

U. S. NUCLEAR REGULATORY COMMISSION

REGION III

Report No. 030-00902/89001(DRSS)

Docket No. 030-00902

License No. 34-00738-04

Category F(1)A

Priority II

License: Case Western Reserve University  
10900 Euclid Avenue  
Cleveland, OH 44106

Inspection Conducted: December 5 and 6, 1989

Inspector:

*D. Simons*  
Taye L. Simmons  
Radiation Specialist

Date

*1/9/90*

Approved By:

*D. Sreniawski*  
Donald J. Sreniawski, Chief  
Nuclear Materials Safety  
Section 1

Date

*1/9/90*

Inspection Summary

Inspection on December 5 and 6, 1989 (Report No. 030-00902/89001(DRSS))

Areas Inspected: Special safety inspection to review current license activities as specified in inspection plan dated December 4, 1989. The areas inspected include licensee's organizational structure, Radiation Safety Committee program review and user approval, radioactive material controls, and interviews with personnel.

Results: Within the scope of this inspection, no violations of NRC requirements were identified. However, three areas of concern were identified: 1) Dual authorized users; 2) Radiation Safety Office staff do not use lab coats when performing lab smears and surveys; and 3) Incident notification procedures described in licensee safety manual unclear.

## DETAILS

### 1. Persons Contacted

\*James Henderson, Vice President for Finance and Administration  
\*Kenneth Basch, Director of Administrative Services  
Oddvar Nygaard, M.D., Chairman, Radiation Safety Committee  
William Ivie, Radiation Safety Officer  
Frederick Urban, Assistant Radiation Safety Officer  
Alex Czernik, Supervisor, Radiation Safety Office  
Sam Whatley, Technician III, Radiation Safety Office  
Marvin Richardson, Technician II, Radiation Safety Office  
Frank Crea, Computer Operator, Radiation Safety Office  
Lee Niswander, Research Assistant, East Medical Building 610  
Robert Adams, Consultant

\*Denotes those present during the exit meeting on December 6, 1989.

### 2. Organization

Agnar Pytte, President  
James Henderson, Vice President for Finance and Administration  
Kenneth Basch, Director of Administrative Services  
Will Ivie, Radiation Safety Officer

There are currently 180 authorized users of radioactive material and approximately 400 places (laboratories) of use.

### 3. Radiation Safety Committee

The membership of the Radiation Safety Committee (RSC) includes representatives from each area of radioactive material use and from university management, the radiation safety office, and safety services. The Committee meets every four to six weeks. Members of the Radiation Safety Office staff are invited to attend the RSC meetings on a rotating basis.

Currently, applications requesting use of radioactive material are reviewed on a monthly basis by the Credential Review Committee which is made up of a quorum from the RSC. Between June and August of 1989, several members of the Committee audited various components of the radiation safety program. The audits included such areas as sealed sources, package receipt, training/retraining, waste handling, and laboratory walkthroughs. The results of those audits were discussed during the RSC's August 29, 1989, annual program review.

No violations of NRC requirements were identified.

#### 4. Radiation Safety Office

The current radiation safety program has been in place for more than twelve months. The anchor of this program is the ability to track and retrieve data via a computerized status system. This system allows the licensee to organize and track data for each of the Authorized Users, each location of use, and it acts as a tickler for activities to be performed at specific intervals. The Office is staffed with a total of 12 individuals, eight of whom perform health physics functions and four handle clerical/administrative duties. Each staff member is assigned specific tasks, for example, three individuals perform compliance reviews while three other individuals perform laboratory audits. One individual is responsible for the computerized status system.

Compliance reviews and laboratory audits/surveys are performed semi-annually and anytime a program change or problem occurs. A compliance review includes a review of a specific Authorized User's training, inventory, record keeping, personnel, and waste disposal methods. Laboratory audits include the performance of direct radiation surveys and smears along with checking for appropriate postings, film badge usage, and the availability of the safety manual.

No violation of NRC requirements were identified.

#### 5. Radioactive Material Controls

Requests to purchase radioactive material are channeled through the Radiation Safety Office (RSOF). The RSOF supervisor checks the allowable limit per purchase specified by the requester's protocol and the requester's current inventory to assure that possession levels will not be exceeded. If the supervisor is satisfied that the purchase request is within possession and protocol limits, the information is entered into the RSOF computer. The RSO or his designee then signs and forwards the request to the purchasing agent. The purchasing department will not purchase radioactive material unless the requisition has been properly signed by RSOF staff.

Each authorized user is required to submit, on a monthly basis, an updated inventory to account for all radioactive material on hand. Failure to submit the inventory could result in the suspension of purchasing privileges. Upon receipt, a radioactive material receipt form is started for each purchase. This form identifies the user, the location of use, catalog numbers of each nuclide, and the activity ordered. Direct radiation surveys and smears of the external surface of incoming packages are performed by RSOF personnel before delivery to the authorized user. Invoices for receipt of material are compared to the purchase requests to assure that unauthorized material is not received.

No violations of NRC requirements were identified.

## 6. Inspection Observations

- a. Based upon the limited review of this program during this inspection, it appears that the Radiation Safety Committee is directly monitoring all major aspects of radiation safety and have, thus far, committed to establishing a model program. Management has demonstrated their commitment by increasing RSOF staff, by equipping the RSOF laboratory and the waste disposal facility, and by maintaining continuous dialogue with the RSC and RSO. However, one problem persists. University Hospitals of Cleveland and Case are affiliated broad-scope licensees. Approximately six individuals maintain dual authorized user status. Over the years, this has caused a few major problems such as the current Ohio Department of Health licensed germanium-68 incident. When incidents happen, it is not immediately clear to either licensee where the responsibility lies. This confusion causes action delays.
- b. The inspector accompanied an RSOF technician while he performed surveys and smears in a laboratory. It was noted that the technician did not wear a laboratory coat. Upon discussing this matter, it was learned that lab coats were not normally worn during these activities. The use of lab coats during lab surveys would be considered good health physics practice.
- c. Incident notification instructions outlined in the licensee's manual are ambiguous. Simplification of the notification process could help to speed up the response to incidents.

## 7. Exit Meeting

At the conclusion of this inspection on December 6, 1989, the inspector met with those individuals denoted in Section 1 of this report. The inspection findings and the inspectors observations were discussed. Mr. Henderson agreed that lab coats should be used and that the notification procedure should be clarified. He indicated that his staff will review these matters. Regarding the problems associated with dual authorized user privileges, Mr. Henderson recognized that this area needs further study. In November 1989, a subcommittee was appointed to outline all possible methods that can be employed to eliminate problems caused by crossover use of radioactive materials. Their report was submitted to the RSC. A meeting between the two facilities was scheduled to take place during the week of this inspection to discuss possible solutions. A resolution is expected within sixty days.