



TRISO-X, LLC  
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TX0-REG-LTR-0040

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~~THE ENCLOSURES TO THIS LETTER CONTAIN SECURITY RELATED INFORMATION  
WITHHOLD IN ACCORDANCE WITH 10 CFR 2.390~~

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*ELECTRONIC DELIVERY*

July 1, 2024

Director, Office of Nuclear Material Safety and Safeguards  
U. S. Nuclear Regulatory Commission  
ATTN: Document Control Desk  
Washington, DC 20555-0001

- References:
- 1) Docket No. 70-7027
  - 2) TRISO-X letter from Jennifer Wheeler to Director, Office of Nuclear Material Safety and Safeguards, "TRISO-X Fuel Fabrication Facility License Application Submittal," dated April 5, 2022
  - 3) NRC letter from Matthew Bartlett, Senior Project Manager, Fuel Facility Licensing Branch, to Jennifer K. Wheeler, "Set Eight Contains a Programmatic Request for Additional Information for the Integrated Safety Analysis Review Regarding the TRISO-X, LLC License Application for a New Fuel Fabrication Facility (Enterprise Project Identification Number L-2022-NEW-0005)," dated March 25, 2024
  - 4) NRC letter from Matthew Bartlett, Senior Project Manager, Fuel Facility Licensing Branch, to Jennifer K. Wheeler, "Request TRISO-X, LLC. to Provide Supplemental Information to Resolve Programmatic Requests for Additional Information Regarding the Integrated Safety Analysis Portion of the License Application (Enterprise Project Identification Number L-2022-NEW-0005)," dated April 2, 2024
  - 5) Email – The U.S. Nuclear Regulatory Commission Extension of Due Dates for TRISO-X Request for Additional Information Supplements for Integrated Safety Analysis Summary and Structural Design, dated June 6, 2024, ADAMS Accession No. ML24162A326

Subject: **Supplemental Information for ISA RAI 1-9 Responses and RAI-10 Response for the TRISO-X License Application**

TRISO-X, LLC (TRISO-X) hereby submits information regarding the review of the License Application for the TRISO-X Fuel Fabrication Facility (Reference 2). The enclosed information responds to the supplemental information request dated April 2, 2024 (Reference 4) and the Set 8 request for additional information dated March 25, 2024 (Reference 3). The due dates for both

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the supplemental information request and request for additional information were changed to July 1, 2024, by email dated June 6, 2024 (Reference 5).

### Request for Withholding

Portions of the enclosed submittal contain information that TRISO-X requests be withheld from public disclosure. The following regulations and guidance were consulted to develop the document markings and specific withholding requests as noted in the description of each enclosure's contents.

- 10 CFR 2.390, *Public inspections, exemptions, requests for withholding*
- NRC Regulatory Issue Summary 2005-31, Revision 1, *Control of Security-Related Sensitive Unclassified Non-Safeguards Information Handled by Individuals, Firms, and Entities Subject to NRC Regulation of the Use of Source, Byproduct, and Special Nuclear Material*

### Summary of this Submittal

The following Enclosures are included with this letter.

**Enclosure 1 – Supplemental Information for ISA RAI 1-9 Responses and RAI-10 Response (Security-Related Information)**

**Enclosure 2 – TRISO-X Highly Unlikely Basis (Security-Related Information)**

**Enclosure 3 – ISA Summary Section 4.2.5.2, Natural Phenomena, Revision 3 (Security-Related Information)**

**Enclosure 4 – ISA Summary Section 5.10, Event Frequency, IROFS, and Risk Categorization, Revision 3 (Security-Related Information)**

**Enclosure 5 – ISA Summary Table 6-1.25, Generic CNSC IROFS: NCS, Radiological, Chemical, and Fire, Revision 3 (Security-Related Information)**

**Enclosure 6 – ISA Summary Section 9.0, Definitions of Highly Unlikely, Unlikely, and Credible, Revision 3 (Security-Related Information)**

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If there are questions or if additional information is required, please contact me at (865) 850-0893 or [jwheeler@triso-x.com](mailto:jwheeler@triso-x.com).

Sincerely,

*Jennifer Wheeler*

Jennifer K. Wheeler, P.E.  
Vice President, Regulatory Affairs

TRISO-X, LLC  
801 Thompson Avenue  
Rockville, MD 20852

Copy: Mr. Matthew Bartlett, US NRC, NMSS  
TRISO-X Regulatory Records File

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