

October 2, 1996

**PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE** PNO-II-96-066

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 II staff in Atlanta, Georgia on this date.

<u>Facility</u>	<u>Licensee Emergency Classification</u>
National Naval Medical Center	Notification of Unusual Event
National Naval Medical Center	Alert
Bethesda, Maryland	Site Area Emergency
License No: 45-23645-01NA	General Emergency
	X Not Applicable

Subject: LOST 1.35 MILLICURIE PALLADIUM-103 SOURCE

On October 1, 1996, the licensee reported the possible loss of a 1.35 millicurie palladium-103 source. The licensee received a shipment of 266 palladium-103 seeds on September 10, 1996. There were two counts of the seeds upon receipt to verify the number received. One count showed 265 seeds; another count showed 266 seeds. On September 11, a physician loaded the seeds into needles. After this process, the physicist was informed that the sum of the loaded seeds plus the remaining seeds equaled 266. Subsequently, a total of 259 palladium seeds were used for prostate treatment implants for two patients. A count of remaining seeds after implant showed only six seeds instead of seven. Therefore, one seed was unaccounted for. The licensee also called the vendor, and the vendor stated that 266 seeds were shipped.

The licensee performed surveys in the areas where the seeds were transported, stored, loaded, and implanted including the operating room, recovery room, the routes of patient movement, the patient's ward, and all linens and biohazard waste containers. The seed was not located. The licensee also x-rayed the patients to attempt to count the number of seeds implanted. The licensee was unable to make an accurate count because some of the seeds overlap each other.

The licensee estimates that one seed will not make a significant difference in the amount of therapeutic dose that a patient would potentially receive. The licensee estimates that an individual would have to be in the immediate area of the missing source for 290 hours (12 days) to receive a dose greater than 100 millirem.

Region II notified Region I because the Bethesda Naval Medical Center is located in Region I. The Region will continue to monitor the licensee's actions. This information is current as of 8:00 a.m. on October 2, 1996.

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