STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS

Rhode Island Atomic Energy Commission
NUCLEAR SCIENCE CENTER
16 Reactor Road
Narragansett, R.I. 02882-1165

29 December 2000

Docket No. 50-193

Mr. Marvin Mendonca, Senior Project Manager
Non-Power Reactors, Decommissioning and
Environmental Project Directorate
Division of Reactor Projects - III/IV/V
U. S. Nuclear Regulatory Commission (NRC)
Washington, D. C. 20555

Dear Mr. Mendonca,

As per our telephone conversation of December 22nd, I am resubmitting the Rhode Island Nuclear Science Center Reactor Requalification Program with the changes that we discussed. If there are any questions, please do not hesitate to call me.

Sincerely,

Michael J. Davis

Michael J. Davis
Reactor Supervisor

M003

RINSC OPERATING PROCEDURES

		Reactor Operator Re-Qualification

I. SCOPE:

This instruction outlines the requirements for re-qualifying reactor operators and senior reactor operators at the RINSC.

II. DISCUSSION:

The RO/SRO re-qualification program is designed to demonstrate RO/SRO competence and to satisfy the requirements of 10CFR55.53 and 10CFR55.59 For the purpose of this procedure, RO shall refer to any licensed Reactor Operator, SRO shall refer to any licensed Senior Reactor Operator, and Operator shall refer to any licensed operator, reactor, or senior reactor.

III. REFERENCES:

A. 10CFR55.53

B. 10CFR55.59

C. Non-Power Reactor Operator Licensing Examiner Standards –NUREG 1478, June 1995.

IV. PRECAUTIONS:

To maintain an active Operator's License at the RINSC one shall:

a. Be the console operator at least once every three months and operate a total of at least 4 hours or complete SRO duties for at least 4 hours. (10CFR 55.53e)

b. Complete a yearly operational re-qual exam, and a two year written exam successfully and in a timely manner (within 30 days).

c. Renew one's NRC Operator License every six years in a timely manner.

d. Review changes to the Facility License, Technical Specifications, Operating Procedures, Emergency Plan and Implementing Procedures, Security Plan, Facility Design Changes, NRC Notices, and other important reactor related material in a timely manner.

e. Successfully complete a biennial medical evaluation.

V. PROCEDURES:

A. INTRODUCTION

The Re-qualification Program is designed to demonstrate Operator and Senior Operator competence, and to satisfy the requirements of 10CFR55.59 for license renewal. The Program embodies the substance of 10CFR55.59, including provisions for an annual operational examination, a biennial written examination, a structured lecture and study program when necessary to correct deficiencies, on the job training and evaluation of licensees, and a records maintenance system.

During each year, an operational examination shall be administered to all licensed personnel having regular operational responsibility at the RINSC. Every other year, a written examination shall be administered.

Subsequent to determining any deficiencies indicated by the annual examination, a retraining program will be initiated which consists of a combination of lectures, self-study by the licensee, tutoring of the licensee, and appropriate examination on the material covered. The final selection of the combination of retraining sessions will depend upon the performance of the licensee on the written examination.
All study materials used in the program shall be reviewed to assure they remain current. Study materials shall be collected and made available to all licensees throughout the course of the program.

B. PROGRAM ADMINISTRATION AND REVIEW

The Assistant Director for Operations of the RINSC shall serve as the Training Coordinator, and shall be responsible for the implementation, coordination, and operation of the Re-qualification Program. The duties of the Training Coordinator shall be designated to another SRO on alternate years. The Training Coordinator or his designee will prepare, administer, grade, and review all examinations and quizzes required by the program. In this capacity, and since he is a licensed Senior Operator, he will be considered as having completed the examination and retraining program requirements for that period.

C. BIENNIAL WRITTEN EXAMINATION

1. The biennial written examination given to all licensed personnel, will include questions taken from:

   a. Reactor Theory, Thermodynamics, and Facility Operating Characteristics.

b. Normal and Emergency Operating Procedures and Radiological Controls.
c. Facility and Radiation Monitoring Systems.

2. The exam should contain at least 10 objective questions from each section.

3. The examinations may be open book.

4. The exams will be graded, reviewed and retained at the RINSC. For each licensee, a review form will be prepared indicating his/her grade in each exam category. The areas of deficiency and the retraining to be followed in improving the licensee's competence in that area will then be determined. A grade below 70% in a single category shall require retraining for that licensee in that area of deficiency. An overall score below 70% on the exam shall require that:

   a. The licensee shall be immediately enrolled in a retraining program.
   b. Prior to continuing his/her responsibilities of operation of the reactor, the licensee shall be given an oral exam to verify competence as a console operator.

D. RETRAINING PROGRAM

1. The retraining program shall consist of an appropriate combination of:

   a. Lectures,
   b. Self-study of reference materials,
   c. Tutoring sessions,
   d. Examinations.

2. Retraining shall be completed within 90 days and require passing of a written exam on the appropriate section(s).

E. REACTOR OPERATIONAL EXAM

One reactor operation of each year for each licensee shall be devoted to operator re-qualification. The training coordinator shall be present in the control room during all reactivity control manipulations associated with the operation, and shall evaluate the operator's performance, competence, knowledge of the reactor system, and knowledge of operating and emergency procedures. If deficiencies are noted, a retraining program will be organized, implemented and conducted within a period of 90 days. The performance evaluation should include:

1. Administrative topics,
2. Control room systems,
3. Facility walkthrough,
4. Rector operation.

F. RE-QUALIFICATION PROGRAM STUDY MATERIALS

The training coordinator shall provide a complete set of study and reference materials for use. It shall be his/her responsibility to perform a review of the contents of these reference materials to ensure they are adequate and accurately reflect operations, conditions, and design characteristics of the facility. As a minimum, these materials shall include copies of:

1. A suitable general reference text on reactor physics,
2. RINSC Operating Procedures,
3. RINSC Abnormal Procedures,
4. RINSC Emergency Plan & Implementing Procedures,
5. RINSC Technical Specifications,
6. GE Operation and Maintenance manual,
7. 10CFR19, 20, 50, 55, and 70,
8. RINSC Radiation Safety Guide,
9. Health Physics principles & techniques.

G. SPECIAL CONDITIONS

1. Operating Frequency

   a. A monthly review shall be performed to ensure that each licensee has participated in at least one reactor operation during each three month period for at least four (4) hours or supervised licensed activities for at least four (4) hours or a combination totaling four (4) hours.
   b. A licensee who does not participate in reactor operation for three or more months shall be given an oral examination on facility and procedure changes, and shall perform a minimum of six (6) hours of supervised reactor operations before being reassigned regular operational duties at the facility, provided he is up to date on the comprehensive biennial written examinations. These actions are required to meet 10CFR55.53(f) re-certification requirements. Results of these examinations shall be retained in the licensee's file.

2. A licensee who does not complete the biennial exam shall not be allowed to assume the operator duties until the exam is successfully completed and graded.

3. Serious deficiencies in either the written exam (<55% overall) or the operational exam may result in removal of certification until retraining is successfully completed.

H. RECORDS

These records shall be retained at the RINSC for the period until the individual's license is renewed:

1. All exams and required re-examinations, which were taken by the licensee during each of the re-qualification period.
2. The examination review sheets filled out at the conclusion of the exam and after any indicated re-exams. There should also be an evaluation sheet completed for each operational exam.
3. Summaries of control manipulations for licensees involved in the re-qualification program (NSC-45).
4. Certification that each licensee has reviewed changes in the facility license, design, and procedures (Required Reading List sign-off sheet).
5. Certification of Medical Examination by Facility Licensee (NRC Form 396) for each licensee.

VI. ATTACHMENTS:

A. Exam Cover Sheet

THE RHODE ISLAND NUCLEAR SCIENCE CENTER RESEARCH REACTOR

OPERATOR REQUALIFICATION EXAMINATION

Name: _____ License Number: _____

Date Administered: _____

Instructions:

Answers are to be written on the examination page itself. A grade of 70% is required to pass the examination. Three hours are permitted to complete the examination.

Candidate's Declaration:

All work done on this examination is my own. I have neither given nor received aid.

_____

Candidate's Signature

Examination Results:

SECTION	SECTION POINTS	SECTION SCORE	PERCENT OF SECTION
A. Reactor Theory, Thermodynamics, Facility Characteristics	10	_____	_____
B. Normal & Emergency Procedures, Radiological Controls	10	_____	_____
C. Facility and Radiation Monitoring Systems	10	_____	_____
TOTAL	30	_____	_____

Evaluation:

_____ Satisfactory (>70%)

_____ Unsatisfactory

Examiner's Signature: _____ Date: _____