

October 31, 2011

Dr. Tatjana Jevremovic  
Director, Utah Nuclear Engineering Program  
Joseph Merrill Engineering Building  
50 Central Campus Drive, Room 2298  
University of Utah  
Salt Lake City, UT 84112

SUBJECT: UNIVERSITY OF UTAH - ISSUANCE OF RENEWED FACILITY OPERATING  
LICENSE NO. R-126 FOR THE UNIVERSITY OF UTAH NUCLEAR RESEACH  
REACTOR (TAC NO. ME1599)

Dear Dr. Jevremovic:

The U. S. Nuclear Regulatory Commission (NRC) has issued the enclosed Renewed Facility Operating License No. R-126 for the University of Utah in response to the application for license renewal dated March 25, 2005, and supplemented on June 1, 2009, February 9, March 10, May 13, May 27, and October 4, 2010 (two letters), and June 8, July 15, August 23, and August 31, 2011. The renewed facility operating license is effective as of the date of this letter and shall expire at midnight, twenty years from the date of issuance, unless terminated sooner.

In accordance with agency practice, the NRC has restated the license in its entirety, incorporating all changes and amendments made since the issuance of the original license. Also enclosed with the renewed facility operating license is the safety evaluation report associated with the license renewal. A Notice of Issuance of Renewed Facility Operating License No. R-126 is being sent to the Office of the *Federal Register* for publication. The environmental assessment was sent to you under separate cover.

If you have any questions, please contact me at 301-415-0893 or by electronic mail at [Geoffrey.Wertz@nrc.gov](mailto:Geoffrey.Wertz@nrc.gov).

Sincerely,

**/RA/**

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

Docket No. 50-407

Enclosures:

1. Facility Operating License No. R-126
2. Safety Evaluation Report

cc w/encls: See next page

University of Utah

Docket No. 50-407

cc:

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Room 306  
Salt Lake City, UT 84111

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Vice President for Research  
201 S. Presidents Circle, Room 210  
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/RA/  
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Docket No. 50-407

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ACCESSION NO.: Package: ML112500319 Letter: ML112500321 Appendix A (TS): ML112500333, SER: ML112500323

\*Input Provided by Memo ML101680061, \*\*Concurrence via e-mail NRR-058

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Name	Nelson	ELeeds	GWertz			
Date	10/19/2011	10/26/2011 10/31/2011	10/31/2011			

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Enclosure 1

University of Utah  
Docket No. 50-407  
Facility Operating License

ADAMS Accession No. ML112500321

UNIVERSITY OF UTAH

DOCKET NO. 50-407

FACILITY OPERATING LICENSE

License No. R-126

1. The U.S. Nuclear Regulatory Commission (“the Commission”) has found that:
  - A. The application for renewal of Facility Operating License No. R-126 filed by the University of Utah (“the licensee”), dated March 25, 2005, as supplemented on June 1, 2009, February 9, March 10, May 13, May 27, and October 4, 2010 (two letters), June 8, July 15, August 23, and August 31, 2011, (“the application”), complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (“the Act”), and the Commission’s rules and regulations set forth in Title 10, Chapter I, of the *Code of Federal Regulations* (10 CFR);
  - B. Construction of the University of Utah TRIGA Nuclear Reactor (“the facility”) was completed in substantial conformity with the Construction Permit No. CPRR-119, the provisions of the Act, and the rules and regulations of the Commission;
  - C. The facility will operate in conformity with the application, as supplemented, the provisions of the Act, and the rules and regulations of the Commission;
  - D. There is reasonable assurance that (i) the activities authorized by this license can be conducted at the designated location without endangering the health and safety of the public, and (ii) that such activities will be conducted in compliance with the Commission’s regulations;
  - E. The licensee is technically and financially qualified to engage in the activities authorized by this license in accordance with the rules and regulations of the Commission;
  - F. The applicable provisions of 10 CFR Part 140, “Financial Protection Requirements and Indemnity Agreements,” have been satisfied;

- G. The issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;
  - H. The issuance of this license is in accordance with 10 CFR Part 51, "Environmental Protection Regulations for Domestic Licensing and Related Regulatory Functions," of the Commission's regulations and all applicable requirements; and
  - I. The receipt, possession and use of byproduct and special nuclear materials as authorized by this facility operating license will be in accordance with the Commission's regulations in 10 CFR Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," and 10 CFR Part 70, "Domestic Licensing of Special Nuclear Material."
2. Accordingly, Facility Operating License No. R-126 is hereby renewed in its entirety to read as follows:
- A. This license applies to the University of Utah TRIGA Nuclear Reactor (herein "the facility") owned by the University of Utah (herein "the licensee"), located on the licensee's campus in Salt Lake City, Utah, and described in the licensee's application for license renewal, as supplemented.
  - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the University of Utah as follows:
    - (1) Pursuant to subsection 104c of the Act and 10 CFR Part 50, "Domestic Licensing of Production and Utilization Facilities," to possess, use, and operate the facility as a utilization facility at the designated location in accordance with the procedures and limitations described in the application and set forth in this license.
    - (2) Pursuant to the Act and 10 CFR Part 70, the following activities are included:
      - a. to receive, possess, and use in connection with operation of the facility, up to 7.5 kilograms of contained uranium-235 enriched to less than 20 percent in the form of TRIGA reactor fuel;
      - b. to receive, possess, and use in connection with operation of the facility, up to 10 grams of contained uranium-235 enriched to any enrichment in the form of nuclear detectors;

- c. to receive, possess, and use in connection with operation of the facility, up to 240 grams of plutonium in the form of a plutonium-beryllium neutron source; and
    - d. to receive, possess, use, but not separate, in connection with operation of the facility, such special nuclear material as may be produced by the operation of the facility.
  - (3) Pursuant to the Act and 10 CFR Part 30, to receive, possess, and use, in connection with operation of the facility, such byproduct material as may be produced by operation of the reactor, which cannot be separated except for byproduct material produced in non-fueled experiments.
- C. This license shall be deemed to contain and is subject to the conditions specified in 10 CFR Parts 20, 30, 50, 51, 55, 70 and 73 of the Commission's regulations; is subject to all applicable provisions of the Act, and to the rules, regulations, and orders of the Commission now or hereafter in effect; and is subject to the additional conditions specified or incorporated below:
- (1) Maximum Power Level

The licensee is authorized to operate the facility at a steady-state power level not in excess of 100 kilowatts (thermal) as specified in the Technical Specifications.
  - (2) Technical Specification

The Technical Specifications contained in Appendix A are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.
  - (3) Physical Security Plan

The licensee shall fully implement and maintain in effect all provisions of the physical security plan approved by the Commission and all amendments and changes made pursuant to the authority of 10 CFR 50.90 and 10 CFR 50.54(p), respectively. The approved plan, which is exempt from public disclosure pursuant to the provisions of 10 CFR 73.21, is entitled, "University of Utah Physical Security Plan for the Protection of SNM of Low Strategic Significance under Licenses R-25 and R-126," Revision 1, dated July 28, 1980.

- D. This license is effective as of the date of issuance and shall expire at midnight, twenty years from the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Eric J. Leeds, Director  
Office of Nuclear Reactor Regulation

Attachment:  
Appendix A, Technical Specifications

Date of Issuance: October 31, 2011



Attachment

Appendix A, "Technical Specifications"

Technical Specifications and Bases for  
the University of Utah TRIGA Nuclear Reactor

ADAMS Accession No. ML112500333