DCS No:

Date: January 15, 1991

· PRECIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE -- PNO-1-91-7

This preliminary notification constitutes EARLY notice of events of POSSIBLE safety or public interest significance. The information is as initially received without verification or evaluation, and is basically all that is known by the Region I staff on this date.

Facility: Nuclear Sources and Services Houston, Texas Agreement State Licensee	Licensee Emergency Classification: Notification of Unusual Event Alert Site Area Emergency General Emergency X Not Applicable
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Subject: DAMAGE TO CONTAINER OF RADIOACTIVE MATERIAL ON BOARD A SHIP

On January 14, 1991, at 5:15 p.m., Region I was notified by the Director, Bureau of Radiation Protection, State of New York, that a ship at sea, the MERKUR AFRICA (German Registry), bound for New York, sustained heavy damage to the bow during a storm in the Atlantic on January 12, 1991. A steel box containing several depleted well logging sources (owned by Schlumberger International, Incorporated, Paris, an oilfield sub-contractor; and being shipped to Nuclear Sources and Services, Incorporated, Houston) was secured topside, near the bow of the ship. As a result of the damage, the box was torn from the chain moorings and broke open on the deck. The sources were scattered over the deck. Information received from the ship's master by shipping agent (Delmas AAEL, Lynden, New Jersey) indicated that some of the sources had separated from the shielded shipping containers in which they were originally stored. The steel shipping box is reportedly open and trapped, upside-down, under the ship's anchor gear. At this time, it is not known if any of the sources were lost overboard.

The Technical Representative (and Assistant RSO), Nuclear Sources and Services, Inc., reported that the shipment included: 5-100 microcurie radium-226 sealed sources, 7-1.5 curie cesium-137 sealed sources, 1-5 curie americium-beryllium sealed source, and 1-800 microcurie cobalt-60 sealed source. The ship's crow recovered the sources that remained in shipping containers and have stored the devices inside of a large ocean container, but have elected to remain away from the reportedly, unshielded sources. (Note: If unshielded, a 1.5 curie cesium source is expected to measure about 770 rem per hour at 1 inch, 21 rem per hour at 6 inches and 500 millirem per hour at 1 meter).

The ship has slowed from 15 knots to 6 knots, and continues to head for New York. It is expected to dock at Pier No. 11, Red Hook Terminal, Universal Maritime Services, Brooklyn, on January 17, 1991. The U.S. Coast Guard has been contacted and advised of the situation, and is considering boarding the vessel to evaluate its condition before allowing the ship to dock. Nuclear Sources and Services, Incorporated's Assistant RSO is en route to New York with radiation monitoring equipment to assist the Coast Guard in surveying, recovering, and restoring the materials to a safe condition.

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9101220113 910115 PDR 1&E PNO-I-91-007 PDR Region I will consider dispatching health physics personnel to assist the State of New York and the Coast Guard, as necessary. This information is current as of 9:00 a.m., Jar ary 15, 1991. Region IV, and the Office of Nuclear Material Safety and Safeguards (NMSS) have been notified.

Region IV has contacted the State of Texas. According to the Nuclear Sources and Services' Assistant Radiation Safety Officer (RSO), this shipment originated from Angola. Accordingly, Region I has also notified the Office of Governmental and Public Affairs, Division of International Programs, and NMSS Division of Transportation and Safeguards, since it was noted that Angola is a restricted destination in accordance with 10 CFR 110.29, and may be subject to certain import/export constraints. Region I is prepared to respond to medial inquiries.

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Region I Form 83 (Rev. April 1988)