

RI - DNMS Licensee Event Report Disposition

Licensee:	Dept of Health & Human Services, Bethesda, MD		
Event Description:	Missing Material in a Source Vial		
License No:	19 00296-10	Docket No:	03001746
Event Date:	3/10/05	Report Date:	4/6/05
		MLER-RI:	2005-023
		HQ Ops Event #:	

1. REPORTING REQUIREMENT

<input type="checkbox"/> 10 CFR 20.1906 Package Contamination <input checked="" type="checkbox"/> 10 CFR 20.2201 Theft or Loss <input type="checkbox"/> 10 CFR 20.2203 30 Day Report <input type="checkbox"/> Other _____	<input type="checkbox"/> 10 CFR 30.50 Report <input type="checkbox"/> 10 CFR 35.3045 Medical Event <input type="checkbox"/> License Condition
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2. REGION I RESPONSE

<input type="checkbox"/> Immediate Site Inspection <input type="checkbox"/> Special Inspection <input type="checkbox"/> Telephone Inquiry <input checked="" type="checkbox"/> Preliminary Notification/Report <input checked="" type="checkbox"/> Information Entered in RI Log <input type="checkbox"/> Report Referred To: _____	<table style="width: 100%;"> <tr> <td style="width: 50%;">Inspector/Date</td> <td></td> </tr> <tr> <td>Inspector/Date</td> <td></td> </tr> <tr> <td>Inspector/Date</td> <td></td> </tr> <tr> <td><input type="checkbox"/> Daily Report</td> <td></td> </tr> <tr> <td><input checked="" type="checkbox"/> Review at Next Inspection</td> <td></td> </tr> </table>	Inspector/Date		Inspector/Date		Inspector/Date		<input type="checkbox"/> Daily Report		<input checked="" type="checkbox"/> Review at Next Inspection	
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<input type="checkbox"/> Daily Report											
<input checked="" type="checkbox"/> Review at Next Inspection											

3. REPORT EVALUATION

<input checked="" type="checkbox"/> Description of Event <input checked="" type="checkbox"/> Levels of RAM Involved <input type="checkbox"/> Cause of Event <i>unknown</i>	<input checked="" type="checkbox"/> Corrective Actions <input checked="" type="checkbox"/> Calculations Adequate <input type="checkbox"/> Additional Information Requested from Licensee
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4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

<input checked="" type="checkbox"/> Release w/Exposure > Limits <input type="checkbox"/> Repeated Inadequate Control <input type="checkbox"/> Exposure 5x Limits <input type="checkbox"/> Potential Fatality <input checked="" type="checkbox"/> If any of the above are involved: <input checked="" type="checkbox"/> Considered Need for IIT	<input checked="" type="checkbox"/> Deliberate Misuse w/Exposure > Limits <input type="checkbox"/> Pkging Failure > 10 rads/hr or Contamination > 1000x Limits <input type="checkbox"/> Large# Indivs w/Exp > Limits or Medical Deterministic Effects <input type="checkbox"/> Unique Circumstances or Safeguards Concerns <input checked="" type="checkbox"/> Considered Need for AIT
Decision/Made By/Date: _____	

5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

<input checked="" type="checkbox"/> Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose) <input type="checkbox"/> Medical Consultant Used-Name of Consultant/Date of Report: _____ <input type="checkbox"/> Medical Consultant Determined Event Directly Contributed to Fatality <input type="checkbox"/> Device Failure with Possible Adverse Generic Implications <input checked="" type="checkbox"/> HQ or Contractor Support Required to Evaluate Consequences
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6. SPECIAL INSTRUCTIONS OR COMMENTS

Follow-up at next inspection

<input type="checkbox"/> Public <input checked="" type="checkbox"/> Non-Public	Inspector Signature: <u><i>[Signature]</i></u> Branch Chief Initials: <u><i>[Signature]</i></u>	Date: <u>5/25/05</u> Date: <u>6/8/05</u>
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Location of File: G:\Reference\Blank Forms\2004 LER FORM.wpd Rev. 02/01/05



DEPARTMENT OF HEALTH & HUMAN SERVICES

Public Health Service

National Institutes of Health
Bethesda, Maryland 20892

APR - 7 2005

Administrator, Region I
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

Re: License 19-00296-10

Dear Sir or Madam:

This written report is submitted in accordance with 10 CFR 20.2201(b). On 4/6/05, I made a telephone notification to the NRC Operations Center in accordance with 10 CFR 20.2201(a)(ii) regarding the incident described below.

On 3/10/05, we determined that 245 μCi (9.1 MBq) of ^{153}Gd (0.5N HCl) in a source vial was missing. The original activity was 1 mCi (37MBq) on 4/12/2004, and the missing quantity, corrected for radioactive decay, represented the remaining activity after several labeling experiments.

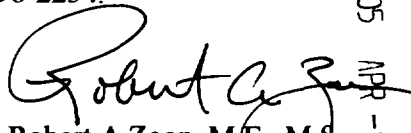
Following this discovery, the Authorized User interviewed all researchers who had access to her laboratory. None recalled disposing of the vial. In addition, a health physicist contacted a number of the researchers and performed an independent survey of this and adjacent laboratories with a photon-sensitive survey meter. The original lead pig was found in a box where other lead pigs were stored awaiting disposal. However, the source vial was not in the lead pig.

In addition to searching the laboratory areas, we checked the records of both radioactive waste pick ups and other monitored waste from the building in which this laboratory is located. There was no indication of ^{153}Gd in any of the records or surveys.

At this time, the disposition of the material is unknown. Considering that the exposure rate for an unshielded point source of 245 μCi of ^{153}Gd is only 0.04 mR/hr, the missing material would not represent a significant external exposure risk. The approximately 69 nanograms of material missing would not represent a significant toxic hazard either.

Corrective actions have been implemented by suspending the Authorized User's ability to order more radioactive material. With her pending departure from NIH, we do not feel any further actions will be warranted in this situation.

Should you wish to contact me, my telephone number is 301-496-2254.


Robert A Zoon, M.E., M.S.
Radiation Safety Officer

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APR - 8 PM 1:00

RECEIVED
REGION 1

cc: Dr. Michael Gottesman, Deputy Director for Intramural Research, NIH
Dr. Lance Liotta, Chairman, NIH Radiation Safety Committee