

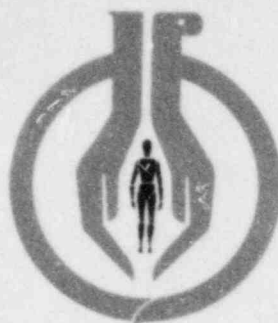
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ADDRESS REPLY TO:

DEPARTMENT OF RADIATION THERAPY
P. O. BOX 2850

CARLO A. CUCCIA, M.D., F.A.C.R.
EKKEHARD S. SCHUBERT, M.D.
DONALD C. TILTON, D.O.

DIPLOMATES
AMERICAN BOARD OF RADIOLOGY



WILMINGTON MEDICAL CENTER

WILMINGTON, DELAWARE XXX 19805

DELAWARE DIVISION
MEMORIAL DIVISION
WILMINGTON GENERAL DIVISION
EUGENE DU PONT MEMORIAL HOSPITAL

EDWARD TORVIK, Sc.D.
JOSEPH A. ROSE, B.S.E.E.

October 18, 1982

Phillip C. Jerman
Materials Program Section No.2
U.S. Nuclear Regulatory Commission
Region 1
631 Park Avenue
King of Prussia, PA. 19406

Docket No. 030-01303
Control No. 00809
License No. 07-12153-02

Dear Mr. Jerman:

Below is listed the additional information needed in the review of our request for renewal of our license:

Item 1. Committee on Ionizing Radiation

The Committee on Ionizing Radiation was set-up to monitor all activities within the Medical Center that involve the use of radionuclides and x-rays. We feel that the Medical Center should not only be concerned about radionuclides that are under the jurisdiction of the NRC but also cyclotron produced radionuclides, Radium-226, and x-ray producing equipment. This committee meets at least once per calendar quarter.

Item 2. Shielding in Radionuclide Storage Room

The Radionuclide storage room at the Delaware Division has two L-Blocks surrounded by lead brick walls on all sides. The Moly-99 generator is located within this enclosure. It is also placed in a lead shielded supporting device. All radionuclides are stored in this L-Block lead brick enclosure in their original shielded shipping containers.

At the General Division, the radionuclide storage area is surrounded by a Lead brick enclosure. The Moly-99 generator is stored within the Lead brick enclosure within a shielded supporting device.

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Phillip C. Jerman (cont'd)

Item 2. Shielding in Radionuclide Storage Room (cont'd)

All radionuclides are stored within the lead brick enclosure in their original shielded shipping container.

Item 3. Activity and Accuracy of Calibration Sources for Dose Calibrator

The overall error for the following listed calibration sources is five (5) percent or less. All Cobalt-57 sources are in the process of being replaced with sources with an activity of approximately 5 milliCurie. See attached list.

Item 4. Film Badge Dosimeters for Nursing Staff

All patients containing sealed radioactive sources are admitted only to the 2nd South wing of the Wilmington General Division. All personnel on this floor are issued film badge dosimeter and are required to wear them when working with patients containing therapeutic quantities of radioactive material. Iodine-131 patients are admitted to this area when a bed is available. When room is not available, Iodine-131 patients are admitted to 2nd Center.

Personnel working on 2nd Center are not monitored via film badge dosimeters. The maximum number of Iodine-131 patients that would be admitted to this hospital for Iodine-131 cancer therapy does not exceed 6 per year.

Item 5. Precautionary measures and the bioassay procedures

- a. Therapeutic doses of ^{131}I Iodine administered in our institution are in liquid form, although the use of capsules on special occasions is not to be ruled out.
- b. Stock vials of ^{131}I Iodine are ventilated in a fume hood that vents to the outside of the building. This is done before any work is done with the solution. The face velocity of the hood is 230 FPM when in the half-opened working position and is checked at intervals not to exceed six (6) months.
- c. Employees are instructed to wear disposable gloves at all times when handling ^{131}I Iodine, to withdraw doses via shielded syringes, and place them in shielded vials for administration to the patient.

Phillip C. Jerman (cont'd)

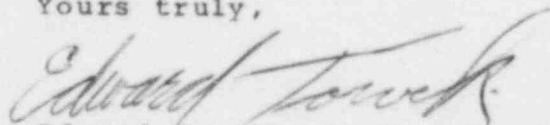
Item 5. Precautionary measures and the bioassay procedures (cont'd)

- d. Employees are instructed to stand well away from patients as they are actually drinking the Iodine, if at all possible, and to wash their hands when finished handling all related equipment.
- e. Employees responsible for administering doses of ^{131}I Iodine less than 30.0 millicuries are assigned to that station for one week at a time. At the end of that week, each individual must determine his/her thyroid burden of ^{131}I Iodine using a NaI(Tl) scintillation detector.

Employees are assigned on a rotating basis to administering quantities of ^{131}I Iodine of 30.0 millicuries or greater. These individuals must take a pre-administration count of the thyroid gland, and a post-administration count within 24 hours of the administration.

- f. The conversion factor for the detector, presented as uCi/cpm, is reworked once a year and checked once a month by counting a long-lived standard source.
- g. Thyroid burdens of 0.04 uCi or greater must be reported to the immediate supervisor and to the Radiation Safety Office.

Yours truly,



Edward Torvik, Sc.D., Physicist

OCT 25 1982

WILMINGTON MEDICAL CENTER
QUARTERLY INVENTORY OF SEALED SOURCES
IN THE NUCLEAR MEDICINE DEPARTMENT

Item 3

October 5, 1982

Delaware Division:

⁵⁷ Cobalt:	Cat. No.:	NES-352
	Activity:	0.33 mCi on Oct. 19, 1982
	Calibration date:	8/19/81
	Serial No.:	3520881A-14
¹³⁷ Cesium:	Cat. No.:	NES-356
	Activity:	197 uCi on 10/19/82
	Calibration date:	8/11/78
	Serial No.:	208-163-23
⁶⁰ Cobalt:	Cat. No.:	NES-354
	Activity:	19.6 uCi on 10/19/82
	Calibration date:	7/15/75
	Serial No.:	208-163-25
¹⁹⁵ Gold:	Cat. No.:	NES-387
	Activity:	1.0 mCi
	Calibration date:	4/82
	Serial No.:	3870482D-05

General Division:

⁵⁷ Cobalt:	Cat. No.:	NES-352
	Activity:	51 uCi on 10/19/82
	Calibration date:	7/12/79
	Serial No.:	3520779A-30
⁶⁰ Cobalt:	Cat. No.:	NES-354
	Activity:	34 uCi on 10/19/82
	Calibration date:	8/28/79
	Serial No.:	3540879A-13
¹³⁷ Cesium:	Cat. No.:	NES-356
	Activity:	184 uCi on 10/19/82
	Calibration date:	9/19/79
	Serial No.:	3560979A-09
¹³³ Barium:	Cat. No.:	NES-358
	Activity:	159 uCi on 10/19/82
	Calibration date:	7/01/75
	Serial No.:	208-163-24