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Docket 50-142

License R-71

Physical Security Plan For The Protection of Special Nuclear Material Of Moderate Strategic Significance

Nuclear Energy Laboratory
2567 Boelter Hall
University of California, Los Angeles
Los Angeles, California 90024
(213)825-2040, 825-2040

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NOTE: Entire PLAN referred to in the UCLA Application for a Class 104 License for a Research Reactor Facility as Appendix VII.

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PHYSICAL SECURITY PLAN

INTRODUCTION: PURPOSE AND GENERAL PERFORMANCE OBJECTIVES

This security plan describes the physical security system and the organization which provides for the protection of the reactor, protection of the staff and the general public against radiological sabotage and to prevent and detect the theft of Special Nuclear Material (SNM). This plan demonstrates compliance with the appropriate sections of 10 CFR 73.

The General Performance Objectives of the physical security protection system and the security organization described in this plan are as follows.

a) To provide protection against acts of radiological sabotage to the reactor, its associated equipment, and to SNM.

b) To minimize the possibility of unauthorized removal of SNM.

c) To facilitate the location and recovery of missing SNM.

To achieve these objectives, the physical security protection system provides the following:

a) Early detection and assessment of unauthorized access or activities by an external adversary within the vital areas and controlled access areas containing special nuclear material.

b) Early detection of removal of SNM by ar external adversary from controlled access areas.

c) Assures proper placement and transfer of custody of SNM.

d) Responds to unauthorized removal of SNM and notifies the appropriate response forces needed in order to facilitate recovery.

e) Prevents or delays unauthorized actions against this facility.

1.0 USE AND STORAGE AREAS

1.1 IDENTIFICATION OF SPECIAL NUCLEAR MATERIAL AND ESSENTIAL EQUIPMENT ON SITE

The Nuclear Energy Laboratory at the University of California, Los Angeles is authorized to possess special nuclear material on site. The form, enrichment, material and amount is presented in Table 1.

The Special Nuclear Material and the Nuclear Reactor comprise the essential equipment of the laboratory. The reactor console is considered non-essential since its loss or damage would not pose a threat to the health and safety of the general public. This is due to the fact that there is essentially no decay heat because of the low core power density and the limited hours of reactor operation and due to the fact that the safety checks in the startup procedure are such that any damage or sabotage to the console would not allow the reactor to either reach criticality or operate above 1 watt. In addition it is not possible to operate the reactor entirely from the console unless the alarm system has been deactivated; the control rod updrive relays are activated only when the alarm system is deactivated at the master control unit in the reactor high bay and the intrusion alarm system will go into alarm if the dump valve is closed (allows water to travel up through the reactor fuel boxes) when the alarm system is activated.

1.2 IMPLEMENTATION

This security plan shall be fully implemented by March 30, 1980 or 30 days after approval by the U.S. Nuclear Regulatory Commission, whichever is later.

[redacted]

1.3 GENERAL SITE LAYOUT

The Nuclear Energy Laboratory (NEL) is located on the 400 acre campus of the University of California at Los Angeles. The UCLA campus is situated on a coastal plain, approximately 400 feet above sea level. The coastal plain consists of a terraced alluvial fill, 200 feet deep at the reactor site, overlying sedimentary rock of rather recent origin. The coastal plain lies at the base of the Santa Monica Mountains which are approximately 2000 feet high. The campus is located approximately five miles northeast of the Pacific Ocean and fifteen miles west of the Los Angeles civic center. To the south of the campus is a business and shopping district, and to the north, west and east are residential areas. A map of the general area is shown in Figure 1.

The NEL is located in the northwest wing of Boelter Hall of the School of Engineering and Applied Science with the principal access via Room 2567 in Boelter Hall. Figure 2 provides a map of the UCLA campus and the location of the NEL (reactor site).

Figure 3 describes the reactor without the extra top of core shielding, rabbit system and other equipment necessary for operations. Also shown in the Figure is the reactor high bay and the control room.

The NEL is comprised of parts of the first and second floor of Boelter Hall. Figures 4 and 5 describe the Nuclear Energy Laboratory with the areas important to the security plan identified. The NEL is divided into three area classifications according to the lock and key structure (A, B or C). The classification of each area is determined by the material or equipment contained therein.

The Security Areas (A-level or vital areas) include the reactor high bay (reactor room), the radiocactive storage room, and the control room, the last - during non-working hours only.

The Controlled Access Areas (B-level) include the entire NEL except for the front office area.

The Non-Security Areas (C-level) are the peripheral sections of the NEL which are under the key control of the NEL but which do not contain material or equipment which would fall under the purpose and general performance objectives of the security plan.

1.4 SECURITY AREAS (A-LEVEL)

The Security Areas (SA), deemed vital areas, are permanently established areas which are under the lock and key control of the Nuclear Energy Laboratory. Access to these areas is controlled and affords the isolation of material, equipment, and personnel within.

Security areas require A-level access or higher. These areas, the reactor high bay (room 1000), the radioactive storage room (within room 1540), and the control room (room 2001) during non-university working hours, are identified in Figures 4 and 5. The alarm system is shown with the ultrasonic transmitter and receiver transducers identified by an "X", the magnetic door switches by a "Y", and the master control units by a "Z". Security areas are protected by an intrusion alarm system (except the control room), hence permit limited access, and present well defined physical boundaries to both innocent and overt intrusion.

The radioactive storage room is located below ground level so that the outside walls are backed by earth fill. The inside walls are two-foot-thick concrete block with the exception of the inner door to the room and the area above eight feet on the south side of the room (see Figure 6). These areas are covered with steel mesh and either 3/8 inch particle board or plaster. The stairwell beyond the south wall is alarmed and tied to the same circuit as the radioactive storage room. Two steel doors provide the only access to the room. The inner door, #1, is a double-plated door and has two locks. One of the locks is keyed to "A+" level, and the other lock is a Sargent and Greenleaf combination padlock No. 8077A, which meets the specifications outlined in the NRC Regulatory Guide 5.12. The steel mesh outer door, #2, is keyed to "A" level. The fuel plates and fuel scraps are stored in an Insulated Record Safe, Model T-20, Serial No. 48727, made by Herring-Hall-Marvin Safe Company. It is secured to the north concrete wall and floor by 1x1x 1/8 inch angle iron. A separate key and combination are required to open it. One fuel bundle with attached thermocouples is stored in an eight-foot-long, 6 inch diameter steel schedule 40 pipe with a steel lid hinged and locked with a Sargent and Greenleaf combination padlock. The pipe is welded to the north concrete wall. All the bolts securing the safe and schedule 40 pipe are welded to the angle iron to prevent easy removal. The two PU-BE neutron sources are kept in steel drums filled with paraffin, chained to the east wall, and secured with the same type of Sargent and Greenleaf Combination padlocks. The uranyl nitrate (250 gms) is stored in padlocked steel lockers at the south end of the room.

For the purpose of radiological control and personnel safety, the subcritical facility in room 1540 requires A-level access. On occasion, encapsulated neutron sources may be left in the

subcritical facility or the reactor high bay (Room 1000) for class demonstration purposes or for instrument calibrations. The subcritical facility houses two natural uranium subcritical assemblies (graphite and heavy water), and a Kaman 1001-A neutron generator. Permissive entry by A-level access provides a prudent means of radiological control, but the security implications are regarded as negligible.

The fuel storage pits in the reactor high bay contain a 4 curie Co-60 radioisotope source and the equivalent of five MTR type irradiated fuel bundles. Other radioactive materials may be stored within these pits as demanded by special circumstances. The storage pits are composed of cylindrical holes, 6.5 feet deep, set into the concrete floor. The cylinders are secured with a 4 foot long, 10 inch diameter, 380 pound steel lined concrete plug. The plug can be removed with a special handling device and the reactor room crane. The concrete plug handling device and the crane are both secured with a Sargent and Greenleaf padlock.

The remainder of the enriched uranium is kept in the reactor. Due to the power history of the reactor and due to the inaccessibility of the fuel, the fuel can be deemed exempt. In order to safely remove the fuel from the reactor, it would take several hours time, the use of the 10 ton crane which is locked out in two areas (the reactor high bay which is alarmed and the transformer vault), the use of the handling cask and shielding. At this time, it is felt that the fuel (each FHU) would read greater than 100 Rem/hr. at one meter most of the time, except for brief periods after a long weekend, etc. In addition, the area above the core where the work that would have to be performed before fuel withdrawal could commence would always read many Rem/hr. Figure 3 describes the reactor high bay and the reactor without the extra shielding, casks and rabbit equipment above the top concrete shield.

1.5 CONTROLLED ACCESS AREAS (B-LEVEL)

Controlled access areas require B-level access or higher. These areas include the reactor control room (day time only), a classroom, and general laboratory space. The classroom is used primarily for undergraduate instruction, the laboratory areas for undergraduate experiments and graduate or faculty research.

These areas, because of physical and administrative controls, serve as a buffer region or perimeter of the security areas.

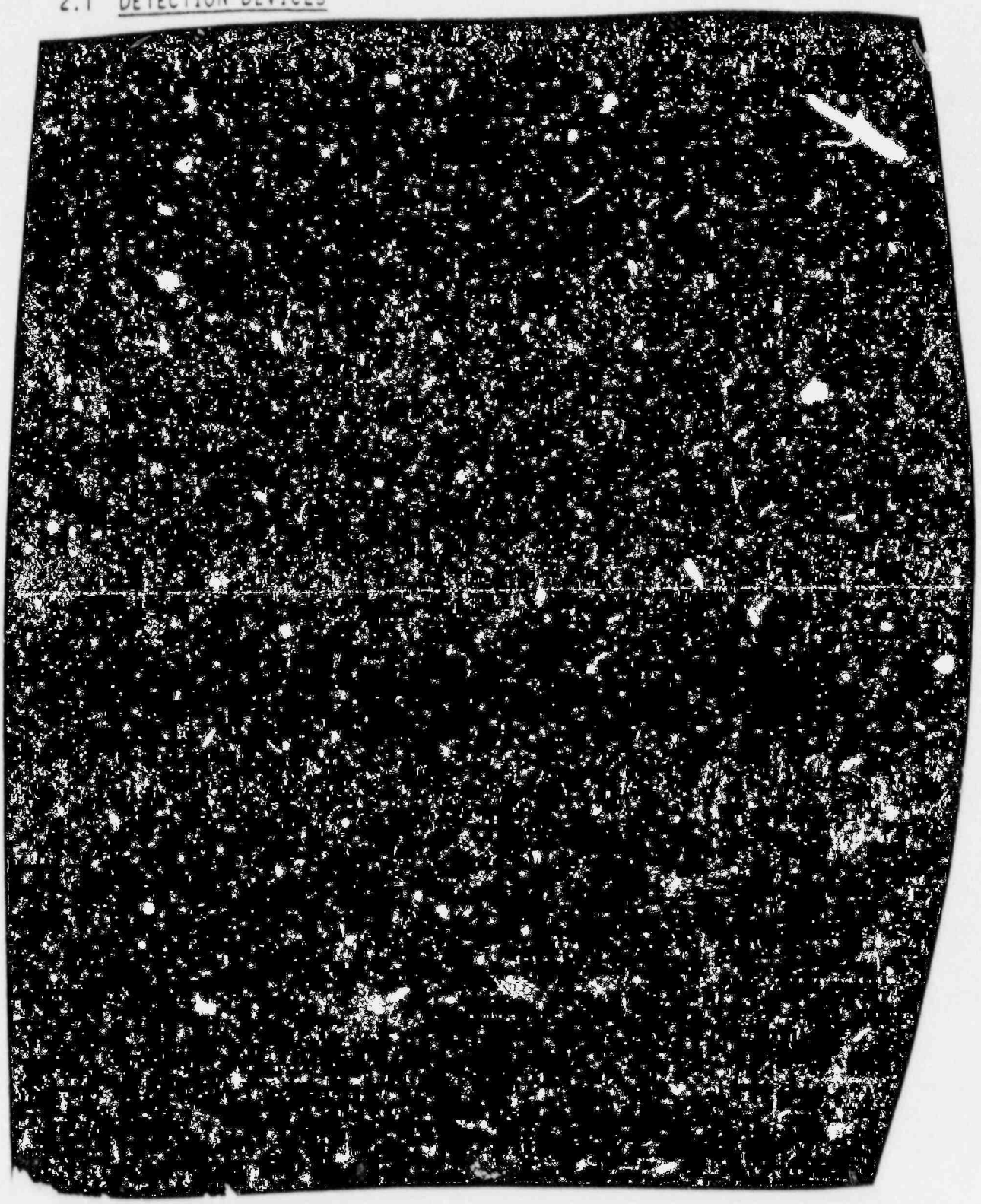
1.6 NON-SECURITY AREAS (C-LEVEL)

Non-security areas require C-level access or higher. These areas are peripheral areas of the laboratory and include the reception room/front office, adjacent offices, a transformer vault, and the third floor penthouse.

The areas denoted C-level are not within the scope of the security plan presented here. Figures 4 and 5 delineate these areas as parts of the laboratory without implying that they constitute a part of the plan. These areas are controlled only for the purpose of preventing theft of office equipment, books, vandalism and radiation protection.

2.0 DETECTION DEVICES OR PROCEDURES

2.1 DETECTION DEVICES



2.2 SURVEILLANCE OF VITAL AREAS

2.2.1 WORKING HOURS

There are two separate alarm systems and each alarm system can only be activated or deactivated by specified individuals.

Two individuals appointed by the Director of the Laboratory are authorized to deactivate the alarm system of the radioactive storage room. Their names and an entry code are on file with the UCLA Police Department. Legal entry can only be effected between the hours of 0800 and 1700 on University working days. The normal sequence of events for entry into the radioactive storage room is for one of the above two individuals to call the police, wait for recognition, state his name, his intent, and the entry code. Upon recognition, he estimates the probable duration of the entry. Upon entry, he deactivates the alarm at the master control, and at least one of the four authorized individuals* will maintain surveillance during the entire period that the alarm is deactivated. Upon departure, he reactivates the alarm, secures the door, calls the police department, gives his name, states that the area is secured, and asks for confirmation of the alarm system reactivation and condition of non-alarm. This alarm system is rarely deactivated, so normally, surveillance of this area is accomplished by the working personnel, the lock and key system and the ultrasonic alarm system. Backing up these systems are the UCLA Police Department and local law enforcement agencies.

All A-level personnel are authorized to deactivate the alarm system of the reactor high bay. Their names are on file with the UCLA Police Department. Legal entry can be effected at any time but is normally done between the hours of 0700 and 1800 on University working days.

2.2.2 NON-WORKING HOURS

During non-working hours, the lock and key system and the alarm system provide the surveillance of the security areas. In addition, there are on-site inspections (physical checks) randomly every four hours on a 24 hour basis. The on-site inspection includes a check on the outer doors of the facility and, at the officer's discretion, entrance and patrol of the controlled access areas. Local law enforcement agencies back up these systems.

*See Section 3.4.2

2.3 TEST

The intrusion alarm detection system is automatically tested for proper operation upon entry into the reactor high bay to deactivate the alarm upon notification to the police department, or at least once each week. The same applies to the radioactive storage room except due to its infrequent entry, this test will be performed at least on a quarterly basis.

A walk test and calibration (transducer balance) shall be performed on both intrusion alarm detection systems quarterly by the Laboratory Security Officer and one other A-level staff employee or reactor operator.

[redacted]

3.0 ACCESS CONTROL

3.1 PREAUTHORIZATION SCREENING

All personnel granted unescorted access to the CAA's shall be screened as follows.

3.1.1 PERSONNEL WITH KEYS ISSUED

In order for personnel to be issued keys by the Laboratory Security Officer, the following conditions must be met according to the key level to be issued.

3.1.1.1 A-Level (Limited to 10 Keys)

A. a need to have access to the reactor high bay

B. a full time NEL staff employee or faculty member

C. a passing grade on the NEL Health Physics Qualification Exam

D. a film badge plus some additional training in health physics

E. qualify and agree to be listed on the NEL Emergency Call List

3.1.1.2 Modified A⁻ Key

In order for the police to have access to the control room during off hours, A⁻ keys are issued to them. This key will open all doors except those to the reactor high bay and radioactive storage.

3.1.1.3 B-Level

A. a need to have access to the NEL

B. a full time University employee (faculty or staff, a visiting professor), a registered UCLA student, a NEL staff consultant

C. passing grade on the NEL Health Physics Qualification Exam

D. a film badge

3.1.1.4 C-Level

Ordinary C-level keys are not NRC security-related but are under normal University security practices.

3.1.1.5 Modified C-Level (3rd Floor Penthouse, Limited to Two Keys, One Issued to Resident Health Physicist and One to be Issued to Personnel for Short Time Periods)

A. a need to have access to the 3rd floor penthouse

B. a full time employee of the University

C. the reactor not in operation.

3.1.2 PERSONNEL WITHOUT KEYS ISSUED

Personnel who are not issued keys are not allowed unescorted access to CAA's. They must sign in at the front office in the visitors log book by giving their name, the date, who they represent, his escort and time in. When he leaves, he marks down the time that he leaves and exits through the front office. While he is in the CAA's, he will be escorted.

3.1.3 APPROVAL FOR KEY ISSUANCE

3.1.3.1 A card on file with the Laboratory Security Officer with the following:

A. name, address, phone number, birth date and status;

B. advisor or employee's signature; and

C. NEL Director's signature of approval.

3.1.3.2 An issued photo ID card (Building Use Permit) signed by the Laboratory Security Officer.

3.2 BADGING SYSTEM

All authorized individuals granted unescorted access to the CAA's will wear a radiation film badge and carry a Building Use Permit card (ID card). Escorted individuals may or may not be badged. The ID cards do have a unique number, the indivudual's name, key number, physical data and the individual's photograph. The ID card is laminated in plastic to inhibit tampering and to increase its life.

All ID cards are issued by the Laboratory Security Officer after approval by the Director at the time a key is issued and both are to be carried by the individual at all times while in the facility. The film badges are issued by the NEL secretary after an examination and approval by the Resident Health Physicist. The film badges are returned to the front office at the end of each work day.

3.3 LOCK SYSTEM

Every door leading into the Nuclear Energy Laboratory and every door within the facility is under a lock and key system comprised of three levels: A, B and C. A-level is deemed security, B-level is deemed controlled, and C-level is deemed non-security. All doors except the main office entrance door are normally locked. CAA doors may be propped open only if attended by an authorized individual. The main entrance door is not locked during regular working hours when the Office Area is occupied by an authorized individual who will maintain access control. All other doors in the facility are set so that they cannot be unlocked.

All locks are Corbin heavy duty cylindrical six pin locks. The locks are keyed differently from all UCLA master key systems. The key section is a Russwin commercial key section H8. Copies of the keys are not kept by the Hardware Department. This is done in order the reduce the possibility of compromise to the keying system. The key level required for passage through the doors in this facility is shown by letters A, B or C in Figures 4 through 6. The letter D means dummied lock, and it cannot be unlocked by any key from the outside. The door can be opened only from the inside for emergency egress.

An exception to the above lock and key system is the lock and key to the Radioactive Storage Room. The system used is the OMEGA series by Medeco (A* key) for which four keys were made. Two are issued to NEL staff personnel and two are stored inside the radioactive storage room.

3.4 ACCESS CONTROL

3.4.1 PERSONNEL

A-level keys are issued only to employees of UCLA who work within the confines of the Nuclear Energy Laboratory. The distribution of A-level keys is limited to no more than 10 individuals intimately concerned with reactor operations and/or maintenance. This group includes the Director, Laboratory Manager, Laboratory Health Physicist, Reactor Supervisor, Development Engineers, Mechanicians, and Electronic Technicians. The names of the individuals holding these titles are on file with the Laboratory Security Officer. One A-level key is also issued to the watch-commander of the UCLA Police Department. It is to be used only in case of an emergency. He receives the same classroom instruction as the other UCLA Police Department Officers.

Modified A* level keys are issued to the UCLA Police Department to be used by the patrol and investigate units. The personnel of these two units are given a condensed course on health physics, equipment, access points, and emergency procedures. They are not given an exam, but receive the course on an annual basis.

B-level keys are issued to qualified individuals who have taken the laboratory health physics course and who have passed the health physics and laboratory procedures test. This group includes faculty, staff, and students who work within the laboratory but do not need access to the reactor high bay. The custodian is also assigned a B-level key.

C-level keys provide access to the reception room, office space adjacent to the reception room, transformer vault on the first floor and to a machine room on the third floor. C-level keys are issued only on a temporary basis, to visitors temporarily occupying office space, to students awaiting qualification, to maintenance personnel and to temporary office help.

3.4.2 CONTROL

The lock and key system is under the control of the Laboratory Security Officer, who keeps a written and signed record of the individuals possessing keys. All key issuance and changes in the lock and key system must be reviewed by the Laboratory Security Officer and approved by the Director of the Laboratory.

The reactor high bay can be opened only with an A-level key. A-level personnel are authorized to activate and deactivate the intruder detection system of the reactor high bay.

Access to the radioactive storage rooms requires:

A. an A*-level key (limited to two);

B. knowledge of the combination to the Sargent & Greenleaf combination lock; and

C. knowledge of a code to the police station that permits deactivation of the alarm system covering that area. The police department is instructed to comply with deactivation requests only during the normal working hours of 8:00 AM to 5:00 PM on university working days.

Only two A-level personnel possess items A through C. The Director of the Laboratory appoints these two individuals from among the A-level keyholders, exclusive of himself and the Reactor Supervisor.

Access to the safe containing the reactor fuel requires:

A. access to the room;

B. knowledge of the combination to the safe;

C. a key to the safe.

The two individuals having access to the room also possess the combination, but not the key to the safe. The Director and the Reactor Supervisor possess the only keys to the safe. Accordingly, access to the safe requires the mutual consent of at least two distinct individuals, each possessing part of the total access requirement.

A physical inventory of keys and ID cards is conducted on an annual basis on or about June 30. Locks and keys (combinations) are changed whenever the system is compromised which will depend upon the circumstances. This is ascertained by the Security Committee.

3.5 ESCORT SYSTEM

All individuals not authorized unescorted access (visitors) shall be escorted by an authorized escort. All individuals authorized unescorted access (key holders) are authorized escorts and may grant visitors escorted access to the CAA's. Escorts shall be capable of maintaining visual contact of all individuals under escort and shall remain in the general area with the visitors.

For A-level areas (the reactor highbay) only A-level personnel shall provide escort to visitors. An exception to this rule is made for reactor operators who are assigned to give tours. They may be unescorted by an A-level person only if they remain on the second floor balcony above the reactor. The second floor balcony restriction during reactor startups is waived for reactor operators, but they shall not give tours at that time. There will be no visits to the radioactive storage room except for NRC inspectors or for maintenance, SNM inventory, or use.

3.6 SEARCH

Searches of persons or packages are not normally conducted at the NEL due to the following:

A. All SNM is locked up.

B. Non-irradiated and non-exempt SNM requires two-man access.

C. All radioactive material is either locked up or contained within vital areas.

D. Area radiation monitors at various locations.

E. Non-familiar personnel are escorted.

F. A relatively small staff.

In special cases or apparently threatening circumstances the police will be summoned.

4.0 SECURITY ORGANIZATION

4.1 UCLA SECURITY ORGANIZATION

The Director of the Laboratory is responsible for the implementation and enforcement of the Security Plan. The Director shall appoint a Security Officer to maintain control of keys, key distribution records, and the Security log. The Security Officer shall also maintain updated personnel access lists and communicate with and provide limited training for the campus police. He initiates the annual review of the security system.

There is a Security Committee consisting of the Director, the Security Officer, the Reactor Supervisor and one or two others familiar with the Laboratory operations. Three committee members shall consitute a quorum. The Security Officer shall act as Secretary to the Committee. The purpose of the Security Committee is to advise the Director of the Laboratory in security-related matters.

The UCLA Police Department is responsible for detecting any intrusion during working and non-working hours, and for taking the appropriate action in the event of a security violation. The Police Department has at a minimum 6 units (men) on duty at all times. Four units (worst case) would be able to respond to an intrusion. The Police Department provides routine on-site inspections (physical checks) once every four hours during working and non-working hours, including weekends and holidays on a twenty-four hour basis. This includes a check on the outer doors of the facility and, depending upon the officer's discretion, entry and patrol of the controlled areas and the perimeter of the security areas. These checks can be accomplished either by mobile units or foot patrol officers.

On a day-to-day basis, all A-level keyholders are responsible for observance of the Security Plan and for reporting security violations, infractions, and the malfunction of any security-related equipment, i.e., door locks, etc. to the Laboratory Security Officer.

Figure 7 describes the NEL organizational structure.

4.2 LOCAL LAW ENFORCEMENT

The UCLA Police Department has, as a back-up, the Sheriff's Department and the Los Angeles Police Department. This is possible because of a mutual aid agreement between the organizations.

4.3 SECURITY PROGRAM REVIEW

The security program will be reviewed every twelve months by the Laboratory Security Officer or by the Security Committee. A review consists of a detailed examination of the Security Plan.

4.4 SECURITY RECORDS

The following security records shall be maintained at the facility for at least 24 months:

A. Nuclear Energy Laboratory Access List

B. Nuclear Energy Laboratory Visitor Log Book

C. Key issuance cards

In addition to the above, the Laboratory Security Officer shall maintain a Security Log which shall contain but not be limited to the following:

A. intrusion detection calibration results

B. monthly door and lock checks

C. inventory results of keys and ID cards

D. security related incidents or abnormalities

E. changes to the facility of any security significance

5.0 COMMUNICATIONS

The facility has a commercial telephone link with the campus police. The campus police maintain 2-way radio communications between security officers on patrol and headquarters with fixed radio units in the patrol cars and portable radio units carried by the security officers. The Police Department has direct telephone and radio communications with the Los Angeles City Police Department. All communications systems are available 24 hours each day. The communications systems are of commercial grade.

In the event of a security violation detected by the intrusion alarm system, the following communication system is used. The alarm system registers a security violation. A signal is sent along a private telephone line to the 24 hour manned Honeywell Alarm Receiver (W840B,D) located at the UCLA Police Station. At the station there is a recorder which prints out the status on each and every alarm. The status categories are normal, alarm, and trouble. Trouble means tampering with the system and the appropriate action is to assume that there is an intrusion.

An officer or civilian representative (dispatcher) on duty then calls the patrol units on a two-way radio to proceed to the NEL and investigate the problem. (If the officers are not in their cars, they still have direct voice contact since they carry portable radios.) After an investigation, the police within NEL will call the dispatcher who may then telephone the laboratory personnel listed in order on the Reactor Emergency Procedure List until one is contacted. The contacted individual then proceeds to the laboratory to assist and to advise the police on the situation.

[redacted]

6.0 RESPONSE PROCEDURES

The facility has established and maintains response procedures for dealing with threats or actual thefts of special nuclear material and radiological sabotage. Response procedures for the following security incidents are maintained by the Laboratory Security Officer and the Campus Community Safety (UCLA Police):

A. bomb threat

B. threat of theft of special nuclear material

C. theft of special nuclear material

D. unauthorized intrusion

E. security violation by authorized personnel

F. civil disorder

G. fire or explosion

H. loss/degradation of security system

I. radiological sabotage.

The response procedures describe the type of response to be accomplished. The Nuclear Regulatory Commission will be notified in the event of theft or attempted theft of special nuclear material or any acts of radiological sabotage.

In addition to response procedures, the Laboratory Security Officer shall maintain the following security procedures or guidelines:

A. NEL lock and key system guideline

B. alarm calibration and sensitivity procedure

C. police call in of NEL employees during off hours

D. door seal guideline

E. SNM inventory procedure.

There will also be on file copies of the form: Report of Serious Safeguards Event.

7.0 MATERIAL TRANSPORTATION, RECEIVER AND EXPORT-IMPORT REQUIREMENTS

7.1 MATERIAL TRANSPORTATION REQUIREMENTS

Whenever the facility transports, exports, or delivers to a carrier for transport special nuclear material of low or moderate strategic significance, the NEL will:

A. Provide advance notification to the receiver of any planned shipment, specifying the mode of transport, estimated time of arrival, location of the nuclear material transfer point, name of carrier and transport identification.

B. Receive confirmation from the receiver prior to the commencement of the planned shipment that the receiver will be ready to accept the shipment at the planned time and location and that he acknowledges the specified mode of transport.

C. Transport the material in a tamper-indicating sealed container.

D. Check the integrity of the containers and seals prior to shipment.

E. Arrange for the in-transit physical protection of the material in accordance with the requirements of 10 CFR 73, unless the receiver is a licensee and has agreed by written contract to arrange for the in-transit physical protection.

F. Comply with all appropriate NRC and DOT regulations.

7.2 RECEIVER REQUIREMENTS

When the facility receives special nuclear material of low or moderate strategic significance, the facility will:

A. Check the integrity of the containers and seals upon receipt of the shipment.

B. Notify the shipper of receipt of the material as required by 10 CFR 70.54.

C. Arrange for the in-transit physical protection of the material in accordance with the requirements of 10 CFR 73, unless the shipper is a licensee and has agreed in writing to arrange for the in-transit physical protection.

7.3 EXPORT AND IMPORT REQUIREMENTS

The facility does not plan to export or import special nuclear material of moderate strategic significance but is planning on exporting excess non-exempt SNM. The facility will comply with all appropriate NRC and DOT regulations.

[redacted]

Physical Security Plan For The

Protection of Special Nuclear Material

Of Moderate Strategic Significance

ATTACHMENTS

AREA MAP - WEST LOS ANGELES

Figure 1

Figure 2 - **UCLA CAMPUS MAP**

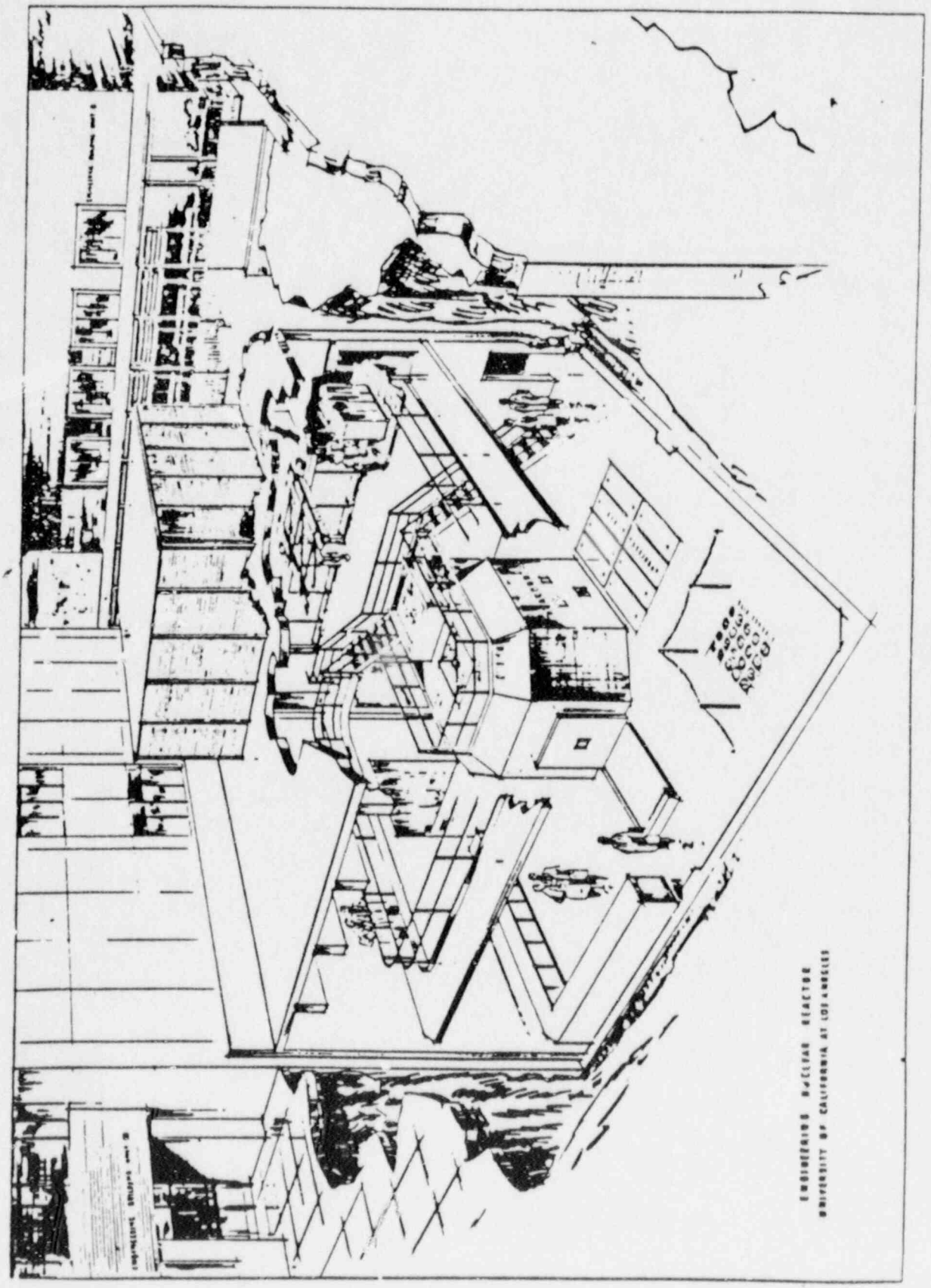
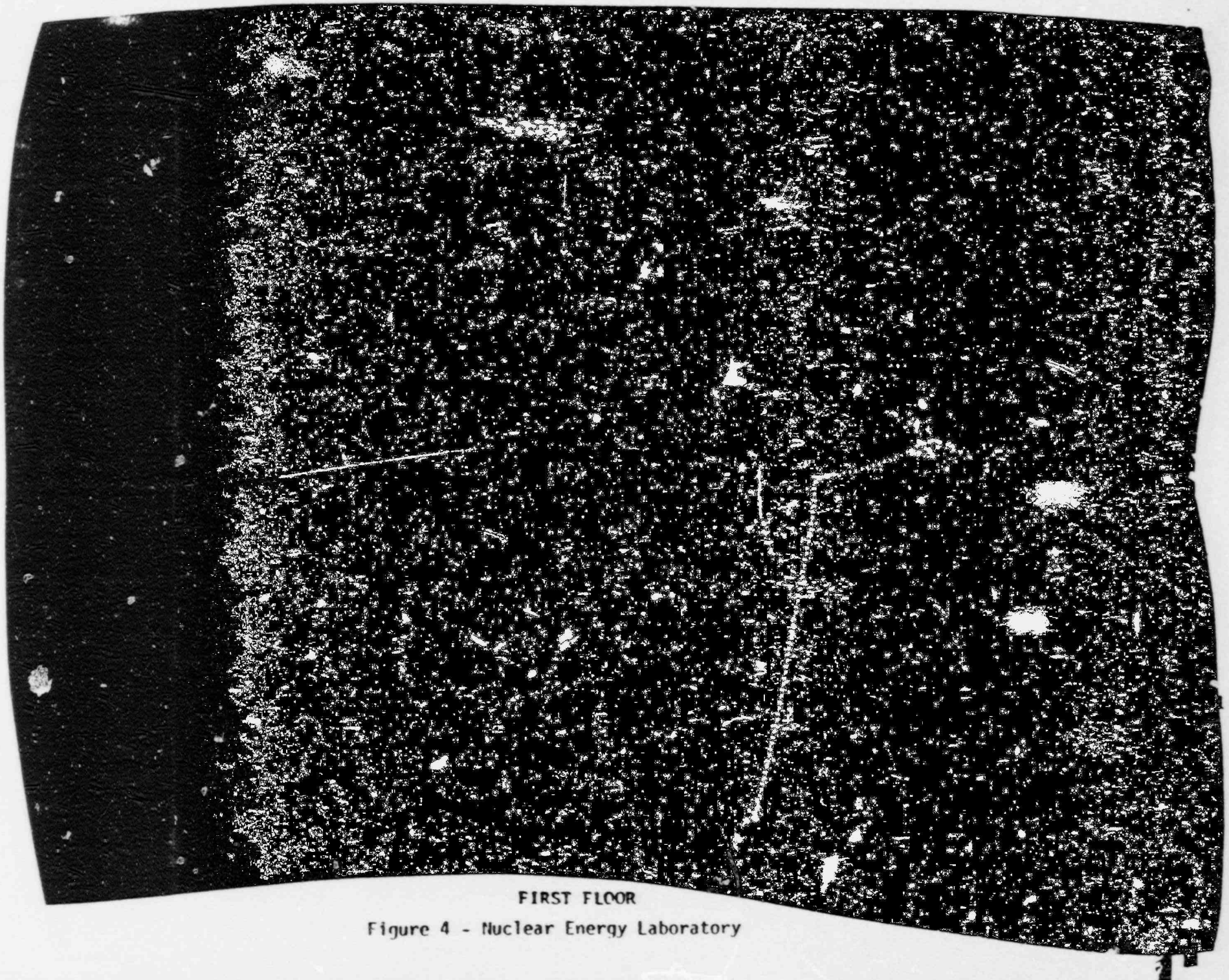


Figure 3



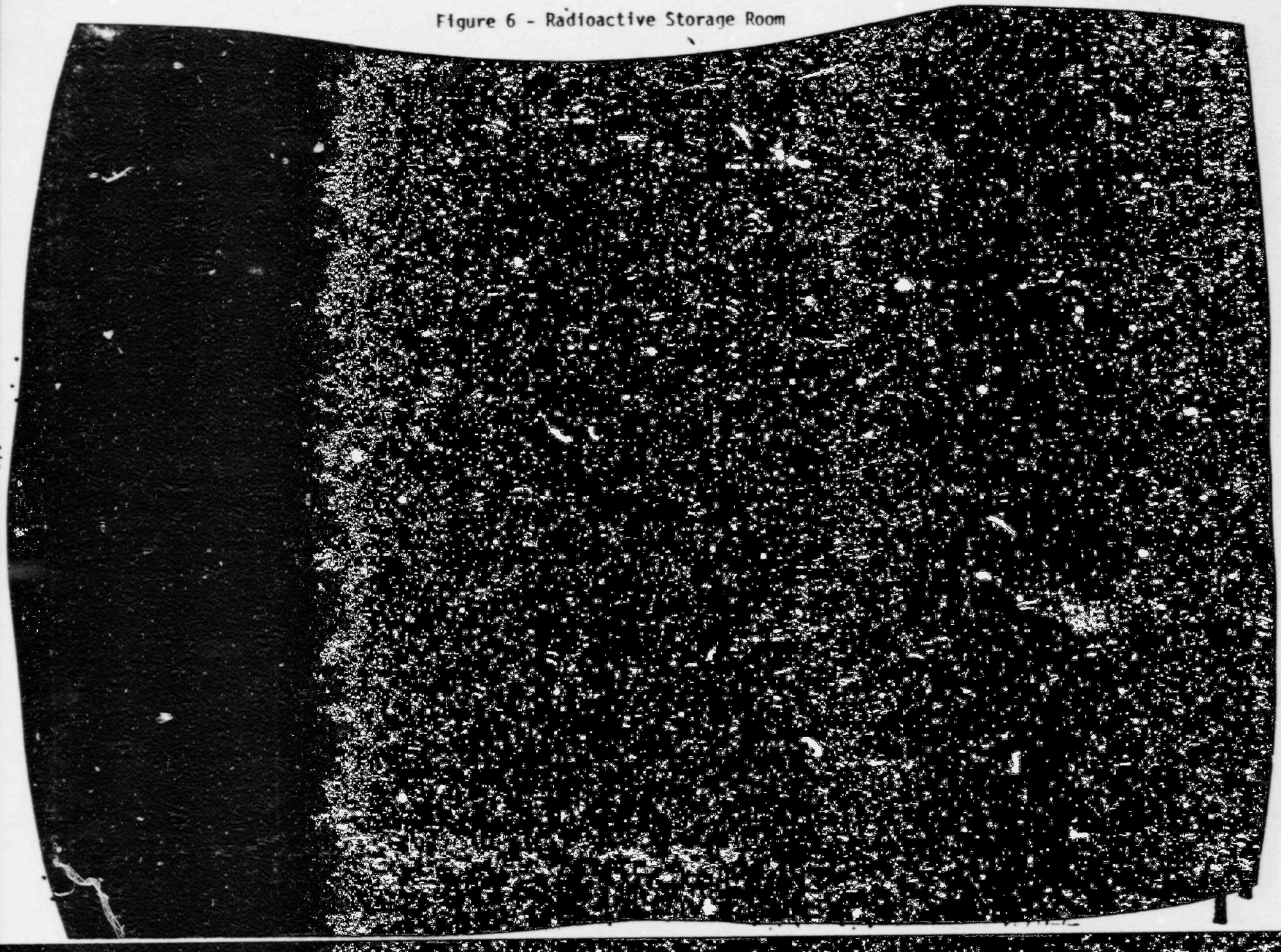
FIRST FLOOR

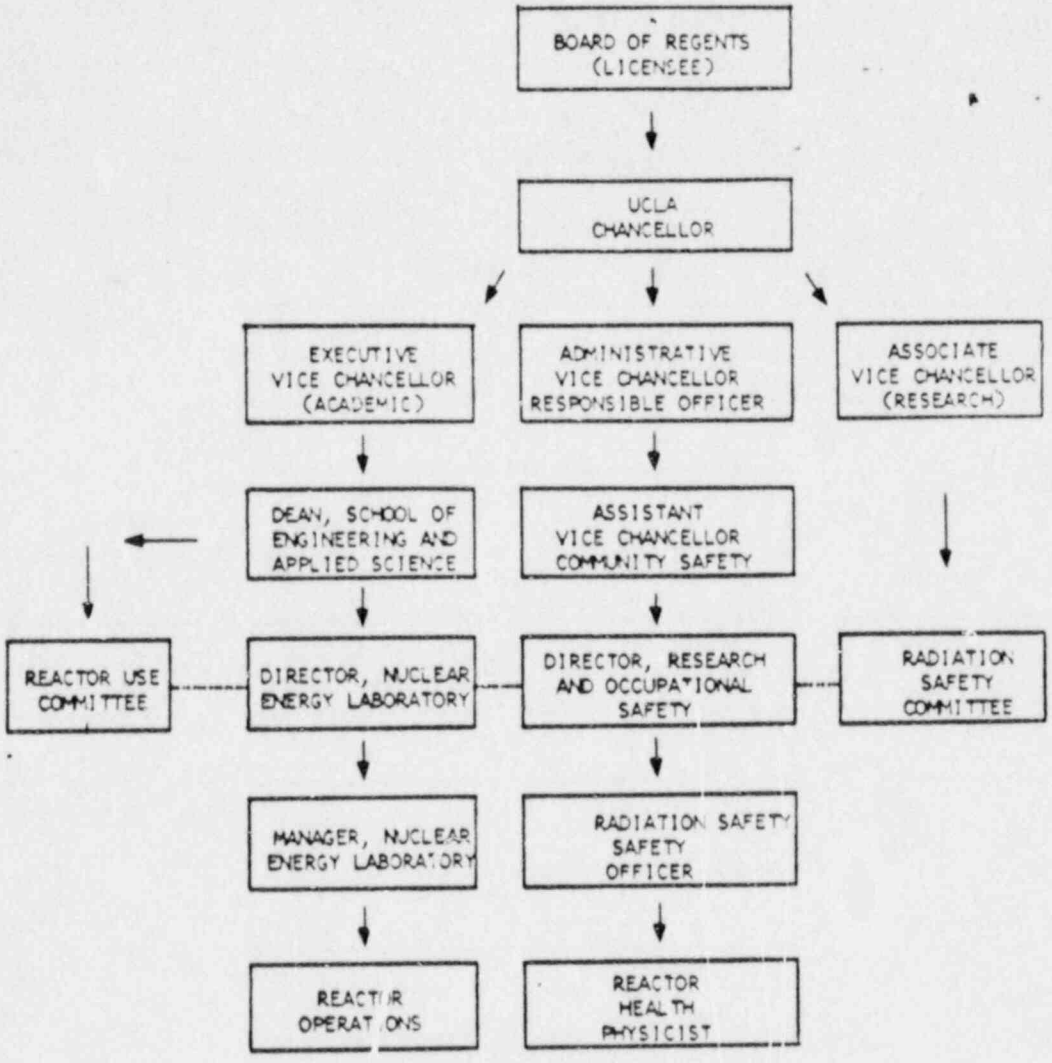
Figure 4 - Nuclear Energy Laboratory

SECOND FLOOR

Figure 5 - Nuclear Energy Laboratory

Figure 6 - Radioactive Storage Room





ORGANIZATIONAL RELATIONS

Figure 7

Table 1

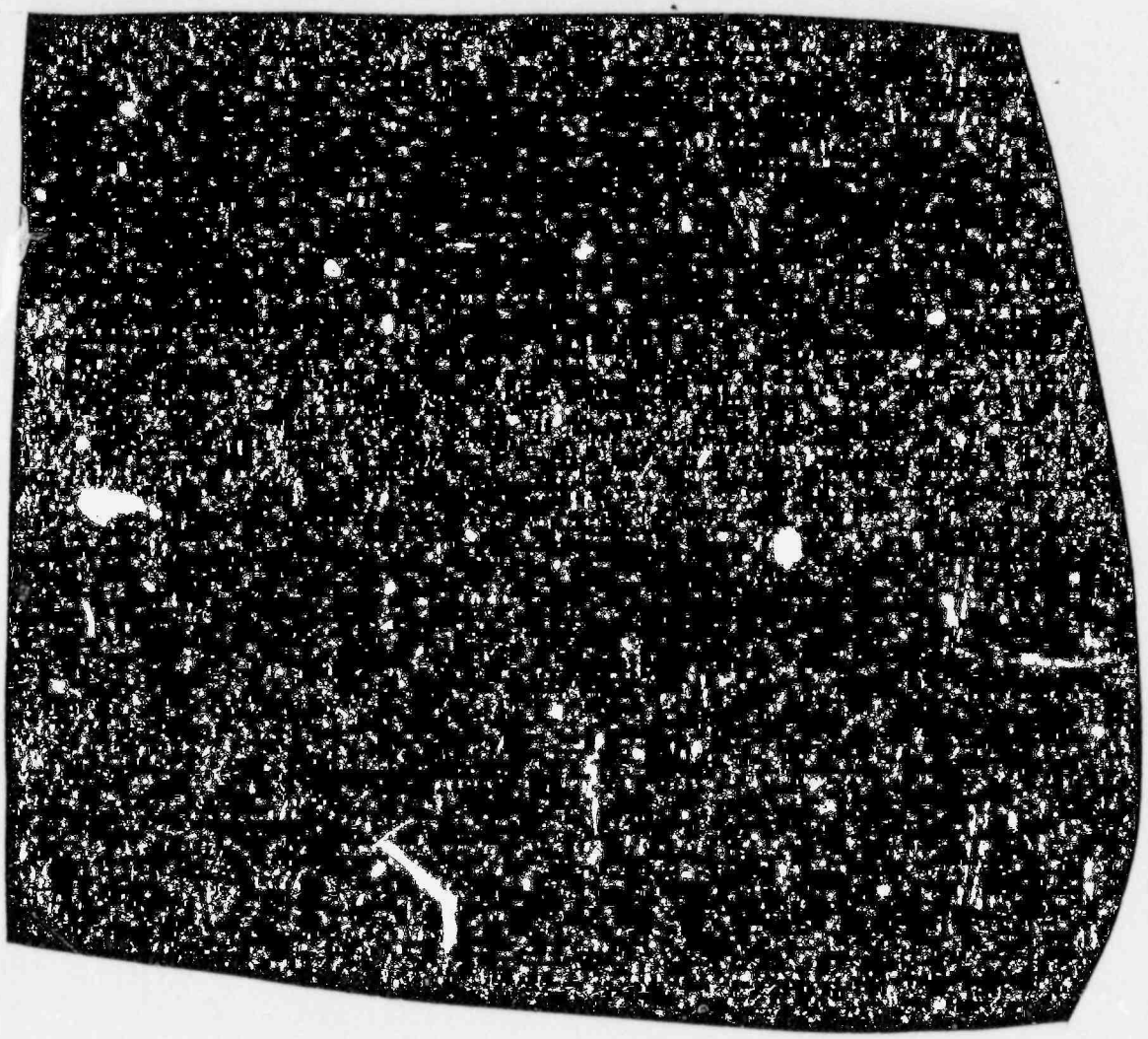
STORED NUCLEAR MATERIALS ON SITE

	Enrichment	Material	Amount (gms)
Non-Exempt (in storage)			
MTR type fuel plates (fuel storage pits)	93%	U-235	738*
MTR scrap	93%	U-235	595
Uranyl Nitrate	93%	U-235	250
MTR fuel plates (new core loading)	93%	U-235	3745
TOTAL (non-exempt)			5328
Exempt 73.67(b)(1)(i) (in reactor excluding burn-up) MTR type fuel plates	93%	U-235	3557
Exempt 73.67(b)(1)(ii)			
Two (32 gm) Plutonium Beryllium sealed sources (x 2.5) (one is under license R-71, the other is under State of California license)		Pu	160
TOTAL (exempt)			3717
TOTAL (exempt plus non-exempt)			9045

*In the process of being transferred to Exxon Nuclear Idaho Company, Inc., Idaho Falls, Idaho.

Table 2

ALARM EQUIPMENT LIST



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2567 Boelter Hall

SCHOOL OF ENGINEERING AND APPLIED SCIENCE
LOS ANGELES, CALIFORNIA 90024

20 February 1981

Robert W. Reid, Chief
Operating Reactors Branch #4
Division of Operating Reactors
Office of Nuclear Reactor Regulation
U.S. Nuclear Regulatory Commission
Washington, D.C. 20555

Docket 50-142

Dear Mr. Reid:

Due to recent events, UCLA's Physical Security Plan for the Protection of Special Nuclear Material of Moderate Strategic Significance must be amended. Enclosed are six copies of 11 proposed pages of Amendment #2 - February 1981. We hope that this meets with your approval.

Sincerely,

Neil C. Ostrander
for
Ivan Catton, Director
Nuclear Energy Lab

Reviewed and Approved:

Walter F. Wright

W. Wegst, Director
Research & Occupational Safety

IC/CEA/jb

enc. 6 copies-Amendment #2, 2/20/81: pages 1-4, 1-5, 2-1, 2-2, [illegible], 7-3, A-4
A-5, A-6, A-9

cc: J. Evraets, RSO
J. Barber, Chief, CCS
C. Ashbaugh, Security Officer, NEL
L. Norderhaug, Security, USNRC, Region V (complete security plan amended, per request)

Scott
S
1/6

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