

REGION I  
NMSS LICENSEE EVENT REPORT

License No. 08-01738-02

Docket No. 030-01317

MLER-RI 97-35

LICENSEE

Walter Reed Army Med CTR.

EVENT DESCRIPTION

Lost I-125 seed

EVENT DATE

6/9/97

REPORT DATE

6/26/97

1. REPORTING REQUIREMENT

- ☒ 10 CFR 20.2201 Theft or Loss  
☐ 10 CFR 20.2203 30 Day Report  
☐ 10 CFR 30.50 Report  
☐ 10 CFR 35.33 Misadministration  
☐ License Condition  
☐ Other \_\_\_\_\_

2. REGION I RESPONSE

- ☐ Immediate Site Inspection Inspector/Date \_\_\_\_\_  
☐ Special Inspection Inspector/Date \_\_\_\_\_  
☐ Telephone Inquiry Inspector/Date \_\_\_\_\_  
☐ Preliminary Notification ☐ Daily Report  
☒ Information Entered on the Region I Log  
☒ Review at Next Routine Inspection  
☐ Report Referred to \_\_\_\_\_

3. REPORT EVALUATION

- ☒ Description of Event  
☒ Levels of RAM Involved  
☐ Cause of Event  
☒ Corrective Actions  
☐ Calculation Adequate  
☐ Letter to Licensee Requesting Additional Information

4. SPECIAL INSTRUCTIONS OR COMMENTS

IX30%

Completed by

Jerry Johnson

Date

9/4/97

Reviewed by

M. Thabaky

Date

9/5/97

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(Revised 1/6/95)

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ONLY TO  
ATTENTION ON:

DEPARTMENT OF THE ARMY  
WALTER REED ARMY MEDICAL CENTER  
WASHINGTON, DC 20307-5001

June 26, 1997

ense No.

08-01738-02

Docket No.

030-0131

MLER-RI -

97-35

Preventive Medicine Services

SUBJECT: Inventory Discrepancy of I-125 Brachytherapy Seed, NRC Incident Number 32542

Nuclear Regulatory Commission, Region I  
Medical Licensing Division  
475 Alendale Road  
King of Prussia, Pennsylvania 19406-1415

Medical Licensing Division:

Walter Reed Army Medical Center (WRAMC), Washington, DC, uses byproduct material authorized by U.S. Nuclear Regulatory Commission (NRC) license number 08-01738-02 with an expiration date of June 30, 2004. This is a medical broadscope Type A license for human use and research.

As per Subpart M -- Reports of 10 CFR 20.2201, a written report must be filed within 30 days of notification of the NRC Operations Center. The NRC Operations Center was notified on June 26, 1997, (Mr. John MacKinnon) regarding this incident. An account of the incident was taken and an incident reference number (32,542) was provided.

Description of the Licensed Material. The missing radioactive material is one I-125 sealed source brachytherapy seed that is cylindrically shaped, 0.8 mm in diameter by 4.5 mm long with an apparent activity outside the seed of 0.31 mCi and an internal source activity of 0.5 mCi per seed.

Description of Circumstances. We received a shipment of I-125 sealed source brachytherapy seeds on June 9, 1997. The package was surveyed by the Health Physics Office and hand carried to Radiation Oncology Services. The shipment manifest indicated that 120 seeds were sent. On the morning of June 10, 1997, Mr. Eck, an Electronics Technician, and Dr. Choi, a Medical Physicist, opened the package and broke the seal on the lead pig in the Radiation Oncology radioactive source room inside a lead shielded cave in order to inventory the seeds. Once the first inventory was completed, only 119 seeds were counted. The Health Physics Office was immediately notified of the discrepancy between the amount ordered and the number of seeds counted. Mr. Burton, a Health Physicist, responded to the Radiation Oncology Department within 5 minutes. Three more inventories were completed along with surveying all personnel, equipment, packaging, and room surveys for the missing I-125 seed. All personnel were contained within a very small room, and no individual left the room without first being surveyed. An I-125 seed has not been located, and it is our belief that we were shipped only 119 seeds from

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the manufacturer. The manufacturer, Amersham of Arlington Heights, Illinois was notified of the discrepancy and immediately initiated their own internal audit of the shipment. Additional surveys of the room, equipment, and surrounding areas were made and we did not find an I-125 seed. On June 11, 1997, the NRC Region I Medical Licensing Section (Meelan Bhalla) was telephonically notified of the inventory discrepancy by the Radiation Safety Officer Colonel William B. Johnson. Subsequent discussions with Amersham indicate that their records show that the shipment contained 120 seeds. On June 26, 1997, the NRC Operations Center was telephonically notified of the missing seed.

**Probable Disposition of the Licensed Material.** After our internal investigation, we believe that we were shipped only 119 seeds from Amersham.

**Exposure to Individuals.** Since we believe that there was an inventory discrepancy, and we were shipped only 119 seeds, there was no loss of byproduct material or exposure to any other individual at Walter Reed Army Medical Center.

**Actions Taken to Recover the Material.** Extraordinary measures were employed by the Health Physics Office and Radiation Oncology Services in an attempt to locate the seed. The entire cave and all materials in the cave were disassembled and surveyed twice. The room and the adjacent room were also carefully surveyed. No individual left the room without being surveyed.

**Actions Taken to Prevent Recurrence.** The procedures that Radiation Oncology Services uses to inventory and assay the seeds were carefully reviewed and we feel that they are more than adequate.

For additional information regarding this correspondence, please contact Colonel William B. Johnson, Chief, Health Physics Office, Preventive Medicine Services, at (202) 356-0058.

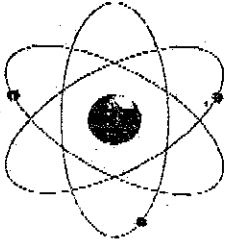
Sincerely,

*for* *John R. Kussman Col, MC*  
Michael J. Kussman  
Brigadier General, U.S. Army  
Commanding Officer

Copy Furnished:

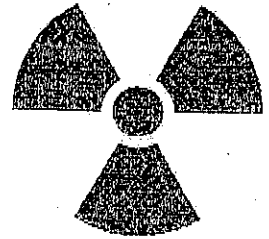
U.S. Army Medical Command, ATTN: MCHO-CL-W/COL Daxon, 2050 Worth Road, Fort Sam Houston, TX 78234-6000

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REGION I



# Health Physics Office

*Walter Reed Army Medical Center*  
6825 Sixteenth Street, Northwest  
Building 41, Room 38  
Washington, D.C. 20307-5001



VOICE (202) 356-0058/59

DSN: 642-0058

FAX (202) 356-0086



## Facsimile Cover Sheet

**TO:**

Nuclear Regulatory Commission  
Attn: Neelan Bhalla  
Region 1, Medical Licensing Div.  
FAX: (610) 337-5393

**FROM:**

David Burton  
Chief, RMC Branch  
WRAMC, HPO  
E-Mail: [dburton@wramc.e-mail.amedd.army.mil](mailto:dburton@wramc.e-mail.amedd.army.mil)

**REMARKS:**

Ms. Bhalla,

Enclosed is a copy of the letter sent in June, 1997 about the missing I-125 seed. Please call if any additional information is required.

COVER SHEET PLUS 2 PAGES

RETURN ORIGINAL TO  
REGION 1

HOSPITAL

EVENT NUMBER: 32542

LICENSEE: WALTER REED ARMY MEDICAL CENTER  
CITY: WASHINGTON DC REGION: 1  
COUNTY: STATE: DC  
LICENSE#: 08-01738-02 AGREEMENT: N  
DOCKET:

NOTIFICATION DATE: 06/26/97  
NOTIFICATION TIME: 09:00 [ET]  
EVENT DATE: 06/10/97  
EVENT TIME: 12:00 [EDT]  
LAST UPDATE DATE: 06/26/97

NOTIFICATIONS

FRANK COSTELLO RDO  
DON COOL, NMSS EO

NRC NOTIFIED BY: COL. JOHNSON  
HQ OPS OFFICER: JOHN MacKINNON

EMERGENCY CLASS: NOT APPLICABLE  
10 CFR SECTION:  
BAB2 20.2201(a)(1)(ii) LOST/STOLEN LNM>10X

EVENT TEXT

MISSING IODINE-125 (0.5 mCi) SEED

ON 06/09/97 WALTER REED ARMY MEDICAL CENTER RECEIVED A PACKAGE SENT FROM AMERSHAM (LOCATED IN IL) SUPPOSEDLY CONTAINING 120 IODINE-125 SEEDS (0.5 mCi PER SEED). THE IODINE-125 SEEDS (0.7mm DIA AND 4.5mm IN LENGTH) ARE SEALED SOURCES USED IN BRACHYTHERAPY FOR THE TREATMENT OF PROSTATE CANCER. ON RECEIPT THE PACKAGE WAS SURVEYED AND THE SURVEY LEVELS WERE WITHIN THE SPECIFIED LIMITS. ON 06/10/97 THE PACKAGE CONTAINING THE IODINE-125 SEEDS WAS TAKEN TO THE ONCOLOGY LAB WHERE THE SEALS TO THE PACKAGE WERE BROKEN OPEN AND A COUNT OF THE IODINE-125 SEEDS WAS PERFORMED. THE LICENSEE COUNTED ONLY 119 IODINE-125 SEEDS. A SURVEY OF THE AREA WHERE THE PACKAGE WAS OPENED WAS PERFORMED USING A GEIGER-MUELLER DETECTOR AND THE MISSING SEED WAS NOT FOUND. WALTER REED ARMY MEDICAL CENTER CONTACTED AMERSHAM ON 06/10/97 AND INFORMED THEM THAT THEY HAD ONLY COUNTED 119 IODINE-125 SEEDS AND THE SHIPPING MANIFEST FOR THE PACKAGE INDICATED THAT THE PACKAGE CONTAINED 120 IODINE-125 SEEDS. ON 06/17/97 AMERSHAM NOTIFIED WALTER REED ARMY MEDICAL AND SAID THAT THEY HAD SENT 120 IODINE-125 SEEDS TO WALTER REED ARMY MEDICAL CENTER. WALTER REED ARMY MEDICAL CENTER BELIEVES THAT THEY ONLY RECEIVED 119 IODINE-125 SEEDS. ON 06/11/97 WALTER REED ARMY MEDICAL CENTER NOTIFIED NRC REGION 1 (NEELAM BHALLA) OF THIS EVENT.

THE LICENSEE WILL SUBMIT A 30 DAY WRITTEN REPORT TO THE NRC REGION 1 OFFICE DETAILING THE ABOVE EVENT.

RETURN ORIGINAL TO  
REGION 1