

RI - DNMS Licensee Event Report Disposition

Licensee: Chemtura Corporation

Event Description: Loss of ECD

License No: <u>06-00227-08</u>	Docket No: <u>03003759</u>	MLER-RI: <u>2006-022</u>	
Event Date: <u>05/16/06</u>	Report Date: <u>05/16/06</u>	HQ Ops Event #: <u>45280</u>	

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 border="1" style="width: 100%; border-collapse: collapse;"> <tr><td style="width: 50%;">Inspector/Date</td><td style="width: 50%;"></td></tr> <tr><td>Inspector/Date</td><td></td></tr> <tr><td>Inspector/Date</td><td></td></tr> <tr><td><input checked="" 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 checked="" type="checkbox"/> Daily Report		<input checked="" type="checkbox"/> Review at Next Inspection	
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<input checked="" 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 checked="" type="checkbox"/> Cause of Event	<input checked="" type="checkbox"/> Corrective Actions <input checked="" type="checkbox"/> Calculations Adequate <input checked="" type="checkbox"/> Additional Information Requested from Licensee
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4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

<input type="checkbox"/> Release w/Exposure > Limits <input type="checkbox"/> Repeated Inadequate Control <input type="checkbox"/> Exposure 5x Limits <input type="checkbox"/> Potential Fatality <input type="checkbox"/> If any of the above are involved <input type="checkbox"/> Considered Need for IIT Decision/Made By/Date: _____	<input type="checkbox"/> Deliberate Misuse w/Exposure > Limits <input type="checkbox"/> Pkgng 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 type="checkbox"/> Considered Need for AIT
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5. MANAGEMENT DIRECTIVE 8.10 EVALUATION (additional evaluation for medical events only)

<input 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 type="checkbox"/> HQ or Contractor Support Required to Evaluate Consequences	
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6. SPECIAL INSTRUCTIONS OR COMMENTS

Non-Public Inspector Signature: [Signature] Date: 6/7/06
 Public-SISP REVIEW COMPLETE Branch Chief Initials: [Signature] Date: 6/7/06



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June 2, 2006

Administrator
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

2006 JUN - 6 AM 10: 22
RECEIVED
REGION I

Re: Materials License 06-00221-08, Event Notification 42580

Dear Sir or Madam:

This letter is the written follow-up to our telephone report of 5/16/06 at 16:18 EDT to Mike Ripley at the NRC Operations Center. We also made a telephone report on that date to Thomas Thompson at your Regional Office.

Description of Lost Material:

We are reporting the loss of an electron capture detector (ECD) containing 10 mCi of ⁶³Ni. It was a PerkinElmer ECD, Model 0330-0119, Serial Number 2161, for use on a gas chromatograph. It was declared lost on 5/16/06. Its chemical form is a plated foil contained within the metal detector housing.

Incident Chronology:

Following the departure of then-RSO William Harned, Michael Gay became RSO in December 2004. Items relating to the RSO's duties were kept in Lab 1206, and were left in place by the new RSO. Upon becoming RSO, Dr. Gay believed that this ECD had been returned to its manufacturer in 2002, since he recalled discussing and recommending its return with the previous RSO. Records, including a requisition for a purchase order, were found indicating its return.

While looking for another item in Lab 1208 in late 2005, a leak test kit was found which had been used to leak test the above ECD, Serial Number 2161, on October 12, 2004. Since the leak test was done in 2004, that meant that the ECD had not been returned to its manufacturer in 2002. A telephone call to the previous RSO resulted in the information that the ECD had been kept in Lab 1206, and was there when the previous RSO had left. A physical inventory list was also found, indicating that the ECD in question was present in October 2004. Lab 1206 was searched, but the ECD was not located. The leak test kit was sent in for analysis, and the result showed that the ECD had not been leaking at the time of the leak test. (Since the ECD was not in use, it did not require leak testing every 6 months.)

A thorough search was made of Lab 1206, and all other laboratories on the same floor where radioactive materials are used or stored. In addition, the radioactive waste area and obsolete equipment storage room were searched. PerkinElmer, the manufacturer, and their subcontractor NRD, indicated that the ECD had not been returned to them. When the ECD was not found after the thorough search, Robin Charlton (RSO as of 3/1/06) decided that it was lost on 5/16/06, and made the required telephone report to the NRC Operations Center.

Disposition of the Lost Material:

In December 2004, the previous RSO left and there was also a reorganization at the company. In the Spring of 2005, several new people were added to the group, and their radiation safety training was initiated. At that time, in preparation for laboratory moves, a major cleanout took place in the group's laboratories, including Lab 1206. The box containing the ECD was labeled with Radioactive Material symbols. However, the label or its significance may have been overlooked by someone, and the box inadvertently thrown out in the trash along with other unused equipment.

Exposures of Individuals to Radiation:

It is highly unlikely that any significant exposure to radiation took place, either to a laboratory worker or any member of the public, as a result of this incident. The plated foil was contained within a metal housing, and it was not leaking at the time tested before the loss.

Actions Taken to Recover the Material:

It is impractical to attempt to recover the lost ECD, due to the uncertainty of the timeframe of its loss, and its probable resting place in a landfill.

Actions Taken to Prevent Recurrence:

In order to prevent a recurrence of loss of radioactive material, particularly devices like the ECD, several measures have been put in place. All sealed sources and devices not in use have been taken into the possession of the RSO, and are under her control in her laboratory. All sealed sources and devices not in use for a reasonable time have been returned to their manufacturer for disposal or transferred to another licensee authorized to possess them. All personnel in groups using ECDs have received training in radiation safety, including recognizing and properly handling such devices. The inventory of all sealed sources and devices has been updated, including the last leak test date for those items requiring it.

Please contact Robin Charlton by phone or email with any questions. Thank you for your attention to this matter.

Sincerely,

Robin R. Charlton

Robin R. Charlton, Ph.D.
Radiation Safety Officer

CC:

Michael Gay
Mark Schocken
Paul Thomson
Tracy Perkins