

NRC FORM 313M (9-81) 10 CFR 35	U.S. NUCLEAR REGULATORY COMMISSION APPLICATION FOR MATERIALS LICENSE – MEDICAL	Approved by OMB 3150-0041 Expires 9-30-83
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INSTRUCTIONS – Complete Items 1 through 26 if this is an initial application or an application for renewal of a license. Use supplemental sheets where necessary. Item 26 must be completed on all applications and signed. Retain one copy. Submit original and one copy of entire application to: Director, Office of Nuclear Materials Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555. Upon approval of this application, the applicant will receive a Materials License. An NRC Materials License is issued in accordance with the general requirements contained in Title 10, Code of Federal Regulations, Part 30, and the Licensee is subject to Title 10, Code of Federal Regulations, Parts 19, 20 and 35 and the license fee provision of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 26 and the appropriate fee enclosed.

1.a. NAME AND MAILING ADDRESS OF APPLICANT (institution, firm, clinic, physician, etc.) INCLUDE ZIP CODE The Medical Center of Delaware, Inc. Executive Offices Attn: Allston J. Morris, M.D. 501 W. 14th St. P.O. Box 1668 Wilmington, DE 19899 TELEPHONE NO.: AREA CODE 302-428-2596	1.b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED (If different from 1.a.) INCLUDE ZIP CODE SEE SUPPLEMENT #1
2. PERSON TO CONTACT REGARDING THIS APPLICATION Edward Torvik TELEPHONE NO.: AREA CODE 302-733-1453	3. THIS IS AN APPLICATION FOR: (Check appropriate item) a. <input type="checkbox"/> NEW LICENSE b. <input checked="" type="checkbox"/> AMENDMENT TO LICENSE NO. 07-12153-02 c. <input type="checkbox"/> RENEWAL OF LICENSE NO. _____
4. INDIVIDUAL USERS (Name individuals who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.) same	5. RADIATION SAFETY OFFICER (RSO) (Name of person designated as radiation safety officer. If other than individual user, complete resume of training and experience as in Supplement A.) Edward Torvik

6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE			
RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	ADDITIONAL ITEMS:
			31 AS IODIDE FOR TREATMENT HYPERTHYROIDISM
			RUS-32 AS SOLUBLE PHOSPHATE TREATMENT OF POLYCYTHEMIA LEUKEMIA AND BONE METASTASES
			RUS-32 AS COLLOIDAL CHROMIC IRON FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.
			AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT TUMORS.
			31 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA
			33 AS GAS OR GAS IN SALINE FOR LUNG STUDIES AND PULMONARY FUNCTION STUDIES

SEE SUPPLEMENT #2

6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN 6.a. (Sealed sources up to 3 mCi used for calibration and reference standards are authorized under Section 35.14(d), 10 CFR Part 35, and NEED NOT BE LISTED.)			
ELEMENT AND MASS NUMBER	CHEMICAL AND/OR PHYSICAL FORM	MAXIMUM NUMBER OF MILLICURIES OF EACH FORM	DESCRIBE PURPOSE OF USE
Gadolinium-153 8507230100 850710 REG. LIC. NO. 07-12153-02 PDR	sealed source	2000	Dual photon spine scanner for bone mineral analysis "OFFICIAL RECORD COPY" ML10 03755

INFORMATION REQUIRED FOR ITEMS 7 THROUGH 23

For Items 7 through 23, check the appropriate box(es) and submit a detailed description of all the requested information. Begin each item on a separate sheet. Identify the item number and the date of the application in the lower right corner of each page. If you indicate that an appendix to the medical licensing guide will be followed, do not submit the pages, but specify the revision number and date of the referenced guide: Regulatory Guide 10.8, Rev. _____ Date: _____

7. MEDICAL ISOTOPES COMMITTEE		15. GENERAL RULES FOR THE SAFE USE OF RADIOACTIVE MATERIAL <i>(Check One)</i>	
<input type="checkbox"/>	Names and Specialties Attached; and	<input type="checkbox"/>	Appendix G Rules Followed; or
<input type="checkbox"/>	Duties as in Appendix B; or _____ <i>(Check One)</i>	<input type="checkbox"/>	Equivalent Rules Attached
<input type="checkbox"/>	Equivalent Duties Attached	16. EMERGENCY PROCEDURES <i>(Check One)</i>	
8. TRAINING AND EXPERIENCE		<input type="checkbox"/>	Appendix H Procedures Followed; or
<input type="checkbox"/>	Supplements A & B Attached for Each Individual User; and	<input type="checkbox"/>	Equivalent Procedures Attached
<input type="checkbox"/>	Supplement A Attached for RSO.	17. AREA SURVEY PROCEDURES <i>(Check One)</i>	
9. INSTRUMENTATION <i>(Check One)</i>		<input type="checkbox"/>	Appendix I Procedures Followed; or
<input type="checkbox"/>	Appendix C Form Attached; or	<input type="checkbox"/>	Equivalent Procedures Attached
<input type="checkbox"/>	List by Name and Model Number	18. WASTE DISPOSAL <i>(Check One)</i>	
10. CALIBRATION OF INSTRUMENTS		<input type="checkbox"/>	Appendix J Form Attached; or
<input type="checkbox"/>	Appendix D Procedures Followed for Survey Instruments; or _____ <i>(Check One)</i>	<input type="checkbox"/>	Equivalent Information Attached
<input type="checkbox"/>	Equivalent Procedures Attached; and	19. THERAPEUTIC USE OF RADIOPHARMACEUTICALS <i>(Check One)</i>	
<input type="checkbox"/>	Appendix D Procedures Followed for Dose Calibrator; or _____ <i>(Check One)</i>	<input type="checkbox"/>	Appendix K Procedures Followed; or
<input type="checkbox"/>	Equivalent Procedures Attached	<input type="checkbox"/>	Equivalent Procedures Attached
11. FACILITIES AND EQUIPMENT		20. THERAPEUTIC USE OF SEALED SOURCES	
<input checked="" type="checkbox"/>	Description and Diagram Attached	<input type="checkbox"/>	Detailed Information Attached; and
12. PERSONNEL TRAINING PROGRAM		<input type="checkbox"/>	Appendix L Procedures Followed; or _____ <i>(Check One)</i>
<input type="checkbox"/>	Description of Training Attached	<input type="checkbox"/>	Equivalent Procedures Attached
13. PROCEDURES FOR ORDERING AND RECEIVING RADIOACTIVE MATERIAL		21. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE GASES (e.g., Xenon - 133)	
<input type="checkbox"/>	Detailed Information Attached	<input type="checkbox"/>	Detailed Information Attached
14. PROCEDURES FOR SAFELY OPENING PACKAGES CONTAINING RADIOACTIVE MATERIALS <i>(Check One)</i>		22. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL IN ANIMALS	
<input type="checkbox"/>	Appendix F Procedures Followed; or	<input type="checkbox"/>	Detailed Information Attached
<input type="checkbox"/>	Equivalent Procedures Attached	23. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL SPECIFIED IN ITEM 6.b	
<input type="checkbox"/>		<input type="checkbox"/>	Detailed Information Attached

SUPPLEMENT #1

Christiana Hospital
4755 Ogletown-Stanton Rd.
Newark, DE 19718

Wilmington Hospital
501 West 14th Street
Wilmington, DE 19899

SUPPLEMENT #2

Item 10 on Amendment No. 38

Subitem:

A through L will be used at the Christiana Hospital

A, B, C, F, and G will be used at the Wilmington Hospital

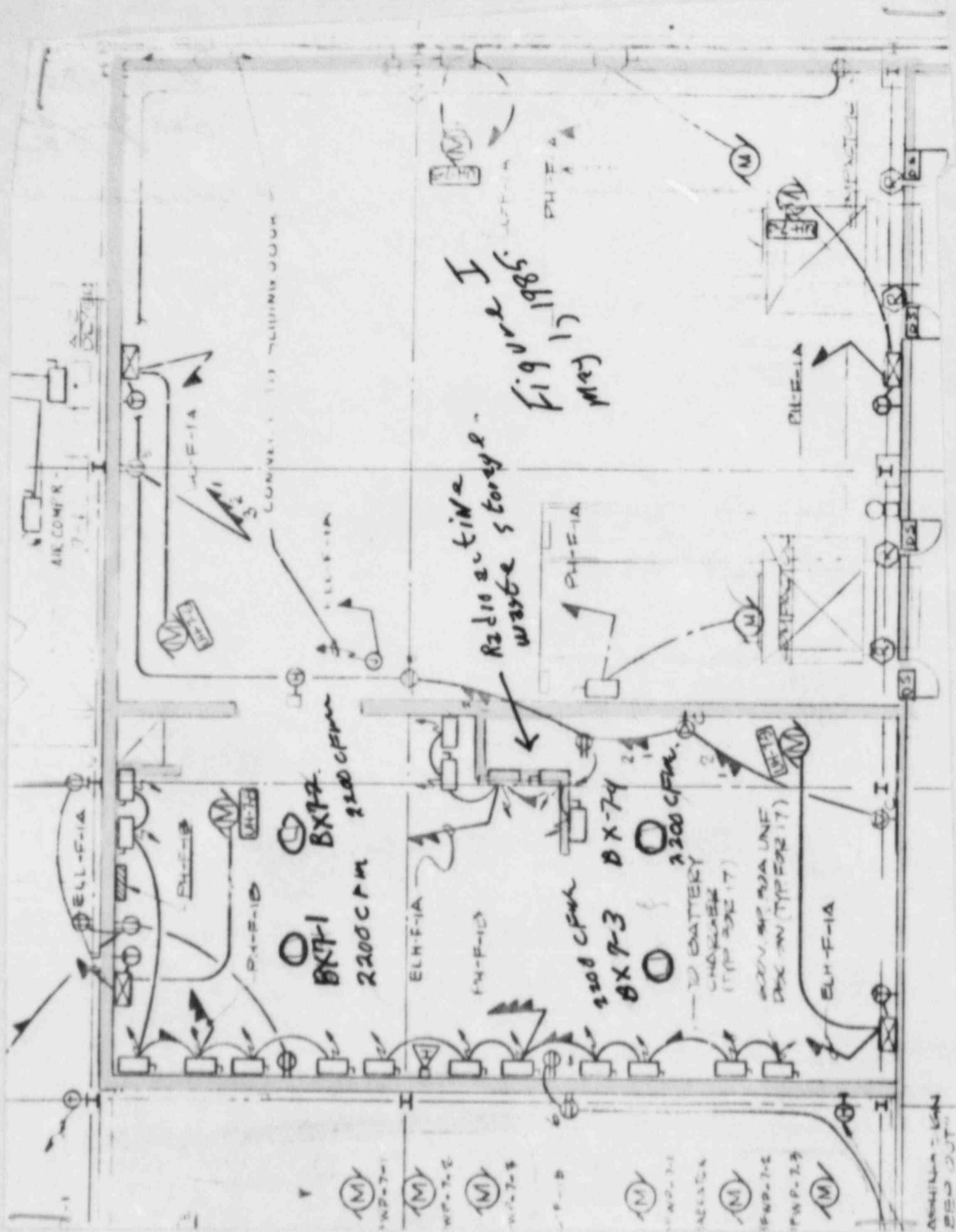
Item 11

Brachytherapy Rooms

We have removed from patient use 700 milligrams of Radium-226 in the form of needles and capsules and have replaced this with Cesium-137 sealed sources obtained from the 3M Corp. Enclosed are two copies of construction drawings showing proposed lead shielding in floor and walls for three rooms located on 6th floor of Tower A, Christiana Hospital. The shielding has been designed so that under no circumstances will the dose in any one hour exceed 2 mrem or 100 mrem in any seven (7) consecutive days in areas outside these three rooms. The rooms will be posted with a "CAUTION RADIATION AREA" sign and visitors will be limited to 30 minutes per day. All personnel working directly with these brachytherapy patients are issued Film Badge Dosimeters.

ITEM 11

A floor plan of the area in which radioactive contaminated waste from Iodine-131 cancer patients will be stored is shown in Figure I. A door is being ordered for this storage room. It will be identified with a "CAUTION RADIOACTIVE MATERIAL" sign. A radiation protection survey will be made after putting any new material in this storage room. Contaminated material will not be discarded until G.M. Survey meter indicates that it is at background level. The total volume of air exhausted from the battery room is 8800 cubic feet per minute.



24. PERSONNEL MONITORING DEVICES

TYPE (Check appropriate box)		SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY	FILM		
	TLD		
	OTHER (Specify)		
b. FINGER	FILM		
	TLD		
	OTHER (Specify)		
c. WRIST	FILM		
	TLD		
	OTHER (Specify)		

d. OTHER (Specify)

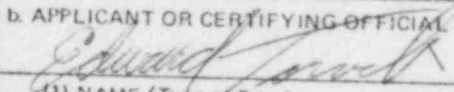
25. FOR PRIVATE PRACTICE APPLICANTS ONLY

a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL		b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.
NAME OF HOSPITAL The Medical Center of Delaware, Inc.		
MAILING ADDRESS 501 W. 14th St. P.O.Box 1668		c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.
CITY Wilmington	STATE ZIP CODE DE 19899	

26. CERTIFICATE

(This item must be completed by applicant)

The applicant and any official executing this certificate on behalf of the applicant named in Item 1a certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Parts 30 and 35, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.

a. LICENSE FEE REQUIRED (See Section 170.31, 10 CFR 170) 7C	b. APPLICANT OR CERTIFYING OFFICIAL (Signature) 
	(1) NAME (Type of Print) Edward Torvik
(1) LICENSE FEE CATEGORY:	(2) TITLE Radiation Safety Officer
(2) LICENSE FEE ENCLOSED: \$ 120.00	c. DATE 5/1/85

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on Form NRC-313M. This information is maintained in a system of records designated as NRC-3 and described at 40 Federal Register 45334 (October 1, 1975).

1. **AUTHORITY** Sections 81 and 161(b) of the Atomic Energy Act of 1954, as amended (42 U.S.C. 2111 and 2201(b)).
2. **PRINCIPAL PURPOSE(S)** The information is evaluated by the NRC staff pursuant to the criteria set forth in 10 CFR Parts 30-36 to determine whether the application meets the requirements of the Atomic Energy Act of 1954, as amended, and the Commission's regulations, for the issuance of a radioactive material license or amendment thereof.
3. **ROUTINE USES** The information may be used: (a) to provide records to State health departments for their information and use; and (b) to provide information to Federal, State, and local health officials and other persons in the event of incident or exposure, for their information, investigation, and protection of the public health and safety. The information may also be disclosed to appropriate Federal, State, and local agencies in the event that the information indicates a violation or potential violation of law and in the course of an administrative or judicial proceeding. In addition, this information may be transferred to an appropriate Federal, State, or local agency to the extent relevant and necessary for a NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you. A copy of the license issued will routinely be placed in the NRC's Public Document Room, 1717 H Street, N.W., Washington, D.C.
4. **WHETHER DISCLOSURE IS MANDATORY OR VOLUNTARY AND EFFECT ON INDIVIDUAL OF NOT PROVIDING INFORMATION** Disclosure of the requested information is voluntary. If the requested information is not furnished, however, the application for radioactive material license, or amendment thereof, will not be processed.
5. **SYSTEM MANAGER(S) AND ADDRESS** Director, Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington, D.C. 20555.

BETWEEN: William O. Miller, Chief
License Fee Management Branch
Office of Administration

John E. Glenn, Chief
Nuclear Materials Section B
Division of Engineering and
Technical Programs

Name Change

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: The Medical Center of Delaware, Inc.

Application Dated: 5/2/85

Control No.: 03755

License No.: 0712153-02

2. FEE ATTACHED

Amount: \$120.00

Check No.: 00019755

3. COMMENTS

Signed Brenda Platchek

Date 5/7/85

02/20

11/87

B. LICENSE FEE MANAGEMENT BRANCH

1. Fee Category and Amount: TC \$120

2. Correct Fee Paid. Application may be processed for:

Amendment ✓

Renewal _____

License _____

Signed Frances Brown

Date 5/15/85

108 5/17/85

"SECTION COPY"

WILMINGTON MEDICAL CENTER, INC.
WILMINGTON, DELAWARE

62-9
311

PAY

DATE
04/11/85

CHECK NO
00019755

AMOUNT
*****120.00

ONE HUNDRED TWENTY AND 00/100 DOLLARS

TO THE
ORDER
OF

NUCLEAR REGULATORY COMMISSION
WASHINGTON, D.C.

20555

INVALID AFTER 60 DAYS
WILMINGTON MEDICAL CENTER, INC.
OPERATING ACCOUNT

Wilmington Trust Company
Wilmington, Delaware

W
M
C
James P. Taylor

⑈019755⑈ ⑆031100092⑆ 2360 1648⑈

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