September 8, 2008

Dr. Ayman Hawari, Director
Nuclear Reactor Program
Department of Nuclear Engineering
North Carolina State University
Campus Box 7909
Raleigh, NC 27695-7909

SUBJECT: ISSUANCE OF AMENDMENT NO. 17 TO FACILITY LICENSE NO. R-120 — NORTH CAROLINA STATE UNIVERSITY PULSTAR NUCLEAR REACTOR (TAC NO. MD4280)

Dear Dr. Hawari:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 17 to Facility License No. R-120 for the PULSTAR nuclear reactor operated by North Carolina State University (NCSU). This amendment is in response to NCSU's letter dated February 6, 2007 (Agencywide Documents Access and Management System Accession No. ML070430311), as supplemented November 20, 2007 (Accession No. ML073300098).

The Technical Specifications have been rewritten and replaced in its entirety to make it consistent with ANSI/ANS-15.1-1990, "American National Standard for the Development of Technical Specifications for Research Reactors." In addition, the specific changes to Specification 3.5 regarding limiting conditions for operation for radiation monitor set points, Specification 3.8 regarding limiting conditions for operation for fueled experiments, and Specifications in Section 6 regarding the line organization and review committees were incorporated. Other editorial and format changes were made to Specifications in Sections 1 through 6.

A copy of the safety evaluation supporting Amendment No. 17 is enclosed. If there are any questions please contact me at 301-415-1631.

Sincerely,

/RA/

Daniel E. Hughes, Project Manager
Research and Test Reactors Branch A
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-297

Enclosures: 1. Amendment No. 17
2. Safety Evaluation

cc w/enclosures: See next page

cc:

Office of Intergovernmental Relations
116 West Jones Street
Raleigh, NC 27603

Dr. Yousry Azmy, Head
Nuclear Engineering Department
North Carolina State University
P.O. Box 7909
Raleigh, NC 27695-7909

Beverly O. Hall, Chief
Division of Environmental
Health Radiation Protection Section
Department of Environment
and Natural Resources
3825 Barrett Drive
Raleigh, NC 27609-7221

Dr. Louis Martin-Vega
Dean of Engineering
North Carolina State University
113 Page Hall
Box 7901 - NCSU
Raleigh, NC 27695-7901

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

Dr. Ayman Hawari, Director
Nuclear Reactor Program
Department of Nuclear Engineering
North Carolina State University
Campus Box 7909
Raleigh, NC 27695-7909

SUBJECT: ISSUANCE OF AMENDMENT NO. 17 TO FACILITY LICENSE NO. R-120 — NORTH CAROLINA STATE UNIVERSITY PULSTAR NUCLEAR REACTOR (TAC NO. MD4280)

Dear Dr. Hawari:

The U.S. Nuclear Regulatory Commission has issued the enclosed Amendment No. 17 to Facility License No. R-120 for the PULSTAR nuclear reactor operated by North Carolina State University (NCSU). This amendment is in response to NCSU's letter dated February 6, 2007 (Agencywide Documents Access and Management System Accession No. ML070430311), as supplemented November 20, 2007 (Accession No. ML073300098).

The Technical Specifications have been rewritten and replaced in its entirety to make it consistent with ANSI/ANS-15.1-1990, "American National Standard for the Development of Technical Specifications for Research Reactors." In addition, the specific changes to Specification 3.5 regarding limiting conditions for operation for radiation monitor set points, Specification 3.8 regarding limiting conditions for operation for fueled experiments, and Specifications in Section 6 regarding the line organization and review committees were incorporated. Other editorial and format changes were made to Specifications in Sections 1 through 6.

A copy of the safety evaluation supporting Amendment No. 17 is enclosed. If there are any questions please contact me at 301-415-1631.

Sincerely,

/RA/
Daniel E. Hughes, Project Manager
Research and Test Reactors Branch A
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Docket No. 50-297
Enclosures: 1. Amendment No. 17
2. Safety Evaluation
cc w/enclosures: See next page

DISTRIBUTION:

PUBLIC	RidsNrrDprPrta	RidsNrrDprPrtb	RTR Reading
GHill (2)	RidsOgcMailCenter		

ACCESSION NO.:ML081480419 Template No.: NRR-106

OFFICE	PRTA	PRTA:LA	OGC	PRTA:BC
NAME	DHughes	EBarnhill		DCollins
DATE	7/29/08	7/29/08	8/7/08	9/8/08

OFFICIAL RECORD COPY

NORTH CAROLINA STATE UNIVERSITY

DOCKET NO. 50-279

AMENDMENT TO FACILITY LICENSE

Amendment No. 17
License No. R-120

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

   A. The application for an amendment to Facility License No. R-120, filed by the North Carolina State University (the licensee) dated February 6, 2007, as supplemented on November 20, 2007, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the rules and regulations of the Commission set forth in Chapter I of Title 10 of the *Code of Federal Regulations* (10 CFR);

   B. The facility will operate in conformity with the application, the provisions of the Act, and the rules and regulations of the Commission;

   C. There is reasonable assurance that (i) the activities authorized by this amendment can be conducted without endangering the health and safety of the public and (ii) such activities will be conducted in compliance with the regulations of the Commission;

   D. The issuance of this amendment will not be inimical to the common defense and security or to the health and safety of the public;

   E. This amendment is issued in accordance with the regulations of the Commission as stated in 10 CFR Part 51, and all applicable requirements have been satisfied; and

   F. Prior notice of this amendment was not required by 10 CFR 2.105 and publication of a notice for this amendment is not required by 10 CFR 2.106.

2. Accordingly, the license is amended by changes to Technical Specifications as indicated in the enclosure to this license amendment, and paragraph 2.C.(2) of Facility License No. R-120 is hereby amended to read as follows:

   Technical Specifications

   The Technical Specifications contained in Appendix A, as revised through Amendment No. 17, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

3. This license amendment is effective as of the date of issuance.

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Daniel S. Collins, Chief
Research and Test Reactors Branch A
Division of Policy and Rulemaking
Office of Nuclear Reactor Regulation

Enclosure: Appendix A Technical Specifications

Date of Issuance: September 8, 2008

ENCLOSURE TO LICENSE AMENDMENT NO. 17

FACILITY LICENSE NO. R-120

DOCKET NO. 50-297

The Appendix A, Technical Specifications, is replaced in its entirety.