



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

July 13, 2021

Dr. Rusty Towell
Director of NEXT Lab
Abilene Christian University
ACU Box 28208
Abilene, TX 79699

SUBJECT: ABILENE CHRISTIAN UNIVERSITY – REQUEST FOR ADDITIONAL
INFORMATION RE: QUALITY ASSURANCE PROGRAM DESCRIPTION
(EPID NO. L-2021-NFO-0006)

Dear Dr. Towell:

By letter dated March 18, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21099A109), Abilene Christian University (ACU) submitted, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.34(a)(7), its ACU Nuclear Energy eXperimental Testing Laboratory (NEXT Lab) Quality Assurance Program Description (QAPD) for its proposed ACU Molten Salt Research Reactor (MSRR) to the U.S. Nuclear Regulatory Commission (NRC) for review and approval.

The NRC staff identified additional information needed to continue its review of the QAPD, as described in the enclosed request for additional information (RAI). As discussed by telephone on July 8, 2021, provide a response to the RAI or a written request for additional time to respond, including the proposed response date and a brief explanation of the reason, by August 10, 2021. Following receipt of the complete response to the RAI, the NRC staff will continue its review of the QAPD.

The response to the RAI must be submitted in accordance with 10 CFR 50.4, "Written communications," and pursuant to 10 CFR 50.30(b), "Oath or affirmation," be executed in a signed original document under oath or affirmation. Information included in the response that you consider sensitive or proprietary, and seek to have withheld from public disclosure, must be marked in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding." Any information related to safeguards should be submitted in accordance with 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements."

Based on the response date provided above, the NRC staff continues to expect to complete its review and make a final determination on the QAPD by October 28, 2021. This date could change due to several factors including a need for further RAIs, unanticipated changes to the scope of the review, unsolicited supplements to the QAPD, and others. If the forecasted date changes, the NRC staff will notify you in writing of the new date and an explanation of the reason for the change. In the case that the NRC staff requires additional information beyond that provided in the response to this RAI, the NRC staff will request that information by separate correspondence.

If you have any questions regarding the NRC staff's review or if you intend to request additional time to respond, please contact me at (301) 415-7190 or by electronic mail at Richard.Rivera@nrc.gov.

Sincerely,



Signed by Rivera, Richard
on 07/13/21

Richard Rivera, Project Manager
Advanced Reactor Licensing Branch
Division of Advanced Reactors and Non-Power
Production and Utilization Facilities
Office of Nuclear Reactor Regulation

Project No. 99902088

Enclosure:
As stated

cc: See next page

Abilene Christian University

Project No. 99902088

cc:

Phil Schubert, Ed.D.
President
Abilene Christian University
Office of the President
206 Hardin Administration Building
ACU Box 29100
Abilene, TX 79699-9100

Test, Research and Training
Reactor Newsletter
Attention: Amber Johnson
Dept of Materials Science and Engineering
University of Maryland
4418 Stadium Drive
College Park, MD 20742-2115

SUBJECT: ABILENE CHRISTIAN UNIVERSITY – REQUEST FOR ADDITIONAL INFORMATION RE QUALITY ASSURANCE PROGRAM DESCRIPTION (EPID NO. L-2021-NFO-0006) DATED: JULY 13, 2021

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NRR-088

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NAME	EHelvenston	SLent	WKennedy	RRivera
DATE	07/09/2021	07/12/2021	07/12/2021	07/13/2021

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REQUEST FOR ADDITIONAL INFORMATION
ABILENE CHRISTIAN UNIVERSITY NUCLEAR ENERGY EXPERIMENTAL TESTING
LABORATORY (NEXT LAB) QUALITY ASSURANCE PROGRAM DESCRIPTION FOR
DESIGN, LICENSING, AND CONSTRUCTION OF THE ABILENE CHRISTIAN
UNIVERSITY MOLTEN SALT RESEARCH REACTOR

DOCKET NO. 99902088
EPID NO. L-2021-NFO-0006

By letter dated March 18, 2021 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML21099A109), Abilene Christian University (ACU) submitted, pursuant to Title 10 of the *Code of Federal Regulations* (10 CFR) 50.34(a)(7), its ACU Nuclear Energy eXperimental Testing Laboratory (NEXT Lab) Quality Assurance Program Description (QAPD) for its proposed ACU Molten Salt Research Reactor (MSRR) to the U.S. Nuclear Regulatory Commission (NRC) for review and approval.

Regulatory Basis:

The regulation in 10 CFR 50.34(a)(7) requires that a preliminary safety analysis report include: "A description of the quality assurance program to be applied to the design, fabrication, construction, and testing of the structures, systems, and components of the facility." Guidance in NRC Regulatory Guide (RG) 2.5, "Quality Assurance Program Requirements for Research and Test Reactors," Revision 1, dated June 2010 (ADAMS Accession No. ML093520099), states that the general requirements for establishing and executing a quality assurance program for the design, construction, testing, modification, and maintenance of research reactors in American National Standards Institute/American Nuclear Society (ANSI/ANS)-15.8-1995, "Quality Assurance Program Requirements for Research and Test Reactors," provide an acceptable method for complying with the requirements of 10 CFR 50.34 for research reactors. Therefore, the NRC staff used ANSI/ANS-15.8-1995 (Reaffirmed 2013) as the basis for evaluating the acceptability of the ACU QAPD in conformance with the provisions of 10 CFR 50.34(a)(7).

RAI - 1

Figure 1-1 in Section 2.1 of ACU's QAPD shows the Nuclear Projects Lead position, but this position does not appear to be described in the QAPD. Clarify where the Nuclear Projects Lead position is described or justify why no additional information is required.

RAI - 2

ANSI/ANS-15.8-1995 defines the words **shall, should and may**. The word "shall" is used to denote a requirement; the word "should" to denote a recommendation; and the word "may" to denote permission, neither a requirement nor a recommendation. Section 1.2 of ACU's QAPD states that the definitions provided in ANSI/ANS-15.8-1995 apply to terms as used in the ACU QAPD.

The word "shall" is removed in ACU's QAPD-001-A, Revision A, in the following sections that correspond to sections in ANSI/ANS-15.8-1995: twice in 1.2, once in 2.1, twice in 2.2, once in 2.3, once in 2.3.1, twice in 2.3.2, once in 2.5.1, once in 2.7.4, once in 2.8, four times in 2.10, twice in 2.15, three times in 2.17, and once in 2.19. The word "shall" is replaced with "will be" in 2.3.6 and "required" in 2.16. The word "shall" is used instead of "should" in Sections 2.3.6 and 2.4.

Clarify the proper level of commitments in these sections or justify why no additional information is required.