



Ball State University

College of Sciences and Humanities
Department of Biology

February 12, 1997

To: Document Control Desk
From: Alice Bennett, *Alice Bennett*
Radiation Safety Officer
License #13-06231-01
Re: Reply to a Notice of Violation

I have enclosed a Reply to a Notice of Violation and a reply to concerns identified in the last inspection of our facilities.

Please direct any questions of concerns to me.

cc Cynthia Pederson, Director
Beverley Pitts, Associate Provost

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Reply to a Notice of Violation

1. Weekly surveys were not conducted in CL31:

(1) Reason for the violation:

Although weekly surveys had be done in this laboratory on a regular basis, a change in personnel resulted in a breakdown of this procedure. The faculty member in charge of this laboratory was not aware that the surveys were not being done for the period of time noted in the violation.

(2) Corrective steps taken:

As soon as we became aware of the violation, the personnel in this laboratory were instructed to comply with this requirement. Log books are now checked on a regular basis.

(3) Corrective steps that will avoid further violations:

Log books of users who have purchased radioactive materials and are using them in experiments are checked between audits. A memo reminding users of their obligations is forwarded with each purchase of radioactive materials.

(4) The date of full compliance:

We are now in compliance.

2. Inventory of twelve tritium targets and six electroplated plutonium sources.

(1) Reason for the violation:

These materials have been on campus since the 1960's. They have been kept in a secure, locked cabinet, in a storeroom. The way in which they have been inventoried for the past 30 years passed previous NRC inspections. The more frequent inventory requirement was overlooked.

(2) Corrective steps taken:

The materials have been inventoried.

(3) Corrective steps that will avoid further violations

A check sheet has been developed for quarterly audits which includes the item: Inventory of sources.

(4) Date of full compliance:

We are now in compliance.

3. Laboratory 215 in Maria Bingham Building was unlocked with licensed materials stored in a refrigerator.

(1) Reason for the violation:

The faculty member had stepped out of the laboratory for a brief period of time. She was not aware that any absence from the laboratory constituted an infraction of regulations.

(2) Corrective steps taken:

This laboratory is now locked when laboratory workers leave the room and signs have been posted to remind personnel of the need to lock doors. Radiation Safety training sessions conducted this fall emphasized the need for locking doors in unattended laboratories.

(3) Corrective steps that will avoid further violations

All faculty users and laboratory personnel have been alerted to the need for locking doors in unattended laboratories. Radiation Safety training sessions will place an even greater emphasis on the regulatory need for security.

(4) Date of full compliance:

We are now in compliance.

4. A user of gamma emitters and phosphorous-32 continued to use a film badge issued in March, 1996.

(1) Reason for the violation:

The faculty user was a new faculty member who was using a temporary badge. An on-campus administrative error occurred in ordering her personal badge; a new badge was therefore not received. She did continued to use the temporary badge and did not inquire about an exchange. The RSO was not aware of the problem.

(2) Corrective steps taken:

A badge was immediately ordered and the faculty member now has a badge which is being exchanged on a monthly basis. Her radiation exposure for the period in question will be determined by the results from badges analyzed by ICN from October (a date at which she began doing experiments identical to those performed from April 24 to September 23) through March. She did not have a radiation history prior to the March, 1996, date from which we could draw inferences.

(3) Corrective steps that will avoid further violations:

Radiation user lists and lists of reports from ICN are checked on a monthly basis to assure proper badge control and exchange.

4) Date of full compliance:

We are now in compliance.

Response to concerns

1. Laboratory Audits

A check sheet has been developed which will be referred to and filled out during each quarterly audit. The use of a check-sheet will avoid any future infractions of our license.

2. Storage of Radioactive waste:

A assessment of radioactive waste on campus is currently in progress. Although it has been over 2 years since our last pick-up, waste from experiments conducted during the earlier time periods was disposed of in the domestic sewage according to NRC guidelines. A waste pick-up will be scheduled in the next 6 months to dispose of the long lived waste currently in storage.