September 30, 2011

Dr. Donald Wall, Director
Nuclear Radiation Center
Washington State University
PO Box 641300
Pullman, WA 99164-1300

SUBJECT: WASHINGTON STATE UNIVERSITY - ISSUANCE OF RENEWED FACILITY OPERATING LICENSE NO. R-76 FOR THE WASHINGTON STATE UNIVERISITY MODIFIED TRIGA NUCLEAR REACTOR (TAC NO. ME1589)

Dear Dr. Wall:

The U.S. Nuclear Regulatory Commission (NRC) has issued Renewed Facility Operating License No. R-76 for the Washington State University in response to the application for license renewal dated June 24, 2002, as supplemented on April 7 (two letters), May 3, May 24, June 30, July 30, August 4, August 10, August 17, and September 22, 2010, and March 23, July 15, July 18, August 1, and August 26, 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. Enclosed with the renewed facility operating license is a copy of the safety evaluation report associated with the license renewal. A Notice of Issuance of Renewed Facility Operating License No. R-76 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 Frank DiMeglio at 301-415-0894 or by electronic mail at Francis.DiMeglio@nrc.gov.

Sincerely,

/RA/

Linh N. Tran, Senior Project Manager
Research and Test Reactors Licensing Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-027

Enclosures:
1. Facility Operating License No. R-76
2. Safety Evaluation Report

cc w/encls: See next page

cc:

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Chair, Reactor Safeguards Committee
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Pullman, WA 99164 - 1300

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Olympia, WA 98504-3113

Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

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ACCESSION NO.: Package: ML102590640 Letter: ML102590647 Appendix A (TS): ML102590673 SER: ML102590676
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Date	09/22/2011	09/29/2011	09/30/2011

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Enclosure 1

Washington State University
Docket No. 50-027
Facility Operating License

WASHINGTON STATE UNIVERSITY

DOCKET NO. 50-027

FACILITY OPERATING LICENSE

License No. R-76

1. The U .S. Nuclear Regulatory Commission ("the Commission") has found that:

   A. The application for renewal of Facility Operating License No. R-76 filed by the Washington State University ("the licensee"), dated June 24, 2002, as supplemented on April 7 (two letters), May 3, May 24, June 30, July 30, August 4, August 10, August 17, and September 22, 2010, and March 23, July 15, July 18, August 1,and August 26, 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 Washington State University Modified TRIGA Nuclear Reactor ("the facility") was completed in substantial conformity with the Construction Permit No. CPRR-96, the provisions of the Act, and the rules and regulations of the Commission;

   C. The facility will operate in conformity with the application as amended, 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 renewed 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-76 is hereby renewed in its entirety to read as follows:

A. This license applies to the Washington State University Modified TRIGA Nuclear Reactor (herein "the facility") owned by Washington State University (herein "the licensee"), located on the licensee's campus in Pullman, Washington, 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 Washington State University 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 25.0 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 500 grams of contained uranium-235 enriched to any enrichment in the form of nuclear detectors and material for experimental research;

c. to receive, possess, and use in connection with operation of the facility, up to 32 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 levels not in excess of 1.0 megawatt (thermal) and to pulse the reactor in accordance with the limitations 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, "The Physical Security Plan for the Washington State University," dated November 11, 1983, as amended by letter dated July 18, 1984.

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: September 30, 2011

Attachment

Appendix A, “Technical Specifications”

Technical Specifications and Bases for the Washington State University Modified TRIGA Reactor

Enclosure 2

Safety Evaluation Report

Safety Evaluation Report Related to the Renewal of the Facility Operating License for the Washington State University Modified TRIGA Nuclear Reactor

ADAMS Accession Number
ML102590676