The Grainger College of Engineering



Department of Nuclear, Plasma, & Radiological Engineering Suite 100 Talbot Laboratory, MC-234 104 S. Wright St. Urbana, IL 61801

February 20, 2024

Docket No. 99902094 U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555-0001

Subject: Submittal of the revised "University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology" Topical Report, Release 02

By letter dated September 7, 2023 (ML23250A319), the University of Illinois Urbana-Champaign (UIUC) submitted the Topical Report (TR), "University of Illinois Urbana-Champaign High Temperature Gascooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology" (ML23250A320), to the U.S. Nuclear Regulatory Commission (NRC) for acceptance review and generation of a review schedule.

By email dated October 4, 2023 (ML23276A600), the NRC provided UIUC the completeness determination for the TR (ML23276A599). Based on a preliminary review of the TR, the NRC staff determined that it provided sufficient information for the NRC staff to begin a detailed technical review.

By email dated December 19, 2023 (ML23354A009), the NRC staff requested additional information and clarification in the form of two (2) request for additional information (RAI).

By letter dated January 17, 2024 (ML24017A308), UIUC provided responses to the RAI (ML24017A309) as well as a mark-up of the TR pages (ML24017A310), as recommended by Section 2.4.3 of LIC-500, Rev. 9, "Topical Report Process."

Based on further discussions with the NRC staff, the NRC requested a revised, updated version of the complete TR incorporating the changes as a result of the RAI responses. Attached is Release 02 of the "University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology" TR.

The revised TR does not contain any commercially sensitive information and can be posted for unrestricted access by the public. Questions or other requests related to the TR should be directed to Caleb Brooks at csbrooks@illinois.edu or (217) 265-0519.

I declare under penalty of perjury that the foregoing is true and correct. Executed on February 20, 2024.

Sincerely,



Caleb S. Brooks, Ph.D.
Associate Professor
University of Illinois at Urbana-Champaign
Department of Nuclear, Plasma, and Radiological Engineering
Talbot Laboratory, Room 111C, MC-234
104 South Wright St, Urbana, IL 61801
TEL 217-265-0519 | FAX 217-333-2906
csbrooks@illinois.edu

Attachments:

 "University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology" Topical Report, Release 02, dated February 15, 2024

Cc:

<u>University of Illinois Urbana-Champaign</u> Tim Grunloh Les Foyto

Ultra Safe Nuclear Corporation
Daniel Stout
Zackary Rad
Jeff Perry

<u>U.S. Nuclear Regulatory Commission</u> Edward Helvenston