

August 2, 2001

Mr. Terrence Tehan, Director
Rhode Island Nuclear Science Center
Rhode Island Atomic Energy Commission
16 Reactor Road
Narragansett, RI 02882-1165

SUBJECT: ISSUANCE OF AMENDMENT NO. 28 TO FACILITY OPERATING LICENSE
NO. R-95 — RHODE ISLAND NUCLEAR SCIENCE CENTER (RINSC)
RESEARCH REACTOR (TAC NO. MB2384)

Dear Mr. Tehan:

The Commission has issued the enclosed Amendment No. 28 to Facility Operating License No. R-95 for the RINSC Research Reactor. The amendment is in response to RINSC's letter dated March 23, 2001. The amendment consists of a change to the Technical Specification surveillance interval for the reactor pool water level scram check. A copy of the related safety evaluation supporting Amendment No. 28 is also included.

Should you have any questions on this amendment, I would be pleased to hear from you. My telephone number is (301) 415-1128.

Sincerely,

/RA/

Marvin M. Mendonca, Senior Project Manager
Operational Experience and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Docket No. 50-193

Enclosures: 1. Amendment No. 28
2. Safety Evaluation

cc w/enclosures: Please see next page

Rhode Island Atomic Energy Commission

Docket No. 50-193

cc:

Dr. Vincent C. Rose, Chairman, RIAEC
University of Rhode Island
Chemical Engineering Department
118 Crawford Hall
Kingston, RI 02881

Dr. Harry Knickle, Chairman
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University of Rhode Island
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Mr. Charles McMahon
Supervisor, Radiation Control Specialist
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Division of Occupational and
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Test, Research, and Training
Reactor Newsletter
University of Florida
202 Nuclear Sciences Center
Gainesville, FL 32611

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TEMPLATE #: NRR-056

*Please see previous concurrence

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RHODE ISLAND NUCLEAR SCIENCE CENTER
DOCKET NO. 50-193
AMENDMENT TO FACILITY OPERATING LICENSE

Amendment No. 28
Licensee No. R-95

1. The U.S. Nuclear Regulatory Commission (the Commission) has found that:
 - A. The application filed by the Rhode Island Nuclear Science Center (the licensee), dated March 23, 2001, complies with the standards and requirements of the Atomic Energy Act of 1954, as amended (the Act), and the regulations of the Commission as stated in 10 CFR Chapter I;
 - 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 (i) that the activities authorized by this amendment can be conducted without endangering the health and safety of the public and (ii) that such activities will be conducted in compliance with the rules and 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 10 CFR Part 51 of the regulations of the Commission 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 notice for this amendment is not required by 10 CFR 2.106.

2. Accordingly, the license is amended by changes to the Technical Specifications as indicated in the enclosure to this license amendment, and paragraph 3.b of License No. R-95 is hereby amended to read as follows:

- 3.b. Technical Specifications

The Technical Specifications contained in Appendix A, as revised through Amendment No. 28, are hereby incorporated in the license. The licensee shall operate the facility in accordance with the Technical Specifications.

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

FOR THE NUCLEAR REGULATORY COMMISSION

/RA/

Marvin M. Mendonca, Senior Project Manager
Operational Experience and Non-Power Reactors Branch
Division of Regulatory Improvement Programs
Office of Nuclear Reactor Regulation

Enclosure: Appendix A Technical
Specifications Changes

Date of Issuance: August 2, 2001

ENCLOSURE TO LICENSE AMENDMENT NO. 28

FACILITY LICENSE NO. R-95

DOCKET NO. 50-193

Replace the following page of the Appendix A Technical Specifications with the enclosed page. The revised page is identified by amendment number and contains a vertical line indicating the area of change.

Remove

33

Insert

33

TECHNICAL SPECIFICATIONS
Rhode Island Nuclear Science Center
Docket 50-193, License R-95

Applicability:

This specification applies to the surveillance of the primary coolant system.

Objective:

To assure high quality pool water and to detect the deterioration of components in the primary coolant loop.

Specification:

1. The pH of the primary coolant shall be measured weekly.
2. The resistivity of the primary coolant shall be measured weekly.
3. The radioactivity of the primary coolant shall be analyzed weekly for gross activity and quarterly for isotopic activity.
4. Pool water level scram switch shall be checked for operation annually.
5. Pool inspections shall be made annually in accordance with operating procedures.
6. Pool level shall be visually inspected daily in accordance with operating procedures.

Bases:

Regular surveillance of pool water quality and radioactivity provides assurance that pH and resistivity changes that could accelerate the corrosion of the primary system components would be detected before significant damage would occur, and that the presence of leaking fuel elements in the reactor is detected.

The low pool level switch is checked for operation monthly. Upon a one inch pool level drop, the automatic fill begins; upon a two inch drop, the reactor scrams (if operating) and a local and remote alarm sounds. The remote alarm is continuously monitored offsite.

Annual pool system inspections are made to provide assurance that other cooling system components (e.g., gate valves, gasketing etc.) are functioning properly.

SAFETY EVALUATION BY THE OFFICE OF NUCLEAR REACTOR REGULATION

SUPPORTING AMENDMENT NO. 28 TO

FACILITY OPERATING LICENSE NO. R-95

RHODE ISLAND NUCLEAR SCIENCE CENTER

DOCKET NO. 50-193

1.0 INTRODUCTION

By letter dated March 23, 2001, the Rhode Island Nuclear Science Center (the licensee or RINSC) submitted a request to change the Technical Specifications. The change was on the surveillance interval for the reactor pool water level scram check. The licensee proposed to change the surveillance interval from monthly to annually.

2.0 EVALUATION

The licensee indicated that the proposed change was to be consistent with the current monitoring regimen used at the facility. Specifically, the licensee stated that the check should be consistent with the annual surveillance of the other scram checks. The licensee changed the company used to help in this surveillance and the new company does not do the monthly checks. Further, the licensee said that the safety system scram checks prior to each days' operations will continue.

The NRC staff guidance in this area is NUREG-1537, "Guidelines for Preparing and Reviewing Applications for the Licensing of Non-Power Reactors." For pool water level scram switch checks the NRC's guidance accepts the surveillance intervals from ANSI/ANS 15.1, "The Development of Technical Specifications for Research Reactors." ANSI/ANS 15.1-1990 specifies annual intervals for this type of surveillance.

Therefore, because (1) the annual surveillance is consistent with the applicable guidance, (2) it is consistent with other similar surveillance requirements for this facility, and (3) checks will continue to be performed prior to operation, the NRC staff finds the proposed change acceptable.

3.0 ENVIRONMENTAL CONSIDERATION

This amendment involves changes in the installation or use of a facility component located within the restricted area as defined in 10 CFR Part 20 or changes in inspection and surveillance requirements. The staff has determined that this amendment involves no significant increase in the amounts, and no significant change in the types, of any effluents that

may be released off site, and no significant increase in individual or cumulative occupational radiation exposure. Accordingly, this amendment meets the eligibility criteria for categorical exclusion set forth in 10 CFR 51.22(c)(9). Pursuant to 10 CFR 51.22(b), no environmental impact statement or environmental assessment need be prepared in connection with the issuance of this amendment.

4.0 CONCLUSION

The staff has concluded on the basis of the considerations previously discussed that (1) because the amendment does not involve a significant increase in the probability or consequences of accidents previously evaluated, or create the possibility of a new or different kind of accident from any accident previously evaluated, and does not involve a significant reduction in a margin of safety, the amendment does not involve a significant hazards consideration; (2) there is reasonable assurance that the health and safety of the public will not be endangered by the proposed activities; and (3) such activities will be conducted in compliance with the Commission's regulations, and the issuance of this amendment will not be inimical to the common defense and security or the health and safety of the public.

Principal Contributor: Marvin M. Mendonca

Date: August 2, 2001