

## RI - DNMS Licensee Event Report Disposition

Licensee:	Princeton University				
Event Description:	Leaking Sr-90 source				
License No:	24-05185-04	Docket No:	03D00882	MLER-RI:	2006-046
Event Date:	11/13/06	Report Date:	11/15/06	HQ Ops Event #:	42992

### 1. REPORTING REQUIREMENT

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

### 2. REGION I RESPONSE

<input type="checkbox"/>	Immediate Site Inspection	Inspector/Date	
<input checked="" type="checkbox"/>	Special Inspection	Inspector/Date	Lawyer 11/22/06
<input type="checkbox"/>	Telephone Inquiry	Inspector/Date	
<input type="checkbox"/>	Preliminary Notification/Report	<input type="checkbox"/>	Daily Report
<input checked="" type="checkbox"/>	Information Entered in RI Log	<input type="checkbox"/>	Review at Next Inspection
<input type="checkbox"/>	Report Referred To: _____		

### 3. REPORT EVALUATION

<input checked="" type="checkbox"/>	Description of Event	<input checked="" type="checkbox"/>	Corrective Actions
<input checked="" type="checkbox"/>	Levels of RAM Involved	<input checked="" type="checkbox"/>	Calculations Adequate
<input checked="" type="checkbox"/>	Cause of Event	<input checked="" type="checkbox"/>	Additional Information Requested from Licensee

### 4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

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

### 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

### 6. SPECIAL INSTRUCTIONS OR COMMENTS

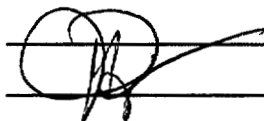
Interview in progress

Non-Public

Public-SUNSI REVIEW COMPLETE

Inspector Signature: \_\_\_\_\_

Branch Chief Initials: \_\_\_\_\_



Date: \_\_\_\_\_

Date: 12/20/06

Other Nuclear Material	Event Number: 42992
Rep Org: PRINCETON UNIVERSITY Licensee: PRINCETON UNIVERSITY Region: 1 City: PRINCETON State: NJ County: License #: 29-05185-24 Agreement: N Docket: NRC Notified By: SUE DUPRE HQ OPS Officer: JEFF ROTTON	Notification Date: 11/15/2006 Notification Time: 13:45 [ET] Event Date: 11/13/2006 Event Time: 09:00 [EST] Last Update Date: 11/15/2006
Emergency Class: NON EMERGENCY 10 CFR Section: 30.50(b)(1) - UNPLANNED CONTAMINATION	Person (Organization): PAMELA HENDERSON (R1) MICHELE BURGESS (NMSS)

**Event Text****LEAKING SR 90 SOURCE**

In the process of conducting the semiannual leak tests for sealed sources, a leaking Sr- 90 source was discovered on 11/13/2006. The Sr-90 source is used by the Physics Department in Room 365 of Jadwin Hall. The Sr-90 source has an activity of 180 microcuries and is normally stored in Room 361 of Jadwin Hall. The source actually consists of a foil on which Sr-90 has been electroplated. The foil is situated in a brass cylinder that consists of two cylindrical pieces - the piece in which the foil sits and a collimator end that is usually screwed onto the end containing the foil. When the leak test was conducted 6 months ago, there was no leakage. But after discovering contamination during the leak test on 11/13/06, it was found that a small hole has been punched through the foil so that the foil's integrity is compromised. The last time the source was used was approximately 6 weeks ago, so the damage occurred sometime between May and the end of September. Contamination (less than 150 dpm) has been found on spots on the floor in Room 361 of Jadwin Hall where the source is usually stored. Contamination has been found on a variety of surfaces on which the brass cylinder was set. A very rough estimate of the amount of missing activity is believed to be approximately 25% of the original activity.

No contamination has been found in public spaces. Surveys have been conducted for the two hallways that border the labs in which the source is used (Room 365) and stored (Room 361). Surveys have been conducted in the office of the sole research staff member who uses the source, and the lab in which the source is stored (Room 361). Results from the survey of the hallways and the office show no contamination problem exists in those areas. The wipes from the lab surveyed on 11/14/06 will be available on 11/15/06, but the G-M survey reveals no gross activity other than in the cabinet in which the source is stored and on the floor directly in front of the cabinet. Those areas were readily decontaminated.

On 11/15/06, surveys will be conducted in the lab in which the source is actually used (Room 365). Preliminary surveys on 11/14/06 indicated a number of surfaces that are contaminated in that room, and more thorough surveys will be conducted. All suspect areas have been locked and posted. No personal contamination has been discovered. The person who used the source is out of the area and will provided a urine sample when they return.

The licensee expects that decontamination will be complete by 11/16/06 and the rooms will have access restored.

Licensee has notified NRC R1 (Modes).