

Terra Innovatum Non-Proprietary



S O L O TM

MICROMODULAR REACTOR
POWERING CLEAN ENERGY TO PROPEL HUMANKIND

www.x-solo.com

Cesare Frepoli

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LTR-TINN-25-021, Revision 0
September 15, 2025

U.S. Nuclear Regulatory Commission
Document Control Desk
11555 Rockville Pike
Rockville, MD 20852

**Subject: Presentation Material for Terra Innovatum and USNRC Pre-Submittal
Meeting Anticipated for the Week of September 29th 2025**

U.S. Nuclear Regulatory Commission,

I am pleased to submit on behalf of Terra Innovatum s.r.l. (TINN) presentation material to be covered during the third pre-submittal meeting between TINN and USNRC anticipated for the week of September 2025 in relation to the licensing activities associated with SOLO™ Micro-Modular Reactor.

The following topics will be covered at the meeting:

1. SOLO Project Updates (Open Session)
2. SOLO Reactor Module and Containment Report (Topical Report)
3. SOLO Nuclear Design Topical Report (Topical Report)
4. SOLO Defense-in-Depth Strategy (Topical Report)
5. NUREG-1537 and ER Requirements for SOLO Microreactor at Rock City IL (White Paper)
6. Emergency Planning and EPZ Sizing (Planned Topical report)
7. SOLO Pre-FOAK Test Plan (Planned Topical report)

The material for Topic 1 will be provided in separate transmittal. For items 2 through 7, the material submitted includes both proprietary and non-proprietary versions for the documents above.

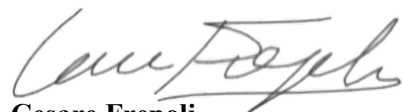
This submission includes proprietary information belonging to Terra Innovatum s.r.l. In accordance with the provisions of 10 CFR Section 2.390, as amended, of the Nuclear Regulatory Commission's (NRC) regulations, we have included an Affidavit. This document provides the justification for withholding certain information designated as proprietary from public disclosure.

For correspondence concerning the proprietary aspects of this submission or the Terra Innovatum Affidavit, please reference LTR-TINN-25-021, Revision 0 and address your communication to:

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On behalf of Terra Innovatum, we look forward to meeting the Staff in July to discuss in details the material attached to this letter.

Yours sincerely,



Cesare Frepoli
Co-Founder, Chief Operating Officer & Director of Licensing and Regulatory Affairs

Terra Innovatum
www.x-solo.com

Note: SOLO™ and SMR™ (SOLO Micro-Modular Reactor) are trademarks or registered trademarks owned by Terra Innovatum S.r.l., its affiliates, and subsidiaries within the United States and may also be registered in other jurisdictions globally. All rights are reserved. Any unauthorized use is strictly prohibited. Other mentioned names may be trademarks belonging to their respective owners.

CC: Michael Orenak (NRC)
Jacqueline Tulip (NRC)
Joshua Borromeo (NRC)

Enclosures:

1. Affidavit
2. Proprietary Information Notice and Copyright Notice
3. Proprietary Version of attached documents:
 - a) NRC-Meeting-3-T02(SOLO Reactor Module and Containment)-P
 - b) NRC-Meeting-3-T04(Nuclear Design Topical Report)-P
 - c) NRC-Meeting-3-T03(DID)-P
 - d) NRC-Meeting-3-T05(Site)-P
 - e) NRC-Meeting-3-T06(EP and EPZ Topical Report)-P
 - f) NRC-Meeting-3-T07(Test-Plan Topical Report)-P
4. Presentation Material (Non-Proprietary)
 - a) NRC-Meeting-3-T02(SOLO Reactor Module and Containment)-NP
 - b) NRC-Meeting-3-T04(Nuclear Design Topical Report)-NP
 - c) NRC-Meeting-3-T03(DID)-NP
 - d) NRC-Meeting-3-T05(Site)-NP
 - e) NRC-Meeting-3-T06(EP and EPZ Topical Report)-NP
 - f) NRC-Meeting-3-T07(Test-Plan Topical Report)-NP

Enclosure 1

Terra Innovatum Affidavit and Request for Withholding from Public Disclosure (10 CFR 2.390)

I, Cesare Frepoli, hereby state:

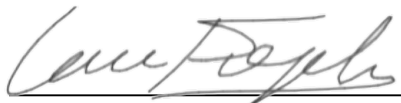
1. I am Chief Operating Officer, Director of Licensing, at Terra Innovatum s.r.l (“TINN”), and as such I have been authorized by TINN to review information sought to be withheld from public disclosure in connection with the development, testing, licensing, and deployment of the TINN reactor and its associated structures, systems, and components, and to apply for its withholding from public disclosure on behalf of TINN.
2. The information sought to be withheld, part or in its entirety, is labeled by proprietary marking in TINN’ Enclosure 3 to this letter.
3. I am making this request for withholding, and executing this affidavit in support thereof, pursuant to the provisions of 10 CFR 2.390(b)(1).
4. I have personal knowledge of the criteria and procedures utilized by TINN in designating information as a trade secret, privileged, or as confidential commercial or financial information. Some examples of information TINN considers proprietary and eligible for withholding under §2.390(a)(4) include:
 - a. Information which discloses process, method, or apparatus, including supporting data and analyses, where prevention of its use by TINN competitors without license or contract from TINN constitutes a competitive economic advantage over other companies in the industry;
 - b. Information, which if used by a competitor, would reduce his expenditure of resources or improve his competitive position in design, manufacture, shipment, installation, assurance of quality;
 - c. Information which reveals cost or price information, production capacities, budget levels, or commercial strategies of TINN, its customers, its partners, or its suppliers;
 - d. Information which reveals aspects of past, present, or future TINN or customer funded development plans or programs, of potential commercial value to TINN;
 - e. Information which discloses patentable subject matter for which it may be desirable to obtain patent protection; and/or
 - f. Information obtained through TINN actions which could reveal additional insights into reactor system development, testing, qualification processes, and/or regulatory proceedings, and which are not otherwise readily obtainable by a competitor.
5. TINN’ information contained in Enclosure 3 to this letter contains TINN’ a set of documents that were anticipated in the Regulatory Engagement Plan and serve to initiate licensing activities for the SOLO™ Research Test Reactor. Enclosure 3 contains details on SOLO™ design that could provide a competitor with a commercial advantage if the information were to be revealed publicly.
6. Pursuant to the provisions of §2.390(b)(4), the following is furnished for consideration by the Commission in determining whether the information sought to be withheld from public disclosure

should be withheld:

- a. The information sought to be withheld from public disclosure is owned and has been held in confidence by TINN.
- b. The information is of a type customarily held in confidence by TINN and not customarily disclosed to the public. TINN has a rational basis for determining the types of information customarily held in confidence by it and, in that connection, utilizes a system to determine when and whether to hold certain types of information in confidence. The application of that system and the substance of that system constitute TINN policy and provide the rational basis required.
- c. The information is being transmitted to the Commission in confidence, and under the provisions of 10 CFR 2.390, it is to be received in confidence by the Commission.
- d. This information is not readily available in public sources.
- e. Public disclosure of this proprietary information is likely to cause substantial harm to the competitive position of TINN, because it would enhance the ability of competitors to provide similar products and services by reducing their expenditure of resources using similar project methods, equipment, testing approach, contractors, or licensing approaches. This information is the result of considerable expense to TINN and has great value in that it will assist TINN in providing products and services to new, expanding markets not currently served by the company.
- f. The information could reveal or could be used to infer price information, cost information, budget levels, or commercial strategies of TINN.
- g. Each component of proprietary information pertinent to a particular competitive advantage is potentially as valuable as the total competitive advantage. If competitors acquire components of proprietary information, any one component may be the key to the entire puzzle, thereby depriving TINN of a competitive advantage.
- h. Unrestricted disclosure would jeopardize the position of TINN in the world market and thereby give a market advantage to the competition in those countries.

I declare under the penalty of perjury that the foregoing is true and correct.

Executed on: September 15, 2025



Dr. Cesare Frepoli
Chief Operating Officer, Director of Licensing and Regulatory Affairs

Enclosure 2

PROPRIETARY INFORMATION DISCLOSURE STATEMENT

Enclosed are the proprietary and non-proprietary versions of a document provided to the NRC as part of requests for either generic or plant-specific review and approval.

In accordance with the requirements of 10 CFR 2.390 regarding the protection of proprietary information submitted to the NRC, proprietary details in the document are identified with brackets. The corresponding non-proprietary versions omit this information, leaving only the brackets visible to indicate where proprietary content was removed.

The rationale for classifying the enclosed information as proprietary is identified in both versions using superscript lower-case letters (a) through (f), either immediately following the brackets containing the proprietary content or positioned in the margin alongside the relevant text. These identifiers correspond to the types of information typically regarded as confidential, as specified in Sections (4)(ii)(a) through (4)(ii)(f) of the accompanying Affidavit, submitted in compliance with 10 CFR 2.390(b)(1).

REPORT USE AND REPRODUCTION NOTICE

The accompanying reports are copyrighted by Terra Innovatum and are provided to the NRC under the conditions specified herein. The NRC is authorized to reproduce these reports as necessary to facilitate internal operations, including but not limited to generic and plant-specific evaluations, licensing reviews, and regulatory actions such as the issuance, amendment, renewal, transfer, suspension, or revocation of permits or licenses. This authorization is subject to compliance with the provisions of 10 CFR 2.390, which govern the protection of proprietary information, regardless of copyright status.

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