Designated Original

OSU
Oregon State
UNIVERSITY

Radiation Center
Oregon State University, 100 Radiation, Corvallis, Oregon 97331-5903
T 541-737-2341 | F 541-737-0480 | http://ne.oregonstate.edu/facilities/radiation_center

September 21, 2004

Reference: Oregon State University TRIGA Reactor (OSTR)
Docket No. 50-243, License No. R-106
OSTR Requalification Program for Licensed Operators
Letter from the USNRC to OSU dated September 2, 2004

Subject: Reply to Request for Additional Information Letter Regarding Changes to the OSTR Requalification Program for Licensed Operators Dated September 2, 2004

Mr. Adams,

The purpose of this letter is to answer the request for additional information asked for in the letter dated September 2, 2004 regarding our proposed changes to the requalification plan for licensed operators of the OSTR. The letter asked, "Please provide details on how your revised requalification program will meet the requirements of 10 CFR 55.59(a)(2)(i) and (ii)."

Attached you will find a two versions of the requalification plan. The first version illustrates the changes made as a result of this letter to the proposed plan. Any text that was removed has a strikethrough line and any text that was added is in bold. Specifically, sections 12.10.6 and 12.10.8 have been changed to explicitly cite 10 CFR 55.59(a)(2)(i) and (ii), respectively. The second version is the version of plan with all changes incorporated in it. We hope you find this version of the requalification plan acceptable.

If you have any questions pertaining to this matter, please do not hesitate to contact me. I declare under penalty of perjury that the foregoing is true and correct. Executed on: 9/21/2004.

Sincerely,

Andrew C. Klein
Director

Attachments

cc: Document Control Desk, USNRC
Craig Bassett, USNRC
Paul Doyle, USNRC
David Stewart-Smith, ODOE (w/o attachments)
Rich Holdren, OSU (w/o attachments)
John Ringle, OSU
Steve Reese, OSU
Gary Wachs, OSU

M003

Process Per
Al Adams

REQUALIFICATION PROGRAM FOR LICENSED OPERATORS

OF THE

OREGON STATE TRIGA REACTOR

THIS PLAN ONLY FOR USE IN SHOWING CHANGES
Text that was removed has strikethrough lines.
Text that was added is in **bold.**

Revision 1

Approved by the U.S. Nuclear Regulatory Commission on XXX XX, XXXX

12.10 Operator Training and Requalification

This reactor operator training and requalification program is designed to satisfy the requirements of the USNRC's rules contained in 10 CFR 55. It also complies with the requalification program in ANSI/ANS 15.4, *Selection and Training of Personnel for Research Reactors.*

12.10.1 Responsibility

The responsibility for this program rests with the Reactor Supervisor. This responsibility shall cover the following items:

a. Selection of knowledgeable individuals to give classroom lectures and to supervise retraining operations.

b. Certification to the Reactor Administrator that each individual has successfully completed the requalification program.

c. Granting of exemptions to the requalification program as provided for in this plan.

12.10.2 Schedule

The requalification program shall be conducted on a cycle not to exceed two years. Upon conclusion, it will be promptly repeated.

12.10.3 Content

The requalification program shall consist of preplanned lectures, written examinations, an annual operating examination, and routine reactor operations.

12.10.4 Annual Lectures

Annual, not to exceed 15 months, lectures shall be given which cover the following:

a. Emergency Response Plan
b. Physical Security Plan.

12.10.5 Biennial Lectures

Biennially, not to exceed 30 months, lectures shall be given which cover the following:

a. Facility Design, Characteristics, Instrument Control and Safety Systems
b. Reactor Principles

c. Operating Procedures, Technical Specifications, and Administrative Procedures
d. Radiation Protection

12.10.6 Written Examinations

Written examinations shall be given covering the lecture material. **Both the written examination and the lecture material shall meet the requirements given in 10 CFR 55.59(a)(2)(i).** The individual giving the lecture on a particular subject shall formulate, administer, and grade the written examination on that subject. Any licensed individual preparing and grading an examination is exempt from taking that examination. All written examinations will be proctored by the individual administering the exam, or by their appointed representative, but shall not be an individual taking the exam.

A grade equal to or greater than 75% will constitute a passing grade. Failure to achieve a passing grade will result in an accelerated retraining program in the subject area failed. This accelerated retraining program will be left to the discretion of the Reactor Supervisor.

The Reactor Supervisor may require an operator to participate in an accelerated requalification program when it is deemed needed by virtue of examinations or operating test results.

12.10.7 Quarterly Operating Requirements

To maintain a current license, each calendar quarter a reactor operator shall operate the reactor for a minimum of four (4) hours and perform a supervised reactor startup, including a core excess measurement and increase to power.

To maintain a current license, each calendar quarter a senior reactor operator shall operate the reactor for a minimum of four (4) hours and perform a supervised reactor startup, including a core excess measurement and increase to power. For senior reactor operators, direct supervision of these operations may be considered equivalent to actual performance.

If a licensed reactor operator or senior reactor operator has not met the quarterly operating requirements, then before resumption of licensed duties, the operator or senior operator shall:

a. Satisfactorily perform the annual operating exam.

b. Operate the reactor for a minimum of six (6) hours under the direction of a Senior Reactor Operator.

12.10.8 Annual Operating Exam

To maintain a current license, each calendar year each reactor operator or senior reactor operator shall successfully complete an annual operating exam to be administered by the Reactor Supervisor. Successful completion is left to the discretion of the Reactor Supervisor. The annual operating exam for the Reactor Supervisor shall be administered by a senior reactor operator.

~~The annual operating exam shall include the following:~~

~~a. Reactor startup~~
~~b. Core excess measurement~~
~~c. Increase power to 1 MW~~
~~d. Change in power level ≥10% in manual~~
~~e. Record a set of console logs~~
~~f. Respond to any annunciators~~
~~g. Actual or simulated response to an abnormal emergency situation~~
~~h. State responses, or respond to, all of the following situations~~
~~1. Loss of coolant~~
~~2. Loss of electrical power~~
~~3. Loss or malfunction of a nuclear instrumentation~~
~~4. Rod drop~~
~~5. Inability to drive rods~~
~~6. Fuel cladding failure~~
~~7. Reactor top or stack CAM alarm~~
~~8. Loss or malfunction of the servo system~~
~~i. Shutdown the reactor~~

The operating test will require the reactor operator or senior reactor operator to demonstrate an understanding of and the ability to perform a comprehensive sample of the applicable tasks required in 10 CFR 55.59(a)(2)(ii).

The operating test will include an actual or simulated response to an abnormal emergency situation. This aspect of the test is deemed appropriate to fully meet the requirements of 10 CFR 55.59(4)(iii) and (iv).

The manipulations required during the annual operating test will be such that they will also meet the requirements of the applicable parts of the on-the-job training specified in 10 CFR 55.59(c)(3)(i)(A) through (AA), and the evaluation of reactor manipulations stated in 10 CFR 55.59(c)(3)(ii).

12.10.9 Medical Certification

All reactor operators and senior reactor operators shall undergo a medical examination by a physician biennially, not to exceed two-and-a-half (2.5) years. The physician should be conversant with the medical requirements of this program. Following completion of the

medical examination, an NRC Form 396 shall be signed by the Radiation Center Director.

12.10.10 Facility Changes

All licensed operators shall be required to sign all forms relating to facility changes signifying understanding and notification of the specified change. This includes, but is not limited to, 50.59 Safety Evaluations, Reactor Operation Committee Approval Sheets, and Information Bulletins described in the OSTR operating procedures.

12.10.11 Approval

At the conclusion of the annual reactor operator requalification program, the Reactor Operations Committee shall review the results for each operator . Upon approval by the ROC, the operators may resume licensed duties for the next annual cycle.

12.10.12 Records

Required documents and records pertaining to the requalification program for a reactor operator or senior reactor operator shall be maintained until the respective operator's license is renewed or surrendered.

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