

UNITED STATES NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

IE Inspection Report No. 050-186/76-01

Licensee: The Curators of the University
of Missouri - Columbia
309 University Hall
University of Missouri
Columbia, Missouri 65202

Research Reactor Facility
Columbia, Missouri

License No. R-103
Category: E

Type of Licensee: Research Reactor

Type of Inspection: Unannounced, Special Physical
Protection

Dates of Inspection: March 16 and 17, 1976

Principal Inspector: *D. M. Carlson*
D. M. Carlson

4/8/76
(Date)

Accompanying Inspector: *James E. Foster*
J. E. Foster

4/9/76
(Date)

Other Accompanying Personnel: None

Reviewed By: *J. A. Hind*
J. A. Hind, Chief
Safeguards Branch

4/9/76
(Date)

Attachment:
Findings (Part 2.790(d) Information

S-FS-76-251

Copy 2 of 6 copies
12 Pages

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REPRODUCED WITHOUT SPECIFIC
APPROVAL OF IE:III

~~CONFIDENTIAL~~
SUMMARY OF FINDINGS
~~CONFIDENTIAL~~

Enforcement Action

Deficiency

Contrary to Section III, Part I, Paragraph A.3.b.(1) of the approved security plan, one staff member, as required, did not carry a ~~CONFIDENTIAL~~ (Report Details, Enforcement Action)

Other Significant Findings

A. Weaknesses in the Physical Security Program

Weaknesses in the Physical Security Program were noted in areas relative to essential equipment, security areas, security systems, procedures and security program review. (Report Details, Weaknesses in the Physical Security Program)

B. Vulnerability - External Threat

With some limited knowledge of facility operations, an external force of ~~CONFIDENTIAL~~ could possibly gain access into the vital area and ultimately gain access to vital equipment. (Report Details, Vulnerability)

C. Licensee's Response to NRC Request for Augmentation of Security

In response to the NRC's telephone notification of February 23, 1976, the licensee verbally informed the Campus Police as to the concerns of the NRC for security vigilance. Reacting to this notification, the Police Department immediately posted a notice on their office bulletin board requesting that all concerned personnel exercise "special watch" of the Reactor Facility and check identification of unauthorized persons in the area.

Additional action was initiated on the part of the Research Reactor Facility Director in the form of a memorandum to all staff members and experimenters. This memorandum reminded individuals of their responsibilities regarding security operations of the facility. See Attachment No. 1 which consists of two pages, for specific details of the memorandum. Also, as determined through interviews with management personnel, a management review of the security plan and its implementing procedures was conducted and both were found to be adequate.

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Unusual Occurrences

None.

Management Interview

On March 17, 1976, the results of the physical protection inspection were discussed with licensee representatives.

Representing the University of Missouri were the following:

- A. Emmons, Vice President, Research
- R. Brugger, Director, Research Reactor Facility
- D. Alger, Associate Director, Research Reactor Facility
- C. Julian, Reactor Supervisor, Research Reactor Facility
- G. Schlapper, Reactor Physicist/Security Officer, Research Reactor Facility

Representing IE:III were the following:

- D. M. Carlson, Physical Security Specialist
- J. E. Foster, Investigations Specialist

During the meeting, the representatives were informed that one item of noncompliance was identified during the inspection. The representatives were also informed that satisfactory corrective action had been initiated prior to the conclusion of the inspection and therefore, response to the citation would not be required. No rebuttals were made to the citation at the time of the exit meeting.

[REDACTED]

REPORT DETAILS

[REDACTED]

4 Persons Contacted

1. University of Missouri

A. Emmons, Vice President, Research
L. Maddox, Supervisor, Non-Technical Trades
W. Yellon, Senior Research Scientist
F. Tsang, Graduate Student

2. University of Missouri - Research Reactor Facility

R. Brugger, Director
D. Alger, Associate Director
C. Julian, Reactor Supervisor
W. Gill, Shift Supervisor
R. Moorehead, Shift Supervisor
J. Jacovitch, Health Physics Manager
C. McKibben, Reactor Operations Engineer
E. Edwards, Reactor Plant Engineer
G. Schlapper, Reactor Physicist/Security Officer
M. Spease, Senior Reactor Operator
W. Meyer, Reactor Operator
L. Kentz, Reactor Operator
J. Marchand, Secretary to the Director
L. Duncan, Reactor Secretary.

3. University of Missouri - Campus Police Department

R. Mason, Chief of Police
T. Stark, Captain/Shift Commander
T. Hatton, Patrolman
M. Deaver, Dispatcher

5 Scope

A special unannounced physical protection inspection was conducted at the University of Missouri (Columbia) Research Reactor Facility on March 16 and 17, 1976. The following special inspection procedures were utilized in the conduct of the inspection:

<u>Procedure No.</u>	<u>Subject</u>
81705B	Physical Protection - Security Plan
81710B	Physical Protection - Essential Equipment
81715B	Physical Protection - Security Areas

[REDACTED]

[REDACTED]

Procedure No.

Subject

81720B	Physical Protection - Security Systems
81725B	Physical Protection - Security Organization
81730B	Physical Protection - Access Control
81735B	Physical Protection - Surveillance
81740B	Physical Protection - Procedures
81745B	Physical Protection - Security Program Review
81750B	Physical Protection - Protection of SNM

Time on Site

Arrived: 1900 hours, March 16, 1976
Departed: 2245 hours, March 16, 1976
Arrived: 0830 hours, March 17, 1976
Departed: 1830 hours, March 17, 1976

Enforcement Action

Section III, Part I, Paragraph A.3.b.(1) of the Security Plan states, in part, [REDACTED] ECU

Contrary to the above, the reactor secretary [REDACTED] on her person at the time when the inspector requested to see it. Further, she said she was never issued one.

With respect to this item, the staff member immediately made arrangements to procure the [REDACTED]. Prior to the conclusion of the inspection, to verify issuance, the secretary showed a [REDACTED] to the IE:III inspector. Additionally, management personnel established an administrative procedure which should preclude a recurrence of this item of noncompliance.

Weaknesses in the Physical Security Program

In addition to the item of noncompliance identified above, the following weaknesses were found to exist.

Security Plan

Weaknesses in the Security Plan are discussed below under Essential Equipment, Security Areas, Security Systems, Procedures and Security Program Review.

Essential Equipment

1. The approved Security Plan does not designate the [REDACTED] as vital equipment.
- [REDACTED]
- [REDACTED]

2. Additional equipment which should be designated as vital equipment includes the [REDACTED]

Security Areas

Drawings or sketches for certain levels of the facility were not included as part of the Security Plan. See Attachment No. 2, which consists of three pages, for additional information regarding the floor plan.

Security Systems

There is no provision in the Security Plan for testing the [REDACTED] System at a frequency of at least [REDACTED]

Access Control

The Security Plan only requires [REDACTED] of personnel.

Procedures

The licensee's procedures do not include provisions and/or actions for security violations by authorized personnel.

Security Program Review

The security program review section of the security plan titled "Audits" does not address the provisions of 10 CFR 50.54(p).

Vulnerability

The facility is well protected against the common break-and-enter form of surreptitious entry. However, armed individuals, with some limited prior knowledge, could gain entry to the facility if some legitimate pretext for entry was used. As personnel searches are not normally conducted prior to entry, an individual(s) armed with a handgun or other small weapon could gain entry in this manner. Once inside, [REDACTED] and other security areas are open to the intruder(s).

Portal Monitors

There are no devices at the facility for the detection of weapons or explosives.

There are no devices utilized to detect the theft or removal of SNM from the facility.

~~CONFIDENTIAL INFORMATION~~

Security Responses

1. Actual

- a. ~~CONFIDENTIAL~~ Intrusion Alarm - On July 27, 1975, and October 19, 1975, police responded to false alarms caused by a faulty door switch. Only authorized personnel were involved.
- b. ~~CONFIDENTIAL~~ Intrusion Alarm - On May 22, 1975 and December 3, 1975, police responded to false alarms caused by faulty telephone line equipment and on May 6, 1975, police responded to a false alarm caused by an error on the part of an authorized person.
- c. Suspicious Persons - As requested by the Reactor Shift Supervisor on March 16, 1976, police responded to two suspicious persons, who through a graduate student, were requesting entrance to the reactor laboratory. Involved in this incident were IE:III personnel beginning a physical protection inspection. ~~CONFIDENTIAL~~ marked vehicles and ~~CONFIDENTIAL~~ unmarked vehicle responded within ~~CONFIDENTIAL~~. Responding police officers checked the inspector's NRC identification badges and verified validity of same with reactor personnel before departing.

2. Drills/Tests

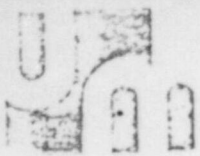
A drill which included police response was conducted on September 23, 1975. An evaluation of the adequacy of the alarm system, the response of the reactor operators and the response of the police was performed.

3. Evaluations

In each case of a security response, the adequacy of the response was evaluated and remedial action was taken when needed.

Attachments:

1. Attachment 1 - Memo, MURR
Staff and Experimenters from
R. M. Brugger.
2. Attachment 2 - Floor Plan,
Placement of Emergency Equipment.



UNIVERSITY OF MISSOURI

Research Reactor Facility

Research Park
Columbia, Missouri 65201
Telephone (314) 882-4211

March 1, 1976

TO: MURR STAFF AND EXPERIMENTERS

FROM: Robert M. Brugger

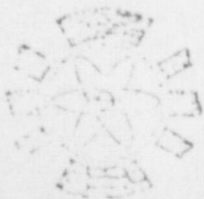
SUBJ: Safeguards and Security Policies of the MURR - Reminder

Recently, the National Resources Defense Council has filed with the Nuclear Regulatory Commission a petition requesting an increase in safeguards at nuclear facilities. Although the primary target of this petition is the operation of fuel fabrication and reprocessing facilities, it could, to some degree, effect MURR. Past inspections of our security policies by the Nuclear Regulatory Commission have found our procedures to be adequate. Therefore, a change to our policies is not anticipated at this time; but an increased alertness in implementing present policies is appropriate. A reminder on certain aspects of our plan is the object of this letter.

It should be remembered that security of the MURR is the responsibility of all staff and all experimenters. Our jobs and research capabilities depend upon it. Primary responsibility in security matters rests with reactor operations. If you have a security related question or feel that you have observed some form of questionable behavior notify the shift supervisor on duty during the week or the University Police on weekends. Your cooperation and understanding is also requested. For example, operations personnel have been instructed to stop individuals and request identification. This applies especially outside of normal working hours. If you, as a principal experimenter, allow someone to use your lab "after hours" to conduct an experiment and that person has not been issued a film badge for working at the facility, please notify the duty shift supervisor. The janitorial staff has been instructed not to open doors for anyone.

Please remember the following items:

1. Do NOT allow your key or magnetically encoded card to be used by another person.
2. Do NOT admit persons to the building unless they normally work in the building or you know them personally and plan to escort them.



COLUMBIA KANSAS CITY ROLLA ST. LOUIS

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MURR STAFF AND EXPERIMENTERS

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3. If you lose your key to the building notify Don Alger immediately!
4. If you lose your encoded card to the containment building notify Caudle Julian or Jerry Schlapper immediately!
5. Do NOT bring any firearms or explosives into the building.
6. Insure that exterior doors are closed and locked when entering or leaving the building. The east door will only be open when the receptionist is on duty.
7. Do NOT block open doors.
8. Do NOT leave the freight door open and the area unattended.
9. If you enter the airlock with a tour or visitor do not use the combination. Request entry by calling the control room.
10. Insure that visitors you are escorting have signed the log in the lobby and have been issued a temporary film badge and dosimeter.
11. At all times insure that you have your valid staff or student identification card with you. Anyone may be stopped and challenged by operations staff or security force personnel.

Because of our limited manpower the policy covering "walk-in" tours is being amended until the situation changes. Effective immediately requests for tours must be filed a minimum of two days prior to the day of the tour. If a staff member or experimenter wishes to escort a visitor through the facility, this will still be permitted as long as the visitor is well known to the staff member. Recall, however, that the visitor is the responsibility of the escort. The escort is charged with responsibility for carrying out a search of any and all packages to be carried into the containment building. Also, the escort must remain with the visitor at all times when within the containment building. Recall that before you bring a visitor or tour into the containment building, you must obtain permission from the Reactor Control Room.

Continued interest on the part of the MURR staff and experimenters in the security of the MURR will negate the need for more restrictive measures and greater costs.