



NUCLEAR REGULATORY COMMISSION

REGION II

101 MARIETTA STREET, N.W.
ATLANTA, GEORGIA 30303

DEC 20 1983

Report No. 50-124/83-01

Docket No. 50-124

Licensee: Virginia Polytechnic Institute
and State University
Blacksburg, VA 24060

Facility Name: Nuclear Reactor Laboratory

Inspection at: Blacksburg, VA

Inspection conducted: November 28-29, 1983

Date of Last Physical Security Inspection Visit: May 4, 1981

Type of Inspection: Unannounced Physical Security

Inspector: Bervin L. Hall
Bervin L. Hall, Physical Security Inspector12/15/83
Date SignedApproved by: D. R. McGuire
D. R. McGuire, Chief, Physical Security Section
Safeguards Branch, Division of Emergency
Preparedness and Materials Safety Programs12/15/83
Date SignedInspection Summary

Areas Inspected: Included a review of the Security Plan; Protection of SNM; Security Organization; Surveillance (Security); Access Control; Alarm System (Security); Keys, Locks and Hardware (Security); Communications (Security); Procedures (Security); Security Program Review; and Protection Against Radiological Sabotage.

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AFTER 084-227 PDR

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1. Key Persons Contacted

*Pete Holian, Nuclear Reactor Laboratory Supervisor,
Virginia Polytechnic Institute (VPI) and State University
M. L. Jones, Captain, VPI Police Department

The inspector also interviewed several other licensee employees and members of the security organization.

*Denotes those present at the exit interview.

2. MC 30703B - Exit Interview

The inspection scope and findings were summarized during an exit interview conducted on November 29, 1983, with the individual indicated in paragraph 1 above. The licensee was informed that no violations of regulatory requirements were identified during the inspection.

3. MC 92713B - Independent Inspection Effort

The inspector discussed and reviewed the circumstances leading to the licensee possessing Category 1 quantities of special nuclear material and how the licensee provided physical protection for the Category 1 material.

The licensee informed the inspector that the research reactor was shut down to perform maintenance, and the reactor was down longer than anticipated by the licensee.

During a routine measurement of fuel, the licensee discovered that, due to the extended time that the reactor was down for maintenance, the inventory of non-self protecting fuel had reached Category 1 levels.

The licensee immediately notified the NRC and instituted the following protective measures for Category 1 material:

- (a) [REDACTED]
- (b) [REDACTED]
- (c) [REDACTED]
- (d) [REDACTED]
- (e) [REDACTED]

~~ORIGINAL SOURCE INFORMATION~~
The additional protective measures remained in effect for 10 days, which was the amount of time it took for the licensee to arrange for shipment of the excess fuel.

The license authorizes eight kilograms of SNM on site. The licensee presently has less than 5 kilograms of SNM on site.

4. MC 81405B - Security Plan

The inspector reviewed the licensee's approved Physical Security Plan dated August 1980, and determined that there were no changes which would decrease the effectiveness of the security plan.

There were no violations of regulatory requirements identified in this area.

5. MC 81410B - Protection of SNM

The inspector verified through observation that the licensee protected SNM in accordance with the approved Physical Security Plan. A fuel storage vault is provided for SNM materials. The vault was locked.

[REDACTED]

There were no violations of regulatory requirements identified in this area.

6. MC 81415B - Security Organization/MC 81440B - Surveillance (Security)

The inspector verified through discussion and observation that the licensee's security organization is as stated in Chapter 19 of the approved Physical Security Plan.

There were no violations of regulatory requirements identified in this area.

7. MC 81420B - Access Control

The inspector reviewed access control procedures into Controlled Access Areas (CAA) and Protected Areas of the Nuclear Reactor Building and determined that the procedures were in accordance with the approved plan.

There were no violations of regulatory requirements identified in this area.

8. MC 81425B - Alarm System (Security)

The inspector verified that detection devices were located as described in Chapter 11 of the approved Physical Security Plan. The intrusion alarm system employed [REDACTED]

[REDACTED]

There were no violations of regulatory requirements identified in this area.

9. MC 81430B - Key, Locks and Hardware (Security)

The inspector verified through observation that metallic keys and combinations were being controlled as described in Chapter 15 of the approved Physical Security Plan.

There were no violations of regulatory requirements identified in this area.

10. MC 81435B - Communications (Security)

The inspector verified through observation that communication equipment and capabilities were as described in Chapter 20 of the approved plan.

11. MC 81445B - Procedures (Security)

The inspector verified through discussion that the licensee conducted security orientations tours of the Reactor Facility for the Campus Police Department when appropriate. The licensee had established procedures for: (1) bomb threats; (2) threat of theft of special nuclear materials; (3) acts of civil disorder; (4) security violations; (5) loss or degradation of security systems; and (6) unauthorized entry into the protected area.

The inspector verified through observation and record checks that the licensee maintained the following records:

Intrusion Detection Test
Communication Check Log
Security Area Access Log (Unescorted)
Security Checklist

There were no violations of regulatory requirements identified in this area.

12. MC 81450B - Security Program Review

The inspector verified through discussion that the licensee reviewed the security program at least annually.

There were no violations of regulatory requirements identified in this area.

13. MC 81455B - Protection Against Radiological Sabotage

The inspector verified through observation and discussion that security equipment was being tested and maintained in operable condition. Electrically powered security equipment necessary for maintaining an effective system would continue to function.

5.700 INFORMATION REMOVED

~~_____~~ in the event of a loss of commercial power utilizing ~~_____~~
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There were no violations of regulatory requirements identified in this area.

2.790 INFORMATION REMOVED

JUL 19 1982

University of Florida
ATTN: Mr. A. M. Jacobs, Chairman
Department of Nuclear
Engineering Sciences
202 Nuclear Sciences Center
Gainesville, FL 32611

Gentlemen:

Subject: Report Nos. 50-83/82-01 and 70-1068/82-01

This refers to the routine safeguards inspection conducted by Mr. D. E. Moore of this office on June 29 - July 1, 1982, of activities authorized by NRC License Nos. R-56 and SNM-1050 at University of Florida Training Reactor and University of Florida SPERT Assembly facilities and to the discussions of our findings held with Mr. W. G. Vernetson, Reactor Manager, at the conclusion of the inspection.

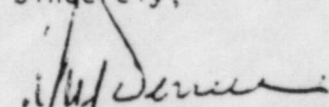
Areas examined during this inspection included your physical security program as implemented under the provisions of Title 10, Code of Federal Regulations, Part 73, "Physical Protection of Plants and Materials" and the specific requirements of your approved Security Plan. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, performance tests, and observations by the inspector.

Within the scope of this inspection, no violations or deviations were disclosed.

In accordance with Section 2.790(d)(1) of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulations, activities involving safeguards and security measures are exempt from public disclosure; therefore, the enclosed inspection report with the exception of the report cover page, which is an inspection summary, will not be placed in the Public Document Room.

Should you have any questions concerning this letter, we will be glad to discuss them with you

Sincerely,


D. Verrelli, Chief
Reactor Projects Branch 1
Division of Project and
Resident Programs

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Enclosure: See Page 2

2.750 INFORMATION REMOVED

~~MATERIAL TRANSMITTED HEREWITH~~
~~CONTAINS 2.750 INFORMATION~~

University of Florida

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Enclosure:
Inspection Report Nos. 50-83/82-01
and 50-1068/82-01
(Safeguards Information)

2.790 INFORMATION REMOVED

cc w/encl:
Dr. N. J. Diaz, Director of
Nuclear Facilities

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