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

Region V

Report No. 50-326/81-01 (IE-V-428)

Docket No. 50-326 License No. R-116 Safeguards Group V

Licensee: University of California - Irvine  
Irvine, California 92717

Facility Name: Nuclear Reactor Facility

Inspection at: Irvine, California

Inspection Conducted: February 26-27, 1981

Date of Last Physical Security Inspection Visit: July 13, 1979

Type of Inspection: Routine, Unannounced Physical Security

Inspectors: Wayne P. Mortensen 3/11/81  
W. P. Mortensen, Physical Protection Inspector Date Signed  
Dennis W. Schaefer 3/11/81  
D. W. Schaefer, Physical Protection Inspector Date Signed  
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Date Signed

Approved by: M. D. Schuster 3/11/81  
M. D. Schuster, Chief, Physical Security Section Date Signed

Inspection Summary:

Areas Inspected: Security Plan, Protection of SNM, Security Organization; Access Control; Alarm Systems; Keys, Locks and Combinations; Communications; Surveillance; Procedures; Security Program Review; and Protection Against Radiological Sabotage.

The inspection involved twenty inspector hours by two NRC inspectors. The inspection was conducted during normal duty hours.

Results: The licensee was found to be in compliance with NRC requirements within the eleven areas examined during the inspection.

[REDACTED]

DETAILS

[REDACTED]

1. Key Persons Contacted

\*Dr. F. S. Rowland, Reactor Administrator  
\*Dr. G. E. Miller, Reactor Supervisor  
P. Jerabek, Senior Reactor Operator  
F. Dekeyser, Reactor Operator  
M. P. Michell, Chief, University Police Department  
R. Reisig, Lieutenant, University Police Department  
B. Carpenter, Administrative Assistant, University Police Department  
M. Hakola, Campus Locksmith

\*Denotes those attending exit interview.

2. Licensee Action on Previous Inspection Findings

- a. (Closed) Followup Item (79-02-02) Exterior hinge pins on reactor facility doors unprotected against removal. During this inspection, the inspectors observed that hinge set screws had been installed to prevent hinge pin removal.
- b. (Closed) Noncompliance (79-02-03) Failure to notify NRC of change to alarm system described in approved security plan. The inspectors observed that the licensee has changed the alarm system so as to comply with the approved security plan.
- c. (Closed) Followup Item (79-02-05) The licensee committed to provide reactor operators with a procedure for use in the event of bomb threats. The inspectors observed a procedure for threats posted near the reactor console. The procedure was adequate and conformed with campus procedures.

3. Exit Interview

The inspector met with licensee representatives (denoted in Paragraph 1) at the conclusion of the inspection of February 27, 1981. The inspectors summarized the scope and findings of the inspection.

4. MC 81405B Security Plan

No items of noncompliance were noted. The licensee has an approved security plan submitted to the A.E.C. by letter dated July 19, 1974 and approved by A.E.C. letter dated September 16, 1974.

The licensee is currently revising their security plan to describe recent hardware upgrades and to provide a format consistent with the new Physical Security requirements contained in 10 CFR 73.67(f).

10 CFR 73.67(f)

5. MC 81410B Protection of SNM

No items of noncompliance were noted. The licensee had in their possession approximately [REDACTED] contained in nominally [REDACTED] enriched Tri-uranium Fuel elements. The fuel is all located [REDACTED] within the locked, controlled access area.

6. MC 81415B Security Organization

No items of noncompliance were noted. The inspector determined that the licensee's security organization is as described in their physical security plan.

7. MC 81420B Access Control

No items of noncompliance were noted. The results of the inspection were attained through:

- a. A review of the licensee's procedures used to control access to the Nuclear Reactor Facility.
- b. Observation of the ingress and egress of the staff, employees, students, and visitors to the facility during the period of the inspection.
- c. Observation by the inspectors that access controls have been implemented as described in the security plan and procedures to control personnel and vehicle access to the essential equipment, security areas, and the facility.
- d. Interviews with reactor staff and review of procedures that visitors are identified, authorized for access, and escorted at the facility.
- e. A review of the visitor's register.

8. MC 81425B Alarm Systems

No items of noncompliance were noted. The inspectors determined through observation, interview of licensee personnel that the licensee has an effective alarm system, and that the licensee tests and maintains the alarm system.

9. MC 81430B Keys, Locks and Combinations

No items of noncompliance were noted. The inspectors verified that:

[REDACTED]

Keys to the reactor facility were controlled and restricted to those persons both qualified and needing access on a regular basis.

The licensee is maintaining a current list of persons authorized access to keys.

Hardware used to secure doors is adequate and properly installed. A test of locking hardware by the inspectors showed that the hardware functioned as designed.

10. MC 81435B Communications

No items of noncompliance were identified. The Nuclear reactor facility utilizes the [REDACTED] for communication on and off the campus which is the [REDACTED]. The telephone mainframe for the Reactor is within a locked room, to which keys are controlled and access restricted to those persons with a need to enter.

[REDACTED] its own radio network on a 24-hour basis with radio equipped automobiles and portable radios carried by the individual security officers.

11. MC 81440B Surveillance

No items of noncompliance were noted. The inspector determined that the surveillance of SNM, vital equipment, vital areas, physical barriers and avenues of approach to vital areas have been implemented as stated in their physical security plan, under access controls.

12. MC 81445B Procedures

No items of noncompliance were identified. Through interviews and review of records, it was determined that the reactor facility had procedures regarding unauthorized intrusions, security violations, bomb threats, and acts of civil disorder.

13. MC 81450B Security Program Review

No items of noncompliance were noted. The security program is currently under review by the licensee. Upgraded lock and alarm systems are currently being installed at the reactor facility and the licensee plans to submit a new security plan describing all changes in the near future.

14. MC 81455B Protection Against Radiological Sabotage

No items of noncompliance were identified. Protection against sabotage is of concern to the licensee and is primarily effected by the security consciousness of personnel and adherence to established procedures and policies. All means of access to the reactor core were controlled.

[REDACTED]