

030-19020



The Allentown
Hospital—
Lehigh Valley
Hospital Center
A HEALTHCARE HOSPITAL

November 3, 1988

Log	Nov 6
Remitter	
Check No.	322632 (350)
Amount	\$230.00
Fee Category	7A
Type of Fee	AMD
Date Check Rec'd.	11/17/88
Date Completed	11/17/88
By:	A. Kowalski

Ms. Judy Joustra
United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406

Dear Ms. Joustra:

Please make the following changes to our MRC Byproduct Material License (No. 37-01548-01) and our Teletherapy Material License (No. 37-01548-03):

1. Please add Victor R. Risch, M.D. to our Byproduct Material License as an authorized user of brachytherapy sources and use of radiopharmaceuticals for therapy. Also add Dr. Risch to our Teletherapy License for use of Co-60. You have received Dr. Risch's preceptor statement and training and experience.
2. Attached for your review is a drawing of our new nuclear medicine department. This area is outlined in red, blue and green in the supplied drawing. The red area is the part of the department that we intend to occupy as soon as this amendment gets approved. The blue and green areas (our present department) will be occupied once construction is completed in these areas. The green area denotes an uncontrolled area of nuclear medicine that will be separated from the rest of the department by lockable doors. A description of the department with all the safety features is attached to the drawing. Since this is going to be a two or three stage move, the following is being presented in advance for your approval:

9001300043 BB1212
REG1 LIC30
37-01548-01 PDR

Stage I

Upon approval from you, we will move from the old department into the red outlined area on the attached drawing. Radioactive gas studies will not be performed until negative pressure and proper air flow is achieved to meet the requirements of 10 CFR Parts 20.104 and 20.105 in the imaging rooms where the gas studies are to be performed. The old department (outlined blue and green areas) will not be released for construction until a radiation survey is conducted to ensure that this meets the requirement of 10 CFR Part 20.105 for an unrestricted area. If any area is found to be contaminated, wipe test will be conducted to ensure that removable

contamination is below 200 cpm. Air flow calculations and radiation surveys will be conducted according to our recent license renewal submittal. The results of the radiation survey will be submitted to you and will also be kept on file for further review during a NRC inspection. Since our decay locker will not be ready during stage I, we will utilize a locked lead lined room in the radiology department until the decay locker is completed. A radiation survey will be conducted to ensure that radiation levels outside this temporary area meet the requirements of 10CFR 20.105.

Stage II

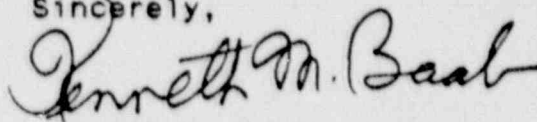
In stage II the decay locker will be completed and the material from the temporary decay locker will be moved into the new decay locker area. Before release for general use, a radiation survey will be conducted in the lead lined room of radiology to ensure that it meets the requirements of 10 CFR Part 20.105. The results of this survey will be sent to you for review and kept on file for your review during NRC inspections.

Stage III

In stage III the nuclear medicine department will expand into the blue and green areas indicated on the drawing. This will not involve the movement of any byproduct material except for the placement of the bone densitometry with its associated Gd-153 source from the adjacent rectilinear scanner room.

You have already received the \$350.00 licensing fee for amendments to both licenses. If you need any additional information or have any questions, please contact Carmine A. Pierno at (215) 776-8385. Thank you for your attention to this matter.

Sincerely,



Kenneth M. Baab
Vice President

DESCRIPTION OF NUCLEAR MEDICINE DEPARTMENT

Hot Lab -

The hot lab is shielded on all sides with 1/16" of lead except the wall by the decay locker which has 3/16" of lead. The door of hot lab is lockable and shielded with 1/16" of lead.

The hot lab is vented by a non-recirculating fume hood and a negative pressure will be maintained in this area. Within the fume hood a cove is constructed of standard 2" x 4" x 8" lead bricks for radionuclides that are used daily and require no refrigeration. All radioactive doses will be drawn in the fume hood behind a table top lead barrier shield (Atomic Products Cat# 042-016) with a one piece lead glass viewing screen. The lead glass is 1/4" thick lead glass with 1/2' thick lead walls.

A lead lined under counter refrigerator (Atomic Products Cat# 001-850) will be used for storage of radionuclides that require refrigeration. The refrigerator is lockable with 1/16" lead sheeting encased in steel on all sides.

A lead lined dry well will be built. The dry well be approximately 20" x 40" x 12" and lined with 1/16" of lead. In the dry well four to six lead shields approximately 3/4" thick will be used for storage of the Mo-99/Tc-99m generator system, used syringes. Also radionuclides that are not used daily (Cr-51, Co-57 capsules, ect.) will be stored in the dry well.

Personnel monitoring will be made with a Victoreen 425 Frisker Monitor, which will be mounted on a shelf in the dose calibrator area.

The dose calibrator area will be located in the hot lab, but will be separated by a 1/16" lead lined wall. All the walls in this area are shielded with 1/16" of lead. Around the dose calibrator will be lead bricks to reduce the radiation levels to the technologist as they are measuring radiopharmaceuticals.

Decay Locker -

The decay locker when completed will be shielded on all sides with 3/16" of lead. The door of the decay locker will also be shielded. Old calibration sources, gamma camera flood sources and radioactive waste are stored inside this area. The temporary decay locker is a 1/16" lead lined room that is located in the radiology department of the hospital. This temporary storage

area had a lockable lead lined door and will be secured when not in use. This area will only be used during our Stage I phase of the nuclear medicine construction project.

Imaging Rooms -

All the imaging rooms, uptake room and the dual photon bone densitometry room have the outer walls shielded with 1/32" lead. Additional shielding is provided with brick which is placed behind the lead. The rooms that will be used for radioactive gases will have negative pressure and enough flow to meet the requirements of 10 CFR Part 20.

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER Victor Risch, M.D.	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE Pennsylvania
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3. CERTIFICATION		
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American Board of Radiology (Therapeutic Radiology)		May, 1988

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES			
FIELD OF TRAINING A	LOCATION AND DATE (S) OF TRAINING B	TYPE AND LENGTH OF TRAINING	
		LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	Johns Hopkins Hospital 1984-85	80	10
b. RADIATION PROTECTION	Johns Hopkins Hospital 1984-85	10	2
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	Johns Hopkins Hospital 1984-85	10	Not applicable
d. RADIATION BIOLOGY	Johns Hopkins Hospital 1984-85	27	0
e. RADIOPHARMACEUTICAL CHEMISTRY	Lehigh University 1972-75 Hahnemann Medical College 1974-75 (Ph.D. in Radiopharmaceutical Chemistry)	numerous	numerous

5. EXPERIENCE WITH RADIATION. (Actual use of Radioisotopes or Equivalent Experience)				
ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
I 131	200 mc.	Johns Hopkins Hospital	1984-88	patient treatment
P 32	30 mc.	Johns Hopkins Hospital	1984-88	patient treatment
Radium 226	100 mc.	Johns Hopkins Hospital	1984-88	patient treatment
Iridium 192	100 mc.	Johns Hopkins Hospital	1984-88	patient treatment
I 125	100 mc.	Johns Hopkins Hospital	1984-88	patient treatment
⁹⁰ Y	20 mc.	Johns Hopkins Hospital	1984-88	patient treatment
Sr ⁹⁰	applicator	Johns Hopkins Hospital	1984-88	patient treatment

PRECEPTOR STATEMENT

Supplement B must be completed by the applicant physician's preceptor. If more than one preceptor is necessary to document experience, obtain a separate statement from each.

1. APPLICANT PHYSICIAN'S NAME AND ADDRESS

FULL NAME

Victor R. Risch, M.D.

STREET ADDRESS

The Allentown Hospital
17th & Chew Streets

CITY

Allentown, Pennsylvania

STATE

ZIP CODE

18102

KEY TO COLUMN C

PERSONAL PARTICIPATION SHOULD CONSIST OF:

- 1-Supervised examination of patients to determine the suitability for radioisotope diagnosis and/or treatment and recommendation for prescribed dosage.
- 2-Collaboration in dose calibration and actual administration of dose to the patient including calculation of the radiation dose, related measurements and plotting of data.
- 3-Adequate period of training to enable physician to manage radioactive patients and follow patients through diagnosis and/or course of treatment.

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS <i>(Additional information or comments may be submitted in duplicate on separate sheets.)</i> D
I-131 or I-125	DIAGNOSIS OF THYROID FUNCTION		
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME		
	LIVER FUNCTION STUDIES		
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES		
IN VITRO STUDIES			
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING	10	
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER	I 131 & ⁹⁰ Y antibody therapy	10	
Tc-99m	BRAIN IMAGING		
	CARDIAC IMAGING		
	THYROID IMAGING		
	SALIVARY GLAND IMAGING		
	BLOOD POOL IMAGING		
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING		
	LUNG IMAGING		
BONE IMAGING			
OTHER			

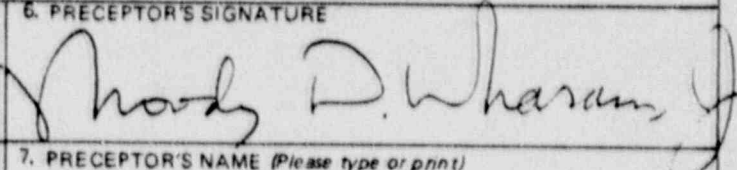
PRECEPTOR STATEMENT (Continued)

2. CLINICAL TRAINING AND EXPERIENCE OF ABOVE NAMED PHYSICIAN (Continued)

ISOTOPE A	CONDITIONS DIAGNOSED OR TREATED B	NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION C	COMMENTS (Additional information or comments may be submitted in duplicate on separate sheets.) D	
P-32 (Soluble)	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES	1	I did not directly supervise this treatment	
P-32 (Colloidal)	INTRACAVITARY TREATMENT	(15)		
I-131	TREATMENT OF THYROID CARCINOMA	10		
	TREATMENT OF HYPERTHYROIDISM	4		
Au-198	INTRACAVITARY TREATMENT			
Co-60 or Cs-137	INTERSTITIAL TREATMENT			
	INTRACAVITARY TREATMENT			
I-125 or Ir-192	INTERSTITIAL TREATMENT	(20)		I did not personally supervise this treatment The applicant has experience with many more patients under the direction of other supervisors.
	Co-60 or Cs-137	TELE THERAPY TREATMENT		
Si-32	TREATMENT OF EYE DISEASE	3		
	RADIOPHARMACEUTICAL PREPARATION			
Mo-99/ Tc-99m	GENERATOR			
Sr-90/ Y-90	GENERATOR			
Tc-99m	REAGENT KITS			
Other				


3. DATES AND TOTAL NUMBER OF HOURS RECEIVED IN CLINICAL RADIOISOTOPE TRAINING

Training period extends from 1983 until 1987. Training program consisted of 3 total years.

4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:		6. PRECEPTOR'S SIGNATURE			
a. NAME OF SUPERVISOR Moody D. Wharam, M.D.					
b. NAME OF INSTITUTION The Johns Hopkins Hospital				7. PRECEPTOR'S NAME (Please type or print) Moody D. Wharam, M.D.	
c. MAILING ADDRESS 600 N. Wolfe Street				8. DATE 8/22/88	
d. CITY Baltimore, Maryland 21205					
5. MATERIALS LICENSE NUMBER(S) MD 0700503					

REMITTANCE ADVICE

No. 322632

INVOICE DATE	REFERENCE NUMBER	PO #	HOSPITAL VOUCHER NO	MEMORANDUM	INVOICE AMOUNT	DISCOUNT	NET AMOUNT	
10/03/88	10/03/88		100012	TELE THERAPY	350.00	0.00	350.00	
CHECK DATE	CHECK NO	 The Allentown Hospital - Lehigh Valley Hospital Center <small>A HealthEast Hospital</small>					CHECK AMOUNT	
04 OCT 88	322632	17th & Chew Sts. Allentown, PA 18102					350.00	

PLEASE DETACH BEFORE DEPOSITING

No. 322632
DISBURSEMENT ACCOUNT


**The Allentown Hospital -
Lehigh Valley Hospital Center**
A HealthEast Hospital
 17th & Chew Sts. • Allentown, PA 18102

CHECK DATE	CHECK NO
04 OCT 88	322632

PAY EXACTLY
*****350.00*

PAY TO THE
ORDER OF

U. S. NUCLEAR REGULATORY
COMMISSION



MERIDIAN BANK

60-46
313

AUTHORIZED SIGNATURE

⑈ 322632⑈ ⑆031300485⑆ 3033⑈3233⑈

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 02300
STATUS CODE: 0
FEE CATEGORY: 7A
EXP. DATE: 19911031
FEE COMMENTS:

LICENSE FEE TRANSMITTAL

4. REGION

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: ALLENTOWN HOSP. - LEHIGH VALLEY HOSP.
RECEIVED DATE: 831107
DOCKET NO.: 3019020
CONTROL NO.: 109836
LICENSE NO.: 37-01548-03
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT:
CHECK NO.:

3. COMMENTS

CHECK FOR \$350.00
C/N 109835 - COVERS
FOR 109836 AW90

SIGNED EMW
DATE NOV 10, 1988

5. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1/1)

1. FEE CATEGORY AND AMOUNT: 7A \$230

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:
AMENDMENT
RENEWAL
LICENSE

3. OTHER

SIGNED S. Kimberly
DATE 4/12/88

PA 03.07
11/14
already in