UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION II
101 MARIETTA ST., N.W., SUITE 3100
ATLANTA, GEORGIA 30303

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US NRC
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CATHOLIC UNIVERSITY OF PUERTO RICO
SCHOOL OF MEDICINE
STATION 6
PONCE PR 00731
NRC LIC. #: 52-13508-02

Gentlemen:

The enclosed IE Information Notice No. 80-35, is forwarded to you for information. If there are any questions related to your understanding of this notice, please contact this office.

Sincerely,

James P. O'Reilly
Director

Enclosures:
1. IE Information Notice No. 80-35
2. List of Recently Issued
   IE Information Notices

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SSINS No.: 6870
Accession No.
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IEIN 80-35

UNITED STATES
NUCLEAR REGULATORY COMMISSION
OFFICE OF INSPECTION AND ENFORCEMENT
WASHINGTON, D.C. 20555

DUPLICATE

October 10, 1980

IE Information Notice No. 80-35: LEAKING AND DISLODGED IODINE-125 IMPLANT SEEDS

Description of Circumstances:

During surveys performed following the implant of iodine-125 seeds for interstitial treatment of cancer of the prostate, iodine-125 was detected in the patient's urine and thyroid. As a result of the iodine leakage, the patient's thyroid received an estimated eighty (80) rem dose.

The cause of the leakage of iodine-125 was determined to be physical damage to one of the seeds prior to implantation. The hospital staff had inserted the seeds into nylon tubing prior to steam sterilization in an autoclave. The nylon tubings were supplied with a permanent interstitial implant instrument, Model #6501, manufactured by Mick Radio-Nuclear Instruments, Incorporated. After autoclaving for six (6) minutes at 275°F (135°C) and 30 psi, the iodine-125 seeds could not be pushed out of the nylon tubing. Forceps and scissors had to be used to free the seeds and place them into the implant instrument. It was determined that, during this process, one of the iodine seeds had been superficially cut.

The surveys performed after the surgery indicated that some iodine-125 seeds had been dislodged. Some seeds were found on the floor, the operating table, and in suction liquids collected during surgery. In addition, an iodine-125 seed was found in the patient's urine specimen collected on the sixth day following implant surgery.

Notice to Licensee:

Your staff responsible for preparation and implantation of sealed sources of byproduct material should be made aware of the contents of this Information Notice. They should review handling procedures for the sealed sources, including methods of sterilization, to eliminate those procedures which could physically damage the sealed sources. Necessary procedures should be established to assure that, following implantation, proper surveys are performed for detecting leaking or dislodged sources.

No written response to this Information Notice is required. If you need additional information regarding this subject, contact the Director of the appropriate NRC Regional Office.

RECENTLY ISSUED
IE INFORMATION NOTICES

Information Notice No.	Subject	Date of Issue	Issued to
80-35	Leaking and dislodged Iodine-124 implant seeds	10/10/80	All categories G and G1 medical licensees
80-34	Boron dilution of reactor coolant during steam generator decontamination	9/26/80	All pressurized water reactor facilities holding power reactor OLs
80-33	Determination of teletherapy timer accuracy	9/15/80	All teletherapy (G3) licensees
80-32	Clarification of certain requirements for Exclusive-use shipments of radioactive materials	8/12/80	All NRC and agreement state licensees
80-31	Maloperation of Gould-Brown Boveri Type 480 volt type K-600S and K-DON 600S circuit breakers	8/27/80	All light water reactor facilities holding OLs or CPs
80-30	Potential for unacceptable interaction between the control rod drive scram function and non-essential control air at certain GE BWR facilities	8/19/80	All boiling water reactor facilities holding power reactor OLs or CPs.
80-29	Broken studs on Terry turbine steam inlet flange	8/7/80	All light water reactor facilities holding power reactor OLs or CPs*
Supplement to 80-06	Notification of significant events at operating power reactor facilities	7/29/80	All holders of reactor and near-term OL applicants
80-28	Prompt reporting of required information to NRC	6/13/80	All applicants for and holders of nuclear power reactor CPs
80-27	Degradation of reactor coolant pump studs	6/11/80	All pressurized water reactor facilities holding power reactor OLs or CPs

* Operating Licenses or Construction Permits