

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

REGION III

Report No. 50-156/80-03

Docket No. 50-156

License No. R-74

Licensee: University of Wisconsin
Nuclear Engineering Department
Madison, WI 53709

Facility Name: Triga Research Reactor

Inspection At: Research Reactor Site

Inspection Conducted: August 11-12, 1980

Inspector: *C. J. Paperiello*
R. J. Greer

8/26/80

Approved by: *C. J. Paperiello*
C. J. Paperiello, Acting Chief
Environmental Protection and
Special Projects Section

8/26/80

Inspection Summary

Inspection on August 11-12, 1980 (Report No. 50-156/80-03)

Areas Inspected: Routine, unannounced inspection of emergency planning, including a review of the licensee's emergency plan and emergency procedures; a discussion of possible incidents; a review of the licensee's coordination with support personnel; a check of emergency and decontamination equipment and supplies; and an examination of the licensee's training program, including evacuation drills. The inspection involved ten inspector-hours on site by one NRC inspector.

Results: No items of noncompliance or deviations were identified in the areas inspected.

DETAILS

1. Persons Contacted

- *Cashwell, R., Reactor Supervisor
- *Matusewic, S., Senior Reactor Operator
- Hanson, R., Chief, Department of Protection and Security (DPS)
- Payne, M.K., Dispatcher, DPS
- Larson, F., M.D., Chairman, Radiation Safety Committee
- Kohles, M., Assistant Director of Nursing, University Hospitals

2. Emergency Plan and Procedures

The licensee's most recent revision to his Emergency Plan was approved by the University Radiation Safety Committee on May 20, 1980.

The inspector reviewed the licensee's Plan and noted that it addresses the major elements contained in NRC Regulatory, Guide 2.6, "Emergency Planning for Research Reactors", dated January, 1979.

The licensee's Plan incorporates several emergency procedures which establish actions to be taken to mitigate the consequences of various accidents. These procedures also contain guidelines for evacuation, facility re-entry and emergency personnel exposure.

A licensee representative reviews the Plan and procedures annually, and revises them as necessary. All revisions are approved by the Radiation Safety Committee.

3. Postulated Incidents

The inspector and licensee personnel postulated nonroutine events which could possibly take place and reviewed the licensee's proposed actions to mitigate the consequences of the events. The possible events discussed included sample rupture and a pool water leak. Actions to be taken by licensee and support personnel appeared to be adequate to limit the consequences of the incidents.

4. Coordination with Support Group Personnel

The University Department of Protection and Security (DPS) provides security, traffic control, and access control functions as well as radio communications with other support groups. The University Safety Department provides health physics and fire protection functions, and the University Hospitals provide medical support. The Madison Fire Department provides fire-fighting and ambulance services. If necessary, the licensee may also request assistance from the State of Wisconsin Division of Emergency Government.

The inspector visited the personnel listed in paragraph 1 and discussed their coordination with licensee personnel. No problems were noted.

No items of noncompliance or deviations were identified.

5. Emergency Equipment and Supplies

The inspector examined the licensee's emergency equipment and found it to be as specified in the emergency procedures. The inspector noted a few items which needed to be replaced in the emergency kit located in the reactor supervisor's office. These items were replaced during the course of the inspection. Various survey meters were also examined and found to be operable and calibrated.

Emergency call lists, visual evacuation signals and audible alarms, and evacuation notices were examined and found to be located as specified.

Alarms indicating high radiation levels, low pool water level, fire, and intrusion annunciate at the Security Dispatcher's control console at the DPS office. These alarms are monitored 24 hours per day, and a list of actions to be taken by patrolmen for each specific alarm, along with a personnel call-list, are also located in the Dispatcher's office. These lists are updated semi-annually. The inspector examined this system and noted no problems.

No items of noncompliance or deviations were noted.

6. Training and Drills

The licensee conducts training in the Emergency Plan and procedures on a semi-annual basis. One of these training sessions is held in conjunction with the annual evacuation drill. The inspector examined records of training and lesson contents and found the lesson plans to be comprehensive.

No items of noncompliance or deviations were identified.

7. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) on August 12, 1980 and summarized the purpose, and scope of the inspection and the inspection findings.