



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

April 15, 2026

**TERRA INNOVATUM, S.R.L. – AUDIT PLAN FOR TOPICAL REPORT SOLO-TR-2025-4,  
“SOLO NUCLEAR DESIGN,” REVISION 0  
(EPID NO. L-2026-TOP-0004)**

**Sponsor:** Terra Innovatum, s.r.l.

**Project No.:** 99902138

**Background:**

By letter dated December 7, 2025, Terra Innovatum, s.r.l (TINN) submitted topical report (TR) SOLO-TR-2025-4, “SOLO Nuclear Design” (Agencywide Documents Access and Management System (ADAMS) Accession No. ML25341A000) for U.S. Nuclear Regulatory Commission (NRC) staff review. On February 20, 2026, the NRC staff found that the TR contains sufficient information to begin a detailed technical review (ML26044A141).

The TR provides information on the nuclear design of the SOLO microreactor, including analytical methods, neutronic models, and key core physics parameters that form the technical basis for the reactor’s safety case. TINN is seeking approval of the methodologies described in the TR to be used in future licensing submittals to satisfy regulatory requirements in Title 10 of *the Code of Federal Regulations* (10 CFR) 50.34, “Contents of applications; technical information.”

**Purpose:**

The purpose of this audit is for the NRC staff to gain a better understanding of the TR by reviewing and discussing the material used to support statements or conclusions in the TR. The audit is expected to facilitate a more effective and efficient review by allowing the NRC staff to review and discuss supporting material with the objective of improving communication and eliminating unnecessary requests for additional information. If the NRC staff identifies information that is needed to support a determination in the NRC safety evaluation, TINN will need to submit that information on the docket.

**Regulatory Audit Basis:**

The basis for the audit is 10 CFR 50.34(a)(4) and 10 CFR 50.34(b)(4). The provisions of 10 CFR 50.34(a)(4) for a construction permit (CP) application and 10 CFR 50.34(b)(4) for an operating license (OL) application require, in part, analysis and evaluation of the design and performance of structures, systems, and components (SSCs) of the facility. The objective of these evaluations is to assess the risk to public health and safety resulting from operation of the

facility. The evaluations must also include determination of the margins of safety during normal operations and transient conditions anticipated during the life of the facility.

### **Regulatory Audit Scope:**

The audit team will review documentation that provides supporting information for the TR. The audit scope encompasses all sections of the TR.

### **Information and Other Material Necessary for the Regulatory Audit:**

Audit questions will be shared via online portal (SharePoint). The NRC staff may ask additional questions and may request that specific documents be made available during the review.

### **Team Assignments:**

Alex Siwy, Technical Reviewer, Audit Technical Lead  
Hakan Ozaltun, Technical Reviewer  
Michael Orenak, Senior Project Manager  
Jacqueline Tulip, Project Manager  
Kodaran Anand, Project Manager

Additional audit team members may be added as needed.

### **Logistics:**

Entrance Meeting: April 21, 2026, estimated and subject to change  
Exit Meeting: October 9, 2026, estimated and subject to change

The NRC staff requests that all documents in the audit scope be provided by TINN on an online reference portal established by TINN. Use of the online reference portal is acceptable provided that TINN implements measures to limit access to specific NRC staff (e.g., based on NRC e-mail addresses or the use of passwords that will only be assigned to the NRC staff directly involved in the audit on a need to-know basis) and to make the documents view-only (i.e., prevent NRC staff from saving, copying, downloading, or printing any documents). The conditions associated with the online reference portal must be maintained throughout the audit process. The NRC staff who should initially be granted access to the portal are listed in the "Team Assignments" section of this audit plan. The NRC project managers for the audit will provide TINN with the names of additional NRC staff who should be granted access when needed.

The NRC staff requests that TINN make their technical staff and subject matter experts available to answer questions during the audit.

The audit will follow the guidance in the Office of Nuclear Reactor Regulation Office Instruction LIC-111, "Regulatory Audits," Revision 2 (ML24309A281). Audit meetings will take place primarily in a virtual format using Microsoft Teams. Audit meetings will be scheduled on an as needed basis after the entrance meeting and once the NRC staff have reviewed the documents placed in the online reference portal. If a site visit is needed, review topics will be provided to TINN and mutually agreeable dates will be established.

**Special Requests:**

None.

**Deliverables:**

At the completion of the audit, the audit team will issue an audit summary within 90 days after the exit meeting but will strive for an earlier issuance. The audit summary will be declared and entered as an official agency record and be made publicly available for viewing through ADAMS.

If you have questions about this audit, please contact me via email at [Kodaran.Anand@nrc.gov](mailto:Kodaran.Anand@nrc.gov).

Sincerely,

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Kodaran Anand, Project Manager  
Advanced Reactor Licensing Branch 1  
Division of Advanced Reactors and Non-Power  
Production and Utilization Facilities  
Office of Nuclear Reactor Regulation

Project No.: 99902138

cc: Terra Innovatum SOLO via GovDelivery

SUBJECT: TERRA INNOVATUM, S.R.L. – AUDIT PLAN FOR TOPICAL REPORT  
SOLO-TR-2025-4, “SOLO NUCLEAR DESIGN” (EPID  
NO. L-2025-TOP-0004) DATED: APRIL 15, 2026

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