

January 23, 1997

PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-I-97-007

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 Region I staff in King of Prussia, Pennsylvania on this date.

Facility

National Institute Of Health
National Institute Of Health
Bethesda, Maryland
Dockets: 03001786 License No: 19-00296-10

Licensee Emergency Classification

Notification of Unusual Event
Alert
Site Area Emergency
General Emergency
X Not Applicable

Subject: LOSS OF PACKAGE CONTAINING ONE MILLICURIE OF IODINE-125

At 4:17 p.m. on January 22, 1997, the licensee's Radiation Safety Officer (RSO) notified the NRC Operations Center that they were unable to locate a package containing 1 millicurie of iodine-125. The RSO reported that the package was received by the Radiation Safety Branch (RSB) staff on January 9 and was delivered by the RSB staff to the laboratory of the authorized user who requested the material on January 10, 1997. Delivered with the package containing the iodine-125 were two additional packages, each containing a quantity of phosphorus-32. RSB records indicate that three packages were delivered to the correct laboratory and were provided to an individual who was authorized to use the materials. The individual who received these packages acknowledges signing a receipt form which identified all three packages but only recalls receiving, opening, and placing into storage, the two boxes which contained the phosphorus-32. The licensee reported that they are able to account for the phosphorus-32 received that day.

The researcher who ordered the iodine-125 first began looking for the material at approximately 3:00 p.m. on January 21, 1997. The RSO stated that iodine-125 is normally stored in the iodination fume hood located within the laboratory. When the researcher was unable to find the iodine-125 in the iodination hood, he initiated a search and questioned his laboratory coworkers. At approximately 10:30 a.m. on January 22, 1997, the researcher concluded that the package was missing and contacted the RSB staff. RSB staff immediately responded and assisted the researcher in performing a more extensive search for the missing material. The RSO reported that a utilization form for the missing iodine-125, which was prepared by the RSB staff at the time that the material was received in the RSB office, was located in the researcher's laboratory. Because this form was delivered along with the radioactive material to the researcher's laboratory, the licensee believes that the iodine-125 package was delivered to the correct laboratory and opened. The material, 1 millicurie of iodine-125 sodium iodide (Dupont NEN Product Number NEZ- 033L) was delivered in an NENSURE lucite vial secured within a plastic-coated screw-top lead shield. The RSO reported that the shield was transported by the RSB staff within a US DOT 7A Type A cardboard box which had the required labels and markings.

The RSO hypothesizes that: (1) the package containing the radioactive material was inadvertently discarded as non-radioactive waste; (2) the

vial containing the iodine- 125 was disposed of in the dry radioactive waste container which was collected on January 16, 1997; or (3) the package was stored in a location which has not yet been discovered. The licensee is reviewing these and other possibilities and continues to search for the missing iodine-125. The RSO stated that they would perform additional surveys to search for possible contamination.

Region I will perform a special inspection at the licensee's facility during the week of January 27, 1997. The State of Maryland has been notified via fax by the Headquarter's Operations Officer. The Region I Office of Public Affairs is prepared to respond to media inquiries. This information is current as of 10:00 a.m. on January 23, 1997.

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