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GEORGETOWN UNIVERSITY
WASHINGTON, D. C. 20057

OFFICE OF THE PROVOST

March 18, 1980

Robert O. McClintock, Chief
Materials Radiological Protection Section
U.S. Nuclear Regulatory Commission
Region I
631 Park Avenue
King of Prussia, Pennsylvania 19406

License No.: 08-03114-05
Inspection No.: 80-01
Dochet No.: 30-13627

Dear Mr. McClintock:

In accordance with Section 2.201 of the NRC's "Rules of Practice", Part 2, Title 10, Code of Federal Regulation, this letter is in response to your notice dated February 23, 1980, and received by us February 29, 1980.

CORRECTIVE STEPS TAKEN BY US AND RESULTS:

1. Iodination experiments on the Main Campus of Georgetown University have been prohibited until charcoal filters, pumps, and flow guages to accurately measure breathing zone and environmental air concentrations of iodine are obtained. Radiation monitoring equipment will also be calibrated. Research involving iodination experiments is not expected to resume for the next 6-12 months. If and when these procedures are renewed, the radiation safety office will carefully monitor breathing zone and environmental air concentration using calibrated monitors, to ensure that MPC's are not exceeded. Urinalysis and thyroid counting of workers will also be performed.

2. Plans have been made to relocate waste storage drums in a controlled, secure area. A small locked shed located on the 7th floor of Reiss Science Building, will be used to house waste material (liquid and solid). Only individuals, designated by the Radiation Safety Committee will have access to this shed. The shed will have "Caution--Radioactive Material" signs conspicuously displayed and will be checked regularly by both the Radiation Safety Office and University Security.

3. A radiation safety technician will be hired to help the Radiation Protection office maintain department inventories of radioactive materials and also be responsible for proper disposal of radioactive waste. Liquid and solid wastes will be disposed of separately.

4. The infraction describing food storage in a refrigerator containing radioactive materials pertains to the radiochemistry laboratory in the Chemistry Department. The food found in the laboratory was a tub of margerine. Unbeknownst to either Dr. Glenn (NRC Inspector) or Dr. Mossman (Radiation Protection Officer), this margerine is used for lipid biochemistry research purposes only and not for human consumption. Dr. Kumar, director of the laboratory and Chemistry Department Radiation Safety Officer was unavailable at the time of the inspection to explain this. We will continue to ensure that foods and drinks are not stored in refrigerators with radioactive materials.

CORRECTIVE STEPS TO AVOID NON-COMPLIANCE:

As requested in your letter, the Radiation Safety Committee met with me on March 11, 1980 to discuss the Radiation Safety program. The meeting was attended by all members of the Radiation Safety Committee. I was made aware of the problems brought up in the inspection of February 5-6, 1980 and the seriousness of them. The Committee suggested ways in which these problems may be resolved (as indicated above), and I was entirely supportive of these measures. In order to improve our Radiation Safety program, the Radiation Safety Committee suggested the following measures, with my approval:

1. Technical support to help maintain records and inventory of radioactive materials, perform radiation surveys, ensure proper waste disposal, provide badge service, assist in bioassays as necessary and assist in calibrations of monitoring instruments.

2. A small office will be established in the Biology Department where monitoring equipment and supplies will be kept, this area will be designated as the center for radiation safety for activities as described in 1 above.

3. An audit of the Radiation Safety Program will be performed annually to review the status of the program.

Following the meeting with me, the Radiation Safety Committee held a meeting to further review the recent NRC inspection and make immediate arrangements to correct the items of non-compliance described in your letter of 2/23/80. A copy of the minutes of the meeting is enclosed for your records.

DATE OF FULL COMPLIANCE:

As noted above, no iodination experiments will be permitted until supplies for monitoring breathing zone and enviromental air concentration of iodine have been purchased. We expect to obtain these items within two months. Thereafter, iodination experiments will be performed in full compliance with NRC regulations. The waste disposal facility will be set up and secured within the next two months. The radiation safety program will begin an inventory of all radioactive materials within two months.

You may be assured that Georgetown University's Main Campus will make every attempt to avoid further instances of non-compliance.

Sincerely,

J. Donald Freeze, S.J.

J. Donald Freeze, S.J.
Provost

JDF:sd
Enclosure

cc: Dr. Kennet L. Mossman
Dr. Irving Gray
Dr. Soma Kumar
Dr. James Lambert
Dr. Louis C.W. Baker
Dr. Paul Treado
Dr. George Chapman
Rev. Royden B. Davis, S.J.
Dean Donald G. Herzberg

RADIATION SAFETY COMMITTEE MEETING

DATE: March 11, 1980

PLACE: Physics Department Conference Room, Reiss Building

PRESENT: Doctor Mossman, Chairman
Doctors Gray, Kumar, and Lambert

ABSENT: None

The meeting began at 4:30 p.m. The recent NRC insepction and subsequent NRC letter were discussed. The following recommendations were made to correct existing problems and improve the radiation safety program. It was agreed by all members that our radiation safety program should be a model of conformance with NRC regulations and that everyone working with radioisotopes should make a conscious effort to abide by all policies and regulations.

1. Dr. Pancake, Biology Department, has been instructed to discontinue iodination experiments until further notice.

2. Charcoal filters, pumps, and flow guages to properly measure breathing zone and environment levels of iodine during iodination experiments will be obtained. Until these monitoring supplies are obtained, no iodination will be permitted.

3. The 55 gallon rad-waste drums will be moved from their present location in the Biology Department into a locked shed on the 7th floor of the Reiss Building. Only authorized personnel, as designated by the Radiation Safety Committee, will have access to the shed. The shed will be properly marked with radiation hazard signs and the Security Department will be instructed to check it daily.

4. In order to maintain an effective radiation safety program, the Radiation Safety Committee will recommend to the three science departments that a 1/4 time technician be hired to perform various functions including, but not limited to, the following:

   a. Maintain inventories of radioactive materials.
   b. Operate waste disposal service to ensure that liquid and solid wastes are properly disposed of according to NRC and University regulations.
   c. Badge service.
   d. Provide radiation surveys in all laboratories using radioactive materials.
   e. Perform bioassay procedures as needed.
   f. Assist in calibration of monitoring instruments.

5. Dr. Kumar explained the infraction described in Appendix A, Part C, 3, in NRC letter dated 2/23/80 concerning a refrigerator being used jointly for radioactive materials and food and drinks. The margerine found in the refrigerator with radioactive materials is used for biochemistry research purposes only and not for human consumption. Unfortunately, Dr. Kumar was unavailable at the inspection to explain this.

The meeting was adjourned at 5:15 p.m.

Respectfully submitted by,

Kenneth L. Mossman, Ph.D.
Chairman, Radiation Safety Committee

KLM:sd