

**Bayhealth Medical Center
640 S. State Street
Dover, DE 19901**

Docket No. 03007565

License No. 07-14850-01

U.S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington DC 20555

cc Regional Administrator
Region I

**Reply to a Notice of Violation
EA 06-139**

Reason for violation

- Failure to complete all requirements for 20.2201(b) written reports.

Corrective actions that have been taken and results achieved

- 30 day follow-up letter was completed and sent to the NRC on October 19th 2005. See attached.
- Policy B7600.28 "Theft or Loss of Radioactive Material" effective May 17th 2006. See attached.

Corrective steps to avoid further violations

- Staff education of hospital policy B7600.28.
- Nuclear Regulatory Guidelines 20.2201 & 20.2202 posted in the department.

Date when full compliance will be achieved

- October 18th 2006

Changes that need to be made

- Regarding the conclusion of the inspection. Sheila Snyder is the Manager of Diagnostic Imaging.

IE07

October 19th 2005

**Nuclear Medicine Department
Bayhealth Medical Center / Kent Campus
(Cesium 137 vial – 30 day Follow –up)**

Incident:

On Saturday, August 13th 2005 a cesium 137 vial, serial # S3560682B20 was found missing. This dose was last calibrated at 116.4uCi on Friday, August 12th 2005 at 06:48am.

Notification & Investigation:

A detailed timeline has been attached and initially sent to the NRC explaining the details of the incident that occurred on Saturday, August 13th 2005. In addition to the timeline I have also enclosed a copy of the BayHealth security report detailing the happenings of the night prior. I would like to add that on, Saturday, August 13th 2005 hospital personnel checked the lockers of employees with a survey meter in attempt to locate the missing source. Environmental Services was called to retrieve the trash and laundry that had been collected from the Nuclear Medicine department. It was determined that both the trash and the laundry had been removed from hospital property.

Outcome of the Investigation:

Krueger-Gilbert Health Physics group has provided Bayhealth with a potential radiation dose exposure to the general public, should it occur. (see attached). The Police report obtained from Detective Matthew Knight of The Dover Police Department is also enclosed. The official outcome of the internal investigation has not yet been determined. However under NRC guidelines, lost or stolen sources are considered one in the same.

Actions to prevent reoccurrence:

The new cesium source has been placed under double lock and key. Security has placed orders for both a key card entry with identification stamp, and security cameras to monitor the Nuclear Medicine department (purchase orders enclosed). A "Do not remove contents" sign has been ordered to be posted on the hot lab door, at the request of the NRC.

Heather Jones C.N.M.T.
Bayhealth Medical Center
Nuclear Medicine Supervisor
Dover Campus
(302) 744-7057



New policy!

Kent General Hospital

640 S. State St., Dover, Delaware 19901

Milford Memorial Hospital

21 W. Clarke Ave., Milford, Delaware 19963

Title: Theft or Loss of Radioactive Material	No: B7600.28 Replaces: New
Department: Nuclear Medicine and Radiation Oncology	Originated: AUG 15, 2005 draft
Standard Precautions? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	*Effective Date May 17, 2006

***All policies effective on date of Administration's approval.**

Purpose/Statement:

To define the procedure to be followed in the event of unauthorized use, loss or removal of radioactive material.

1.0 POLICY

- 1.1 It is the policy of Bayhealth Medical Center that if any radioactive materials are lost, removed or used in an unauthorized manner, the event will be handled according to the procedure outlined in 10CFR20.2201 Nuclear Regulatory Commission (NRC) guidelines and DRCR PART D402, D402(a), (b), Delaware Radiation Control Regulations.

2.0 AREAS INVOLVED

- 2.1 Nuclear Medicine Departments
- 2.2 Radiation Oncology Departments
- 2.3 In Patient unit for brachytherapy sources
- 2.4 Radiation Safety Officers
- 2.5 DI Manager or Radiation Oncology Manager
- 2.6 DI Administrator or Oncology Administrator
- 2.7 Hospital Security and Hospital Safety Officer
- 2.8 Hospital Administrator on-call
- 2.9 Risk Manager

3.0 PROCEDURE:

3.1 The individual who discovers that radioactive materials are missing or used in an unauthorized manner must:

3.1.1 Search all of the areas where the material may be found, contact & document anyone in the area from the time it was last seen until the time it was noticed missing.

3.1.2 Describe in writing the details about the incident, including the names of anyone who may be involved.

3.1.2.1 Share the document with the appropriate individuals in the following section (3.1.3)

3.1.3 Notify the following hospital personnel:

3.1.3.1 Radiation Safety Officer (RSO)

3.1.3.2 Licensed user(s)

3.1.3.3 DI Manager or Radiation Oncology Manager

3.1.3.4 DI Administrator or Oncology Administrator

3.1.3.5 Nurse Manager (for IP)

3.1.3.6 Hospital Security and Hospital Safety Officer

3.1.3.7 Hospital Administrator

3.1.3.8 Risk Management

3.2 Administrative staff will expand the search

3.3 If the material is not found, the RSO or designee will implement the regulatory notification process by telephoning:

3.3.1.1 NRC at 301-816-5100

3.3.1.2 DRCR at 302-744-4546

3.4 Within 30 days of the event, a written report to the NRC Regional Office Administrator will include:

3.4.1.1 A description of the licensed material involved, including serial numbers, manufacturer, kind, quantity, and chemical and physical form.

3.4.1.2 A description of the circumstances under which the loss or theft occurred.

- 3.4.1.3 A statement of disposition, or probable disposition, of the licensed material involved.
 - 3.4.1.4 Exposures of individuals to radiation, circumstances under which the exposures occurred, and the possible total effective dose equivalent to persons in unrestricted areas.
 - 3.4.1.5 Actions that have been taken, or will be taken, to recover the material.
 - 3.4.1.6 Procedures or measures that have been, or will be, adopted to ensure against as recurrence of the loss or theft of licensed.
- 3.5 The incident must be placed on the agendas of the next Radiation Safety Committee meetings at both Kent and Milford campuses.
- 3.5.1.1 The minutes of these meetings will serve as official follow-up documentation for the NRC.



Kent General Hospital, Dover, Delaware and Milford Memorial Hospital, Milford, Delaware

Title: THEFT OR LOSS OF RADIOACTIVE MATERIAL	No: B7600.28 Replaces:
Department: NUCLEAR MEDICINE and RADIATION ONCOLOGY	Originated: August 15, 2005

Effective on date of Administration's approval: May 17, 2006 New X Revised

Originating Department

Approval:

John Desiderio, Admin Director Diagnostic Imaging date signed

Review Dates: _____

Interdepartmental Approvals

Thomas Vaughan, M.D.
Medical Director, DI - KGH

date signed

Jeffrey Jackerson, D.O.
Medical Director, DI – MMH

date signed

Rachel Taylor, M.D.
Radiation Safety Officer – KGH

date signed

John Lahaniatis, M.D.
Medical Director , Radiation Oncology

date signed

Ashima Lall, M.D.
Radiation Safety Officer – MMH

date signed

Donna Stinson
Administrative Director, Oncology

date signed

John Shevock
Medical, Radiation Oncology

date signed

Raji Subrmanyam, PhD.
Chief Physicist

date signed

Title:	THEFT OR LOSS OF RADIOACTIVE MATERIAL	No: B7600.28 Replaces:
Department:	NUCLEAR MEDICINE and RADIATION ONCOLOGY	Originated: August 15, 2005

Effective on date of Administration's approval: May 17, 2006 *New X Revised*

Heather Jones, CNMT	date signed
Lead Nuclear Medicine Technologist - KGH	

Alex Hall, CNMT	date signed
Lead Nuclear Medicine Technologist – MMH	

Sheila Snyder	date signed
Manager, D.I. – KGH	

Joyce Webb	date signed
Manager, D.I. – MMH	

Administration's Approvals

Terry Murphy	date signed
Executive Vice President / COO	

Dennis E. Klima	date signed
President / CEO	