



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

July 26, 2018

Dr. William Charlton, Director
Nuclear Engineering Teaching Laboratory
The University of Texas at Austin
Pickle Research Campus, Building 159
10100 Burnet Road
Austin, TX 78758

SUBJECT: UNIVERSITY OF TEXAS AT AUSTIN – REQUEST FOR ADDITIONAL
INFORMATION RE: OPERATOR REQUALIFICATION PROGRAM REVIEW
FOR RENEWAL OF FACILITY OPERATING LICENSE NO. R-129 FOR THE
UNIVERSITY OF TEXAS AT AUSTIN RESEARCH REACTOR
(EPID NO. L-2017-RNW-0032)

Dear Dr. Charlton:

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its review of the University of Texas (UT) at Austin for the renewal of Facility Operating License No. R-129, dated December 12, 2011 (under the Agencywide Documents Access and Management System (ADAMS) Accession No. ML12156A097), as supplemented by letter dated February 21, 2012 (ADAMS Accession No. ML12061A009).

The license renewal review includes a review of the UT Operator Requalification Program, dated March 14, 2017, as provided by letter dated March 15, 2017 (ADAMS Accession No. ML17094A528). During the NRC staff's review of the operator requalification program, questions have arisen for which additional information is needed. The enclosed request for additional information (RAI) identifies the information needed to continue the NRC staff's review. It is requested that UT provide responses to the enclosed RAI within 60 days from the date of this letter.

In accordance with Title 10 of the *Code of Federal Regulations* (10 CFR) 50.30(b), "Oath or affirmation," UT must execute its response in a signed original document under oath or affirmation. The response must be submitted in accordance with 10 CFR 50.4, "Written communications." Information included in the response that is considered sensitive or proprietary, that UT seeks to have withheld from the public, must be marked in accordance with 10 CFR 2.390, "Public inspections, exemptions, requests for withholding." Any information related to security should be submitted in accordance with 10 CFR 73.21, "Protection of Safeguards Information: Performance Requirements." Following receipt of the additional information, the NRC staff will continue its evaluation of the renewal request.

If you have any questions, or need additional time to respond to this request, contact me at 301-415-0893 or by electronic mail at Geoffrey.Wertz@nrc.gov.

Sincerely,

/RA by Alexander Adams for/

Geoffrey A. Wertz, Project Manager
Research and Test Reactors Licensing Branch
Division of Licensing Projects
Office of Nuclear Reactor Regulation

Docket No. 50-602
License No. R-129

Enclosure:
As stated

cc: See next page

University of Texas

Docket No. 50-602

cc:

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SUBJECT: UNIVERSITY OF TEXAS AT AUSTIN – REQUEST FOR ADDITIONAL INFORMATION RE: OPERATOR REQUALIFICATION PROGRAM REVIEW FOR RENEWAL OF FACILITY OPERATING LICENSE NO. R-129 FOR THE UNIVERSITY OF TEXAS AT AUSTIN RESEARCH REACTOR (EPID NO. L-2017-RNW-0032) DATED JULY 26, 2018

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ADAMS Accession No. ML18204A394

***via email**

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DATE	7/26/2018	7/26/2018	

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OFFICE OF NUCLEAR REACTOR REGULATION
REQUEST FOR ADDITIONAL INFORMATION
REGARDING THE RENEWAL OF
THE UNIVERSITY OF TEXAS AT AUSTIN
TRIGA MARK II NUCLEAR RESEARCH REACTOR
LICENSE NO. R-129, DOCKET NO. 50-602

The U.S. Nuclear Regulatory Commission (NRC) staff is continuing its review of the University of Texas (UT) at Austin for the renewal of Facility Operating License No. R-129, for the Nuclear Engineering Teaching Laboratory TRIGA Mark II Nuclear Research Reactor dated December 12, 2011 (Agencywide Documents Access and Management System (ADAMS) Accession No. ML12156A097), as supplemented by letter dated February 21, 2012 (ADAMS Accession No. ML12061A009).

The NRC staff has reviewed the UT Operator Requalification Program (ORP), dated March 14, 2017, as provided by letter dated March 15, 2017 (ADAMS Accession No. ML17094A528). During the NRC staff's review, questions have arisen for which additional information is needed. It is requested that UT provide responses to the enclosed request for additional information (RAI) within 60 days from the date of this letter.

The NRC staff's review used the regulations contained in Title 10 of the *Code of Federal Regulations* (10 CFR), Part 55, "Operators' Licenses," as well as the most recent industry guidance found in American National Standards Institute/American Nuclear Society (ANSI/ANS)-15.4-2016, "Selection and Training of Personnel for Research Reactors."

The RAI numbering is sequential and continues from the most recent NRC RAI letter, dated January 27, 2017 (ADAMS Accession No. ML16358A644).

51. The regulations in 10 CFR 55.59, "Requalification," paragraph (a)(2)(ii) state:

(a) Requalification requirements. Each licensee shall — (2) Pass a comprehensive requalification written examination and an annual operating test. (ii) The operating test will require the operator or senior operator to demonstrate an understanding of and the ability to perform the actions necessary to accomplish a comprehensive sample of items specified in § 55.45(a) (2) through (13) inclusive to the extent applicable to the facility.

ANSI/ANS-15.4-2016, Section 6.2.5, "Operating test or evaluation," states: "At least five tasks selected from Sec. 5.4 including a reactor start-up and shutdown shall be performed and evaluated. The performance of the task may be actual or simulated."

Enclosure

ANSI/ANS-15.4-2016, Section 5.4 (2), "Operating and oral examinations," states:

(2) Operating and oral examinations. Operating and oral examinations shall be designed to test the candidate's knowledge and skill to properly operate the reactor under normal and abnormal circumstances. Examples of those skills are anticipation of and response to events, facility awareness, use of references, and communications. The number and type of tasks to be performed are dictated by the complexity of the facility. The recommended number is five or more and should include reactor start-up and shutdown. Tasks may be actual or simulated.

ORP Section 5.2, "Annual operating tests," 5.2.1, third bullet states: "Based on a representative sample of at least four of the following 13 items:"

The NRC staff finds that ORP 5.2.1, states "four" which is inconsistent with the guidance in ANSI/ANS-15.4-2016, which states "five." Furthermore, since four represents less examination tasks than five, the NRC staff finds that it does not appear to be consistent with the requirements in 10 CFR 55.59(a)(2)(ii), which require a comprehensive sample.

Revise ORP 5.2.1 to state "five" consistent with the guidance in ANSI/ANS-15.4-2016, or provide a justification for how the ORP meets the requirements of 10 CFR 55.59(a)(2)(ii) to provide a comprehensive sample.

52. The regulations in 10 CFR 55.59(a)(2) state: "(a) Requalification requirements. Each licensee shall — (2) Pass a comprehensive requalification written examination and an annual operating test."

ORP Section 5.1.2 second bullet states: "Should (if possible) not to be exempt more than once during sequential training plan cycles."

ORP Section 5.1.2 NOTE states: "Test writing responsibilities will be assigned (where possible) so that no individual is exempt from the biennial comprehensive written examination more than once in sequential training cycles."

ORP Section 5.2 NOTE states: "The preparation and conduct of the Annual Operating Test will be assigned (where possible) so that no individual is exempt from the annual examination more than once each training cycle."

The NRC staff finds that the phrases "if possible" and "where possible" effectively negates the training requirements of each respective section of the ORP, and the licensed operator could be indefinitely exempt from the requirements of taking a written examination and operating test.

Revise the ORP, or clarify the phrases "if possible" and "where possible" to ensure that no one licensed operator is permanently exempted from meeting the requirements of 10 CFR 55.59, or justify why no change is needed.

53. The regulations in 10 CFR 55.59(c)(4)(v) state:

(4) Evaluation. The requalification program must include — (v) Provisions for each licensed operator and senior operator to participate in an accelerated requalification program where performance evaluations conducted pursuant to paragraphs (c)(4)(i) through (iv) of this section clearly indicated the need.

ORP Section 6.2.3 states, in part:

In the event that facility conditions such as an extended shutdown prevent licensed operators and senior operators from completing at least 4-hours of operation within a quarter, prior to resumption of normal licensed activities all operators and senior operators shall complete a special Facility Retraining Program:

- The Facility Retraining Program shall be approved by the Reactor Oversight Committee.

The NRC staff finds that ORP Section 6.2.3 will satisfy the requirements of 10 CFR 55.59(c)(4)(v) if the following statement is provided:

- “The Facility Retraining Program shall be approved by the Reactor Oversight Committee and be in accordance with 10 CFR 55.59 (c)(4)(v).”

The NRC staff acknowledges that 10 CFR 55.59(c)(4)(iv) is addressed under OPR 5.2.1 NOTE on page 9 that states, in part: “Simulation is acceptable for control manipulations related to emergency or abnormal condition, and actual manipulation of the plant controls is not required.”

Revise ORP Section 6.2.3, to state: “The Facility Retraining Program shall be approved by the Reactor Oversight Committee and be in accordance with 10 CFR 55.59 (c)(4)(v),” or justify why no change is needed.