



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

September 6, 2024

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

SUBJECT: TERRAPOWER, LLC – FINAL SAFETY EVALUATION OF TOPICAL REPORT NAT-3226, “AN ANALYSIS OF THE POTENTIAL VOLCANIC HAZARDS AT THE PROPOSED NATRIUM SITE NEAR KEMMERER, WYOMING” (EPID L-2023-TOP-0027)

Dear Mr. Wilson:

By letter dated April 25, 2023 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML23115A387), TerraPower, LLC (TerraPower) submitted a Topical Report (TR) NAT-3226, “An Analysis of Potential Volcanic Hazards at the Proposed Natrium Site near Kemmerer, Wyoming,” Revision 0A, for the U.S. Nuclear Regulatory Commission (NRC) staff’s review. The TR provides an analysis of potential volcanic hazards that may impact the proposed site near Kemmerer, Wyoming. The TR follows the guidance in NRC Regulatory Guide (RG) 4.26, “Volcanic Hazards Assessment for Proposed Nuclear Power Reactor Sites,” Revision 0 (ML20272A168).

By email dated June 28, 2023 (ML23167B309), the NRC staff informed TerraPower that the TR provided sufficient information for the NRC staff to conduct a detailed technical review. On September 1, 2023, the NRC staff transmitted an audit plan to TerraPower (ML23248A199), and subsequently conducted an audit of materials related to the TR from September 11, 2023, to October 19, 2023. The audit summary was issued on December 4, 2023 (ML23338A051). On February 28, 2024, the NRC staff issued the draft safety evaluation (SE) to TerraPower (ML24059A056).

The enclosed final SE is being provided to TerraPower, because the NRC staff has found the TR acceptable for referencing in licensing actions to the extent specified and under the limitations and conditions delineated in the TR. The final SE defines the basis for the NRC staff’s acceptance of the TR.

The NRC staff requests that TerraPower publish an approved version of this TR within 3 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.

G. Wilson

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If you have any questions, please contact Stephanie Devlin-Gill at (301) 415-5301 or via email at Stephanie.Devlin-Gill@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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