



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

January 3, 2024

MEMORANDUM TO: William T. Jessup, 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 OCTOBER 5, 2023, PARTIALLY CLOSED
PUBLIC MEETING WITH TERRAPOWER, LLC TO DISCUSS
DESIGN BASIS ACCIDENT METHODOLOGY (IN-VESSEL WITH
RELEASE, EX-VESSEL WITH AND WITHOUT RELEASE) (EPID
NO. L-2021-LRM-0071)

Meeting Information:

Applicant: TerraPower, LLC (TerraPower)

Project No.: 99902100

Public Meeting Notice Agencywide Documents Access and Management System (ADAMS)
Accession No.: ML23257A065

Applicant Presentation Slides: ML23265A546

Meeting Attendees: See the enclosure for a list of meeting attendees.

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

Meeting Summary:

On October 5, 2023, the U.S. Nuclear Regulatory Commission (NRC) staff held a partially closed public meeting with TerraPower to provide the NRC staff with an overview of the design basis accident (DBA) methodology specific to in-vessel with release and ex-vessel with and without releases for the Natrium design. This meeting was held in anticipation of a forthcoming topical report from TerraPower regarding the same subject. This meeting was also held in support of a forthcoming topical report submittal from TerraPower on the subject. Participants included representatives from TerraPower, Bechtel, Duke Energy, General Electric Hitachi, and members of the general public. The NRC staff conducted the meeting in accordance with NRC Management Directive 3.5, "Attendance at NRC Staff-Sponsored Meetings" (ML21180A271).

The NRC staff began the meeting with an introduction and explained that a portion of the meeting would be closed to the public to discuss proprietary information. During the public portion of the meeting, TerraPower gave an overview of the Natrium design including a discussion of project goals, plant overview, and graphics explaining the design. TerraPower then described the DBA selection for the Natrium design to include postulated in-vessel and ex-vessel events. TerraPower then discussed its DBA release methodologies as these methods are applied to the Natrium design. At the end of the presentation, the public had an opportunity to ask the NRC staff questions.

During the closed portion of the meeting, TerraPower provided additional details related to the DBA evaluation methodologies. TerraPower representatives and the NRC staff discussed the next steps for future interactions regarding the Natrium reactor design.

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

Enclosure: List of Meeting Attendees

cc: TerraPower Natrium via GovDelivery

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ADAMS Accession Number: [ML24012A088]

NRR-001

OFFICE	NRR/DANU/UAL1:PM	NRR/DANU/UAL1:PM	NRR/DANU/UAL1:LA	NRR/DANU/UAL1:BC
NAME	RBrusselmans	MSutton	DGreene	WJessup
DATE	10/27/2023	11/1/2023	11/1/2023	12/27/2023
OFFICE	NRR/DANU/UAL1:PM			
NAME	RBrusselmans			
DATE	1/3/2024			

OFFICIAL RECORD COPY

List of Meeting Attendees

SUMMARY OF THE OCTOBER 5, 2023, PARTIALLY CLOSED PUBLIC MEETING WITH TERRAPOWER, LLC, TO DISCUSS DESIGN BASIS ACCIDENT METHODOLOGY (IN-VESSEL WITH RELEASE, EX-VESSEL WITH AND WITHOUT RELEASE) (EPID NO. L-2021-LRM-0071)

October 5, 2023

Name	Organization
Mallecia Sutton	U.S. Nuclear Regulatory Commission (NRC)
Roel Brusselmans	NRC
Candace	NRC
Michelle Hart	NRC
Reed Anzalone	NRC
Alec Neller	NRC
Alex Siwy	NRC
William Jessup	NRC
Zachary Gran	NRC
Anh Bui	TerraPower, LLC (TerraPower)
Robert Petroski	TerraPower
Chris Forrest	TerraPower
Doug Pruitt	TerraPower
Hugh Lou	TerraPower
Jong Chang	TerraPower
Mine Yilmaz	TerraPower
Sam Miller	TerraPower
Ryan Sprengel	TerraPower
Nick Kellenberger	TerraPower
Gary Harding	TerraPower
Matthew Presson	TerraPower
Steve Kline	Bechtel
Norman Kunkle	Duke Energy
Shane Gardner	General Electric (GE) Hitachi
Maria Pfeffer	GE Hitachi
Scott Pfeffer	GE Hitachi
Tim Enfinger	GE Hitachi