Yale University

OFFICE OF THE PROVOST
New Haven, Connecticut 06520

November 26, 1990

Mr. John Kinneman
Chief Nuclear Materials Safety Section B
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, Pa. 19406

Re: License Numbers: 06-00183-03
06-00183-06
SNM 52
Docket Numbers: 030-00682
030-06886
070-00053

Subject: Inspection Number 90-001

Dear Mr. Kinneman:

In response to your letter of October 31, 1990, we are providing the following information concerning the two violations as a result of the July 30, 1990 to August 1, 1990 inspection.

A. Rubidium-86 Contamination

1. Corrective steps taken:

The Principal Investigator was immediately suspended on June 20, 1990 from ordering radioactive material. As the incident was further evaluated, the Principal Investigator's authorization to use radioactive material was suspended and his laboratory closed to all work on June 21, 1990. On July 2, 1990, specific instruction in decontamination techniques was given to laboratory staff by the Radiation Safety Department.

On June 25, 1990, the Provost communicated his concern to all Principal Investigators in reference to the incident and instructed them to ensure compliance with regulations. The Radiation Safety Officer developed a sanction for investigators, which was approved by the Radiation Safety Committee, for not maintaining records of adequate monitoring, and announced the sanction by memorandum dated July 6, 1990. The sanction involves the suspension of ordering privileges.

In addition, the following actions have been taken within the School of Medicine: (i)the Chairman of the Pharmacology Department convened the faculty of the Department to discuss radiation safety compliance; (ii) the Dean discussed this incident, at a meeting with the School's Department Chairmen, and explained the need for radiation safety compliance. (iii) The Dean met with the Principal Investigator to stress his concern about this incident; (iv) the Associate Dean for Research Affairs met with the Department of Pharmacology Chairman and Business Manager about the incident; and (v) the Dean issued a memorandum to all Department and Section Chairs and Business Managers reiterating the importance of strict adherence to radiation safety rules and requirements.

The Radiation Safety Committee met to review the incident on July 17, 1990; the Principal Investigator appeared before the Committee to answer questions. After careful consideration of the matter, the Committee voted to terminate the Principal Investigator's current radioisotope authorizations, and to stipulate that he may reapply for authorizations only after attending an appropriate radiation protection course such as the Oak Ridge Associated Universities 40-hour course, the National Institute of Health training course for Principal Investigators or an equivalent training program of study approved by the Chairman of the Committee in consultation with the Radiation Safety Officer.

The Principal Investigator requested a self-study program, which was approved by the Committee Chairman. The course outline was a revised version of the Harvard forty-hour Radiation Protection Course. After the self-study was completed, an oral interview was conducted by the Assistant Radiation Safety Officer and the Radiation Safety Committee Chairman. The interviewers concluded the Principal Investigator had fulfilled the study requirements, and that his awareness of radiation safety techniques and procedures was sufficient to permit him to reapply to the committee for authorization to use radionuclides.

The Committee further modified the training policy. Individual users previously began working with radioactive materials prior to attending a radiation safety seminar presented by the Radiation Safety Department, as long as the Principal Investigator provided initial training. Commencing September 1, 1990 all new users are now required to attend a radiation safety seminar before beginning work with radioactive materials.

Special training for researchers on responding to a spill was developed by the Radiation Safety Department and was presented to the Pharmacology Department on November 13, 1990.

2. Corrective steps to be taken:

No further steps are required.

3. Date when full compliance was achieved:

November, 13, 1990.

B. Cesium Alarm

1. Corrective steps taken:

The audible alarm and flashing red light on the Cesium-137 calibrator has been readjusted and is functional.

The operating procedures have been revised to include a program to assure that the audible alarm and flashing red light will be checked prior to use of the facility. If it is not functioning properly, it will be repaired prior to use.

2. Corrective steps to be taken:

No additional steps are required.

3. Date when full compliance was achieved:

November 20, 1990.

If there are any questions, please contact me.

Very truly yours,

Edward Adelberg
Deputy Provost

cc: U.S. Nuclear Regulatory Commission
Document Control Desk
Washington, D. C. 20555

Mr. Kevin McCarthy
Office of Radiation and Noise
Connecticut Department of Environmental Protection
Hartford, Ct. 06106

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