

**LICENSEE EVENT REPORT EVALUATION FORM**

**EVENT CLASS: LAS - LOST, ABANDONED, STOLEN MATERIAL**

**LICENSEE / REPORTING PARTY INFORMATION:**

Licensee/Reporting party name:	Idaho State University		
License number :	11-27380-01		
Docket number :	030-32322		
Licensee's City of record :	Pocatello		
Licensees State of record :	Idaho		
NRC regulated?	Yes	If so, what Region?	IV
Working under reciprocity?	No		

**EVENT INFORMATION:**

In what City and State did the event occur?	Pocatello, Idaho
Event date :	09/02/2010
Discovery date :	09/02/2010
Report date :	09/29/2010
Agreement State reportable?	No
NRC reportable?	Yes
Reporting regulation :	10 CFR 20.2201(a)1)(i)
NMED Item Number :	Event #46225 NMED #100447

**ADDITIONAL PARTIES INVOLVED:**

Name :	N/A
License number :	
City :	
State :	

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**CONSULTANT INFORMATION (if any):**

Consultant name :	N/A
Company :	N/A
Who hired consultant?	N/A

**DEVICE INFORMATION:**

Manufacturer :	N/A
Model number :	N/A
Serial number :	N/A

**RADIATION SOURCE INFORMATION:**

Isotope :	Plutonium-239	
Activity :	One gram ~60 mCi each	
Manufacturer :	Unknown - these were old DOE legacy sources	
Model number :	Unknown	
Serial number :	Nuclear Accident Dosimeter (NAD) sources #AP-229 and #AP-243	

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#### NARRATIVE EVENT DESCRIPTION:

On 9/2/2010, the licensee concluded that they were unable to account for two (2) Pu-239 solid sources that are about the size of a quarter each. Each source is estimated to weigh about 1 gram with a source strength of 60 milliCuries and is in a non-dispersible form. The licensee noted that these sources were missing as a result of a normal inventory and leak test procedure on 8/19/2010. Since that time, the licensee has conducted an intensive search for the material both visually and using detection instrumentation but was unable to located the material.

The licensee discovered that the lost sources were last checked out of their storage location as part of a group of 10 such sources in April 2010. In July 2010, records indicated that only 8 of the 10 sources were checked out, since only 8 were available at the time.

After the extensive search, university management considered the sources still in their possession but misplaced somewhere at the Idaho Accelerator Center or the Particle Beam Laboratory. The report was made to the Headquarters Operations Office on September 09, 2010. Idaho State University classified the two Pu-239 sources as "lost" and updated the original HOO report on February 11, 2011.

#### CORRECTIVE ACTIONS:

Prompt corrective actions included; immediately contacting the NRC when the sources were discovered missing. As soon as the sources were discovered missing the licensee began an extensive visual and radiological surveys in all storage and use locations including non-use areas in an attempt to locate the two Pu-239 NAD sources' whereabouts. The licensee restricted and limited access to the sources by purchasing and utilizing a dedicated source safe for "two barrier" sources such as the NAD sources. The licensee implemented a new procedure with additional controls for being able to check-out and check-in the sources, i.e. two man verification is now required for both check-in and check-out of all "two barrier" sources. The long term corrective actions are not known at this time.

The licensee's only conclusion was that the sources had inadvertently been placed in the normal trash after an experiment was completed. For some experiments, the sources, at times, were either taped to or sandwiched between foam material for irradiation. Additional information can be found in the licensee's 30-day written report in ADAMS (ML1028618920)..

#### RECOMMENDED FOLLOWUP:

Was a reactive inspection conducted?	Yes	An inspection charter was written (ML102730912). The NRC conducted an on-site inspection on October 6-8 and 20, 2010:	030-32322/2010-001 Escalated Enforcement action is pending
Is LER recommended for closure?	Yes		
Is this NMED Item Number recommended to reflect "complete"?	Yes		

LER Evaluator:	Branch Chief or Designee Review:
Name: <u>P. F. M. King</u> Date: <u>3/23/2011</u>	Name: <u>[Signature]</u> Date: <u>3/23/2011</u>