

THE GRAINGER COLLEGE OF ENGINEERING

Department of Nuclear, Plasma, & Radiological Engineering 216 Talbot Laboratory, MC-234 104 S. Wright St. Urbana, IL 61801

December 9, 2022

Docket No.: 99902094

U.S. Nuclear Regulatory Commission ATTN: Document Control Desk Washington, D.C. 20555-0001

Subject: University of Illinois Topical Report Submission, 'University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Applicability of Nuclear Regulatory Commission Regulations'

This letter accompanies the submission of the topical report titled, 'University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Applicability of Nuclear Regulatory Commission Regulations'.

The scope of this topical report was discussed in a public meeting with the NRC staff November 29, 2022. The contents include a regulatory gap analysis that evaluates the applicability of NRC regulations to the UIUC proposed advanced research reactor at a level of detail necessary to assess their relevance to the planned deployment. It identifies regulations that are applicable, that are not applicable based on entry conditions, or that require an exemption.

The University of Illinois respectfully requests NRC acceptance review be completed and a review schedule be provided within 60 days of the receipt of this letter. A 12-month review for this topical report is requested for NRC review and approval of the methodology used and determinations of applicability/non-applicability of specific regulations identified in this TR as the licensing basis for the MMR at UIUC. NRC approval of the process for treatment of exemptions is also requested; approval for needed exemptions will be requested as part of the application submittal.

This Topical Report does not contain any commercially sensitive information and can be posted for unrestricted access by the public. Questions or other requests related to this white paper 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 December 9, 2022.

Sincerely,

Caleb S. Brooks, Ph.D. Associate Professor

University of Illinois at Urbana-Champaign

Me Ball

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Enclosures:

1. 'University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Applicability of Nuclear Regulatory Commission Regulations' Topical Report, IMRDD-MMR-22-04, Release 1

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