



**Department of
Veterans Affairs**

Richard L. Roudebush VA Medical Center
1481 West 10th Street
Indianapolis, IN 46202
(317) 635-7401

In Reply Refer to: 583/001S

Nuclear Regulatory Commission
ATTN: Document Control Desk
Washington, D.C. 20555

Subject: Reply to a Notice of Violation
Docket No. 030-01583

Richard L. Roudebush VA Medical Center
License No. 13-00694-02

This report serves as our written response to your November 15, 1996, ***NRC Inspection and Notice of Violation*** letter concerning last summer's improperly disposed byproduct material waste incident. We do not dispute the stated violations. Requested information concerning the violations follows:

VIOLATION #1 (SECURITY OF MATERIALS):

Reason for the Violation:

The loss by inadvertent disposal of the laboratory phosphorus-32 waste had a number of contributing factors:

Factor #1:

The elderly custodian who removed the liner bag from the standardized, labeled waste box was on temporary duty in the assigned laboratory area. He was thus unfamiliar with the existing controlled area locations within the lab.

The standardized, reusable Medical Center radwaste box has clear printed warning markings on the top and two sides. Our reenactment of the incident showed that the waste box, in this instance, was lined with an opaque liner which extended up and over the sides of the box. This partially obscured the warning marking which is normally visible to a custodian as he or she approaches the box. Moreover, as an ALARA program practice, the authorized radionuclide users in the laboratory had placed the box in a customized plexiglass castered

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shield container to reduce personnel exposure from the accumulating beta-emitting waste. This shield container had a hinged plexiglass top, which precluded the use of the supplied, marked, cardboard lid. The top, to which no warning label was affixed, gave no clear indication as to the contents. Thus, the lack of clear, visible container labeling was a contributing factor.

Corrective Steps Taken and Results Achieved and Corrective Steps to Avoid Future Violations :

Only clear bags, or bags with integrated radioactive material warning markings will be allowed to be used as liners for all Medical Center radioactive waste boxes in the future. In instances where shielded lids are employed, all lids will possess clear warning markings.

Date When Full Compliance will be Achieved: As of December 31, 1996.

Factor #2: Timeliness of Notification

When a lab worker in the affected lab noticed that the liner containing the waste had been removed, he did not immediately recognize the potential seriousness of the situation. He made several false assumptions as to who had removed the waste, and as a result, delayed in his notification of both the Radiation Safety Office and the Environmental Management Services (custodial services).

Additionally, the acting Radiation Safety Officer allowed the material to leave the premises, under the assumption that the compacted dumpster would be held for examination and survey at the municipal waste incinerator. These circumstances and subsequent corrective actions are explained in additional detail in our previous Revised Report, submitted during October, 1996.

Corrective Steps Taken and Results Achieved and Corrective Steps to Avoid Future Violations :

The individual who noticed the waste missing has been directly counseled regarding procedures to be followed in the event that licensed material is missing. A new, specific Standard Operating Procedure (SOP), *Loss or Inadvertent Disposal of Radioactive Materials* and Contact List (*attachment 1*) has been enacted to directly address actions to be taken for any suspected loss. All authorized radionuclide permit holders have been provided a copy for posting and dissemination in their respective laboratory groups. The document will become part of future training content for radionuclide handlers. The Medical Center telephone operators, who are often the first line of contact in any radiation

emergency, have been provided copies, and have posted the document in their work area.

Date When Full Compliance will be Achieved: The new SOP took effect on October 9, 1996

VIOLATION #2 (WORKER TRAINING):

Although formal classroom training specific to radiation safety had not been conducted with Environmental Management employees since 1994, the custodians who were assigned to the laboratories received individual, informal training by the Radiation Safety Officer concerning radionuclide uses and guidelines for activities while in radionuclide laboratories. Radiation Safety is a component of required annual refresher safety training which is required of all employees, presented in printed form. This incident has shown that didactic classroom instruction, with audiovisual content, is necessary to provide the required training coverage.

Corrective Steps Taken and Results Achieved and Corrective Steps to Avoid Future Violations :

As of November 1, 1996, 73 of 87 Environmental Management Service employees received classroom retraining presented by the Radiation Safety Officer. The balance of the individuals, some of whom work very limited hours in non-laboratory areas, will be trained by January 31, 1997. Annual classroom training will be reinstituted for the future.

ADDITIONAL CONCERNS ADDRESSED IN PARAGRAPH 4 OF NOVEMBER 15, 1996, COVER LETTER:

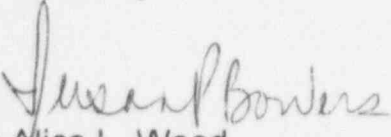
The newly-issued *Loss or Inadvertent Disposal of Radioactive Materials* and contact list addresses actions to be taken in response to similar future incidents. It includes actions which are to be taken to retrieve materials after they are suspected to have left the Medical Center's premises. The contact list of contractor personnel who handle the various waste streams will be updated as necessary to reflect current situations and individuals. The content of this document will be included in future training sessions for individuals who may be in the position of responding to such incidents.

We have instituted a new quarterly newsletter which will provide regular communications between the Radiation Safety Office and authorized byproduct materials workers. This document will become a required addition to permit holders' training files, and will contain regular updates on safety issues, local requirements, instrumentation, as well as emergency response.

Please allow us to compliment your Region III inspector, Michael Lafranzo, on his professionalism and candor in his investigation. We will do our best to implement his recommendations in light of this unfortunate incident.

If you have any further questions regarding this incident or this response, please contact our facility Radiation Safety Officer, Thomas Schumacher, at FTS 700-332-2311, commercial (317) 635-7401 ext. 2311 or electronic mail at 2977@indianapolis.va.gov.

Sincerely,


for Alice L. Wood
Medical Center Director

attachment

cc: Regional Administrator
United States Nuclear Regulatory Commission
Region III
801 Warrenville Road
Lisle, IL 60532-4351

**RICHARD L. ROUDEBUSH
VETERANS AFFAIRS MEDICAL CENTER
West Tenth Street
Indianapolis, Indiana 46202-2884**

October 9, 1996

Medical Center Memorandum No. 001S-26

Loss or Inadvertent Disposal Of Radioactive Materials

- I. PURPOSE: To establish actions to be followed when it is discovered that radioactive materials have been lost or inadvertently diverted to the medical center's regular refuse stream. All actions taken will seek conformance with the provisions 10 CFR 20, Standards for Protection Against Radiation.
- II. POLICY: All radioactive materials will remain under the Medical Center's control at all times. Wastes containing radioactive contamination are to be held for decay-in-storage or disposed of by the Radiation Safety Office (RSO) staff in accordance with our Nuclear Regulatory Commission Byproduct Materials license. When loss of control, or inadvertent disposal, occurs, these actions shall be taken to secure or recover such materials.
- III. IMPLEMENTATION:
 - A. Responsibilities:
 1. Loss of radioactive material constitutes an emergency. Any Medical Center employee, upon learning of the possible disposal of radioactive material, regardless of the date or time of day, will immediately contact the RSO and the Chief, Environmental Management Service. During evening/night hours, weekends and holidays, an employee may use the Emergency Number (55) to alert the Medical Center operator. The operator will proceed with the necessary notifications. Representatives from each of these offices will immediately contact the other for consultation.
 2. The Radiation Safety Officer will direct all retrieval and recovery efforts for the lost radioactive materials.

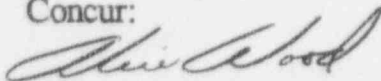
(expires October 31, 1999)

4. The contents of the trash container suspected of containing the radioactive material will be processed according to the procedures in our Nuclear Regulatory Commission Byproduct Materials License as follows:
 - a) For decay-in-storage, the container will be **returned** to the Medical Center for proper storage before final disposal as nonradioactive waste.
 - b) If the material cannot be decayed in storage, an attempt will be made to locate the material by surveys, and if practical, a physical search will be made in cooperation with the Indiana Radiological Health Section.
 - c) If it is impractical to search the container or locate the radioactive material by external survey, the Radiation Safety Officer or designee will contact the appropriate Nuclear Regulatory Commission regional office, or the Indiana Radiological Health Section for further guidance.
5. If the materials are not located or recovered, appropriate notifications and reports will be filed with the Nuclear Regulatory Commission pursuant to 10 CFR Part 20.2201, or to the Indiana Radiological Health Section pursuant to 410 Indiana Administrative Code 5.

IV. REFERENCES: Title 10, Code of Federal Regulations Part 20.2201; 410 Indiana Administrative Code 5

V. RESCISSION: none

Concur:



Alice L. Wood
Medical Center Director

DISTRIBUTION

Service Chiefs
Radionuclide Radiation Safety Committee Members



Richard L. Roudebush Veterans Affairs Medical Center
Radiation Safety Office
Indianapolis, IN

Waste Contractor Contacts

Upon discovery of the possible accidental disposal of radioactive materials or other hazardous materials, call one of the following numbers, as appropriate. Request that the waste truck or container be held for further investigation.

Activate radiation emergency notification via the Medical Center operator (55)

Company	Role	Contact Name/ Title	Phone Number
SMI	Hauler of normal trash & Sanipac refuse	Larry Schuchman- President	926-5492
Ogden- Martin Systems	Municipal Incinerator Operator	Elaine Gregg- Environmental Engineer	634-7367
BFI	Hauler of non-Sanipac infectious waste (sharps, body parts, animals)	Jerry Kruezman- Safety Director	pager 424-0450 823-6881 X532

3. The Chief, Environmental Management Service will assist in and facilitate the search for any lost radioactive materials, including the return of any involved containers from contract waste brokers.

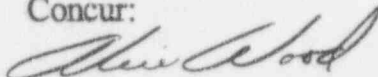
B. Actions:

1. If radioactive materials *of any form* are noticed to be missing, the Radiation Safety Officer or his designee will be notified immediately, via office extension or pager during normal business hours. After normal business hours, the Radiation Safety Officer will be paged, or the Medical Center emergency number (55) will be called; the Medical Center operator will contact the Radiation Safety Officer with detailed information.
2. If an individual suspects that radioactive materials may have been placed either in the normal trash stream, or the biohazardous (red bag) trash, immediate measures will be taken to stop any further movement of the waste through the stream. Specifically:
 - a) **Separate, hold, and mark** all waste bags, containers, bins, tubs, carts, etc. suspected to contain the missing radioactive materials.
 - b) **Halt** all compaction of waste into containers at the trash dock.
 - c) **Stop** the operation of the Sanipac® biohazardous waste autoclave.
 - d) **Do not allow the removal of any waste** from the premises by contract hauler personnel.
3. If it is suspected that radioactive materials may have been removed from the facility in the Medical Center's trash, the Radiation Safety Officer or the Chief, Environmental Management Service (or designees) will immediately contact the facility where the waste is destined AND the involved contract hauler. They will request immediate sequestering and holding of the involved container. Additional information may be obtained from the waste hauler, such as container I.D. number, truck I.D. number, to facilitate in the container's identification

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- IV. REFERENCES: Title 10, Code of Federal Regulations Part 20.2201; 410 Indiana Administrative Code 5

- V. RESCISSION: none

Concur:



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