Brian Morris | TerraPower |
| Francesco Deleo | TerraPower |
| James Vollmer | TerraPower |
| Javier Romero | TerraPower |
| Joe Hoffman | TerraPower |
| Joe LaPrad | TerraPower |
| Matthew Presson | TerraPower |
| Mike Montecalvo | TerraPower |
| Sam Miller | TerraPower |
| Lisa Schichlein | General Electric Hitachi |
| Steven Kline | Bechtel |
| Nathan Howard | Department of Energy (DOE) |
| Timothy Stuhldreher | DOE |

Enclosure