



**The Grainger College of Engineering**

Department of Nuclear, Plasma, & Radiological Engineering  
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January 17, 2024

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

**Subject:** Written communication as specified by 10 CFR 50.4 regarding responses to the “Request for Additional Information – University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology,” Topical Report, dated December 19, 2023

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 Gas-cooled 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). The RAI, and UIUC’s responses to the RAI, are enclosed as Attachment 1. Also enclosed as Attachment 2 is a mark-up of the TR pages as a result of the RAI responses, as recommended by Section 2.4.3 of LIC-500, Rev. 9, “Topical Report Process.”

The responses to the RAI or a mark-up of the TR pages do not contain any commercially sensitive information and can be posted for unrestricted access by the public. Questions or other requests related to the RAI responses should be directed to Caleb Brooks at [csbrooks@illinois.edu](mailto:csbrooks@illinois.edu) or (217) 265-0519.

I declare under penalty of perjury that the foregoing is true and correct. Executed on January 17, 2024.

Sincerely,

A handwritten signature in black ink, appearing to read 'Caleb Brooks'.

Caleb S. Brooks, Ph.D.

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Attachments:

1. Responses to the “Request for Additional Information – University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology” Topical Report, dated December 19, 2023
2. Mark-up of the pages of the “University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Event Sequence Identification and SSC Safety Classification Methodology” Topical Report, as a result of the RAI responses

Cc:

University of Illinois Urbana-Champaign  
Tim Grunloh  
Les Foyto

Ultra Safe Nuclear Corporation  
Daniel Stout  
Zackary Rad  
Jeff Perry

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