

Form AEC-313
(2-73)
10 CFR 30

UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE

Form approved
Budget Bureau No. 38-R0027

INSTRUCTIONS—Complete Items 1 through 16 if this is an initial application or an application for renewal of a license. Information contained in previous applications filed with the Commission with respect to Items 8 through 15 may be incorporated by reference provided references are clear and specific. Use supplemental sheets where necessary. Item 16 must be completed on all applications. Mail two copies to: U.S. Atomic Energy Commission, Washington, D.C. 20545, Attention: Materials Branch, Directorate of Licensing. Upon approval of this application, the applicant will receive an AEC Byproduct Material License. An AEC Byproduct Material 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, Part 20, and the license fee provisions of Title 10, Code of Federal Regulations, Part 170. The license fee category should be stated in Item 16 and the appropriate fees enclosed. (See Note in Instruction Sheet)

1 (a) NAME AND STREET ADDRESS OF APPLICANT. (Institution, firm, hospital person, etc. Include ZIP Code and telephone number.) Lakewood Hospital 11513 Detroit Avenue Lakewood, Ohio 44107	(b) STREET ADDRESS(ES) AT WHICH BYPRODUCT MATERIAL WILL BE USED. (If different from 1(a) Include ZIP Code.) Same
2. DEPARTMENT TO USE BYPRODUCT MATERIAL Nuclear Medicine	3. PREVIOUS LICENSE NUMBER(S). (If this is an application for renewal of a license, please indicate and give number.) Amendment to License #34-01197-01
4. INDIVIDUAL USER(S). (Name and title of individual(s) who will use or directly supervise use of byproduct material. Give training and experience in Items 8 and 9.) Amend to add: William R. Pulvan, M.D. Wilfred H. Gill, M.D.	5. RADIATION PROTECTION OFFICER. (Name of person designated as radiation protection officer if other than individual user. Attach resume of his training and experience as in Items 8 and 9.) Wilfrid M. Gill, M.D.

6. (a) BYPRODUCT MATERIAL. (Elements and mass number of each.)	(b) CHEMICAL AND/OR PHYSICAL FORM AND MAXIMUM NUMBER OF MILLICURIES OF EACH CHEMICAL AND/OR PHYSICAL FORM THAT YOU WILL POSSESS AT ANY ONE TIME. (If sealed source(s), also state name of manufacturer, model number, number of source, and maximum activity per source.)
Please amend AEC license #34-01197-01 to include William R. Pulvan, M.D. and Wilfred H. Gill, M.D. for all Group I and II diagnostic procedures (Se-75 selenomethionine for pancreas imaging—Dr. Gill only) currently available to this hospital through this license. Refer to items 28 and 29 and attached preceptorship statements for evidence of training and experience.	

7. DESCRIBE PURPOSE FOR WHICH BYPRODUCT MATERIAL WILL BE USED. (If byproduct material is for "human use," supplement A (Form AEC-313a) must be completed in lieu of this item. If byproduct material is in the form of a sealed source, include the make and model number of the storage container and/or device in which the source will be stored and/or used.)

Human use.

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TRAINING AND EXPERIENCE OF EACH INDIVIDUAL NAMED IN ITEM 4 (Use supplemental sheets if necessary)

8. TYPE OF TRAINING	WHERE TRAINED	DURATION OF TRAINING	ON THE JOB (Circle answer)		FORMAL COURSE (Circle answer)	
			Yes	No	Yes	No
a. Principles and practices of radiation protection	Wilfred M. Gill, M.D. board certified radiologist. Also refer to application for license #34-15357-01, 6/19/72.		Yes	No	Yes	No
b. Radioactivity measurement standardization and monitoring techniques and instruments	William E. Pudvan, M.D., board certified radiologist. Refer also to attached AEC 313a, p. 3, 4.		Yes	No	Yes	No
c. Mathematics and calculations basic to the use and measurement of radioactivity			Yes	No	Yes	No
d. Biological effects of radiation			Yes	No	Yes	No

9. EXPERIENCE WITH RADIATION (Actual use of radioisotopes or equivalent experience)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
See above.				

10. RADIATION DETECTION INSTRUMENTS (Use supplemental sheets if necessary)

TYPE OF INSTRUMENTS (Include make and model number of each)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm ²)	USE (Monitoring, surveying, measuring)
Refer to application for license #34-01197-01					

11. METHOD, FREQUENCY, AND STANDARDS USED IN CALIBRATING INSTRUMENTS LISTED ABOVE

Refer to application for license #34-01197-01

12. FILM BADGES, DOSIMETERS, AND BIO-ASSAY PROCEDURES USED. (For film badges, specify method of calibrating and processing, or name of supplier)

Refer to application for license #34-01197-01

INFORMATION TO BE SUBMITTED ON ADDITIONAL SHEETS IN DUPLICATE

13. FACILITIES AND EQUIPMENT Describe laboratory facilities and remote handling equipment, storage containers, shielding, fume hoods, etc. Explanatory sketch of facility is attached (Circle answer) Yes No

14. RADIATION PROTECTION PROGRAM Describe the radiation protection program including control measures. If application covers sealed sources, submit leak testing procedures where applicable, name, training, and experience of person to perform leak tests, and arrangements for performing initial radiation survey, servicing, maintenance and repair of the source.

Refer to application for license #34-01197-01

15. WASTE DISPOSAL If a commercial waste disposal service is employed, specify name of company. Otherwise, submit detailed description of methods which will be used for disposing of radioactive wastes and estimates of the type and amount of activity involved.

Refer to application for license #34-01197-01

CERTIFICATE (This item must be completed by applicant) #34-01197-01

16. THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATE ON BEHALF OF THE APPLICANT NAMED IN ITEM 1, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PART 30, AND THAT ALL INFORMATION CONTAINED HEREIN, INCLUDING ANY SUPPLEMENTS ATTACHED HERETO, IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF.

License Fee Category \$ _____
 Fee Enclosed \$ _____
 Date 7/30/74

Applied for at Lakewood Hospital
 By Glucene E. Hornung
 Title Administrator

APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL
SUPPLEMENT A—HUMAN USE

If byproduct material is for "human use" (internal administration of byproduct material, or the radiation therefrom to human beings), complete this supplement and attach to the application for byproduct material license.

1. (a) USING PHYSICIAN'S NAME W. H. Gill, M.D. W. R. Pudvan, M.D.	(b) NAME AND ADDRESS OF APPLICANT (If different from 1(a). Include ZIP Code.) Lakewood Hospital 14510 Detroit Avenue Lakewood, Ohio 44107
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2. THE USING PHYSICIAN INDICATED ABOVE IS LICENSED TO DISPENSE DRUGS IN THE PRACTICE OF MEDICINE BY A STATE OR TERRITORY OF THE UNITED STATES, THE DISTRICT OF COLUMBIA, OR THE COMMONWEALTH OF PUERTO RICO.	CIRCLE ANSWER	(YES)	NO
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3. A STATEMENT OF USING PHYSICIAN'S CLINICAL RADIOISOTOPE EXPERIENCE (PAGE 3 OF THIS SUPPLEMENT) IS SUBMITTED IN SUPPORT OF THIS APPLICATION. IF ANSWER IS NO, USE PAGE 2 OF THIS SUPPLEMENT TO EXPLAIN OR REFER TO OTHER APPLICATION OR RELATED DOCUMENTS ON WHICH THIS INFORMATION APPEARS. * Dr. Gill - See application for license #34-15357-01	CIRCLE ANSWER	(YES)	(NO) *
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4. A DESCRIPTION OF THE USING PHYSICIAN'S TRAINING AND EXPERIENCE IN BASIC RADIOISOTOPE HANDLING TECHNIQUES AND/OR RADIOPHARMACEUTICAL PREPARATION IS APPENDED. * Dr. Gill - Refer to application for license #34-15357-01	CIRCLE ANSWER	(YES)	(NO) †
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5. (a) DESCRIBE PURPOSE FOR WHICH MATERIAL WILL BE USED INCLUDING SPECIFIC CONDITIONS OR DISEASES TO BE DIAGNOSED OR TREATED (Use page 2 if necessary). Refer to application for license #34-01197-01 (b) CHEMICAL FORM ADMINISTERED: Refer to application for license #34-01197-01 (c) DOSAGE SCHEDULE FOR EACH CONDITION TO BE DIAGNOSED OR TREATED: Refer to application for license #34-01197-01

6. INVESTIGATIVE PROPOSAL FOR EXPERIMENTAL OR NON-ROUTINE USE IS APPENDED. (See Appendix F of AEC Licensing Guide for items to be submitted).	CIRCLE ANSWER	YES	(NO)
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7. IF BYPRODUCT MATERIAL WILL NOT BE OBTAINED IN PRECALIBRATED FORM FOR ORAL ADMINISTRATION OR IN PRECALIBRATED FORM FOR PARENTERAL ADMINISTRATION, DESCRIBE IDENTIFICATION, PROCESSING, AND STANDARDIZATION PROCEDURES. Refer to application for license #34-01197-01

8. THE PROPOSED USE OF BYPRODUCT MATERIAL HAS BEEN, OR WILL BE, APPROVED BY THE MEDICAL ISOTOPE COMMITTEE.	CIRCLE ANSWER	(YES)	NO
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HOSPITAL FACILITIES FOR INDIVIDUAL PRACTICE USE ONLY

9. (a) THE APPLICANT HAS COMPLETED ARRANGEMENTS FOR A HOSPITAL TO ADMIT RADIOACTIVE PATIENTS WHENEVER ADVISABLE.	CIRCLE ANSWER	YES	NO
(b) A COPY OF INSTRUCTIONS TO BE FURNISHED TO THE HOSPITAL AS TO RADIOLOGICAL SAFETY PRECAUTIONS TO BE TAKEN AND AVAILABLE RADIATION INSTRUMENTATION IS ATTACHED.	CIRCLE ANSWER	YES	NO

UNITED STATES ATOMIC ENERGY COMMISSION
APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL
SUPPLEMENT A—PRECEPTOR STATEMENT

This page is to be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each. Page 2 may be used for comments and additional information.

10. NAME AND ADDRESS OF APPLICANT PHYSICIAN (include ZIP Code) **William R. Pudvan, M.D.**
Madison Square Medical Bldg
15644 Madison Ave., Lakewood, Ohio 44107

11. CLINICAL TRAINING AND EXPERIENCE OF PHYSICIAN NAMED IN ITEM 10 ABOVE

(A) ISOTOPE	(B) CONDITIONS DIAGNOSED OR TREATED	(C) No. Cases Observed (See 1 in key below)	(D) No. Cases Involving Personal Participation (See 2 in key below)
I-131 or I-125	Diagnosis of thyroid function		62
	Determination of blood and blood plasma volume		10
	Liver function studies		
	Fat absorption studies		
	Kidney function studies		
	In vitro studies		
Cr-51	Gastrointestinal protein loss studies		
	Determination of red blood cell volume and studies of red blood cell survival		
Fe-59	Iron turn over studies		
Co-58or Co-60 Co-57	Intestinal absorption studies Schillings Tests		3
K-42	Potassium space determinations		
I-131	Thyroid imaging		62
	Brain tumor localization and cardiac imaging		
	Cisternography		
	Lung imaging		
	Liver imaging		
	Kidney imaging		
	Placenta localization		
Cr-51	Placenta localization		
	Spleen imaging		
Au-198	Liver imaging		
Hg-197	Brain imaging		
	Kidney imaging		
Hg-203	Brain imaging		3
Sr-85	Bone imaging		
Tc-99m	Brain imaging		60
	Thyroid imaging		
	Salivary gland imaging		
	Blood pool imaging		

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APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL
SUPPLEMENT A—HUMAN USE

(A) ISOTOPE	(B) CONDITIONS DIAGNOSED OR TREATED	(C) No. Cases Observed (See 1 in key below)	(D) No. Cases Involving Personal Participation (See 2 in key below)
Tc-99m	Placenta localization		
	Liver and spleen imaging		20
	Lung imaging		15
	Bone imaging		8
Xe-133	Blood flow studies and pulmonary function studies		
Se-75	Pancreas imaging		
P-32	Treatment of polycythemia, leukemia, and Bone metastases		
	Intracavitary treatment		
I-131	Treatment of thyroid carcinoma		
	Treatment of hyperthyroidism and cardiac condition		
Au-198	Intracavitary treatment		
Co-60 or CO-137	Interstitial treatment		
	Intracavitary treatment		
Ir-192	Interstitial treatment		
Co-60 CO-137	Teletherapy treatment		
Sr-90	Treatment of eye disease		

Key to Column (C) and (D) above

1. Observation should consist of observing radioisotope administration techniques and discussion with preceptor the case histories to establish most appropriate diagnostic and/or therapeutic procedure, limitation, contraindications, etc.
2. Personal participation should consist of (a) supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation on dosage to be prescribed, (b) collaboration in calibration of the dose and the actual administration of the dose to the patient, including calculation of the radiation dose, related measurements, and plotting of data; and (c) adequate period of training to enable the physician to manage radioactive patients and to follow patients through diagnosis and/or the course of treatment.

12. DATES AND TOTAL NUMBER OF HOURS OF CLINICAL RADIOISOTOPE TRAINING

November 1973-May 1974 1/2 time

13. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF

Wilfred M. Gill, M.D.

Bay View Hospital

23200 Lake Road

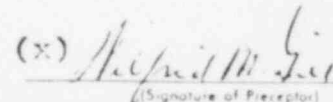
Bay Village, Ohio 44140 #34-01334-02

AT

(Institution) Name and Address

(Byproduct Material License Number)

(x)



(Signature of Preceptor)