

## UNITED STATES NUCLEAR REGULATORY COMMISSION

WASHINGTON, D.C. 20555-0001

April 18, 2025

George Wilson Vice President, Regulatory Affairs TerraPower, LLC 15800 Northup Way Bellevue, WA 98008

SUBJECT: TERRAPOWER, LLC - FINAL SAFETY EVALUATION OF TOPICAL REPORT NAT-

2965, "HUMAN FACTORS ENGINEERING PROGRAM PLAN AND

METHODOLOGIES TOPICAL REPORT," REVISION 1 (EPID NO. L-2023-TOP-0026)

## Dear George Wilson:

By letter dated April 26, 2023, TerraPower, LLC (TerraPower) submitted Topical Report (TR) NAT-2695, "Natrium Human Factors Engineering Program Plan and Methodologies," Revision 0 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23116A225), for the U.S. Nuclear Regulatory Commission (NRC) staff's review. The TR describes the Natrium Human Factors Engineering Program Plan, including related methodologies, and requests NRC staff review and approval to support referencing of the report in licensing documentation. By email dated on June 21, 2023, the NRC staff found that the TR provided sufficient information for the NRC staff to begin its detailed technical review (ML23167A476).

On May 28, 2024, the NRC staff transmitted an audit plan to TerraPower (ML24137A289) and subsequently conducted an audit of materials related to the TR from June 13, 2024, through August 6, 2024. The NRC issued the audit summary on November 15, 2024 (ML24271A174). On September 17, 2024, TerraPower submitted a revision of the TR (ML24261B926) to clarify portions of the TR as discussed in the audit summary.

The enclosed final Safety Evaluation (SE) is being provided to TerraPower, because the NRC staff has found NAT-2695, Revision 1, acceptable for referencing in licensing actions to the extent specified and under the limitations and conditions delineated in the TR and the SE. The final SE defines the basis for the NRC staff's acceptance of the TR.

The NRC staff requests that TerraPower submit to NRC staff an approved version of this TR within three months of receipt of this letter. The approved version should incorporate this letter and the enclosed SE after the title page. The approved version should include a "-A" (designating approved) following the TR identification symbol.

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If you have any questions, please contact Roel Brusselmans at (301) 415-0829 or via email at Roel.Brusselmans@nrc.gov.

Sincerely,

/RA/

Joshua Borromeo, Chief Advanced Reactor Licensing Branch 1 Division of Advanced Reactors and Non-Power Production and Utilization Facilities Office of Nuclear Reactor Regulation

Project No.: 99902100

Enclosure: As stated

cc: TerraPower Natrium via GovDelivery

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"NATRIUM HUMAN FACTORS ENGINEERING PROGRAM PLAN AND

METHODOLOGIES," REVISION 1 (EPID L-2023-TOP-0026)

**DATED: APRIL 18, 2025** 

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