

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

IE Inspection Report: 50-192/81-02

Docket: 50-192

License: R-92

Licensee: The University of Texas

Facility: Triga Mark I - 250 Kwt

Inspection at: Austin, Texas

Dates of Inspection: July 6-7, 1981

Inspectors: *D. M. Hunnicutt* 7/27/81
D. M. Hunnicutt, Chief Date
Projects Section 2

L. A. Yandell 7/27/81
L. A. Yandell, Reactor Inspector Date
Projects Section 2

Approved by: *D. M. Hunnicutt* 7/27/81
D. M. Hunnicutt, Chief Date
Projects Section 2

Inspection Summary

Inspection on July 6-7, 1981 (Report: 50-192/81-02)

Areas Inspected: Routine, announced inspection of plant status, facility organization, logs and records, review and audit functions, requalification training, procedures, surveillance testing, experiments, environmental protection, emergency plan, radiation control, and follow-up on previously identified matters. The inspection involved 20 inspector-hours on-site by two NRC inspectors.

Results: In the 13 areas inspected no violations or deviations were identified.

1. Persons Contacted

D. E. Klein, Director, Nuclear Engineering Teaching Laboratory (NETL)
*T. L. Bauer, Supervisor, NETL
M. Krause, Reactor Operator
N. Povio, Reactor Technician
H. W. Bryant, Radiation Safety Officer

*Attended exit interview.

2. Plant Status

During this inspection, the reactor was operated and the pneumatic transfer system was utilized to activate samples prepared by students. During the observation of these activities, the inspectors noted no discrepancies.

The inspectors toured the facility with the Reactor Supervisor to observe, (1) overall cleanliness of the area, (2) radiation controls in effect, and (3) access controls being used by the licensee.

No violations or deviations were noted.

3. Follow Up of Previously Identified Items

Report 50-192/79-02, item 10 (closed). The licensee is revising the power calibration procedure to address the matter of consistency and repeatability, which incorporates more than just the 12 hour stabilization period identified in this report. The inspectors discussed this revision with the licensee and consider the matter closed.

Report 50-192/79-02, item 10 (closed). The inspectors observed the testing of the low source count interlock during the pre-startup check-out. The inspector discussed with the licensee their present method of testing the interlock as compared to removing the source, and consider the present method acceptable.

Report 50-192/79-02, item 11 (closed). The inspectors reviewed this instrument channel with the licensee and agreed that the functional check performed during startup of the pool and chiller cooling systems was acceptable.

Report 50-192/79-02, item 12 (closed). Core configurations have been assigned alpha-numeric designators, and any core configuration changes require that rod worth curves be checked and modified as necessary.

Report 50-192/79-02, item 15 (closed). The "Certificate of Instructions to Workers" has been updated by appropriate personnel.

Report 50-192/79-02, item 15 (closed). A radiac instrument has been provided in the area near the emergency equipment.

Report 50-192/80-01, item 7 (closed). Administrative controls have been provided to cover these three items; items 1 and 2 are spelled out in the operating manual, and item 3 is discussed in the 1981 hazards summary just submitted for review to the NRC.

Report 50-192/80-01, item 9 (closed). The inspectors reviewed the fuel movements performed as part of the Fuel Inspection and Measurement of Bow and Elongations Procedure, and feel that no additional changes to the procedure are required.

4. IE Circulars and Information Notices

The inspectors reviewed the following IE Circulars and Information Notices with the licensee to determine that action had been taken where appropriate.

IE Circular 80-02, Nuclear Power Plant Staff Work Hours.

IE Circular 80-14, Radioactive Contamination of Plant Demineralized Water System and Resultant Internal Contamination of Personnel.

IE Circular 81-02, Performance of NRC-Licensed Individuals While on Duty.

IE Information Notice 80-19, NIOSH Recall of Recirculating - Mode (Closed-Circuit) Self-Contained Breathing Apparatus (Rebreather).

IE Information Notice 80-24, Low Level Radioactive Waste Burial Criteria.

IE Information Notice 80-32, Clarification of Certain Requirements for Exclusive-Use Shipments of Radioactive Materials.

5. Organization, Logs, and Records

The inspectors reviewed the licensee's organization to determine compliance with the Technical Specifications.

The inspectors reviewed the following logs:

Reactor Log Book (3/14/80 - run #1895 to 7/3/81 - run #2003)

Reactor Calibration and Maintenance Logs (5/18/79 to date)

Weekly Instrument Calibration Log (#8 - 3/7/80 through 3/2/81 and #9 - 3/9/81 through 7/6/81)

No violations or deviations were noted.

6. Review and Audit

The inspectors reviewed the Nuclear Reactor Committee Meeting Minutes of May 2, 1980, July 31, 1980, October 13, 1980, December 18, 1980, March 24, 1981, and June 22, 1981. Selected items were discussed with the licensee and no violations or deviations were noted.

7. Requalification Training

The inspectors reviewed the requalification training to verify that it was being done as required by the NRC. The inspectors reviewed the "Requal Documentation" book maintained by the reactor supervisor and noted that, (1) performance records and evaluations on each person were being maintained, (2) requal examinations had been administered, and (3) emergency procedures are being reviewed periodically. The inspectors reviewed the Spring 1981 Reactor Operator Exam and one of the graded results.

No violations or deviations were noted.

8. Procedures

The inspectors reviewed the facility procedures to determine adequacy to control safety-related operations. The licensee is presently rewriting the operating procedures and these documents will be examined in-depth at the next inspection.

The licensee has provided additional administrative guidance for procedures as a result of the 1980 NRC inspection, and has formalized the requirement that all new procedures and procedure revisions be routed through the Nuclear Reactor Committee for review.

No violations or deviations were noted.

9. Experiments

The inspectors reviewed the records and Nuclear Reactor Committee meeting minutes to determine that the experiments conducted since the last inspection were "Routine Experiments" as defined by section I.1 of the Technical Specifications.

10. Surveillance

Surveillance requirements are identified in sections C through F of the licensee's Technical Specifications. These functional tests, inspections, and calibrations of plant systems and instrumentation have been identified on the Routine Operation Requirements, Parts 1 and 2 checklists (NETL-2.00 and NETL-3.00) and posted on the laboratory bulletin board. This revised system replaced the "bar chart" checklist from previous years but fulfills the same purpose. As scheduled checks/tests are completed, the person performing the activity will initial and date the checklist, and enter the results in the appropriate document. The checks/tests are documented in one of the following records:

- a. Reactor Operations Log Book
- b. Reactor Calibration Log Book
- c. Weekly Instrument Calibration Log
- d. Reactor Maintenance Log Book

The inspectors reviewed the 1981 checklist to verify that all required surveillances had been scheduled and performed. A sampling of these items were then verified in the appropriate log book to ensure that entries were complete and data were being recorded.

No violations or deviations were noted.

11. Emergency Plan

The emergency plan was reviewed to verify that it is adequate to deal with emergencies and is in conformance with regulatory requirements. The inspectors examined the emergency equipment locker and inventoried the contents. The inspector placed a call to the state agency for emergency response to verify the number to be correct.

No violations or deviations were noted.

12. Environmental Protection

The inspectors reviewed the licensee's program for environmental protection. The review included verifying that the Radiation Safety Officer was responsible for the overall environmental protection program, that potential paths for unmonitored or unauthorized discharge or release of radioactive materials had been identified and appropriate preventative measures taken to assure that all releases would be monitored.

No violations or deviations were identified.

13. Radiation Control

The inspectors reviewed the licensee's program for radiation protection and contamination control. The following items were reviewed:

- a. Environmental Sample Data (water samples) from February 13, 1980 through May 20, 1981. These water samples are taken and analyzed on a quarterly schedule.
- b. Radiation Background Data Sheets (information recorded on Form USO-1-13). These background surveys are taken on a monthly schedule. Reviewed from February 1980 to present.
- c. Radiation Dosimetry Reports (personnel exposure records and permanent data stations) from February 22, 1980 through July 6, 1981.
- d. Review of surveys of all University of Texas buildings permitted to have custody of radioactive materials from February 1980 to date.
- e. Posting and labeling requirements.
- f. Instructions to personnel.

No violations or deviations were identified.

14. Exit Interview

The inspectors met with Dr. T. L. Bauer, Supervisor, NETL, at the conclusion of the inspection on July 7, 1981. The inspectors summarized the scope of the inspection and discussed the findings of the inspection.