RADIATION CENTER

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October 10, 1994

U. S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Reference: Oregon State University TRIGA Reactor (OSTR),
Docket No. 50-243, License No. R-106

Subject: 10 CFR 50.54(q) Report of Changes to the OSTR Emergency Response Plan Which Do Not Decrease the Effectiveness of the Plan

Gentlemen:

As a result of our annual review of the OSTR Emergency Response Plan, certain changes to the plan were determined to be necessary. (See Attachment A.) This letter represents our formal report of the changes in accordance with 10 CFR 50.54(q). Based on our evaluation of the revisions, which was conducted under the provisions of 10 CFR 50 59, we have concluded that none of the changes reduce the plan's emergency response effectiveness. A copy of this evaluation is enclosed.

All of the changes to the plan, and the 10 CFR 50.59 evaluation supporting the changes have been reviewed and approved by the OSTR Reactor Operations Committee. In addition to the plan itself, a number of conforming changes were made to the Emergency Response Plan Implementing Procedures (ERIPs) in order to keep them up to date.

To make it easy to update your copy(s) of the plan, Attachment B includes all of the current replacement pages for the plan. If you have any concerns or questions about the reported changes to the OSTR Emergency Response Plan, please let me know.

Yours sincerely,

Brian Dodd
Director

cc: See Page 2

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cc: Mr. Al Adams, Project Manager, Non-Power Reactor, Decommissioning, and Environmental Projects Directorate, U.S. Nuclear Regulatory Commission, M.S. OWFN 11-B-20, Washington, D. C. 20555
Regional Administrator, USNRC, Region IV
Mr. Lawrence Cohen, USNRC, Emergency Preparedness Branch, Washington, D.C. 20555
Oregon Department of Energy, Salem, Oregon ATTN: Mr. David Stewart-Smith
Prof. S. E. Binney, Chairman, Reactor Operations Committee
Prof. J. F. Higginbotham, Reactor Administrator
Mr. D. S. Pratt, Senior Health Physicist

Rev. 11/90

OSU TRIGA Reactor (OSTR)

Changes, Tests and Experiments Evaluated Under the Provisions of 10 CFR 50.59

NUMBER: 94-8 **DATE:** September 22, 1994

TITLE: Revisions to the Radiation Center and OSTR Emergency Response Plan

DESCRIPTION

As a result of the annual review of the Radiation Center and OSTR Emergency Response Plan a number of changes are needed to the plan. The details of the changes are given in Attachment A; however, the changes can be grouped into several areas.

First, the implementation of the new 10CFR20 necessitated the revision of the references to this document. Second, the completion of the APEX facility added the need to address the new emergency conditions this facility imposes on the Radiation Center.

SAFETY EVALUATION

The implementation of the new 10CFR20 changed the paragraph numbers which identify the requirements for reporting of emergencies. These changes in no way decrease the effectiveness of the plan.

The completion of the APEX facility adds another area at the Radiation Center which could require response in the event of an emergency. The recognition of this possibility and preparing for it as these changes do will not decrease the effectiveness of the plan.

The other changes are to reflect the changing nature of the use in some areas

of the Radiation Center, to accommodate changes in staff and to correct grammatical errors. All of these changes increase the plan effectiveness by making it more accurate and easier to read. Special note is made that with the promotion of the reactor operator to the position of Reactor Supervisor, the OSU Campus Radiation Safety Officer replaces the reactor operator position in the line of succession to the Senior Health Physicist (page 3-8, section 3.3.2). Since the RSO is knowledgeable in radiation protection issues, participates in all appropriate Radiation Center training programs and is a very familiar with the facility, this change does not decrease the effectiveness of the plan.

The technical specifications require that a continuous air monitor which monitors for particulate radioactivity be operable in the reactor facility during operation. The particular instrument used to satisfy this requirement has the capability to monitor for both gaseous and particulate radioactivity. However, the backup instrument does not have gaseous monitoring capability. Thus the statement in the plan which is specific to the primary instrument is changed to require only particulate monitoring capability. Due to the added redundancy in monitoring capability, this change increases the effectiveness of the plan.

The changes described above were reviewed and approved by the Reactor Operations Committee (ROC) prior to being implemented. ROC approval included a review of this evaluation and the Committee's conclusion that the changes did not require a change in the OSTR Technical Specifications and did not constitute an unreviewed safety question as defined in 10 CFR 50.59(a)(2). This evaluation also included a review of applicable radiation protection aspects and was found to be consistent with the Radiation Center's commitment to ALARA.

CONFORMING PROCEDURAL CHANGES

The above emergency plan revisions require several changes to the ERIPs. These changes were approved by the Reactor Operations Committee and are recorded in the Emergency Plan Response records. ERIP changes do not require a formal 10CFR50.59 safety analysis.

APPROVALS

The following signatures indicate review and approval by the Reactor Operations Committee and review by licensed operators. If any ROC member does not completely concur with or understand the proposed change/test/experiment then that member should hold this form unsigned and notify the ROC Chairman. The matter will then be discussed at the next meeting of the Committee. If any individual ROC member is unable to sign the sheet due to absence or illness this will be so noted.

S. E. Binney‡		A. G. Johnson*	
D. L. Amort*		J. C. Ringle*	
~~A. D. Hall* +~~ SD		A. H. Robinson*	
B. Dodd* +		R. A. Schmitt*	
A. D. Hall +		W. H. Warnes*	On Sabbatical SD
J. F. Higginbotham* +		D. S. Pratt*	

‡Chairman, Reactor Operations Committee (Signs Last)
*Member, Reactor Operations Committee
+Licensed Operator

Extracted from 10 CFR 50.59 (a) (2)

A proposed change, test or experiment shall be deemed to involve an unreviewed safety question:

(i) if the probability of occurrence or the consequence of an accident or malfunction of equipment important to safety previously evaluated in the safety analysis report may be increased; or

(ii) if a possibility for an accident or malfunction of a different type than any evaluated previously in the safety analysis report may be created; or

(iii) if the margin of safety as defined in the basis for any technical specification is reduced.

Attachment A: Revisions to the OSU Radiation Center and TRIGA Reactor Emergency Response Plan - September 1994

Cover Page

Change the last revision date to "September 1994".

All Changed Pages

Add or change the revision date to "9/94".

Page 3-1, Section 3.1.1

Change the first sentence to read:

Title 10, Code of Federal Regulations, Part 20.2202, "Notification Incidents," and Section 6.3, 6.4 and 6.7 of the OSTR Technical Specifications, outline requirements for the reporting of emergencies to the U.S. Nuclear Regulatory Commission.

Page 3-8, Section 3.3.2

Change the Line of Succession for the Senior Health Physicist to replace the reactor operator with the Campus Radiation Safety Officer.

Page 5-2, Table 5.1

Add as item h) Large loss of water from the APEX facility sufficient to cause flooding in adjacent rooms and hallways.

and item i) An event which causes significant damage to the APEX facility.

Page 5-3, Table 5.1

Change item c) to read:

An explosion in the operations boundary, or a fire in the Radiation Center Complex lasting more than 10 minutes.

Page 7-3, Section 7.1.2

Change the second and third sentence of section a for the Continuous Air Monitor Alarm to read:

A reactor top continuous-air-monitor (CAM) analyzes the air for particulate radioactivity. It is capable of detecting radioactive material concentrations above normal background starting at about 10^{-10} μCi cm^{-3} for particulate activity.

Page 7-4, Section 7.1.2

Under this assessment action section for Class 0 emergencies add:

APEX

An assessment will be made by the APEX staff and the Emergency Coordinator to determine if either of the following criteria are met.

a) If a large loss of water from the APEX facility has occurred which causes flooding in adjacent rooms or hallways.

or

b) An event has occurred which causes significant damage to the APEX facility.

Page 7-5, Section 7.1.3

Add the statement:

APEX

Corrective actions will be initiated by the APEX staff with the objective of minimizing collateral flooding or damage to either the APEX facility or the adjacent rooms or hallways.

Pages 7-4 through 7-17

Renumber the pages 7-4 through 7-17 to 7-4 through 7-18 to compensate for the text added in the above changes.

Page 8-3, Section 8.2.3

Change Item i) to read: "The multichannel analyzer ...",

Item ii) to read: "A liquid scintillation ..."

and Item III) to read: " A gas flow proportional ..."

Page 10-3, Section 10.4.2

Change item c) to read:

The instruments in the Good Samaritan Hospital and on the Corvallis Fire Department's HAZMAT vehicle are checked and calibrated on a semiannual basis. Batteries are normally replaced annually.

Page A-4, Figure A.3

The floor plan is updated to reflect changes in building uses. Room E122 is changed to an OFFICE, Room A134 is changed to an NE GRAD OFFICE, Room A136 is changed to an NAA RESEARCH LAB and Room A116 is changed to the SAMPLE PREP.

Attachment B

OSTR Emergency Response Plan

Replacement Pages

Oregon State University

Radiation Center

and

TRIGA Reactor

Emergency Response Plan

Approved by the

Nuclear Regulatory Commission

May 17, 1984

Last Revised September 1994

Control Copy # 29

Oregon State University

Radiation Center

and

TRIGA Reactor

Emergency Response Plan

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