

U. S. NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION V

Report No. 50-288/80-03
Docket No. 50-288 License No. R-112 Safeguards Group _____
Licensee: Reed College
Portland, Oregon 97202

Facility Name: Research Reactor (TRIGA Mk I)
Inspection at: Portland, Oregon

Inspection conducted: September 8-10, 1980

Inspectors: John D. Carlson 9/24/80
J. D. Carlson, Reactor Inspector Date Signed
D. J. Willett 9-24-80
D. J. Willett, Reactor Inspector Date Signed

Approved By: D. M. Sternberg _____ Date Signed
D. M. Sternberg, Chief, Reactor Projects Section 1
Reactor Operations and Nuclear Support Branch Date Signed 9/25/80

Summary:

Inspection on September 8-10, 1980 (Report No. 50-288/80-03)

Areas Inspected: Routine, unannounced inspection of facility operations, procedures; maintenance; surveillance; operator requalification program; review and audit; and experiments. The inspection involved 30 inspector-hours onsite by two NRC inspectors.

Results: No deviations or items of noncompliance were identified.

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DETAILS

1. Persons Contacted

Licensee Personnel

*M. A. Kay, Facility Director
L. B. Church, Reactor Supervisor

*The above personnel were present at the exit interview.

2. Organization, Logs and Records

The organizational structure for the operation and administration of the Reed College research reactor had a couple of changes since the previous inspection. Dr. M. A. Kay has replaced Dr. L. B. Church as the Facility Director; however, Dr. Church has remained in the area and is acting as a consultant while Dr. Kay is obtaining his SRO license. Mr. M. Hybertson has left the college as Reactor Supervisor. Dr. Church is presently acting in this capacity until a new supervisor is selected. Through discussions with licensee representatives and an examination of facility records, the qualification levels, authorities, and responsibilities of licensee personnel were found consistent with the technical specification requirements.

Records of maintenance and operation of the Reed College research reactor for the period January thru September 1980, were reviewed by the inspector and found to document that these activities were performed consistent with the conditions of the facility license. The records reviewed include the following:

- a. Console Log Book
- b. Maintenance Log Book
- c. Scram Book
- d. Startup and Shutdown Checklists

No deviations or items of noncompliance were identified.

3. Requalification Training

The inspector reviewed the training files for each reactor operator and verified that the licensee had implemented the requalification program for licensed operators. The files contained applicable records of examinations, reactivity manipulations, evaluations and other activities as described in the requalification program.

No deviations or items of noncompliance were identified.

4. Review and Audit

The Reactor Operations Committee and the Radiation Safety Committee were determined to have met semiannually during 1979 and 1980. The minutes and records of each committee's meetings were reviewed and found to document the performance of review responsibilities as required by the technical specifications.

No deviations or items of noncompliance were identified.

5. Surveillance

Periodic instrument calibrations, reactivity measurements, control rod measurements and safety system tests had been performed by the licensee. A review of facility records verified that the required calibrations and tests had been performed consistent with the technical specification requirements.

No deviations or items of noncompliance were identified.

6. Experiments

The experiment program has remained essentially unchanged since the previous inspection. Experiments performed have consisted of activation analyses in support of various research projects and classroom laboratory work. Records of routine and modified routine experiments were examined by the inspectors and found to have been properly reviewed and approved by cognizant personnel. No special experiments had been performed since the previous inspection. Selected records were examined and found to have been consistent with approved experiment procedures as verified by the reactor operator prior to the actual irradiation in the reactor facility.

No deviations or items of noncompliance were identified.

7. Exit Interview

The purpose and scope of the inspection were summarized and inspection findings were reviewed with the licensee. A number of concerns were expressed by the inspectors to the licensee:

- a. The Percent Power Meter has developed a sticking problem at the lower end of scale. The licensee committed to fix the meter by October 1, 1980. In the interim, all operators will be made aware of the problem prior to their operation of the reactor.

- b. Logbook entries concerning problems were incomplete in that sufficient details concerning the nature of the problem, cause, and resolution were not logged. The licensee committed to upgrade log entries by the operators to resolve this concern.
- c. This licensee had conducted a test to determine if the ventilation system could be lined-up into the "isolation" mode when the control air pressure was low. Results of the test showed that below a certain air pressure the ventilation system could not be lined-up into the "isolation" mode. The licensee committed to issue a procedure providing instructions to the operators to not operate the reactor below a certain air pressure.