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# **UNITED STATES NUCLEAR REGULATORY COMMISSION**

WASHINGTON, D.C. 20555-0001

July 31, 2024

MEMORANDUM TO: Samantha Lav. Chief

> Fuel Facility Licensing Branch Division of Fuel Management Office of Nuclear Material Safety

and Safeguards

FROM: Matt Bartlett, Sr. Project Manager

Fuel Facility Licensing Branch Division of Fuel Management Office of Nuclear Material Safety

and Safeguards

SUBJECT: SUMMARY OF MEETING ON JUNE 6, 2024, WITH TRISO-X, LLC.

> TO ALIGN ON THE U.S. NUCLEAR REGULATORY COMMISSION SUPPLEMENT RESPONSES TO INTEGRATED SAFETY ANALYSIS REQUESTS FOR ADDITIONAL INFORMATION (ENTERPRISE

Markow Bartlett Signed by Bartlett, Matthew on 07/31/24

PROJECT IDENTIFIER L-2022-PMP-0005)

The U.S. Nuclear Regulatory Commission (NRC) staff hosted additional discussions in a closed Microsoft Teams meeting with TRISO-X, LLC (TRISO-X) on June 6, 2024, from 1:00 PM until 2:30 PM. The purpose of the meeting was to align on TRISO-X's draft responses to the supplement to the TRISO-X responses to the requests for additional information (RAIs) submitted via letter dated October 12, 2023 (Agencywide Documents Access and Management System Accession No. ML23285A344). The TRISO-X original application was received April 5, 2022 (ML22101A200) and was supplemented by letters dated October 13, 2022 (ML22286A144), November 4, 2022 (ML22308A251), and February 29, 2024 (ML24060A239).

The NRC staff has held a number of meetings with TRISO-X to discuss the supplemental information needed to resolve the RAIs including December 11, 2023, December 14, 2023, January 8, 2024, January 11, 2024, January 17, 2024, January 23, 2024 (combined meeting summary - ML23332A075), February 1, 2024 (ML24043A240, non-public), February 21, 2024, and February 22, 2024 (combined meeting summary - ML24071A156), and May 24, 2024 (ML24178A400). This meeting continues these discussions, as summarized below.

CONTACT: Joseph Rudd, NMSS/DFM

301-415-5039

Enclosure 2 transmitted herewith contains Security-Related Information. When separated from Enclosure 2, this document and Enclosure 1 are decontrolled.

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During the meetings, TRISO-X presented draft updates to sections of the license application to supplement the RAI responses for the Integrated Safety Analysis (ISA) Summary.

During the meeting held on June 6, 2024, discussions continued from previous meetings on the TRISO-X ISA methodology. This meeting focused on RAI-8, regarding likelihood index scores method for items relied on for safety and RAI-10, regarding likelihood definitions and Title 10 of the *Code of Federal Regulations* Section 70.61 compliance evaluations for Natural Phenomena Hazards. The discussions were a walk-thru of the draft responses provided by TRISO-X, with clarifying questions from both the NRC staff and TRISO-X.

The NRC staff discussed some preliminary observations on one of the passive mechanical system calculations presented by TRISO-X regarding the effectiveness of protection index calculations.

TRISO-X summarized planned changes to the draft responses. Based on the discussions from this and prior meetings, the NRC staff and TRISO-X agreed to extend the deadline for the formal response to the ISA supplement request to July 1, 2024. The NRC staff and TRISO-X continue to work to resolve RAI-5 regarding definitions of unlikely and highly unlikely and may require additional meetings to find a resolution.

A list of participants is provided as Enclosure 1. Additional meeting summary information is provided in Enclosure 2 (non-public).

Docket No. 07007027

#### **Enclosures:**

- 1. Participant List (public)
- 2. Additional meeting summary (non-public)

cc: trisox@listmgr.nrc.gov

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SUBJECT: SUMMARY OF MEETING ON JUNE 6, 2024, WITH TRISO-X, LLC, TO ALIGN ON THE U.S. NUCLEAR REGULATORY COMMISSION SUPPLEMENT RESPONSES TO INTEGRATED SAFETY ANALYSIS REQUESTS FOR ADDITIONAL INFORMATION (ENTERPRISE PROJECT IDENTIFIER L-2022-PMP-0005)

DOCUMENT DATE: July 31, 2024

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