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DEPARTMENT OF THE NAVY
NAVAL UNDERSEA WARFARE CENTER DIVISION
610 DOWELL STREET
KEYPORT, WASHINGTON 98345-7610

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Ser 17/130-11

JUL 25 2011

U.S. Nuclear Regulatory Commission Region IV
612 E. Lamar Blvd., Suite 400
Arlington, TX 76011-4125

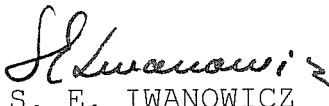
Ladies and Gentlemen:

SUBJECT: LOSS OF LICENSED MATERIAL; EVENT NUMBER 47023

The loss of licensed material reportable under Title 10, Code of Federal Regulations, Part 20.2201 occurred with generally license devices in May 2011. The enclosed report provides information required by Title 10, Code of Federal Regulations, Part 20.2201(b).

Our Point of Contact is Mr. Michael J. Walsh at (360) 396-5572 or e-mail michael.j.walsh1@navy.mil.

Sincerely,


S. E. IWANOWICZ
Captain, U.S. Navy
Commander

Enclosure: 1. Radioactive Material Loss Report

Radioactive Material Loss Report
Naval Undersea Warfare Center Division, Keyport
610 Dowell Street
Keyport, WA 98345-7610
Event Number: 47023

Date of Phone Notification to NRC: 05 Jul 2011

1. A shipment of 62 ionizing air nozzles containing Polonium-210 was involved in a rollover accident while in route to NRD, LLC of Grand Island, NY. Each ionizing air nozzle contained 10 millicuries (mCi) of Polonium-210 (Po-210, half-life of 138 days, alpha emitter) at time of manufacture. The isotope is in solid form and is encapsulated inside a metal tube using gold and silver foil. (See Sealed Source Device Registry NY-0502-D-107-G.) Two models of air nozzles (Models P-2021 and P-2051) were present in the shipment. At the time of the shipment, the activity of each ionizing air nozzle was 1.6 mCi (59.5 MBq) or less. The following are the serial numbers for the devices included in the shipment:

For Model P-2021: A2BY490, A2BY491, A2BY492, A2BY493, A2BY494, A2BY495, A2BY496, A2BY497, A2GQ217, A2GQ229, A2GQ231, A2GQ237, A2GQ245, A2HD855, A2HD856, A2HD857, A2HD858, A2HD859, A2HD860, A2HD861, A2HD862, A2HD863, A2HD864, A2HD865, A2HD866, A2HD867, A2HD868, A2HD869, A2HD870, A2HD871, A2HD872, A2HD873, A2HD874, A2HD875, A2HD876, A2HD877, A2HD878, A2HD879, A2HD880, A2HD881, A2HD882, A2HD883, A2HD884, A2HD885, A2HD886, A2HD887, A2HD888, A2HD889, A2HD890, A2HD891, A2HD892, A2HD893, A2HD894, A2HD895, A2HD896, A2HD897, A2HD898, A2HD899, A2HD900;
For Model P-2051: 46975, 70381, 72854.

2. A shipment of 62 generally licensed ionizing air nozzles from Naval Undersea Warfare Center, Division Keyport (NUWC Keyport) was being returned to the manufacturer, NRD, LLC of Grand Island, NY, and was subsequently lost in shipment by a contracted carrier. The 62 ionizing air nozzles were segregated into 8 individual packages which were then contained in one larger overpack box. The total activity of each package did not exceed 10 mCi (370 MBq). All packaging, labeling, and transportation arrangements were in accordance with Title 49, Code of Federal Regulations, Part 173.424.

NUWC Keyport provided the 8 packages to the Navy's Fleet Industrial Supply Center, Puget Sound (FISC PS) who final-packaged the shipment and arranged for contracted transportation. On 26 May 2011, a truck of Covenant Transport, the contracted

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transportation carrier, was involved in a rollover accident near Ashland, NE. Three separate companies were contracted by Covenant Transport to recover hazardous materials and undamaged freight from the accident scene. Any remaining debris was transported to a landfill in Lancaster County. Subsequent to the accident and clean-up, Conway Freight and Covenant Transport confirmed the package did not arrive at the Conway Transshipment Facility in Milton, PA. Therefore, since the ionizing air nozzles were not recovered from the accident scene, they are presumed to be in the debris that was transported to the landfill.

A preliminary investigation has revealed that the Navy was not immediately informed of the accident or loss of material by the contracted transportation carrier. The Navy (FISC PS) first learned of the accident on 24 Jun 2011, subsequent to having initiated a trace on the shipment after it had not been received at its ultimate destination. Additional information regarding the accident was finally received on 30 Jun 2011.

3. It is presumed that the ionizing air nozzles identified above are in the debris that was disposed of in a landfill in Lancaster County, Nebraska.

4. The devices do not present a significant health hazard based on the following: a) Po-210 used in these sealed sources is bound with other materials and extraction of the Po-210 would require some chemical treatment in a laboratory, b) current activity level of each device, and c) Polonium-210 has a short half-life of 138 days and decays by alpha emission with an accompanied gamma emission of 0.001%.

5. Per conversations between Mr. Tye Beasley (Surface Deployment and Distribution Command (SDDC) Deputy Director for Strategic Business), Mr. Belfield Collymore (United States Transportation Command (USTRANSCOM) Contracting Officer), and Mr. Howard Shuman (Radiological Health Physicist with the Nebraska Department of Health and Human Services), the shipment does not have to be recovered if it is in the Lancaster County landfill as it does not pose a health risk.

6. NUWC Keyport will continue to closely coordinate and track all future radioactive material shipments with FISC Puget Sound to ensure they comply with Title 49, Code of Federal Regulations, Part 173.

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