



UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C. 20555-0001

May 8, 2024

MEMORANDUM TO: Holly Cruz, Acting Chief
Non-Power Production and Utilization Facility Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

FROM: Edward Helvenston, Project Manager **/RA/**
Non-Power Production and Utilization Facility Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

SUBJECT: SUMMARY OF THE APRIL 5, 2024, PUBLIC MEETING
BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION
STAFF AND UNIVERSITY OF ILLINOIS AT URBANA-
CHAMPAIGN TO DISCUSS TOPICAL REPORT ON PRINCIPAL
DESIGN CRITERIA (EPID NO. L-2023-NFN-0013)

Meeting Information:

Applicant: University of Illinois at Urbana-Champaign (UIUC)

Project No.: 99902094

Public Meeting Notice Agencywide Documents Access and Management System (ADAMS)
Accession No.: ML24081A259

NRC Staff Presentation Slides: ML24128A255

Meeting Attendees: See the enclosure for a list of meeting attendees.

CONTACT: Edward Helvenston, NRR/DANU/UNPL
(301) 415-4067

Meeting Summary:

On April 5, 2024, a public meeting was held between the U.S. Nuclear Regulatory Commission (NRC) staff and representatives of the University of Illinois at Urbana-Champaign (UIUC) and Ultra Safe Nuclear Corporation (USNC) via webinar. The purpose of this meeting was to discuss NRC staff questions and draft requests for additional information (RAIs) related to the UIUC topical report (TR), "University of Illinois Urbana-Champaign High Temperature Gas-cooled Research Reactor: Micro Modular Reactor (MMR™) Principal Design Criteria," submitted by UIUC on November 15, 2023 (ML23319A407). This was the first public meeting related to this TR. A list of meeting attendees is provided as an enclosure to this summary.

During the meeting, the NRC staff provided a presentation (ML24128A255) that included four draft RAIs it had prepared based on its review of the principal design criteria (PDC) TR, as well as two additional items for discussion and clarification. The NRC staff, UIUC, and USNC discussed the four draft items and two additional items as follows:

- Draft RAI 1: UIUC stated that based on the draft RAI, it would revise PDC 15 to be consistent with the wording of NRC Regulatory Guide (RG) 1.232, "Developing Principal Design Criteria for Non-Light Water Reactors," Revision 0 (ML17325A611), Appendix C, "Modular High-Temperature Gas-Cooled Reactor Design Criteria," criterion 15, except that it would add "pressure relief valves" to the example list of systems that are part of the reactor helium pressure boundary, for clarity. UIUC stated that its intent was for the PDC to encompass all systems that are part of the helium pressure boundary, and these changes would allow the proposed PDC 15 to better reflect its initial intended meaning.
- Draft RAI 2: UIUC stated that based on the draft RAI, it would revise PDC 16 to be consistent with the wording of NRC RG 1.232, Appendix C, criterion 16.
- Draft RAI 3: UIUC stated that based on the draft RAI, it would revise PDC 32 to remove the language "as applicable or justification if not required," such that PDC 32 would be consistent with the wording of NRC RG 1.232, Appendix C, criterion 32.
- Draft RAI 4: UIUC confirmed that the TR applicability is limited to the planned UIUC research reactor. UIUC stated that it would revise the TR to clarify language in TR Section 5.0.
- Additional Discussion Item 1: UIUC stated that it would revise PDC 19 consistent with option "b" on the NRC staff presentation slide for Additional Discussion Item 1.
- Additional Discussion Item 2: UIUC stated that it would revise PDC 37 to delete the "as applicable" language.

Following the discussion of these items, UIUC, USNC, and the NRC staff noted that the required changes to the TR appeared to be straightforward. Therefore, UIUC and the NRC staff agreed that in lieu of the NRC staff immediately issuing the RAIs to UIUC formally following the meeting, UIUC could instead proceed with submitting a revised version of its PDC TR incorporating the changes discussed. The NRC staff noted that following its receipt of a revised TR, it would evaluate whether RAIs were still needed.

No regulatory decisions were made during this meeting.

Enclosure: List of Attendees

cc: University of Illinois at Urbana-Champaign via GovDelivery

SUBJECT: SUMMARY OF THE APRIL 5, 2024, PUBLIC MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN TO DISCUSS TOPICAL REPORT ON PRINCIPAL DESIGN CRITERIA (EPID NO. L-2023-NFN-0013)
DATED: May 8, 2024

DISTRIBUTION:

Public
RidsNrrDanu Resource
RidsOgcMailCenter
RidsOpaMailCenter
RidsOcaMailCenter
EHelvenston, NRR
PBoyle, NRR
PTorres, NRR
HCruz, NRR
DBeacon, NRR
GOberson, NRR

**ADAMS Pkg. Accession No.: ML24128A253; Summary ML24128A254;
Slides ML24128A255**

NRC-001

| | | |
|--------|------------------|---------------------|
| OFFICE | NRR/DANU/UNPL:PM | NRR/DANU/UNPL:BC(A) |
| NAME | EHelvenston | HCruz |
| DATE | 5/8/2024 | 5/8/2024 |

OFFICIAL RECORD COPY

List of Meeting Attendees

APRIL 5, 2024, PUBLIC MEETING BETWEEN THE U.S. NUCLEAR REGULATORY COMMISSION STAFF AND UNIVERSITY OF ILLINOIS AT URBANA-CHAMPAIGN TO DISCUSS TOPICAL REPORT ON PRINCIPAL DESIGN CRITERIA

| Name | Organization |
|-------------------|---|
| Edward Helvenston | U.S. Nuclear Regulatory Commission (NRC) |
| Paulette Torres | NRC |
| Patrick Boyle | NRC |
| Dan Beacon | NRC |
| Holly Cruz | NRC |
| Scott Burnell | NRC |
| Carolyn Wolf | NRC |
| Les Foyto | University of Illinois at Urbana-Champaign (UIUC) |
| Tim Grunloh | UIUC |
| Caleb Brooks | UIUC |
| Alex Superfin | Ultra Safe Nuclear Corporation (USNC) |
| Mike Hamer | USNC |
| Zachary Rad | USNC |
| Jeff Perry | USNC |
| Dominik Muszynski | Member of the Public |
| Ewa Muzikova | Member of the Public |
| Jared Hoffman | Filmmaker |