

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

REGION III

Report No. 50-123/78-04

Docket No. 50-123

License No. R-79

Licensee: The Curators of the University of Missouri
The University of Missouri - Rolla
Rolla, MO 65401

Facility name: Rolla Research Reactor

Inspection at: University Campus, Rolla, MO

Inspection conducted: September 21-22, 1978

Inspector: *W. L. Axelson*
W. L. Axelson

10/20/78

Approved by: *T. H. Essig*
T. H. Essig, Chief
Environmental and Special
Projects Section

10/20/78

Inspection Summary

Inspection on September 21-22, 1978 (Report No. 50-123/78-04)

Areas Inspected: Routine, unannounced inspection of emergency planning activities, including: licensee preparation for coping with potential emergency situations, including emergency plans and procedures; coordination with support agencies; emergency kits, equipment and communications; medical arrangements; training, tests and drills; and internal audits. The inspection involved 14 inspector-hours onsite by one NRC inspector.

Results: No items of noncompliance or deviations were identified.

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DETAILS

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1. Persons Contacted

Licensee Personnel

*Dr. R. Edwards, Department Head, Nuclear Engineering
*Dr. N. Tsoulfanidis, Radiation Safety Officer
*Mr. A. Elliot, Reactor Supervisor
*Mr. T. Froelich, Health Physicist
Mr. M. Jones, Reactor Engineer
Mr. R. Jones, Reactor Operator

*denotes persons present at exit interview.

Offsite Agency Personnel

Dr. Summers, Radiologist, Phelps County Hospital
Lt. Erickerson, Supervisor, Missouri State Highway Patrol
R. Boulware, Chief, UMR Police Department
L. Oliver, Chief, City of Rolla Fire Department

2. Emergency Planning and Procedures

The inspector reviewed the licensee's Hazards Summary Report, University Staff Emergency Procedures, and selected Standard Operating Procedures (SOP) to ensure adequate emergency preparedness was achieved. During that review, the inspector observed a technical weakness in the SOPs covering reactor building reentry. Specifically, the licensee had not developed an emergency procedure which described general measures for recovery and reentry. Discussions with licensee representatives indicated this type of procedure was necessary. This matter was discussed at the exit interview. Other procedures reviewed were deemed adequate by the inspector's review.

This matter will be reviewed during a future inspection.

3. Offsite Coordination

The inspector visited various offsite support agencies (denoted in Paragraph 1) to determine if proper emergency planning coordination was being conducted. During that review, it was determined that adequate emergency response capability exists. Discussions with most support agencies indicated that their participation in drills and training would help to improve emergency response coordination.

Currently, the licensee maintains informal agreements for assistance in the event of an emergency with the above noted agencies. The inspector determined from discussions with these agencies that agreements reached with the licensee were adequate and formal letters of agreement were not necessary.

No items of noncompliance or deviations were identified.

4. Emergency Kits, Equipment, and Communications

The inspector toured the reactor building and special emergency evacuation area located in the Physics Building. During that tour, the inspector examined emergency equipment and supplies. Records, check sheets, and inventory lists of emergency equipment was also examined. Emergency notification lists were available, including prominently posted emergency numbers for fire and police assistance.

While inspecting the emergency kit located in the Physics Building, the inspector found a portable radiation instrument with dead batteries. The licensee replaced the batteries and placed the instrument back into the emergency kit. All other emergency equipment was found in good order and located where stipulated.

The inspector tested the reactor building smoke detector and evacuation alarm. Both alarms were functioning properly.

No items of noncompliance or deviations were identified.

5. Medical Arrangements

During this inspection, the inspector visited the Phelps County Hospital to ensure that adequate facilities and equipment exist to treat radioactive contaminated patients. Discussions with the licensee and Dr. Summers of the hospital, and examination of emergency equipment, indicated that proper training and communications existed to handle contaminated patients. In addition, the licensee maintains informal agreements with a local ambulance service located at this hospital. The licensee stated that in the near future, a drill involving the hospital, ambulance service, and Missouri Highway Patrol will be conducted to test the capabilities of response and coordination. The drill will simulate an offsite transportation accident involving radioactive materials.

6. Training, Tests, and Drills

The licensee's primary purpose in operating the reactor is as an educational tool. Currently, student personnel are trained in emergency response. Other building personnel, including reactor

operators, are trained and tested on Standard Operating Procedures involving emergency planning. Frequent, unannounced checks of responses to alarms for building evacuation were conducted. The inspector reviewed drill critiques noted in the Reactor Operations Log and found no major problems.

No formal training is provided for offsite personnel, however, the licensee stated that selective offsite personnel were allowed to tour the facility and were given some training in emergency response. The licensee further stated that the upcoming drill (Paragraph 5) will provide additional training for those agencies participating.

No items of noncompliance or deviations were identified.

7. Internal Audits

The inspector reviewed licensee's semi-annual independent audits of reactor operations for the period August 1977 through September 1978. The audit reports covered some areas of emergency planning. The inspector determined that identified problem areas noted in the audit reports were corrected.

No items of noncompliance or deviations were identified.

8. Exit Interview

The inspector met with licensee personnel (noted in Paragraph 1) at the conclusion of the inspection on September 22, 1978. The scope, purpose, and findings of the inspection were discussed. In response to an item discussed by the inspector at the exit interview, the licensee stated that a Standard Operating Procedure covering reentry and recovery will be developed and implemented. (Paragraph 2)