January 5, 2017

Dr. Cameron Goodwin, Director
Rhode Island Nuclear Science Center
Rhode Island Atomic Energy Commission
16 Reactor Road
Narragansett, RI 02882-1165

SUBJECT: RHODE ISLAND ATOMIC ENERGY COMMISSION – ISSUANCE OF RENEWED FACILITY OPERATING LICENSE NO. R-95 FOR THE RHODE ISLAND NUCLEAR SCIENCE CENTER REACTOR (TAC NO. ME1598)

Dear Dr. Goodwin:

The U.S. Nuclear Regulatory Commission (NRC) has issued the enclosed Renewed Facility Operating License No. R-95 for the Rhode Island Nuclear Science Center reactor in response to the application for license renewal dated May 3, 2004, as supplemented on January 19, February 4, August 6, August 18, September 3, September 8, November 8, November 26, December 7, and December 14, 2010; January 24, February 24, and July 15, 2011; March 15, September 16, and December 19, 2013; February 24, April 28, and June 30, 2014; August 7 and August 11, 2015; and January 20, February 26, March 1, April 21, July 20, October 6, November 1, November 14, December 1, December 8, December 13, and December 15, 2016. The renewed facility operating license is effective on date of issuance, and shall expire at midnight, 20 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 as appropriate. 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-95 has been sent to the Office of the Federal Register for publication. The environmental assessment was sent to you under separate cover January 5, 2017.

If you have any questions, please contact me at 301-415-3936 or by electronic mail at Patrick.Boyle@nrc.gov.

Sincerely,

/Michael Balazik for RA/

Patrick G. Boyle, Project Manager
Research and Test Reactors Licensing Branch
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-193

Enclosures:
1. Facility Operating License No. R-95
2. Safety Evaluation Report

cc: See next page

cc:

Governor
222 State House Room 115
Providence, RI 02903

Howard Chun, Commissioner
Cranston High School East
899 Park Avenue
Cranston, RI 02910

Dr. Clinton Chichester, Chairman
Rhode Island Atomic Energy Commission
College of Pharmacy
Pharmacy Building
7 Greenhouse Road
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Dr. John Breen, Chairman
Nuclear and Radiation Safety Committee
Providence College
Department of Chemistry and Biochemistry
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Marine and Natural Science Building 226
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One Old Ferry Road
Bristol, RI 02809

Supervising Radiological Health Specialist
Office of Occupational and
Radiological Health
Rhode Island Department of Health
3 Capitol Hill, Room 206
Providence, RI 02908-5097

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

SUBJECT: RHODE ISLAND ATOMIC ENERGY COMMISSION – ISSUANCE OF RENEWED FACILITY OPERATING LICENSE NO. R-95 FOR THE RHODE ISLAND NUCLEAR SCIENCE CENTER REACTOR (TAC NO. ME1598) DATED January 5, 2017

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OFFICE	PRLB/PM	PRLB/LA*	PRLB/BC	OGC	DPR/D
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DATE	12/16/2016	12/20/2016	12/16/2016	12/28/2016	12/23/2016
OFFICE	NRR/D	PRLB/PM			
NAME	WDean	PBoyle (MBalazik for)			
DATE	1/4/2017	1/5/2017			

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RHODE ISLAND ATOMIC ENERGY COMMISSION

DOCKET NO. 50-193

RHODE ISLAND NUCLEAR SCIENCE CENTER

RENEWED FACILITY OPERATING LICENSE

License No. R-95

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

   A. The application for renewal of Facility Operating License No. R-95 filed by the Rhode Island Atomic Energy Commission ("the licensee"), dated May 3, 2004, as supplemented on January 19, February 4, August 6, August 18, September 3, September 8, November 8, November 26, December 7, and December 14, 2010; January 24, February 24, and July 15, 2011; March 15, September 16, and December 19, 2013; February 24, April 28, and June 30, 2014; August 7 and August 11, 2015; and January 20, February 26, March 1, April 21, July 20, October 6, November 1, November 14, December 1, December 8, December 13, and December 15, 2016 ("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 Rhode Island Nuclear Science Center ("the facility") Materials Testing Reactor (MTR) - type nuclear research reactor was completed in substantial conformity with the Construction Permit No. CPRR-73, issued on August 27, 1962, 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 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 without endangering the health and safety of the public, and (ii) 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; the issuance of this license will not be inimical to the common defense and security or to the health and safety of the public;

G. 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 have been satisfied; and

H. 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-95 is hereby renewed in its entirety to read as follows:

A. This license applies to the Rhode Island Nuclear Science Center (herein “the facility”) MTR-type nuclear research reactor owned by the Rhode Island Atomic Energy Commission (herein “the licensee”), located on the Narragansett Bay campus of University of Rhode Island in Narragansett, Rhode Island, and described in the licensee’s application for license renewal, dated May 3, 2004, as supplemented.

B. Subject to the conditions and requirements incorporated herein, the Commission hereby licenses the Rhode Island Atomic Energy Commission 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, but not separate, in connection with the operation of the facility, up to 10 kilograms of contained uranium-235 enriched to less than 20 percent in the form of MTR-type reactor fuel;

b. to receive, possess, and use, but not separate, in connection with the operation of the facility, up to 32 grams of plutonium encapsulated in two plutonium-beryllium neutron sources for reactor startup,

c. to receive, possess, and use, but not separate, in connection with the operation of the facility, up to 40 grams total of special nuclear material, of any enrichment, in the form of detectors, fission plates, foils, and solutions; and,

d. to receive, possess, and use, but not separate, in connection with the 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, the following activities are included:

a. to receive, possess, and use, in connection with the operation of the facility, a sealed antimony-beryllium neutron startup source; and,

b. 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 can not be separated except for byproduct material produced in non-fueled reactor experiments.

C. This license shall be deemed to contain, and is subject to the conditions specified in 10 CFR Parts 20, 30, 40, 50, 51, 55, 70, and 73 of the Commission's regulations; is subject to all 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 reactor at a steady-state power level up to a maximum of 2000 kilowatts (thermal) in accordance with the limitations in the Technical Specifications.

2. Technical Specifications

The Technical Specifications contained in Appendix A are hereby incorporated in their entirety 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 Commission-approved physical security plan, including changes made pursuant to the authority of 10 CFR 50.54(p). The approved physical security plan, entitled "Rhode Island Nuclear Science Center Reactor, Physical Security Plan for the Protection of Special Nuclear Material, Facility Operating License R-95, Docket Number 50-193, May 25, 2016," consists of documents withheld from public disclosure pursuant to 10 CFR 73.21.

This license is effective as of the date of issuance and shall expire at midnight, 20 years from the date of issuance.

For the Nuclear Regulatory Commission

/RA/

William M. Dean, Director
Office of Nuclear Reactor Regulation

Attachment:
Appendix A, Technical Specifications

Date of Issuance: January 5, 2017