UNITED STATES
NUCLEAR REGULATORY COMMISSION

March 4, 1980

ADJUDICATORY ITEM

SECY-A-80-30

COMMISSIONER ACTION

For: The Commissioners

From: Martin G. Malsch, Deputy General Counsel

Subject: DIRECTOR'S PARTIAL DENIAL OF 2.206 RELIEF (IN THE MATTER OF CATHOLIC UNIVERSITY OF AMERICA)

Facility: Catholic University of America Research Reactor

Purpose: To inform the Commission of a denial of a request for enforcement action which

Review Time Expires: March 11, 1980

Discussion: By petition dated October 3, 1979, P. Kelly Fitzpatrick requested, pursuant to 10 CFR 2.206 of the Commission's regulations that: (1) the license issued to Catholic University for operation of its small (0.1 watt thermal) research reactor be suspended; (2) an inspection and investigation of alleged violations of the operating license be conducted; and (3) an order be issued to Catholic University to show cause why the license should not remain suspended pending a thorough review of the licensee's operations. The petition was addressed to the Director of the Office of Nuclear Reactor Regulation; however, it was referred to the Director of Inspection and Enforcement for action because the subject matter of the petition was more appropriately within the jurisdiction of that office.

The bases of Ms. Fitzpatrick's requested action were a number of alleged incidents at the licensed facility including:

(1) storage of gasoline, an explosive material, within the facility, in violation of license Technical Specifications;

(2) storage of licensed material in a chemistry laboratory and a personal office in viola[illegible] of license Technical Specifications;

Contact:
M. Malsch, OGC

(3) receipt of radioactive material by persons unauthorized to possess it; and

(4) inadequate security program.

In response to Ms. Fitzpatrick's petition, an inspection and investigation were conducted at Catholic University on October 29 and 30, 1979. Also, both petitioner and her attorney were interviewed. As a result of the investigation the Director concluded that the allegations by Ms. Fitzpatrick were either untrue or, in the several instances where the allegations were factually correct, the factual circumstances did not involve any violation of NRC requirements. The Director's denial and the attached investigation report are

Recommendation:

Martin G. Malsch
Deputy General Counsel

Attachments:
1. Director's Decision
2. Investigation Report

Commissioners' comments should be provided directly to the Office of the Secretary by c.o.b. Tuesday, March 11, 1980.

Commission Staff Office comments, if any, should be submitted to the Commissioners NLT March 7, 1980, with an information copy to the Office of the Secretary. If the paper is of such a nature that it requires additional time for analytical review and comment, the Commissioners and the Secretariat should be apprised of when comments may be expected.

DISTRIBUTION
Commissioners
Commission Staff Offices
Secretariat

Attachment 1

UNITED STATES
NUCLEAR REGULATORY COMMISSION
WASHINGTON, D. C. 20555

FEB 20 1980

DOCKET NUMBER 50-77
PROD. & UTIL. FAC.

Operating License R-31

James B. Dougherty, Esquire
1416 S Street, N.W.
Washington, D.C. 20009

Dear Mr. Dougherty:

By petition dated October 3, 1979, you requested on behalf of P. Kelly Fitzpatrick that the Nuclear Regulatory Commission suspend the operating license for Catholic University and institute an investigation of activities conducted under their license. An investigation and inspection of the Catholic University facility was conducted. The results of that investigation are detailed in Report No. 50-77/79-02 which is attached to the enclosed Director's Decision. For the reasons stated in the decision, the other requests made in your petition are denied.

A copy of this decision will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C.

Sincerely,

Victor Stello, Jr.
Director
Office of Inspection
and Enforcement

Enclosure:
Director's Decision under
10 CFR 2.206

cc:
The Catholic University of America
Washington D.C. 20017

Mrs. P. Kelly Fitzpatrick
1325 Quincy St., N.E.
Washington, D.C.

DD 80-8

UNITED STATES OF AMERICA
NUCLEAR REGULATORY COMMISSION

OFFICE OF INSPECTION AND ENFORCEMENT
VICTOR STELLO, JR., DIRECTOR

In the Matter of

Operating License R-31

CATHOLIC UNIVERSITY OF AMERICA

DIRECTOR'S DECISION UNDER 10 CFR 2.206

By petition dated October 3, 1979, P. Kelly Fitzpatrick requested, pursuant to 10 CFR 2.206 of the Commission's regulations that: (1) the license issued to Catholic University for operation of a reactor be suspended; (2) an inspection and investigation of alleged violations of the operating license be conducted; and (3) an order be issued to Catholic University to show cause why the license should not remain suspended pending a thorough review of the licensee's operations. The petition was addressed to the Director of the Office of Nuclear Reactor Regulation; however, it was referred to this office for action because the subject matter of the petition is more appropriately within the jurisdiction of the Office of Inspection and Enforcement. Notice of receipt of the petition was published in the Federal Register on November 1, 1979 (44 Fed. Reg. 62970).

The bases of Ms. Fitzpatrick's requested action are a number of alleged incidents at the licensed facility including:

(1) storage of gasoline, an explosive material, within the facility, in violation of license Technical Specifications;

(2) storage of licensed material in a chemistry laboratory and a personal office in violation of license Technical Specifications;

(3) receipt of radioactive material by persons unauthorized to possess it; and

(4) inadequate security program.

In response to Ms. Fitzpatrick's petition an inspection and investigation were conducted at Catholic University on October 29 and 30, 1979. In the course of the investigation, an investigator from the Region I office interviewed Ms. Fitzpatrick and her attorney. The findings of the investigation are set forth in Investigation Report No. 50-77/79-02, a copy of which is attached and incorporated herein by reference.

The findings of the inspection can be summarized as follows:

1. Allegation: Gasoline and fumes in the reactor room.

   Finding: Gasoline and fumes leaked from an air compressor temporarily stored in a room next to the reactor room; no violation of Technical Specifications is involved.

2. Allegation: Storage of spent nuclear fuel in unauthorized locations.

   Finding: Nuclear fuel was not stored in an unauthorized location.

3. Allegation: Unauthorized receipt of radioactive material shipment of tritium.

   Finding: No instance was found when a shipment of radioactive material was received by an unauthorized individual.

4. Allegation: Reactor room is without intrusion alarms or surveillance devices.

   Finding: These measures are not specifically required by the university's security plan; no items of noncompliance with regulations regarding security were found in this inspection or on a previous one in January 1979.

5. Allegation: Real possibility of diversion of nuclear materials or sabotage of reactor.

   Finding: No evidence to support this allegation.

6. Allegation: Inadequate instruction to security officers in regard to personnel radiation monitoring.

   Finding: Personnel monitoring equipment is not required by NRC regulations for the security officers. In spite of this, security officers are provided personnel monitoring equipment and instruction to them was determined to be adequate.

7. Allegation: Improper security clearance for security officers.

Finding: In one instance, a security guard was dismissed from performing duties in the reactor area following a National Crime Information Center check. However, this situation did not violate any NRC requirements nor any requirements of the university security plan.

On the basis of these findings I have concluded that the allegations made by Ms. Fitzpatrick were either unsubstantiated in fact or if the facts stated in the allegations are true, they do not constitute violations of NRC regulations. Therefore, Ms. Fitzpatrick's request that the operating license for Catholic University be suspended and an order issued to the licensee to show cause as to why its license should not remain suspended is denied.

A copy of this decision will be placed in the Commission's Public Document Room at 1717 H Street, N.W., Washington, D.C. 20555. A copy of this document will also be filed with the Secretary of the Commission for its review in accordance with 10 CFR 2.206(c) of the Commission's regulations.

In accordance with 10 CFR 2.206(c) of the Commission's Rules of Practice, this decision will constitute the final action of the Commission 20 days after the date of issuance, unless the Commission on its own motion institutes the review of this decision within that time.

Victor Stello, Jr., Director
Office of Inspection and Enforcement

Dated at Bethesda, Maryland
this 20th day of February, 1980

Attachment:
Investigation Report
No. 50-77/79-02

Attachment 2

NUCLEAR REGULATORY COMMISSION
REGION I
631 PARK AVENUE
KING OF PRUSSIA, PENNSYLVANIA 19406

DEC 12 1979

ocket No. 50-77

Catholic University
ATTN: Dr. Y. C. Whang, Chairman
Mechanical Engineering Department
620 Michigan Avenue, N. E.
Washington, D. C. 20064

Gentlemen:

Subject: Investigation 50-77/79-02

This refers to the investigation conducted by Dr. C. O. Gallina of this office on October 29-30, 1979 of activities authorized by NRC License No. R-31 and to the discussions of our findings held by Dr. Gallina with Dr. Jordan and Dr. Ebert at the conclusion of the investigation.

Areas examined during this investigation are described in the Office of Inspection and Enforcement Investigation Report which is enclosed with this letter. Within these areas, the investigation consisted of selective examinations of procedures and representative records, interviews with personnel, measurements made by the investigators, and observations by the investigator.

Within the scope of this investigation, no items of noncompliance were cited. However, an inspection of your Radiation Protection Program, which was performed concurrently with this investigation, identified two deficiency level items of noncompliance. These items are described in detail in NRC Inspection Report No. 50-77/79-03, which has been forwarded to you under a separate cover.

In accordance with Section 2.790 of the NRC's "Rules of Practice," Part 2, Title 10, Code of Federal Regulations, a copy of this letter and the enclosed investigation report will be placed in the NRC's Public Document Room. If this report contains any information that you (or your contractor) believe to be proprietary, it is necessary that you make a written application within 20 days to this office to withhold such information from public disclosure. Any such application must be accompanied by an affidavit executed by the owner of the information, which identifies the document or part sought to be withheld, and which contains a statement of reasons which addresses with specificity the items which will be considered by the Commission as listed in subparagraph (b) (4) of Section 2.790. The information sought to be withheld shall be incorporated as far as possible into a separate part of the affidavit. If we do not hear from you in this regard within the specified period, the report will be placed in the Public Document Room.

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No reply to this letter is required; however, should you have any questions concerning this investigation, we will be pleased to discuss them with you.

Sincerely,

James M. Allan

Boyce H. Grier
Director

Enclosure: Office of Inspection and Enforcement Investigation
Report Number 50-77/79-02

cc w/encl:
Dr. E. D. Jordan, Director of Information Systems and Planning
W. Keene, Radiation Safety Officer

bcc w/encl:
IE Mail & Files (For Appropriate Distribution)
Central Files
Public Document Room (PDR)
Nuclear Safety Information Center (NSIC)
Technical Information Center (TIC)
REG:I Reading Room
Director, Region IV (Report Only)
District of Columbia

OFFICE OF INSPECTION AND ENFORCEMENT

Region I

Report No. 50-77/79-02

Docket No. 50-77

License No. R-31 Priority -- Category G

Licensee: Catholic University of America (CUA)

620 Michigan Avenue, N.E.

Washington, D.C. 20017

Facility Name: Catholic University of America

Investigation at: Washington, D.C.

Investigation conducted: October 29-30, 1979

Investigators: Charles O. Gallina — 11-19-79
C. O. Gallina, Investigation Specialist — date signed

K. E. Plumlee — 11/15/79
K. E. Plumlee, Radiation Specialist — date signed

_____ — date signed

_____ — date signed

Approved by: James M. Allan — 11-19-79
J. M. Allan, Deputy Director, NRC-Region I — date signed

Investigation Summary:

Investigation on October 29-30, 1979 (Investigation Report No. 50-77/79-02)

Areas Investigated: The investigation covered several allegations relating to the operation of the AGN-201 research reactor and related radiation safety and security programs. The allegations were made in writing as part of a petition filed with the USNRC on October 3, 1979, in accordance with the provisions of 10 CFR 2.206. In addition, other allegations were included in correspondence to the President of CUA dated September 26, 1979, and during an interview with NRC investigators on October 29, 1979. The investigation involved 14 man-hours on site by one NRC investigator and one NRC inspector.

Results: Of the seven (7) allegations investigated, five (5) were found to be unsubstantiated. The remaining two (2) allegations, while substantiated, involved minimal impact on reactor operations, safety and/or security, and did not violate any licensee or NRC requirements. No items of noncompliance or deviations are noted in this report.

NOTE: An inspection into overall reactor operations was conducted concurrent with this investigation and resulted in two (2) deficiency level items of noncompliance related to posting requirements as delineated in 10 CFR 19.11. The details of this inspection and the related items of noncompliance are documented in NRC Inspection Report No. 50-77/79-03.

8002070414

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I. BACKGROUND

A. Reason for Investigation

On October 3, 1979, pursuant to 10 CFR 2.206, Ms. P. Kelly Fitzpatrick, a former secretary-dispatcher for the security department at the Catholic University of America (CUA), petitioned the Director of Nuclear Reactor Regulation (NRR) of the Nuclear Regulatory Commission (NRC) to (1) suspend operating license R-31 (Docket No. 50-77) currently held by CUA and authorizing it to operate a nuclear reactor, (2) make an immediate on site inspection of the licensee's facilities to investigate alleged license violations and other safety hazards and, (3) issue an order requiring the licensee to appear and show cause as to why its operating license should not remain suspended pending a thorough inspection, review, and approval by the NRC of the licensees reactor and related facilities, operating and materials handling procedures, and physical security program. A copy of the petition as submitted by Ms. Fitzpatrick is attached as Exhibit A of the investigation report.

Pursuant to Item (2) of the above referenced petition, the NRC Office of Inspection and Enforcement-Region I initiated an investigation of Ms. Fitzpatrick's allegations on October 29, 1979.

B Identification of Involved Organizations

1. Catholic University of America (CUA)
   620 Michigan Avenue, N.E.
   Washington, D.C. 20017

   A university licensed by the NRC to operate a reactor under NRC License No. R-31 (Docket No. 50-77).

2. Ms. P. Kelly Fitzpatrick
   1325 Quincy Street, N.E.
   Washington, D.C. 20017

   A student at the Catholic University of America, former secretary-dispatcher within the security department at CUA, and author of the above referenced petition.

3. James B. Dougherty, Esq.
   1416 South Street, N.W.
   Washington, D.C. 20009

   An attorney representing Ms. Fitzpatrick in the above petition to the NRC.

II. SUMMARY OF FINDINGS

A. Allegations and Investigation Findings

The investigation involves allegations which were introduced by Ms. P. Kelly Fitzpatrick as part of her petition presented to the NRC on October 3, 1979, pursuant to 10 CFR 2.206 (see Exhibit A). These allegations are described and numbered as Items 1 through 5 below. An additional allegation was presented to the licensee during a meeting held by Ms. Fitzpatrick and her attorney with the President of the University on September 26, 1979. This allegation is described and numbered as Item 6 below. A copy of a memo documenting this meeting and the additional allegation has been included as Exhibit B to this investigation report. An additional allegation was presented to NRC investigators during an interview with Ms. Fitzpatrick and her attorney held on October 29, 1979. This allegation is described and numbered as Item 7 below.

NOTE: The allegations listed below have been summarized for clarity. The actual allegations are cited in detail in Section III of this investigation report.

Allegations

1. On August 10, 1979, a compressor, stored in the reactor room by unauthorized individuals, was found to be leaking gasoline. Corrective action was not taken in a timely manner and the presence of gasoline in the reactor room violated the licensee's Technical Specifications prohibiting the storage of explosive materials within the confines of the reactor facility.

   The NRC investigation found no evidence and/or information to substantiate this allegation (Details, Paragraph D.1).

2. The licensee is planning to store spent nuclear fuel in an area other than within the reactor room in direct violation of the requirements of the operating license.

   The NRC investigation found no evidence and/or information to substantiate this allegation (Details, Paragraph D.2).

3. Due to the licensee's lack of coordinated and safe procedures for receiving and handling of radioactive materials, radioactive materials have been shipped to persons not authorized to possess them.

   The NRC investigation found no evidence and/or information to substantiate the allegation (Details, Paragraph D.3).

4. The reactor room is without surveillance devices, burglar alarms or other equipment which could detect the entry or presence of a burglar or vandal.

   The NRC investigation found this allegation to be substantiated but without any lessening of the overall security posture of the reactor facility due to other security measures (frequent security checks). No items of noncompliance were identified with respect to the licensee's security requirements (Details, Paragraph D.4). The security devices referred to are not required by the licensee's security plan.

5. The incidents noted in the petition indicate a threat of not only an operating accident and consequent release of radiation, but also the possibility that nuclear materials might be diverted or the reactor sabotaged. More serious violations than those listed may have existed in the past.

   The NRC investigation found no evidence and/or information to substantiate this allegation (Details, Paragraph D.5).

6. Security officers are given dosimeters that are not adequately sensitive and are instructed on how to minimize the readings of these devices. Officers do not know how to use these devices.

   The NRC investigation found no evidence and/or information to substantiate this allegation (Details, Paragraph D.6).

7. Security officers are allowed to perform security duties without proper clearance checks by the university. One guard who routinely inspected the reactor area was later dismissed because he could not get a proper clearance.

   The NRC investigation found this allegation to be substantiated but without any lessening of the overall security posture of the reactor facility and without any items of noncompliance with respect to the licensee's security requirements (Details, Paragraph D.7).

B. Management Meeting

A management meeting was held with licensee representatives at the conclusion of the investigation in order to discuss the results of the investigation and the findings of the inspection conducted concurrently (see NRC Inspection Report 50-77/79-03). The following licensee representatives attended the management meeting held at 3:30 p.m. on October 30, 1979.

Dr. E. D. Jordan, Reactor Administrator
Dr. D. D. Ebert, Reactor Supervisor

III. DETAILS

A. Introduction and Background Information

1. Reactor

The research reactor operated by CUA under NRC Operating License R-31 is a homogeneous nuclear reactor Model AGN-201, Series No. 101, and is located on the lower level of the Pangborn Building at the licensees facilities in Washington, D.C. The licensee is authorized to operate the reactor at steady state power levels not in excess of 0.1 watts (thermal). The reactor was placed in shutdown condition on February 22, 1975 and not operated again until May 9, 1979. The current operating license is valid through November 15, 1997.

2. Relevant Actions of the Licensee and Petitioner Prior to Submission of the Petition

-- The licensee stated that it was first aware of Ms. Fitzpatrick's concerns regarding reactor safety shortly after the Three Mile Island incident of March 28, 1979, when a letter appeared in the school newspaper concerning the presence of a reactor at the university. Ms. Fitzpatrick (and any other student having similar concerns) were invited to tour the CUA reactor and have their concerns addressed by cognizant personnel. To the best of the licensee's recollection, Ms. Fitzpatrick did not respond to this invitation. (Minutes of Radiation Safety Committee dated April 11, 1979, document the University's willingness to discuss AGN-201 reactor safety aspects with any person or group concerned.)

-- On or about August 1, 1979, Ms. Fitzpatrick voluntarily terminated her temporary part-time duties as Secretary-Dispatcher in order to return to school.

-- In early September of 1979, Ms. Fitzpatrick asked if she could attend the reactor safety/security course along with her attorney. Due to security reasons, Ms. Fitzpatrick was denied admission to the course inasmuch as she was no longer a member of the security force and even when she was a member, served only in a temporary status. Ms. Fitzpatrick and her attorney were personally invited to tour the reactor and cover any non-security related areas with Dr. Ebert, Reactor Supervisor, in order to better understand the operation of the reactor and to have any safety related concerns addressed personally by the cognizant, responsible supervisor. According to the licensee, the invitation was declined.

-- On September 26, 1979, Ms. Fitzpatrick, accompanied by her attorney Mr. James Dougherty, met with the President of CUA, Dr. Edmund D. Pellegrino, to discuss her concerns and her demand that the reactor be shut down immediately. Dr. Pellegrino ordered Dr. Edward D. Jordan, Director of Information Systems and Planning Office, to conduct an immediate investigation of Ms. Fitzpatrick's concerns and report the results of that investigation by the end of that day, September 26, 1979. A copy of the memo documenting this meeting, Dr. Pellegrino's directive, and Ms. Fitzpatrick's concerns has been attached as Exhibit B to this investigation report.

-- On September 26, 1979, Dr. Jordan reported his findings to Dr. Pellegrino indicating that there was no basis for Ms. Fitzpatrick's concerns. A copy of the results of this investigation are attached as Exhibit C to this investigation report.

-- On September 27, 1979, Mr. Steven P. Frankino, Dean of the Law School, who was also present at the aforementioned meeting with Dr. Pellegrino, contacted Ms. Fitzpatrick's attorney and reviewed each of Ms. Fitzpatrick's concerns based on the results of Dr. Jorda 's investigation. Dear Frankino stated that Ms. Fitzpatrick's attorney informed him that the results of the investigation were unsatisfactory with respect to their concerns. Dean Frankino stated that he also discussed another demand made by Ms. Fitzpatrick namely that she and her attorney be made members of the Reactor Safety Committee. Dean Frankino stated that he could not speak unilaterly for the committee at this time but would contact Ms. Fitzpatrick's attorney as soon as a resolution to the issue could be arrived at by the committee.

NOTE: When contacted by NRC investigators on October 29, 1979, Ms. Fitzpatrick and her attorney implied that they had no knowledge of any investigation conducted by the university.

-- On October 2, 1979, Dean Frankino contacted Ms. Fitzpatrick's attorney and notified him that the Reactor Safety Committee could not accept them as members but the Committee offered to meet with them at Ms. Fitzpatrick's convenience to discuss in detail any concerns she might have. Ms. Fitzpatrick's attorney declined the invitation and stated his intention to file a petition, on Ms. Fitzpatrick's behalf, to the NRC on October 3, 1979 pursuant to 10 CFR 2.206.

-- On October 3, 1979, the above referenced petition was filed with the NRC.

-- On October 4, 1979, a meeting of the Radiation Safety Committee was held to again review Ms. Fitzpatrick's concerns. Documentation of this meeting is attached as Exhibit D of this investigation report.

B. Scope of Investigation

The investigation included an examination of pertinent documents and records at the licensee's facility; actual measurement of radiation levels; interviews and contacts with individuals; and, observations by the investigators.

C. Persons Directly Interviewed and/or Contacted During the NRC Investigation

1. Licensee Personnel

Dr. E. D. Jordan, Reactor Administrator
Dr. D. D. Ebert, Reactor Supervisor
Mr. S. P. Frankino, Dean, Law School
Mr. W. G. Nork, Director of Security and Safety
Ms. S. Harris, Administrative Assistant to the Director of Security and Safety
Ms. M. Kindrat, Administrator, Food Program
Ms. I. M. Gale, Administrative Assistant to the Dean of Engineering and Architecture
Ms. C. C. Smith, Traffic Clerk

2. Non-licensee Personnel

Ms. P. K. Fitzpatrick, Student at CUA
Mr. J. E. Dougherty, Esq., Attorney

D. NRC Findings and Conclusions

1. Allegation No. 1

a. Allegation

During the night of August 9-10, 1979, a security officer on patrol noticed gasoline fumes in the reactor room, located in the basement of the Pangborn Building. No corrective action was taken until approximately nine o'clock the next morning when a pool of gasoline was discovered on the floor of the reactor room.

It was later learned that the gasoline had leaked from a portable air compressor which was being stored in the reactor room. The compressor had been placed in the room by a workman who was not employed by the University. It is not known how or why this individual obtained access to the facility. This incident thus appears to constitute a patent violation of the terms of the license inasmuch as Section 16.4* of the Technical Specifications prohibits the storage of explosive materials within the confines of the reactor facility.

b. NRC Findings

NRC investigators reviewed the above referenced incident by means of interviews with involved individuals and a review of related security log entries. The following chronology of this event was subsequently developed.

At 0230 hours on August 10, 1979, a CUA security guard reported the smell of gasoline coming from an air compressor being stored in the Thermal Science Laboratory adjacent to the reactor facility. The guard stated that the gasoline, which apparently had leaked from the compressor, left a spot of approximately 3 to 4 inches in diameter on the floor and was leaking at a drip rate of approximately one drop every 5 minutes. Campus security immediately notifed campus maintenance to remove the compressor from the area. Campus maintenance could not move the compressor directly since it belonged to an outside contractor and was attached to other pieces of equipment being utilized to perform construction modifications within the Thermal Science Laboratory. The contractor was notified immediately and requested to move the compressor. Contractor personnel arrived at 0600 hours and moved the compressor outside of the building where it remained throughout continued construction activities. At 1035 hours, the Radiation Safety Officer notified campus security of the details of the removal operation.

The NRC investigators noted that (a) the security logs clearly described the leak as occurring in the room next to the reactor area; (b) the leak was small and monitored until cleaned up; (c) appropriate corrective actions were taken in a timely manner; and, (d) at no time was the reactor facility involved in any way and consequently did not constitute any violation of Technical Specification limits and/or conditions. At no time did an unauthorized workman enter the reactor facility.

*Specified in Section 16.3.3 of current Technical Specifications.

c. NRC Conclusion

The NRC investigation found no evidence and/or information to substantiate this allegation.

NOTE: While no hazards were identified within the reactor room, it was noted that toluene from liquid scintillation analyses was stored as low level radioactivity in this room. The NRC investigation noted that although the liquid was stored in sealed bottles in closed drums and that the room was well ventilated, that a secure sole-use facility would be more desireable for such storage. The licensee agreed and stated that this matter was being pursued prior to the investigation and would be implemented in the near future (see Exhibit D).

2. Allegation No. 2

a. Allegation

The Technical Specifications also provides in Section 16.4*, that nuclear fuels and nuclear fueled experiments must be stored in a locked safe within the reactor room. However, spent nuclear fuel from the reactor is currently being stored in a chemistry laborator on campus. Morever, the petitioner has in her possession documen showing that the licensee is planning, or was planning within the past few months, to store spent nuclear fuel within the personal office of Dr. P. W. Chang. Some modification of Dr. Chang's office for this purpose has been suggested in connection with this proposal. These practices and/or plans appear to constitute further direct violation by the licensee of the specific requirements of its operating license.

b. NRC Findings

The NRC investigators asked Ms. Fitzpatrick if they might examine the documents referred to in the petition showing that the licensee was planning to modify a personal office for the purpose of storage of spent fuel. Ms. Fitzpatrick stated that she did not possess the documents referred to above but rather observed references to the proposed modifications while filing minutes of the Radiation Safety Committee. Ms. Fitzpatrick stated that Mr. William Nork, Director of Security and Safety, told her that she could read these documents before filing because he was aware of her concerns and believed that these documents might indicate how the University was reacting to safety matters in general.

The NRC investigators examined the file in question and did in fact find several references concerning the potential modification of Dr. Chang's office but not with respect to the storage of spent nuclear fuel but rather to the University's desire to obtain a new area to store low level radioactive waste materials resulting from the utilization of radioactive materials in various research endeavors on campus.

Entries in the minutes of the Radiation Safety Committee were found for the meetings of March 14, 1979, April 11, 1979, and April 27, 1979, each referring to the storage of low level radioactive wastes with the primary advantage being the ease of modification of the ventilation system in order to tie into Dr. Chang's office. A reference to the modification was also made in the meeting minutes of the Radiation Safety Committee on October 4, 1979, and Dr. Jordan's memo to Dr. Pellegrino dated September 26, 1979, in response to Ms. Fitzpatrick's concerns (see Exhibits C & D).

The NRC investigators explained to Ms. Fitzpatrick that an AGN-201 reactor does not produce spent fuel in the most familiar sense of the term and confirmed that all nuclear fuel, including fuel bearing control rods and an experimental fission plate were properly secured within the confines of the reactor facility.

The NRC investigators also confirmed that Dean Frankino explained the apparent misconceptions presented by Ms. Fitzpatrick to her attorney on September 27, 1979, but could not determine why the concern was still contained as part of the petition on October 3, 1979.

c. NRC Conclusion

The NRC investigation found no evidence and/or information to substantiate this allegation.

3. Allegation No. 3

a. Allegation

Petitioner has witnessed the receipt of shipped radioactive material by persons not authorized to possess it. Petitioner has been told of at least one instance in which a shipment of radioactive tritium was accepted by an academic office within the University and not delivered to the appropriate offices for

several days. Petitioner alleges generally the licensee's lack of coordinated and safe procedures for the receiving and handling of radioactive substances.

b. NRC Findings

Section 16.6.1.10 of the licensees Technical Specifications requires that the Radiation Safety Officer (RSO) enforce the regulations, rules, and procedures as set forth in the Radiation Safety Manual. The Radiation Safety Manual currently in effect at CUA, Section 2.6.2, "Receiving," states that "all shipments of radioactive material arriving at CUA during normal working hours shall be delivered to the RSO. Shipments arriving outside of normal working hours may be accepted by the Office of Campus Security. Such packages shall be deposited in the Radiation Safety Office by the security guard making the next regular inspection of that area."

In a letter to Dr. Pellegrino dated September 25, 1979 (see Exhibit B), Ms. Fitzpatrick stated that .005 curies of radioactive tritium was delivered to the security office addressed to the "Radiation Safety Officer, Catholic University," while she (Ms. Fitzpatrick) was Secretary-Dispatcher. When she refused to accept it, Ms. Sally Harris, Administration Assistant, signed for it and stored it in the office refrigerator until the RSO was located. The NRC investigators reviewed the security log books and noted an entry at 1230 hrs on July 3, 1979, taken by Ms. Fitzpatrick covering the above referenced receipt of material.

An interview of Ms. Harris indicated that the material was at no time placed in the office refrigerator and was delivered personally by Ms. Harris to the RSO within minutes of its receipt at the Security Office.

During an interview held on October 29, 1979 with Ms. Fitzpatrick and her attorney, Ms. Fitzpatrick stated that a similar incident had occurred on October 2, 1979, when radioactive tritium was delivered to Room 102 in the Pangborn Building instead of the Radiation Safety Office and was accepted by the secretary to the Dean of Engineering rather than the RSO. The NRC investigators noted an entry in the Security Log for 0955 hours on October 2, 1979, which stated "Ms. Gale from 102 Pangborn called to have a delivery put in room. Material is radioactive and should not be left out." The NRC investigators interviewed Ms. Gale who stated that on the day in question, a messenger wanted to deliver a

shipment of radioactive tritium to her but she refused it. She asked the messenger to wait until security was notified to pick it up but the messenger refused to wait and said he would look for the RSO or leave it in his office. Ms. Gale said that she then informed security to contact the RSO and ensure that the material reached its proper destination. The NRC investigation confirmed that this shipment was received properly.

The NRC investigators found no instance when a shipment of radioactive material was received by someone unauthorized to receive it or in any manner which would endanger the health and safety of those receiving or handling it. No evidence or information was uncovered which indicated that any undue delay was experienced in the handling of this material especially the several day delay contained in the original allegation.

c. NRC Conclusion

The NRC investigation found no evidence and/or information to substantiate this allegation.

4. Allegation No. 4

a. Allegation

The reactor room is without surveillance devices, burglar alarms, or other equipment which could detect the entry or presence of a burglar or vandal. Because the contents of the licensee's security program are not publically available, it is not known whether such equipment is required.

b. NRC Findings

The NRC investigators noted that the reactor room is without surveillance devices, burglar alarms, or other equipment to detect unauthorized entry but because of the nature of the reactor design and the small amount of nuclear fuel present, such devices are not needed. Although details of the university's security plan are withheld from public disclosure, an inspection of the licensee's security areas on January 23-25, 1979 indicated no items of noncompliance (NRC Inspection Report No. 50-77/79-01). The security items referred to above are not specifically required by the licensee's Security Plan.

The NRC investigators noted that routine security checks are performed by Campus Security in this area. The investigators took several dates at random from 1979 check lists and noted that over the 155 hours covered by the sample, 79 security checks had been made as documented by personal dosimetry logs for the guards. This averaged out to one check every 2 hours.

c. NRC Conclusion

The NRC investigation found this allegation to be substantiated but without any lessening of the overall security posture of the reactor facility. No items of noncompliance were identified. The security devices mentioned were not required by the licensee's Security Plan.

5. Allegation No. 5

a. Allegation

The incidents noted in this petition indicate a threat of not only an operating accident and consequent release of radiation, but also the possibility that nuclear materials might be deverted or the reactor sabotaged. In addition, there is no reason to assume that over the many years in which the licensee has owned and operated the reactor there have not been other, perhaps more serious violations.

b. NRC Findings

Although the incidents delineated in earlier segments of Ms. Fitzpatricks petition were found to be unsubstantiated or inconsequential, the NRC investigators reviewed the overall health, safety, and security programs currently part of CUA reactor utilization program. The NRC reviewed the results of past inspections for the years of 1977 to 1979 and identified only one (1) deficiency level item of noncompliance resulting from the failure of the licensee to report the inoperability of nuclear instrumentation. This item in itself was further minimized by (a) the fact that the reactor was shut down since 1975 and (b) the problem was with the lucite containers holding the instruments and not the instrument itself. The results of this review is as follows:

Report No.	Dates	Area Covered	Results
50-77/77-01	May 1977	Reactor Operation	No items of noncompliance
50-77/78-01	April 1978	Safeguards	No items of noncompliance
50-77/78-02	April 1978	Reactor Operation	One (1) deficiency level item of noncompliance - nuclear instrumentation
50-77/79-01	January 1979	Security	No items of noncompliance

Concurrent with this investigation, an inspection was conducted of current reactor operations including areas of posted information organization and administration, review of log books and records, design changes, review of experiments, reactor operator training, reactor procedures, maintenance, radiation control, radwaste management and emergency planning (see NRC Inspection Report No. 50-77/79-03). During this inspection, two (2) deficiency level items of noncompliance were identified related to (1) failure to post information as specified by 10 CFR 19.11(a) and (b) and (2) failure to post form NRC-3 as specified by 10 CFR 19.11(c). The investigators noted that these items were (a) minor in nature, (b) resulted in part due to a building modification which had removed posting locations and (c) in no way impacted on reactor operation or its associated safety.

c. NRC Conclusion

The NRC investigation found no evidence and/or information to substantiate this allegation. Furthermore, based on the results of this review and concurrent inspection, the NRC found no threat to the security of the reactor or the health and safety of the students at CUA or members of the general public living near the university.

6. Allegation No. 6

a. Allegation

Security officers in two separate reactor training courses were told that the radiation measuring badges are not sophisticated enough to give an accurate reading. In one class the instructor banged the badge against the palm of his hand saying that it was

one way to change the reading. The majority of officers do not know how to use the badge correctly.

b. NRC Findings

The NRC investigators noted that due to the low levels of radiation in the reactor room as documented by dosimetry logs, no personnel monitoring equipment was required in accordance with 10 CFR 20.202(a)(1) inasmuch as guards would not likely receive a dose in any calendar quarter in excess of 25 percent of the applicable values as specified by 10 CFR 20.101(a). This fact notwithstanding the security guards were equipped with personnel monitoring devices of the self-reading pocket dosimeter (ion chamber) type which were more than adequate to determine the amounts of radiation one would reasonably expect to encounter in this reactor facility.

The licensee stated that the dosimeter sign-in sheets were also used as further verification that security responsibilities were being performed. NRC investigators reviewed these logs and found no indication of misuse or other than minimal (if any) radiation readings. This later fact was due primarily to the low levels of radiation present in the reactor facility and not to any inherent insensitivity of the dosimeter. The licensee stated that guards were cautioned against dropping the dosimeters, as such physical shocks (demonstrated by banging the dosimeter against the hand) will cause the dosimeter to read higher amounts of radiation than actually received. Although the guards were told that these higher readings would be entered as their actual exposures, NRC investigators noted no higher than normal exposures in the records reviewed. Security guards encountered were familiar with the proper use and reading of the pocket dosimeter.

c. NRC Conclusion

The NRC investigation found no evidence and/or information to substantiate the allegation.

7. Allegation No. 7

a. Allegation

Security guards are allowed to perform security duties without proper clearance checks by the university. One guard who routinely inspected the reactor area was later dismissed because he could not get a proper clearance.

b. NRC Findings

NRC investigators interviewed campus security management personnel and determined that although routine checks are performed before a guard can undertake his regular duties, an additional check is provided by the Washington, D.C. Police Department (D.C.P.D.) utilizing the National Crime Information Center (NCIC) computer system. A successful check by the D.C.P.D. results in a special commission given to the officer as a "special police officer," in D.C. The licensee stated that new guards are not allowed to check on the reactor area until they have received a special training course in radiation safety and that in most cases, the scheduling of this course usually allows the NCIC check to be completed prior to a guard having received the radiation safety course and consequently prior to working near the reactor. If a condition is discovered by the NCIC check which would preclude an individuals employment as a security officer, the individual would normally be dismissed prior to having served as a guard covering the reactor area.

The licensee stated that in one case a guard had completed the radiation safety course and was performing duties within the reactor area when the NCIC check identified a condition which would prevent the granting of a "special commission." The guard was dismissed on this basis due to procedural and administrative policies set forth in this area and not by any poor or improper performance by the guard. The licensee stated that this condition in no way affected the overall security of the reactor area. The NRC investigators reviewed the licensee's Security Plan and other security aspects of the licensee facility and noted that the above instance was not in violation of any NRC requirements or requirements set forth in the CUA Security Plan and procedures. The NRC investigators also noted that due to the size and nature of the reactor, the plans then in effect, were more than commensurate with any preceived threat.

c. NRC Conclusion

The NRC investigation, while finding the allegation substantiated, did not identify any items of noncompliance with respect to the licensee's Security Plan or any condition which significantly impacted on or diminished the licensee's overall security posture for the reactor.

PETITION OF P. KELLY FITZPATRICK
FOR EMERGENCY AND REMEDIAL ACTION

1. Pursuant to 10 C.F.R. §2.206, P. Kelly Fitzpatrick ("petitioner") hereby petitions the Director of Nuclear Reactor Regulation of the Nuclear Regulatory Commission ("NRC" or "the Commission") to (1) suspend operating license R-31, currently held by the Catholic University ("licensee") and authorizing it to operate a nuclear reactor, (2) make an immediate on-site inspection of the licensee's facilities to investigate the license violations and other safety hazards alleged herein, and (3) issue an order requiring the licensee to appear and show cause as to why its operating license should not remain suspended pending a thorough inspection, review, and approval by the NRC of the licensee's reactor and related facilities, operating and materials handling procedures, and physical security program. The requested relief is necessary to remedy past actions and continuing practices by the licensee which appear to present a serious threat to the health and safety of persons living and working in the Washington, D.C. area, particularly those in proximity to Catholic University. In some cases these acts and practices violate directly the terms of the University's operating license; other incidents are of unknown legality but demonstrate at best gross disregard for

erials handling. Each incident is described more fully below and supported by documentary and other evidence in the possession of the petitioner.

2. The petitioner resides at 1325 Quincy St., N.E., Washington, D.C., within one-half mile of the Catholic University campus, where she is a full time student. From 1978 to 1979 she was employed by the University, where she worked for the Office of Campus Security. In connection with her employment with the Office of Campus Security she obtained direct and indirect information regarding apparent misuse of the reactor facilities and mishandling of nuclear materials. Specifically, it is alleged that:

3. During the night of August 9-10, 1979, a security officer on patrol noticed gasoline fumes in the reactor room, located in the basement of the Pangborn building. No corrective action was taken until approximately nine o'clock the next morning, when a pool of gasoline was discovered on the floor of the reactor room. It was later learned that the gasoline had leaked from a portable air compressor which was being stored in the reactor room. The compressor had been placed in the room by a workman who was not employed by the University. It is not known how or why this individual obtained access to the facility. The spill was subsequently cleaned up and the compressor removed. Section 16-4 of the Technical Specificat-

reactor specifically prohibits the storage of explosive materials within the confines of the facility. This incident thus appears to constitute a patent violation of the terms of the license.

4. The Technical Specifications appended to the license also provide, in §16.4, that nuclear fuels and nuclear fueled experiments must be stored in a locked safe within the reactor room. However, spent nuclear fuel from the reactor is currently being stored in a chemistry laboratory on campus. Moreover, petitioner has in her possession documents showing that the licensee is planning, or was planning within the past few months, to store spent nuclear fuel within the personal office of Dr. P. W. Chang. Some modification of Dr. Chang's office for this purpose has been suggested in connection with this proposal. These practices and/or plans appear to constitute further direct violations by the licensee of the specific requirements of its operating license.

5. Petitioner has witnessed the receipt of shipped radioactive material by persons not authorized to possess it. Petitioner has been told of at least one instance in which a shipment radioactive tritium was accepted by an academic office within the University and not delivered to the appropriate offices for several days. Petitioner alleges generally the licensee's lack of coordinated and safe procedures for receiving and handling radioactive substances.

burglar alarms, or other equipment which would detect the entry or presence of a burglar or vandal. Because the contents of the licensee's security program is not publicly available, it is not known whether such equipment is required.

7. Petitioner is unaware of the extent or gravity of the health and safety hazards presented by the incidents and circumstances described above. It appears, however, that in at least two cases the licensee has violated the express terms of the operating license issued it by the Commission. Cumulatively, these incidents indicate a threat of not only an operating accident and consequent release of radiation, but also the real possibility that nuclear materials might be diverted or the reactor itself sabotaged. In addition, there is no reason to assume that over the many years in which the licensee has owned and operated the reactor there have not been other, perhaps more serious violations.

8. On behalf of herself and other students and residents in the vicinity of the licensee's reactor, Petitioner requests that the Commission, pursuant to its obligations under the Atomic Energy Act, (1) suspend immediately the University's operating license, (2) conduct a prompt inspection of the licensee's facilities to determine the existence of any immediate hazards, (3) prevent the licensee from resuming reactor operations until it has appeared before the Commission and

demonstrated that the reactor can and will be operated in compliance with the terms of its license and in a manner protective of the public health and safety, and (4) take any other action which it may deem necessary or appropriate.

By P. Kelly Fitzpatrick,

By her attorney,

Dated: October 3, 1979

James B. Dougherty
1416 S. St., N.W.
Washington, D.C. 20009
(202) 452-9600

AFFIDAVIT OF P. KELLY FITZPATRICK

I hereby allege that the facts alleged in the foregoing Petition for Emergency and Remedial Action are true and correct to the best of my knowledge and belief.

P. Kelly Fitzpatrick

P. Kelly Fitzpatrick

Subscribed and sworn to before me
this 3rd day of October 1979

Barbara E. Erlenbusch
Notary Public

My Commission Expires 3-10-81

THE
CATHOLIC UNIVERSITY
OF AMERICA
WASHINGTON D.C. 20064

OFFICE OF THE PRESIDENT
202 635-5100

September 26, 1979 9:00 a.m.

Dr. Edward D. Jordan
Director
Information Systems and Planning Office
Executive Offices

Dear Dr. Jordan:

This morning Miss Kelly Fitzpatrick and her legal counsel visited me to register concern about certain aspects about the operation of our reactor. I am attaching the statement of the conditions which have concerned Miss Fitzpatrick in her own hand, together with the conditions she has demanded we comply with by Friday of this week.

I am personally concerned about the facts in this case and I am asking you with this letter to investigate these matters immediately and to have a report in my office before the end of this day. Please send a report also to Dean Frankino, our University Counsel.

Dean Frankino will represent the University's interest in all further conversations and discussions with Miss Fitzpatrick and her lawyer. I would appreciate your personal attention to this matter.

You will notice in Miss Fitzpatrick's handwriting that number five is missing. This is because Miss Fitzpatrick has decided to eliminate this in her list of concerns and hence this has not been forwarded to you.

Sincerely,

Edmund D. Pellegrino

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.005 curies R...
o Security office. It was addressed to the
RADIATION Safety Officer, Catholic University.
Kelly Fitzpatrick, secretary-dispatcher, refused to sign
for it and accept it. Sally Harris, Administrative
Assistant, signed for it and stored it in the office
refrigerator until Mr. KEEVERS located.

Similar incident happened at the DEAN of Civil
Engineering's office this summer.

Security officers in the separate Reactor training
classes were told that their radiation measuring
badges are not sophisticated enough to give an
accurate reading. In one class the instructor
banged the badge against the palm of his hand,
saying that it was one way to change the reading.
One officer reports that the majority of officers
do not know how to use the badge correctly.

8-9 August.

...mal of Gasoline was reported to be in the reactor
...ea by an officer on the midnight to 8 a.m. shift
...r. Noll was notified at home. Nothing was found
...st night. The next shift discovered an air
...mpressor was in the reactor area, leaking
...asoline onto the floor. This was entered in
the Security log for 9 August 1974 9 a.m. - Tom ...

Stored RADIOACTIVE WASTES IN BASEMENT of PANGBORN, IN AN office.

---

shut down REACTOR immediately.

INVESTIGATION of these charges AND ALL possible others. This would be done by A committee APPOINTED by the PRESIDE or by AN existing committee, with AN ~~[illegible]~~ ex officio of our choice.

AGREEMENT NOT to RESUME OPERATIONS until ALL SECURITY AND SAFETY procedures AND conditions ARE APPROVED by the Nuclear Regulatory Commission.

NRC - private

CATHOLIC UNIVERSITY

WASHINGTON D.C. 20064

OFFICE OF THE DIRECTOR OF INFORMATION SYSTEMS AND PLANNING
202 635-5212

September 26, 1979

SUBJECT: Radiation and Reactor Safety

MEMO TO: Dr. Edmund D. Pellegrino
President

In response to the enclosed statement:

1. A shipment of five millicuries of radioactive (tritium) thymidine was ordered on June 18 by Mrs. Nardone and Todhunter (Department of Biology) for research use. The material was shipped by New England Nuclear Corporation on June 20 and received (and receipted for) by the University Radiation Safety Officer on June 21. It was wipetested and delivered by the Radiation Safety Officer to Dr. Todhunter. Due to an error on the part of New England Nuclear Corporation, a duplicate shipment was sent on July 2 and received by the Radiation Safety Officer on July 3. This shipment was also routinely wipetested. There was less than 60 picocurries of wipable activity on both the exterior and interior surfaces of this package -- below the limits established by Federal law. The Radiation Safety Officer advised New England Nuclear Corporation of receipt of the duplicate shipment. New England Nuclear Corporation requested its return by collect air freight.

   The package was picked up from the Radiation Safety Officer by Emery Air Freight for shipment to New England Nuclear Corporation. Emery Air Freight subsequently returned the package to the University due to an error in the bill of lading. On this occasion, because the Radiation Safety Officer was unavailable, it was delivered to the Office of Campus Security according to standard procedure. It was receipted for by Ms. S. Harris, Administrative Assistant to the Director of Security. Ms. Harris' call to the Radiation Safety Office was taken by Dr. D. Ebert and at his request Ms. Harris promptly delivered the package to him. He placed it in the Radiation Safety Laboratory for the Radiation Safety Officer's action. On July 11 it was again picked up by Emery Air Freight and shipped to New England Nuclear Corporation.

2. The University does not have a Dean of Civil Engineering nor is there a record of any radioactive material received by the Civil Engineering Department during the Summer.

3. Classes are held for new guards, at the request of the Director of Security, which include use of pocket dosimeters. Although, there are accuracy problems with all personal devices for recording low level radiation exposures, these devices are acceptable to the Nuclear Regulatory Commission. The guards are shown that erroneously high readings can be induced by physical shock (such as dropping) and hence, the dosimeters should be handled with care, nevertheless they are instructed to record any reading which is observed. Instructions for proper use are also posted at the check-in desk of the Reactor Room.

We believe that the Nuclear Regulatory Commission would approve replacing the regular (about 10 visits per day) guard inspections with an intrusion alarm system.

This would eliminate frequent visits to the Reactor Room by the guards and would also be cost-effective. I recommend that this be done as soon as possible.

4. An unusual odor was reported in the Reactor Room early in the morning of August 9. About 10:30 AM the Radiation Safety Officer determined that the odor was due to a gasoline powered compressor which had been stored over-night in the adjacent Thermal Science Laboratory, incident to construction work being conducted by a contractor in the Thermal Science Laboratory. The Radiation Safety Officer requested that the compressor be stored elsewhere when not in use which was complied with by the contractor.

5. The approved radwaste storage is at present in two locations, viz. the Reactor Room and the Radiochemical Laboratory. Radwaste is not stored unsafely but a more suitable storage location should be found as soon as possible.

The university radiation safety program and the reactor program are regularly inspected by the Nuclear Regulatory Commission.

Edward D. Jordan, Director
Information Systems & Planning Office

cc: Mr. Steven P. Frankino
Dean, Columbus School of Law

Mr. Warren E. Keene
Radiation Safety Officer

Dr. David D. Ebert
Senior Reactor Operator

Dr. Mario Casarella
Acting Chmn, Mechanical Engrg

THE
CATHOLIC UNIVERSITY
OF AMERICA
WASHINGTON D.C. 20064

OFFICE OF THE DIRECTOR OF INFORMATION SYSTEMS AND PLANNING
202 635-5012

SUBJECT: Radiation Safety Subcommittee of the Committee on Laboratory Safety; Minutes of the Meeting of October 4, 1979

Members Present: Dr. Edward D. Jordan, Chairman, Dr. Hall L. Crannell, Mr. Warren E. Keene, Dr. Leopold May, Mr. William G. Nork, Dr. John Todhunter

Members Absent: Dr. David D. Ebert, Col. E. F. Smith

Guests Present: Mr. Steven Frankino, Dean, Law School & University Co...
Mr. Richard C. Applegate, Vice President for Admin & Fin...

The Chairman called the meeting to order at 4:50 PM in Dr. Jordan's Office of the Executive Office Building.

The Committee met in order to analyze certain allegations and demands with respect to radiation safety at the University made to the President of the University, the news media and purportedly to the NRC by a Ms. Kelly Fitzpatri... a student in the School of Arts & Sciences and former part-time employee in the Office of Campus Security.

The Chairman provided a copy of Ms. Fitzpatrick's claims to each member present, together with a copy of a memorandum from President Pellegrino requesting that Dr. Jordan investigate the allegations and Dr. Jordan's response.

The Fitzpatrick claims and Dr. Jordan's response to the President setting forth his findings in the matter were discussed.

In the course of this discussion the following additional information with respect to the first of Ms. Fitzpatrick's allegations (the shipment of 5 millicuries of tritium) was provided:

1. In accordance with 10CFR20.205(b1-ii) packages containing no more than 10 millicuries of radioactive material consisting solely of tritium, need not be checked for contamination. This notwithstanding, the package was checked for contamination as are all incoming shipments of radioactive materials.

2. The package bore a warning label "Radioactive - White I" in accordance with Department of Transportation (DOT) regulations. (According to DOT, "the label alerts persons handling packages that the package may require special handling. If the background color of the label is all white, the radiation is minimal and nothing special is required for that package". According to Title 49, CFR, part 173.399 the dose rate

limits for a package bearing a "White - I" label are 0.5 milli-Roentgens per hour at any point on an accessible surface of the package and zero milli-Roentgens per hour at three feet from any external surface of the package. This limit is 25% of the 2 millirem per hour exposure limit for unrestricted areas set by 10CFR20.105 (b1).)

3. While the practice of having the Office of Campus Security accept incoming packages of radioactive material for placement in the Radiation Safety Laboratory is not an ideal solution because of the limited training of the guards (provided incident to their duties to inspect the reactor room), it is a solution acceptable to the NRC.

4. The radiation emitted by tritium consists of beta particles with a maximum energy of 18.6 KeV which is insufficient to penetrate any shipping container.

There was general concurrence among those present that the ideal solution to the problem of handling incoming shipments of radioactive material would be the existence of a central receiving facility on the campus. It could include appropriate storage facilities for such packages and the personnel could be kept informed of approved handling instructions.

In amplification of paragraph 5 of Dr. Jordan's response to Dr. Pellegrino, Mr. Keene noted that the need for a more suitable location for storage of radioactive waste stems not only from the limited potential from airborne radioactive material and consequent low-level contamination of surfaces in teaching laboratories (the reactor room and the nuclear instruction laboratory), but also from the presence of fumes from volatile hydrocarbons (primarily toluene in liquid scintillation materials) which are toxic chemicals even in the absence of radioactivity. A properly ventilated, secure, sole-use facility should be provided.

Mr. Nork provided the committee with background information concerning the previous part-time employment of Ms. Fitzpatrick in the Office of Campus Security, a position she had recently resigned to take another position.

Dean Frankino briefed the committee on the meeting of Ms. Fitzpatrick and her counsel with President Pellegrino and on subsequent discussions between himself and Ms. Fitzpatrick's counsel. He also stated that he had contacted the NRC who, as of early afternoon, October 4, had not received a complaint in the matter.

The meeting adjourned at 5:30 PM.

Warren E. Keene
Radiation Safety Officer

cc: To attached list

cc: Dr. Edmund D. Pellegrino
President

Dr. C. Joseph Muesse
Executive Vice President

Dr. John J. Murphy
Acting Provost

Mr. Richard C. Applegate
Vice President for Admin & Finance

Mr. Steven Frankino
Dean, Law School

Committee Members