



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

October 7, 2024

Mr. Simon Irish  
Chief Executive Officer  
Terrestrial Energy USA, Inc.  
537 Steamboat Road, Suite 200,  
Greenwich, CT 06830

SUBJECT: TERRESTRIAL ENERGY USA, INC. - REPORT REGARDING THE REGULATORY AUDIT OF THE TOPICAL REPORT TITLED, "PRINCIPAL DESIGN CRITERIA FOR IMSR STRUCTURES, SYSTEMS, AND COMPONENTS" (EPID L-2021-TOP-0034)

Dear Mr. Irish:

By letter dated December 29, 2023, (Agencywide Documents Access and Management System (ADAMS) Accession No. ML24053A168), Terrestrial Energy USA, Inc. (TEUSA), submitted Revision B of the topical report (TR) titled, "Principal Design Criteria for IMSR Structures, Systems, and Components," for the U.S. Nuclear Regulatory Commission (NRC) staff's review and safety evaluation. The TR describes the development of the principal design criteria (PDCs) to be used for future license applications referencing TEUSA's Integral Molten Salt Reactor (IMSR) design.

The NRC staff's report for the regulatory audit conducted in connection with its review of the TR is provided as an enclosure. The NRC staff did not make any licensing conclusions or findings as a result of this audit, but the report is part of the administrative record of the NRC staff's review of the TR and may provide information supporting the NRC staff's safety evaluation. The audit followed the plan dated April 8, 2024, (ML24095A305) unless otherwise noted in the enclosed report. This report constitutes the final report for the audit.

If you have any questions, please contact me at (301) 415-4093 or via e mail at [Adrian.Muniz@nrc.gov](mailto:Adrian.Muniz@nrc.gov).

Sincerely,

*Adrian Muñoz* Signed by Muniz Gonzalez, Adrian  
on 10/07/24

Adrian Muñoz, Senior Project Manager  
Advanced Reactors Licensing Branch 2  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Docket No.: 99902076

Enclosure: As stated

cc: Distribution via Terrestrial IMSR GovDelivery (Letter and Enclosure);

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**NRR-106**

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