

TERRESTRIAL ENERGY USA

November 8, 2021

Project Number: 99902076

TEUSA Letter: #L211108

US Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, DC 20555-0001

Subject: Terrestrial Energy USA, Inc. Report 211108: Methodology for Safety Classification of IMSR® Structures, Systems, and Components

Terrestrial Energy USA, Inc. (TEUSA) requests NRC review and comment on the enclosed white paper entitled "*Methodology for Safety Classification of IMSR® Structures, Systems, and Components.*" This white paper describes the methodology for establishing the safety classification of structures, systems, and components (SSCs) of the Integral Molten Salt Reactor (IMSR®) design. The white paper correlates the safety classification categories used in license applications with the Canadian Nuclear Safety Commission to the safety classification categories used in license applications with the United States Nuclear Regulatory Commission.

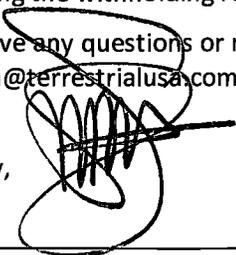
TEUSA respectfully requests that NRC review the subject white paper and provide written comments on areas where the white paper does not provide sufficient enough detail for NRC to have a clear understanding of the methodology for safety classification of IMSR® SSCs. Written comments should be limited to areas where additional information on SSC safety classification methodology will be necessary to support a future license application. Consistent with the Regulatory Engagement Plan, TEUSA will update this white paper to resolve the staff's comments and provide the revised report within 90 days of receipt of the staff's comments. Since TEUSA will reference this report in its subsequent SDA application, TEUSA requests that the NRC provide written feedback on the SSC safety classification methodology in a letter after the completion of its review. TEUSA is prepared to make reference materials available upon request to expedite the review. TEUSA requests that the NRC complete its review in no more than 200 staff hours.

TEUSA requests that within 60 days of receipt of this letter, NRC complete its review, provide its written comments on the subject document, and provide its views about the completeness of the IMSR® SSC safety classification methodology. If TEUSA's schedule and resource requests cannot be met, TEUSA requests that the NRC notify TEUSA within 3 working days of receipt and establish a time in which NRC and TEUSA can discuss the outcomes sought, the staff resource requirements, and the schedule for completing the review.

Portions of the enclosed white paper are proprietary, and TEUSA requests that it be withheld from public disclosure in accordance with the provisions of 10 CFR 2.390. Enclosure 1 provides the proprietary version of the white paper and Enclosure 2 provides the non-proprietary white paper. An affidavit supporting the withholding request is provided in Enclosure 3.

If you have any questions or need any additional information, please contact Robin Rickman by email at rrickman@terrestrialusa.com or by phone at 646-687-8212 ext. 531.

Sincerely,


Simon Irish, Chief Executive Officer

D120
NR

Enclosures:

Enclosure 1: *"Methodology for Safety Classification of IMSR® Structures, Systems, and Components"*
(Proprietary)

Enclosure 2: *"Methodology for Safety Classification of IMSR® Structures, Systems, and Components"*
(Non-proprietary)

Enclosure 3: Affidavit Supporting Request for Withholding from Public Disclosure

Enclosure 2 to TEUSA Letter L211108

Terrestrial Energy USA Affidavit for Enclosure 1

TERRESTRIAL ENERGY USA

AFFIDAVIT

I, **Simon Irish**, state as follows:

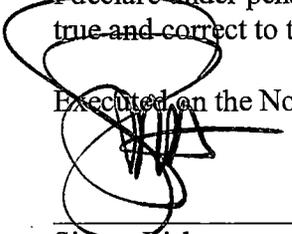
- (1) I am the Chief Executive Officer of Terrestrial Energy USA ("TEUSA") and have reviewed the information described in paragraph (2) which is sought to be withheld, and I am the authorizing official for TEUSA to apply for its withholding.
- (2) The information sought to be withheld is contained in Enclosure 1 of TEUSA Letter L211108, "*Methodology for Safety Classification of IMSR[®] Structures, Systems, and Components.*" The disclaimer included in the header of each page of the Regulatory Engagement Plan refers to paragraph (3) of this affidavit, which provides the basis for the commercially sensitive determination.
- (3) In making this application for withholding of commercially sensitive information of which it is the owner or licensee, TEUSA relies upon the exemption from disclosure set forth in the *Freedom of Information Act* ("FOIA"), 5 U.S.C. Sec. 552(b)(4), and the *Trade Secrets Act*, 18 U.S.C. Sec. 1905, and NRC regulations 10 CFR 9.17(a)(4), and 2.390(a)(4) for trade secrets (Exemption 4). The material for which exemption from disclosure is here sought also qualifies under the narrower definition of trade secret, within the meanings assigned to those terms for purposes of FOIA Exemption 4 in, respectively, *Critical Mass Energy Project v. Nuclear Regulatory Commission*, 975 F.2d 871 (D.C. Cir. 1992), and *Public Citizen Health Research Group v. FDA*, 704 F.2d 1280 (D.C. Cir. 1983).
- (4) The information sought to be withheld is considered commercially sensitive for the reasons set forth in paragraphs (4)b and (4)c shown below. Some examples of categories of information that fit into the definition of commercially sensitive information are:
 - a. Information that discloses a process, method, or apparatus, including supporting data and analyses, where prevention of its use by TEUSA's competitors without license from TEUSA constitutes a competitive economic advantage over other companies;
 - b. Information that, if used by a competitor, would reduce their expenditure of resources or improve their competitive position in the design, manufacture, shipment, installation, assurance of quality, or licensing of a similar product;
 - c. Information that reveals aspects of past, present, or future TEUSA development plans and programs, resulting in potential products to TEUSA;
 - d. Information that discloses trade secrets or potentially patentable subject matter, or both, for which it may be desirable to obtain patent protection.
- (5) To address 10 CFR 2.390(b)(4), the information sought to be withheld is being submitted to NRC in confidence. The information is of a sort customarily held in confidence by TEUSA, and is in fact so held. The information sought to be withheld has, to the best of my knowledge and belief, consistently been held in confidence by TEUSA, not been disclosed publicly, and not been made available in public sources. All disclosures to third parties, including any required transmittals to the NRC, have been made, or must be

made, pursuant to regulatory provisions, or to proprietary or confidentiality agreements that provide for maintaining the information in confidence. The initial designation of this information as commercially sensitive, and the subsequent steps taken to prevent its unauthorized disclosure, are as set forth in the following paragraphs (6) and (7).

- (6) Initial approval of commercially sensitive treatment of a document is made by the manager of the originating component, who is the person most likely to be acquainted with the value and sensitivity of the information in relation to industry knowledge, or who is the person most likely to be subject to the terms under which it was licensed to TEUSA. Access to such documents within TEUSA is limited to a "need to know" basis.
- (7) The procedure for approval of external release of such a document typically requires review by a vice president for technical content, competitive effect, and determination of the accuracy of the commercially sensitive designation. Disclosures outside TEUSA are limited to regulatory bodies, customers, and potential customers, and their agents, suppliers, and licensees, and others with a legitimate need for the information, and then only in accordance with appropriate regulatory provisions or proprietary or confidentiality agreements, or both.
- (8) The information identified in paragraph (2), above, is classified as commercially sensitive because it contains detailed information regarding TEUSA's licensing plans.
- (9) Public disclosure of the information sought to be withheld is likely to cause substantial harm to TEUSA's competitive position and foreclose or reduce the availability of profitmaking opportunities. The information is part of TEUSA's licensing strategy. The development of TEUSA's chosen licensing path comprises a substantial investment of time and money by TEUSA. The precise value of the expertise to use in devising this licensing path is difficult to quantify, but it clearly is substantial. TEUSA's competitive advantage will be lost if its competitors are able to use the results of the TEUSA's experience to normalize or verify their own process or if they are able to claim an equivalent understanding by demonstrating that they can arrive at the same or similar conclusions. The value of this information to TEUSA would be lost if the information were disclosed to the public. Making such information available to competitors without them having been required to undertake a similar expenditure of resources would unfairly provide competitors with a windfall, and deprive TEUSA of the opportunity to exercise its competitive advantage to seek an adequate return on its large investment in developing its licensing strategy.

I declare under penalty of perjury that the foregoing affidavit and the matters stated therein are true and correct to the best of my knowledge, information, and belief.

Executed on the November 8, 2021



Simon Irish
Chief Executive Officer
Terrestrial Energy USA, Inc.