



November 14, 2023

Docket No. 50-610

U.S. Nuclear Regulatory Commission  
Attn: Document Control Desk  
Washington, DC 20555-0001

Subject: Abilene Christian University Construction Permit Application  
Preliminary Safety Analysis Report Revision 1

Abilene Christian University (ACU) submitted a construction permit application for the Molten Salt Research Reactor (MSRR) on August 12, 2022 (ML22227A201). Since acceptance of the application for review, ACU has been engaged with Nuclear Regulatory Commission (NRC) staff responding to questions posed during regulatory audits. In the audit questions and in audit meetings, NRC staff has identified information that is needed on the MSRR docket to support the staff's safety evaluation. ACU is submitting Revision 1 of the Preliminary Safety Analysis Report to provide the needed information.

Because the regulatory audits continue, it is likely that ACU will need to provide additional information to support the NRC staff safety evaluation. ACU will identify means for submitting any additional information based on the nature and quantity of the information. If you have questions on this submittal, please contact Ben Beasley at [benjamin.beasley@acu.edu](mailto:benjamin.beasley@acu.edu) or Lester Towell at [lester.towell@acu.edu](mailto:lester.towell@acu.edu).

I declare under penalty of perjury that the foregoing is true and correct.  
Executed on November 14, 2023

A handwritten signature in cursive script that reads "Rusty Towell".

Rusty Towell, PhD  
Director of NEXT Lab

Enclosure: Abilene Christian University Molten Salt Research Reactor Preliminary Safety Analysis Report, Revision 1, November 2023 (non-proprietary)

Cc: Michael Wentzel, Chief, NRR Advanced Reactor Licensing Branch 2  
Richard Rivera, Project Manager, NRR Advanced Reactor Licensing Branch 2  
Edward Helvenston, Project Manager, NRR Non-Power Production and Utilization Facility Licensing Branch  
Mohsin Ghazali, Project Manager, NRR Advanced Reactor Licensing Branch 2

