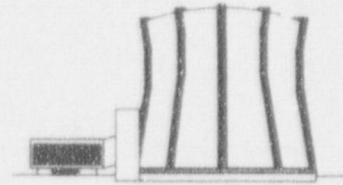


TEXAS ENGINEERING EXPERIMENT STATION

TEXAS A&M UNIVERSITY  
COLLEGE STATION, TEXAS 77843-3575



NUCLEAR SCIENCE CENTER  
409/845-7551

May 26, 1997

Nuclear Regulatory Commission  
Document Control Desk  
Washington, D.C. 20555-0001

97-0118

Subject: Request for Amendment to License R-83  
Reference: Reactor Facility License R-83 Amendment 13, Docket  
50-128

Dear Sir:

In a phone conversation between Ted Michaels, Senior Project Manager, and Sean O'Kelly, Nuclear Science Center Assistant Director, on May 23, 1997 it was determined that changes are required in the wording of the original license amendment request dated April 15, 1997. It is respectfully requested that the Nuclear Science Center (NSC) Facility License R-83 be amended as follows:

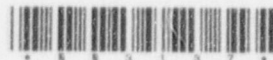
To support the NSC's wide range of research activities, the facility license condition II.B.3 should be changed to read

Pursuant to the Act and 10 CFR, Chapter I, Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material," to receive, possess, and use in amounts as required any byproduct material without restriction to chemical or physical form in connection with operation of the reactor that has a definite research and development purpose and any byproduct material generated by the licensed activities, but not to separate such byproduct material except for byproduct material produced in reactor experiments

In addition to the above amendment, it is requested that an additional condition II.B.7 be added as follows:

Pursuant to the Act and 10 CFR, Chapter I, Part 30, "Rules of General Applicability to Domestic Licensing of Byproduct Material" to possess and store for decay such byproduct materials as are within the facility boundary at the time of this amendment.

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PDR



97-0118

Page 2

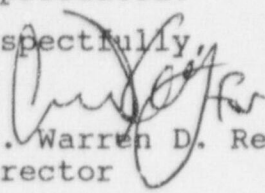
To define the decay in storage procedures it is requested that 10CFR 35.92 be added to the list of applicable regulations in II.C of the facility license.

Attached to this letter is the new fourth revision of the NSC Operator Requalification Program that was changed in a letter to the NRC dated April 16, 1997. This revision incorporates comments and suggestions made by Ted Michaels to the NSC Management.

Finally, a draft NSC Health Physics procedure is attached. This procedure formalizes the quarterly and semiannual sealed source leak checks. This was identified as a program weakness during the NRC inspection in March. This procedure will insure that routine leak checks will continue to be performed as required in NRC Regulatory Guide 10.5 and 10.7. This procedure will be submitted for approval at a Reactor Safety Board meeting this month.

Please contact Sean O'Kelly or me at 409-845-7551 if you need any additional information. Your attention to this matter is appreciated.

Respectfully,

  
Dr. Warren D. Reece  
Director

WDR/sjm

Attachment: NSC Operator Requalification Program-4th Revision

cc: Ellis W. Merschoff, NRC RGN-IV  
Theodore S. Michaels, NRR/DRPM/PDND  
B. Don Russell, TEES  
Larry A. Krisanits, NSC  
David Hearnberger, NSC  
12110/Central File

Nuclear Science Center

Senior Reactor Operator and Reactor Operator  
Requalification Program

Facility License R-83  
Docket 50-128

Texas A&M University System  
Texas Engineering Experiment Station

NSC Director:

W. D. Rive

Revision 4

April 1997

Texas A&M University System/Texas Engineering Experiment Station  
Nuclear Science Center Requalification Program

April 1997

Rev. 4

1.0 PURPOSE

To insure that all operating personnel maintain proficiency at a level equal to or greater than that required for initial licensing.

2.0 CLASSROOM TRAINING

2.1 Lectures

Nuclear Science Center Operations (NSC) memos are distributed on a timely basis to keep operations personnel aware of facility changes. These changes are also covered in periodic documented operations staff meetings. However, to provide assurance that all licensed personnel are current in their understanding of the facility a lecture program will be presented to train the licensee and inform him of modifications and changes. Basic theory and other pertinent items will also be covered. One or more lectures will be scheduled within a four month interval to cover a topic selected from the list below. The lecture sequence over all topics will take two years to complete and will then be repeated. Self-study or individual tutoring may substitute for each missed lecture, however, examinations given after each lecture in 2.2 must be taken or an alternate examination taken within a month after the lecture. Lectures on the Emergency Plan and Security Plan will be given annually.

2.1.1 Theory and Principles of Operation

2.1.2 Reactor Regulations

- a. Applicable portions of 10CFR
- b. Technical Specifications
- c. Regulatory Guides
- d. Standard Operating Procedures
- e. Experiment Authorizations

2.1.3 Reactor Design

- a. Facility Operating Characteristics
- b. Instrumentation and Control Systems
- c. Facility Protection and Engineered Safety Systems

April 1997

Rev. 4

If a licensee has not actively performed the functions of an operator or senior operator for a period of more than four months, he shall satisfactorily demonstrate his competence before resuming his duties. He shall do this by satisfactorily completing the performance evaluation form discussed in Section 3.2 of this program. He will also be briefed of any changes to the facility or procedures. When his competence has been satisfactorily demonstrated, the Director will so certify to the Commission.

#### 5.0 RECORDS

Records will be maintained to document the performance of each licensed operator and senior reactor operator participating in the program. The record will contain copies of the written examinations administered, answers given and results of the console manipulation evaluations. Any additional training and testing required for individuals exhibiting deficiencies will also be documented.

#### 6.0 EXEMPTIONS

The Director or his designee will be responsible for evaluating the written examinations. The individual preparing a particular examination is exempt from that examination, except that the same individual shall not prepare the examination for two consecutive years. This must be the qualified individual who has presented lectures and prepared the questions for that examination. No exemptions to the physical manipulation requirements will be granted to any licensee.

## 4.4 Sealed Source Leak Check

### A. Introduction

As all sealed sources possess the potential for leakage and contamination, the NSC Health Physics Staff is to assess and maintain acceptable levels of surface contamination and leakage from sealed sources at the NSC Regulatory Guide 10.5, Regulatory Guide 10.7, along with State regulations (TRCR 11.7). These regulations specify tests or checks to be performed on all sealed sources above specified activities.

### B. Purpose

A semi-annual or quarterly leakage check shall be performed on all sealed sources. A **semi-annual** gamma/beta and neutron source survey, not to exceed 6 months, and a **quarterly** alpha source survey, not to exceed 3 months, is to be performed on all sealed sources above specified limits (Reg Guide 10.7 and TRCR 11.7) for any signs of leakage and contamination. A leak test must also be performed in the absence of a certificate for a leak test from the transferor before use.

### C. Procedure

All sealed sources greater than:

(i)	beta/gamma emitters	100 uCi
(ii)	alpha/neutron emitters	10 uCi
(iii)	plated alpha, except Cf-252	0.1 uCi
(iv)	nickel-65 foil sources	100 uCi

Some sources may be exempt from leak testing if they meet the following requirements:

- (i) any hydrogen-3 (Tritium) sources;
- (ii) sources of half-lives less than 30 days;
- (iii) sealed sources in gaseous form;
- (iv) less than testing limits stated above.

Stored sources not in use:

Each sealed source and fission detector shall be tested prior to use or transfer to another license unless tested within the previous six months. Sealed sources and fission detectors transferred without a certificate indicating the last test shall be tested prior to being placed into use.

date
use.

Startup sources and fission detectors:

Each sealed startup source and fission detector shall be tested within 31 days prior to being subjected to core flux or installed in the core and following repair or maintenance to the source.

- (1) Obtain a Sealed Source Leak Check Form, NSC Form 817.
- (2) Complete a listing of the sources to be tested at that time.
- (3) View the source and container or mounting device for any physical signs of leakage.
- (4) Obtain a 100 cm<sup>2</sup> smear from the **surface** of the source or from the containing or mounting device and from any **other** surface that might be suspected to be radioactively contaminated. Caution and care should be exercised with thin window or plated sources to avoid damaging the source.
- (5) Count the smears and convert the net cpm into uCi.
- (6) Report any contamination above 0.005 uCi (185 Bq) to the Health Physics Supervisor, mark the source as contaminated, and remove the use or service.
- (7) The Director of the NSC shall submit a written report in the annual report if any source is found to have leakage greater than 0.005 uCi.