

RI - DNMS Licensee Event Report Disposition

Licensee: Dept of the Navy

Event Description: Loss of Licensed Material

License No: 452364501NA Docket No: 03024762 MLER-RI: 2018-013

Event Date: 04/16/18 Report Date: 05/03/18 HQ Ops Event #: 53325

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 type="checkbox"/>	Special Inspection	Inspector/Date	
<input type="checkbox"/>	Telephone Inquiry	Inspector/Date	
<input type="checkbox"/>	Preliminary Notification/Report		Daily Report
<input checked="" type="checkbox"/>	Information Entered in RI Log	<u>SLM</u>	Review at Next Inspection
<input type="checkbox"/>	Report Referred To:	<u>review @ Biland 6/27-2/19</u>	

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 checked="" type="checkbox"/>	Deliberate Misuse w/Exposure > Limits
<input checked="" type="checkbox"/>	Repeated Inadequate Control	<input checked="" type="checkbox"/>	Pkging Failure > 10 rads/hr or Contamination > 1000x Limits
<input checked="" type="checkbox"/>	Exposure 5x Limits	<input checked="" type="checkbox"/>	Large# Indivs w/Exp > Limits or Medical Deterministic Effects
<input checked="" type="checkbox"/>	Potential Fatality	<input checked="" type="checkbox"/>	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)

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

Non-Public, MD 3.4 non-public AS Inspector Signature: [Signature] Date: 6/21/19

Public-SUNSI REVIEW COMPLETE Branch Chief Initials: [Signature] Date: 6/25/19



DEPARTMENT OF THE NAVY
OFFICE OF THE CHIEF OF NAVAL OPERATIONS
2000 NAVY PENTAGON
WASHINGTON DC 20350-2000

5104
Ser N45/18U132369
May 2, 2018

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

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. 04-57025-T2NP, 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). This was reported to the Nuclear Regulatory Commission Operations Center and assigned event number 53325.

Sincerely,

SANDERSJER
RY.NORMAN.J
R.1134013970
J. N. SANDERS, JR.
CAPT, MSC, USN
Executive Secretary
Naval Radiation Safety Committee
By direction

Digitally signed by
SANDERSJERRY.NORMAN.JR.1134013970
DN: cn=US, o=U.S. Government, ou=DoD,
ou=PR, ou=USN,
cn=SANDERSJERRY.NORMAN.JR.113401
3970
Date: 2018.05.02 12:07:30 -0400

Enclosure: 1. Information Concerning Lost Radioactive Material

Copy to: Naval Sea Systems Command Detachment, Radiological Affairs Support Office

INFORMATION CONCERNING LOST RADIOACTIVE MATERIAL

1. General Information. The lost radioactive material consisted of two In-flight Blade Inspection System (IBIS) pressure indicators which were installed on one CH-53E helicopter. The IBIS pressure indicators (S/N: 1902 and S/N: 3423) contained one 500 microcurie Strontium-90 source per device.
2. On April 3, 2018 the crew members aboard a CH-53E helicopter crashed while on approach into a landing zone, west of Naval Air Facility El Centro, CA, an unpopulated area. The aircraft was consumed by the fire during the aviation mishap. All seven installed IBIS's were recovered. Five were found intact, one was found shattered, burned and missing the pin containing the Strontium-90 source, and the last was found under the gearbox with the pin containing the Strontium-90 source missing.
3. It is unlikely that the lost IBIS pressure indicator pins containing the Strontium-90 sources will be recovered, considering the extent of aviation mishap. The crash site was surveyed extensively with radiation survey instruments. The lost pins are likely at a depth beneath the surface such that they cannot be detected.
4. Radiation exposure to individuals from the lost pins containing the Strontium-90 sources is unlikely, due to the fact that the location of the pins could not be determined using radiation survey instrumentation. Additionally, the location of the crash site is on federal property in an area that is not typically occupied.
5. A radiation survey and physical search was conducted at the crash site and in a 250,000 square meter surrounding area. The lost IBIS pins containing Strontium-90 sources were determined to be unrecoverable on April 16, 2018.
6. An investigation into the cause of the helicopter mishap is ongoing. Results from the investigation will be used to evaluate the adequacy of current means and methods being used to prevent the loss or damage to IBIS devices, and program improvements will be made if necessary.