

July 26, 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 the “University of Illinois at Urbana-Champaign – Safety Evaluation for Topical Report related to Principal Design Criteria (EPID: L-2023-NFN-0013),” dated July 25, 2024

By letter dated November 15, 2023 (ML23319A408), the University of Illinois Urbana-Champaign (UIUC) submitted the Topical Report (TR) titled “University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Micro Modular Reactor (MMR™) Principal Design Criteria” (ML23319A409) to the U.S. Nuclear Regulatory Commission (NRC) for acceptance review and generation of a review schedule.

By email dated December 12, 2023 (ML23345A057), the NRC provided UIUC the completeness determination for the TR (ML23345A056). 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.

On April 5, 2024, a public meeting (ML24081A259) was held between NRC and UIUC project staff to discuss four draft Request for Additional Information (RAI) and two Additional Discussion Items provided by presentation slides (ML241128A55). Based on discussions during that meeting, UIUC agreed to provide the NRC with a new revision to the TR to address the NRC staff’s draft RAIs and additional discussion items.

By letter dated April 10, 2024 (ML24101A414), UIUC submitted the revised University of Illinois TR, “University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Micro Modular Reactor (MMR™) Principal Design Criteria,” Release 02, dated April 10, 2024 (ML24101A415).

By NRC Memorandum dated May 8, 2024 (ML24128A254), a summary of the April 5, 2024, public meeting between the NRC and UIUC project staff to discuss the draft RAIs and additional discussion items regarding the TR on Principal Design Criteria was released.

By letter dated July 25, 2024 (ML24155A168), the NRC staff concluded that the “University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Micro Modular Reactor (MMR™) Principal Design Criteria” TR, Release 02, was acceptable. The NRC staff’s final safety evaluation (SE) for the TR was also attached.

Enclosed is the accepted version of the TR. In addition, the TR incorporates, after the title page, the July 25, 2024, NRC letter and SE (ML24155A168).

The 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 July 26, 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

Enclosure:

1. "University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Micro Modular Reactor (MMR™) Principal Design Criteria" Topical Report, Release 02, dated April 9, 2024, approved by the NRC on July 25, 2024

Cc:

University of Illinois Urbana-Champaign
Tim Grunloh
Les Foyto

Ultra Safe Nuclear Corporation
Michael Hamer
Paul Eric Marko

U.S. Nuclear Regulatory Commission
Edward Helvenston
Paulette Torres
Patrick Boyle