

# RI - DNMS Licensee Event Report

## Disposition

Licensee:	Dept of the Navy		
Event Description:	Loss of Licensed Material		
License No:	45-230150NA	Docket No:	09029402
Event Date:	11/13/14	Report Date:	11/18/14
		MLER-RI:	2015-005
		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 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></td> </tr> <tr> <td>Inspector/Date</td> <td></td> </tr> <tr> <td>Inspector/Date</td> <td></td> </tr> </table> <input type="checkbox"/> Daily Report <input type="checkbox"/> Review at Next Inspection	Inspector/Date		Inspector/Date		Inspector/Date	
Inspector/Date							
Inspector/Date							
Inspector/Date							

### 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 type="checkbox"/> Calculations Adequate <input type="checkbox"/> Additional Information Requested from Licensee
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### 4. MANAGEMENT DIRECTIVE 8.3 EVALUATION

*NA*

☐ Release w/Exposure > Limits  
☐ Repeated Inadequate Control  
☐ Exposure 5x Limits  
☐ Potential Fatality

☐ Deliberate Misuse w/Exposure > Limits  
☐ Pkging Failure > 10 rads/hr or Contamination > 1000x Limits  
☐ Large# Indivs w/Exp > Limits or Medical Deterministic Effects  
☐ Unique Circumstances or Safeguards Concerns

If any of the above are involved:

☐ Considered Need for IIT  
☐ Considered Need for AIT

Decision/Made By/Date: \_\_\_\_\_

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

*NA*

☐ Timeliness - Inspection Meets Requirements (5 days for overdose / 10 days for underdose)  
☐ Medical Consultant Used-Name of Consultant/Date of Report: \_\_\_\_\_  
☐ Medical Consultant Determined Event Directly Contributed to Fatality  
☐ Device Failure with Possible Adverse Generic Implications  
☐ HQ or Contractor Support Required to Evaluate Consequences

### 6. SPECIAL INSTRUCTIONS OR COMMENTS

*Will Review USN Actions at next Biennial Review (April 2015)*

<input checked="" type="checkbox"/> Non-Public <input type="checkbox"/> Public-SUNSI REVIEW COMPLETE	Inspector Signature: <i>[Signature]</i> Branch Chief Initials: <i>[Signature]</i>	Date: <i>2/24/15</i> Date: <i>2/24/15</i>
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DEPARTMENT OF THE NAVY  
OFFICE OF THE CHIEF OF NAVAL OPERATIONS  
2000 NAVY PENTAGON  
WASHINGTON, DC 20350-2000

5104  
Ser N455/132819  
10 Dec 14

Mr. Shawn Seeley  
License Reviewer  
Division of Nuclear Material Safety  
U.S. NRC Region I  
2100 Renaissance Blvd, Suite 100  
King of Prussia, PA 19406-2713

Dear Mr. Seeley:

SUBJECT: LOSS OF LICENSED MATERIAL

Loss of licensed material reportable under Title 10, Code of Federal Regulations, Part 20.2201 occurred with Naval Radioactive Materials Permit No. 19-00019-T5NP, which authorizes distribution and possession of the devices. This permit was issued under the authority of Nuclear Regulatory Commission Master Materials License No. 45-23645-01NA. The enclosed report provides information required by Title 10, Code of Federal Regulations, Part 20.2201(b).

Sincerely,

D. W. FLETCHER  
CDR, MSC, USN  
Executive Secretary  
Naval Radiation Safety Committee

Enclosure: 1. Information Concerning Lost Radioactive Material

Copy to: Naval Sea Systems Command Detachment, Radiological  
Affairs Support Office (nsscnavsearasoadmin@navy.mil)

## INFORMATION CONCERNING LOST RADIOACTIVE MATERIAL

1. The lost radioactive material consisted of one in flight blade inspection system (IBIS) pressure indicator which was installed on a CH-53 blade. The IBIS indicator (P/N: 12210-1, S/N: 3540) contained one 500 microcurie Strontium-90 source.
2. On 18 November 2014, one IBIS pressure indicator was reported lost as a result of a mishap on 13 November 2014 involving a planned underway replenishment at sea (RAS) incident from the USNS AMELIA EARHART (AME) with supplies intended for the USS MAKIN ISLAND (MKI).
3. The source was lost approximately 20 nautical miles off the coast of Eritrea between Eritrea and Yemen in the Southern Red Sea (coordinates 14°12'30.0"N, 042°7'00.0"E).
4. There is no significant human exposure from the missing source. The potential for personnel exposure from these sources is not likely as the ocean depth is reported to be approximately 216 feet.
5. To date there has been no attempt to salvage or recover the missing IBIS pressure indicator. At the time the IBIS pressure indicator was lost, the sea state was 5-6 feet, exceeding the safety limits for small boat recovery. The winds across the deck were between 30 and 40 knots.
6. The IBIS is necessary for the safety of the aircrew and aircraft. Mishaps, while rare, cannot all be prevented. The IBIS pressure indicators were lost because of a serious staging mishap during the RAS event. Preventive measures to minimize future mishaps have been taken by MKI and AME as a result of this incident:
  - Cargo items with significant air foil characteristics should not be pre-staged on the edges of the flight deck.
  - If items are to be stored externally during a RAS, they should be kept close to the ship superstructure.
  - Time on deck will be minimized.
  - Blade transfers via vertical helicopter replenishment will be pre-briefed prior to the evolution.