

September 10, 2008

Dr. Steven R. Reese
Director, Radiation Center
Oregon State University
100 Radiation Center
Corvallis, OR 97331-5903

SUBJECT: ISSUANCE OF RENEWED FACILITY LICENSE NO. R-106 FOR THE OREGON
STATE UNIVERSITY TRIGA REACTOR (TAC NO. MC5155)

Dear Dr. Reese:

The U.S. Nuclear Regulatory Commission (NRC) has issued renewed Facility License No. R-106 for the Oregon State University TRIGA reactor in response to the application for renewal dated October 5, 2004, as supplemented on August 8, 2005; May 24, 2006; November 10, 2006; November 21, 2006; July 10, 2007; July 27, 2007; July 31, 2007; August 6, 2007; April 14, 2008; August 6, 2008; and August 11, 2008. The renewed license is effective on the date of this letter and expires at midnight, 20 years from its 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 license is a copy of the Notice of Issuance of Renewed Facility License No. R-106 that is being sent to the Office of the Federal Register for publication and the safety evaluation report associated with the renewal. The environmental assessment was sent to you under separate cover. If you have any questions, please contact me at 301-415-1127.

Sincerely,

/RA/

Alexander Adams, Jr., Senior Project Manager
Research and Test Reactors Branch A
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-243

Enclosures:

1. Renewed License No. R-106
2. Safety Evaluation Report
3. Federal Register Notice

cc w/ enclosures: See next page

Oregon State University

Docket No. 50-243

cc:

Mayor of the City of Corvallis
Corvallis, OR 97331

Ken Niles
Oregon Department of Energy
625 Marion Street, N.E.
Salem, OR 97310

John Cassady, Vice President
for Research
Oregon State University
312 Kerr Administration Building
Corvallis, OR 97331-5904

Todd Keller
Reactor Administrator
Oregon State University
100 Radiation Center
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Dr. John Ringle, Chairman
Reactor Operations Committee
Oregon State University
100 Radiation Center
Corvallis, OR 97331-5904

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

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2. Safety Evaluation Report
3. Notice of Issuance of Renewed Facility License No. R-106

cc w/ enclosures: See next page

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ADAMS Package Accession No. ML082520047 *via e-mail **via memo TEMPLATE #: NRR-058

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DATE	9/8/08	3/19/07	9/9/08	9/9/08	9/10/08	9/10/08	

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Enclosure 1

Oregon State University

Docket No. 50-243

Renewed Facility Operating License

ADAMS Accession No. ML082520047

OREGON STATE UNIVERSITY

DOCKET NO. 50-243

RENEWED FACILITY OPERATING LICENSE

License No. R-106

1. The U.S. Nuclear Regulatory Commission (NRC or the Commission) has found the following:
 - A. The application for renewal of Facility Operating License No. R-106 filed by the Oregon State University (the licensee) dated October 5, 2004, as supplemented on August 8, 2005; May 24, 2006; November 10, 2006; November 21, 2006; July 10, 2007; July 27, 2007; July 31, 2007; August 6, 2007; April 14, 2008; August 6, 2008; and August 11, 2008 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 Chapter I of the *Code of Federal Regulations* (CFR);
 - B. Construction of the Oregon State University TRIGA reactor (the facility) was completed in substantial conformity with Construction Permit No. CPRR-93 and the application, as amended; 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 renewed operating license can be conducted without endangering the health and safety of the public, and (ii) such activities will be conducted in compliance with the Commission's rules and regulations;
 - E. The licensee is technically and financially qualified to engage in the activities authorized by this renewed operating license in accordance with the rules and regulations of the Commission;
 - F. The licensee is a university which will use the facility for the conduct of educational training and academic research purposes, and has submitted documentation that is required by Subsection 170a of the Act and has been approved by the NRC;
 - G. The issuance of this renewed 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 renewed 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 have been satisfied; and

- I. The receipt, possession and use of the byproduct and special nuclear materials as authorized by this 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 Materials."
2. Renewed Facility License No. R-106 is hereby amended in its entirety to read as follows:
 - A. The license applies to the TRIGA nuclear research reactor (hereafter, the facility) owned by the Oregon State University. The facility is located in Corvallis, Oregon, and is described in the licensee's application for renewal of the license dated October 5, 2004, as supplemented.
 - B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Oregon State University as follows:
 - (1) Pursuant to Section 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 Corvallis, Benton County, Oregon, 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, but not use, in connection with operation of the facility, up to 16.30 kilograms of contained uranium-235 enriched to less than 20 percent in the form of TRIGA reactor fuel;
 - b. to receive, possess, but not use, up to 656 grams of uranium-235 enriched to less than 20 percent in the form of the core from the AGN-201 reactor;
 - c. to receive, possess, use, but not separate, in connection with operation of the facility, such special nuclear material as may be produced by operation of the facility; and
 - d. to receive, possess and use in connection with operation of the facility up to 12.83 kilograms of contained uranium-235.
 - (3) Pursuant to the Act and 10 CFR Part 30 to receive, possess and use in connection with operation of the facility the following:
 - a. up to a 7-curie sealed polonium-210 beryllium source which may be used for reactor startup;
 - b. up to a 3-curie sealed americium-241 beryllium neutron source which may be used for reactor startup; and

- c. such byproduct material as may be produced by the operation of the facility, which cannot be separated except for byproduct material produced in experiments.

- C. This renewed operating license shall be deemed to contain and is subject to the conditions specified in the Commission regulations in Chapter I of Title 10 of the *Code of Federal Regulation* Parts 20, 30, 50, 51, 55, 70, and 73; 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 steady-state power levels not in excess of 1.1 megawatts (thermal), and in the pulse mode, with reactivity insertions not to exceed \$2.55.

 - (2) Technical Specifications

The technical specifications contained in Appendix A, as revised through Amendment No. 21, 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 maintain and fully implement all provisions of the NRC-approved physical security plan, including amendments and changes made pursuant to the authority of 10 CFR 50.54(p). The approved security plan consists of documents withheld from public disclosure pursuant to 10 CFR 73.21, "Requirements for the Protection of Safeguards Information," and is entitled "Oregon State University TRIGA Reactor Physical Security Plan," as revised.

- D. This license is effective as of the date of issuance and shall expire 20 years from its date of issuance.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

James T. Wiggins, Deputy Office Director
Office of Nuclear Reactor Regulation

Attachment:
Appendix A, "Technical Specifications"

Date of Issuance: September 10, 2008

ENCLOSURE TO RENEWED

FACILITY OPERATING LICENSE NO. R-106

DOCKET NO. 50-243

This enclosure contains Appendix A, "Technical Specifications" issued with renewed Facility License No. R-106 and replaces the previous technical specifications in their entirety.