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## -1-Date: January 28, 1994

## PRELIMINARY NOTIFICATION OF EVENT OR UNUSUAL OCCURRENCE PNO-III-94-02A

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 III staff on this date.

Facility University of Cincinnati Cincinnati, Ohio

Licensee Emergency Classification General Emergency Site Area Emergency Alert Unusual Event X Not Applicable

License No.: 34-06903-05

Subject: MEDICAL MISADMINISTRATION INVOLVING LEAKING IODINE-125 SEED (UPDATE)

On January 14, 1994, the licensee reported a medical misadministration involving an iodine-125 brachytherapy treatment. On January 7, 1994, sixteen iodine-125 seeds ranging from 10 to 30 millicuries were each implanted in the brain of a 30 year old male patient. Following the explant procedure on January 14, 1994, iodine-125 and thallium-201 contamination was found in the surgical room and in the bathrooms used by the patient.

The licensee has determined that one of the implanted sources had leaked during the implant process by being damaged by a surgical staple. The source originally contained 20.5 millicuries of iodine-125, and based upon an assay of the source, it has been estimated that the loss was approximately 2.0 millicuries.

Thyroid monitoring on all patient visitors and licensee employees associated with the patient determined that each had less than the licensee's minimum detectable activity of 1.0 nanocurie. Through patient monitoring, the licensee estimates that approximately 5 percent of the free iodine-125 was taken up in the patient's thyroid (105 microcuries). The licensee estimates that the uptake would result in a radiation dose to the thyroid of approximately 275 rads.

The licensee does not expect any adverse medical problems to the patient as a result of the misadministration. The NRC medical consultant has initiated his review of the incident.

The licensee's 15-day report is expected to be submitted to Region III (Chicago) on January 28, 1994. A followup NRC inspection is scheduled for the week of February 7, 1994.

The State of Ohio has been notified. The information in this preliminary notification has been reviewed with licensee management.

This information is current as of 3:00 p.m. (CST) on January 28, 1994.

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