MARQUETTE GENERAL HOSPITAL
REGIONAL MEDICAL CENTER

ROBERT C. NELDBERG, EXECUTIVE DIRECTOR

November 8, 1985

United States Nuclear Regulatory Commission
Region III
Materials Licensing Section
799 Roosevelt Road
Glen Ellyn, Illinois 60137

Dear Sirs:

You will find enclosed three(3) proposed amendments to our NRC license number 21-05432-04. Enclosed you will find a check in the amount of $120.00 for the required licensing fee.

If you should have any questions concerning these amendments please feel free to contact me.

Sincerely,

Ray Wery

Ray Wery
Physicist
Marquette General Hospital
Marquette, Michigan 49855
1-906-225 3102

RECEIVED
'85 NOV 22 A10:35
U.S.N.R.C.
LIC. FEE MGMT. BRANCH

RFW/ra

Nov-14-III

Applicant
Check 38868
Amount $120.00
Type Amd
Date Check Rec'd 11/22/85
Received By Jacques

RECEIVED
NOV 18 1985
REGION III

8601210103 851231
REG3 LIC30
21-05432-04 PDR

NOV 18 1985

CONTROL NO. 80153

LICENSE # 21-05432-04

A. Radioactive materials storage area roof of the St. Lukes Building

Please amend our NRC License #21-05432-04 to indicate that we use an area on teh roof of teh St. Lukes Building for storage of radioactive material waste. This area is used to store short half-life radioactive waste material generated in the Nuclear Medicine Department until it has decayed to background levels.

1. You will find enclosed a diagram of the storage area. The storage area is a room with concrete walls and ceiling with a metal door which is locked at all times. The door is posted to indicate the presence of radioactive material.

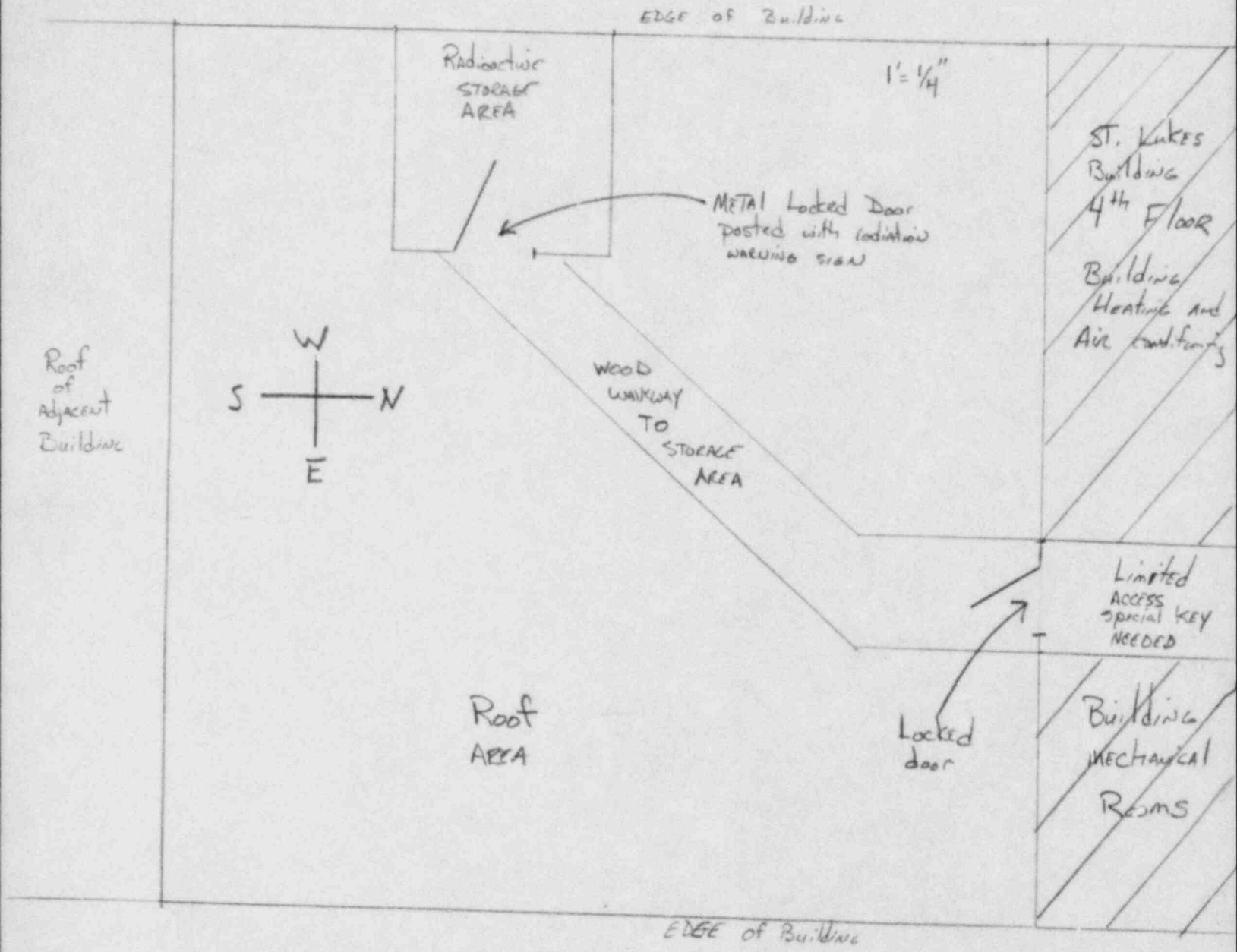
2. Movement of materials to the storage is done by or under the supervision of Nuclear Medicine department personnel.

3. A radiation survey was done on 25-Oct-85. Below you will find a summary of that survey.

Direction	Location	Exposure rate
North	outer wall of storage area	<0.1mR/hr
South	outer wall of storage area	<0.1mR/hr
East	Door	<0.1mR/hr
Below	Employee locker	<0.1mR/hr

Background = <0.1mR/hr
Keithley Model#36150 Survey meter
calibrated April, 1985

MARQUETTE GENERAL Hospital
Radioactive Materials Storage
Roof ST. Lukes Building



AREA Below Radioactive Storage Area

- Employee locker and storage AREA
- G.M READING At background level

B. Addition of authorized users to License #21-05432-04

Please amend this NRC License to include the following authorized users:

Peter A. Lassing, M.D.
Teofilo L. Sia, M.D.
Ethelbert M. Lara, M.D.

Attached you will find documentation as to their training and experience.

CONTROL NO. 80153

NRC FORM 313M SUPPLEMENT A (9-81) — U.S. NUCLEAR REGULATORY COMMISSION

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE
Teofilo L. Sia, M. D.	Michigan

3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American College of Diagnostic Radiology	Radiology	6/81

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	Bronx-Lebanon Hospital Center Bronx, NY	120	35
b. RADIATION PROTECTION	Same as above	40	0
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	" " "	40	0
d. RADIATION BIOLOGY	" " "	50	0
e. RADIOPHARMACEUTICAL CHEMISTRY	" " "	65	0

5. EXPERIENCE WITH RADIATION. *(Actual use of Radioisotopes or Equivalent Experience)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
$Tc^{99}m$	10 Ci	Marquette General Hospital 420 W. College Avenue Marquette, MI 49855	July 1, 1983 to present	Diagnostic Radiology
Mo^{99}	28.6 Ci	same as above	Same as above	"
I 131	10 mCi	" " "	" " "	"
Tl 201	55 mCi	" " "	" " "	"
Ga^{67}	80 mCi	" " "	" " "	"
Xe 133	700 mCi	" " "	" " "	"
In 111	5 mCi	" " "	" " "	"

NRC FORM 313M SUPPLEMENT B
(9-81)

U. S. NUCLEAR REGULATORY COMMISSION

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

Teofilo L. Sia, M. D.

STREET ADDRESS

1414 W. Fair Avenue

CITY	STATE	ZIP CODE
Marquette	MI	49855

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 *(Additional information or comments may be submitted in duplicate on separate sheets.)* D
I-131 or I-125	DIAGNOSIS OF THYROID FUNCTION	12	
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME		
	LIVER FUNCTION STUDIES		
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES	11	
	IN VITRO STUDIES		
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING	12	
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER	In 111 Cisternography	5	
Tc-99m	BRAIN IMAGING	10	
	CARDIAC IMAGING	2	
	THYROID IMAGING	30	
	SALIVARY GLAND IMAGING	2	
	BLOOD POOL IMAGING	16	
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING	96	
	LUNG IMAGING	49	
	BONE IMAGING	128	
OTHER	Gastrointestinal	4	

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		
P-32 *(Colloidal)*	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA		
	TREATMENT OF HYPERTHYROIDISM		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
Co-60 or Cs-137	TELETHERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR	5 Elutions	
Sn-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS	5 Kit preps	
Other			

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

July 1, 1983 to present - average 36 patients a month

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

a. NAME OF SUPERVISOR
John F. Pillote, M. D.

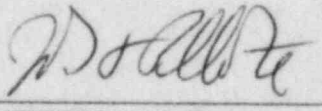
b. NAME OF INSTITUTION
Marquette General Hospital

c. MAILING ADDRESS
420 W. College Avenue

d. CITY
Marquette, MI 49855

5. MATERIALS LICENSE NUMBER(S)
21-05432-04

6. PRECEPTOR'S SIGNATURE



7. PRECEPTOR'S NAME *(Please type or print)*
John F. Pillote, M. D.

8. DATE

NRC FORM 313M SUPPLEMENT B
(9-81)

GPO 890-913

THE BRONX-LEBANON HOSPITAL CENTER

AFFILIATED WITH ALBERT EINSTEIN COLLEGE OF MEDICINE

FULTON AVENUE AT 169TH STREET
BRONX, N.Y. 10456
(212) 588-7000

CONCOURSE DIVISION
1650 GRAND CONCOURSE
BRONX, NEW YORK 10457

FULTON DIVISION
1276 FULTON AVENUE
BRONX, NEW YORK 10456

THE BRONX-MORRISANIA AMBULATORY CARE UNIT
1309 FULTON AVENUE
BRONX, NEW YORK 10456

August 28, 1985

To Whom It May Concern:

Dr. Teofilo Sia was a Resident in our Department from 1972 to 1976. During these four years, he was in attendance on our program's weekly didactic lectures on the Physics of Nuclear Medicine and Radiation Biology. These were given by Mr. Joseph Warmund, who is a Board Certified Physicist, as well as other Professors from Albert Einstein College of Medicine who periodically came as guest lecturers. Dr. Sia was assigned to six months in the Department of Nuclear Medicine where he became very proficient and commendably knowledgeable in this Specialty.

This letter is not just to confirm that he had attended the program faithfully, but also to commend him highly.

Yours Truly,

Prospero Sanidad, M.D.
Radiologist-In-Charge
Concourse Division

PS/sg

CONTROL NO. 00153

NRC FORM 313M SUPPLEMENT A (9-81) — U.S. NUCLEAR REGULATORY COMMISSION

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE
Peter A. Lassing, M. D.	Michigan

3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American Board of Radiology	Diagnostic Radiology	6/77

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	TYPE AND LENGTH OF TRAINING: SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	National Naval Medical Center Bethesda, Maryland Course #7602 (Jan. - Mar. 1976	63	17
b. RADIATION PROTECTION	Same as above	18	0
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	" " "	28	0
d. RADIATION BIOLOGY	" " "	9	0
e. RADIOPHARMACEUTICAL CHEMISTRY	" " "	30	0

5. EXPERIENCE WITH RADIATION. *(Actual use of Radioisotopes or Equivalent Experience)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
Tc 99m	50 Ci	Marquette General Hospital 420 W. College Avenue Marquette, MI 49855	July 9, 1979 to present	Diagnostic Radiology
Ga 67	600 mCi	same as above	same as above	"
Tl 201	120 mCi	" " "	" " "	"
Xe 133	7 Ci	" " "	" " "	"
I 131	1 Ci	" " "	" " "	"
In 111	5 mCi	" " "	" " "	"
Yb 111	5 mCi	" " "	" " "	"

NRC FORM 313M SUPPLEMENT B
(9-81)

U. S. NUCLEAR REGULATORY COMMISSION

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

Peter A. Lassing, M. D.

STREET ADDRESS

1414 W. Fair Avenue

CITY	STATE	ZIP CODE
Marquette	MI	49855

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 *(Additional information or comments may be submitted in duplicate on separate sheets.)* D
I-131 or I-125	DIAGNOSIS OF THYROID FUNCTION	48	Combination of clinical experience at Bethesda Medical Center (Jan. 76 to Mar. 76), and Marquette General Hospital, Marquette, MI (July, 79 to present)
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME		
	LIVER FUNCTION STUDIES		
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES	75	
	IN VITRO STUDIES	1,669	
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING	110	
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING	1	
Yb-169	CISTERNOGRAPHY	13	
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER	I 131 Thyroid chest survey	3	
Tc-99m	BRAIN IMAGING	268	
	CARDIAC IMAGING		
	THYROID IMAGING	209	
	SALIVARY GLAND IMAGING	10	
	BLOOD POOL IMAGING	45	
	PLACENTA LOCALIZATION	5	
	LIVER AND SPLEEN IMAGING	590	
	LUNG IMAGING	237	
	BONE IMAGING	716	
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		
P-32 *(Colloidal)*	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA		
	TREATMENT OF HYPERTHYROIDISM		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
Co-60 or Cs-137	TELETHERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR	5 Elutions	
Sn-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS	5 Kit preps	
Other			

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

July 9, 1979 to present - average 36 patients a month

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

a. NAME OF SUPERVISOR
John F. Pillote, M. D.

b. NAME OF INSTITUTION
Marquette General Hospital

c. MAILING ADDRESS
420 W. College Avenue

d. CITY
Marquette, MI 49855

5. MATERIALS LICENSE NUMBER(S)
21-05432-04

6. PRECEPTOR'S SIGNATURE

7. PRECEPTOR'S NAME *(Please type or print)*
John F. Pillote, M. D.

8. DATE

NRC FORM 313M SUPPLEMENT B
(9-81)

GPO 890-913

NATIONAL NAVAL MEDICAL CENTER

BETHESDA, MARYLAND - 20014

IN REPLY REFER TO
NNMC:C95:JAT:jt
1520
10 July 1978

LT Peter A. Lassing, MC, USNR
Radiology Department
Naval Regional Medical Center
Oakland, California 94627

Dear Dr. Lassing:

The following information is enclosed for your records and for use when applying for a NRC By Products Materials License.

Part 4 to Form NRC-313M-Supplement A (7-77) 10 CFR 30

4. TRAINING RECEIVED IN BASIC RADIOISOTOPE HANDLING TECHNIQUES			
		TYPE AND LENGTH OF TRAINING	
FIELD OF TRAINING A	LOCATION AND DATE(S) OF TRAINING B	LECTURE/ LABORATORY COURSES (Hours) C	SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	National Naval Medical Center Bethesda, Maryland Course #7602 (19 Jan 76 to 05 Mar 76)	63 (80 total hrs)	17
b. RADIATION PROTECTION	Same as block a	18	0
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	Same as block a	28	0
d. RADIATION BIOLOGY	Same as block a	9	0
e. RADIOPHARMACEUTICAL CHEMISTRY	Same as block a	30	0

The training and experience indicated above was obtained under the supervision of:

Richard F. Kiepfer, CDR, MC, USN
Head, Nuclear Medicine Branch

CONTROL NO. 80153

Form AEC-313a (11/63) Page 3

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. Back of page may be used for comments

9. NAME AND ADDRESS OF APPLICANT PHYSICIAN (Include ZIP Code.)

Peter A. Lassing
LT MC USNR

10. CLINICAL TRAINING AND EXPERIENCE OF PHYSICIAN NAMED IN ITEM 9 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	Diagnosis of thyroid function	48	48
	Dilution studies		
	Excretion studies		
	Brain tumor localization		
	Scanning studies Thyroid Chest Survey	3	3
	Treatment of hyperthyroidism	3	3
	Treatment of cardiac conditions		
	Treatment of thyroid carcinoma		
P-32 Soluble	Treatment of polycythemia		
	Treatment of leukemia		
	Treatment of bone metastases		
	Tumor localization		
	Intracavitary treatment		
	Interstitial treatment		
Au-198	Intracavitary treatment		
	Interstitial treatment		
	Scanning studies		
Cr-51	Blood determinations	6	6
	Scanning studies		
Co-58 or Co-60	Diagnosis of pernicious anemia		
Co-60	Interstitial treatment		
I-192	Intracavitary treatment		
Co-60 or Cs-137	Teletherapy treatment		
Sr-90	Treatment of superficial diseases of the eye		
Other Isotopes Use back of page	Tc-99m Brain Scan	268	268
	Tc-99m Brain Flow	268	268
	Tc-99m Liver Scan	104	104

Key to Columns (C) and (D) above

1. Observation should consist of [illegible] radioisotope administration techniques and discussion with preceptor [illegible] appropriate diagnostic and/or therapeutic [illegible], limitations, contraindications.

2. Personal participation should consist of [illegible] patients [illegible] calibration of the [illegible] administration of the dose to the patient, [illegible] measurements and plotting of data, [illegible] adequate period of training to enable the physician to manage [illegible] patients through diagnosis and/or the course of treatment.

11. DATES AND TOTAL NUMBER OF HOURS [illegible] RADIOISOTOPE TRAINING 19 JAN - 05 MAR 1976

Certified to be a true copy R.J. Morton
R. J. Morton
LCDR MSC USN

12. [illegible] TRAINING AND EXPERIENCE INDICATED ABOVE WAS [illegible] THE SUPERVISION OF C. W. OCHS, CAPT, MC, USN
Chairman, Dept. of Radiology
NNMC, Bethesda, Md. 20014

NNMC, BETHESDA, MD. | 19-02891-05

(Institution Name and Address) | (Byproduct Material License Number) | (Signature of Preceptor)

UNITED STATES ATOMIC ENERGY COMMISSION

APPLICATION FOR BYPRODUCT MATERIAL LICENSE—MEDICAL

SUPPLEMENT A—HUMAN USE

This page may be used for providing additional information.

		"C"	"D"
Tc-99m	Spleen Scan	104	104
Tc-99m	Renal Scan	21	21
Tc-99m	Renal Flow	21	21
Tc-99m	Lung Scan	21	21
Tc-99m	Venogram	3	3
Tc-99m	Placenta Scan	1	1
Tc-99m	Parotid Scan	5	5
Tc-99m	Bone Marrow Scan	2	2
Tc-99m	Thyroid Scan	59	59
Tc-99m	Bone Scan	89	89
Tc-99m	Meckel's Scan	1	1
Ga-67	Whole Body Scan	30	30
Xe-133	Ventillation and Perfusion Study	8	8
I-125	T-3 Test	304	304
I-124	T-4 Test	1,314	1,314
I-131	Rose Bengal - Biliary Patency	1	1
Se-75	Pancreas Scan	1	1
In-111	Cisternography	3	3
Co-57	B-12 Assay	50	50
Co-57	Schillings Test	1	1

NRC FORM 313M SUPPLEMENT A (9-81) — U.S. NUCLEAR REGULATORY COMMISSION

TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE
Ethelbert M. Lara, M. D.	Michigan

3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
American College of Diagnostic Radiology	Radiology	12/76

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	TYPE AND LENGTH OF TRAINING: SUPERVISED LABORATORY EXPERIENCE (Hours) D
a. RADIATION PHYSICS AND INSTRUMENTATION	Brooklyn-Cumberland Medical Center Brooklyn, NY	112	31
b. RADIATION PROTECTION	Same as above	30	0
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	" " "	50	0
d. RADIATION BIOLOGY	" " "	50	0
e. RADIOPHARMACEUTICAL CHEMISTRY	" " "	53	0

5. EXPERIENCE WITH RADIATION. *(Actual use of Radioisotopes or Equivalent Experience)*

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
$Tc^{99}m$	60 Ci	Marquette General Hospital 420 W. College Avenue Marquette, MI 49855	June 1, 1978 to present	Diagnostic Radiology
Mo^{99}	171 Ci	same as above	Same as above	"
I 131	60 mCi	" " "	" " "	"
Tl 201	150 mCi	" " "	" " "	"
Ga 67	480 mCi	" " "	" " "	"
Xe 133	4.2 Ci	" " "	" " "	"
In 111	6.0 mCi	" " "	" " "	"

CONTROL NO. 80153

NRC FORM 313M SUPPLEMENT B
(9-81)

U. S. NUCLEAR REGULATORY COMMISSION

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

Ethelbert M. Lara, M. D.

STREET ADDRESS

1414 W. Fair Avenue

CITY	STATE	ZIP CODE
Marquette	MI	49855

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 *(Additional information or comments may be submitted in duplicate on separate sheets.)* 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	70	
	IN VITRO STUDIES		
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING	72	
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY	10	
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER	In 111 Cisternography	4	
Tc-99m	BRAIN IMAGING	90	
	CARDIAC IMAGING	5	
	THYROID IMAGING	150	
	SALIVARY GLAND IMAGING	10	
	BLOOD POOL IMAGING	50	
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING	486	
	LUNG IMAGING	208	
	BONE IMAGING	627	
OTHER	Gastrointestinal	21	

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		
P-32 *(Colloidal)*	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA		
	TREATMENT OF HYPERTHYROIDISM		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
Co-60 or Cs-137	TELETHERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR	5 Elutions	
Sn-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS	5 Kit preps	
Other			

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

June 1, 1978 to present - average 36 patients a month

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

a. NAME OF SUPERVISOR
John F. Pillote, M. D.

b. NAME OF INSTITUTION
Marquette General Hospital

c. MAILING ADDRESS
420 W. College Avenue

d. CITY
Marquette, MI 49855

5. MATERIALS LICENSE NUMBER(S)

21-05432-04

6. PRECEPTOR'S SIGNATURE

7. PRECEPTOR'S NAME *(Please type or print)*

John F. Pillote, M. D.

8. DATE

NRC FORM 313M SUPPLEMENT B
(9-81)

GPO 890-913

Department of Radiology
121 DeKalb Avenue, Brooklyn, NY 11201

Days (212)270-4802
Evenings and Weekends (212)270-4222

CT Computed Tomography

THE BROOKLYN HOSPITAL

23 August 1985

To whom it may concern:

Dr. Ethelbert Lara, completed his residency in radiology on the 30th of June 1976. Dr. Lara was at the Brooklyn Hospital from July 1, 1973 through June 30, 1976. At the time of his residency completion Dr. Lara was eligible for the American Board of Radiology. As part of his training, a rotation through Nuclear Medicine was done which included the Physics of Nuclear Medicine and Nuclear Biology. Following completion of his residency, Dr. Lara was with us as an Attending Radiologist in Vascular Radiology from July 12, 1976 through July 31, 1976.

I trust the above information will be of help in evaluating Dr. Lara's present position.

Yours truly,

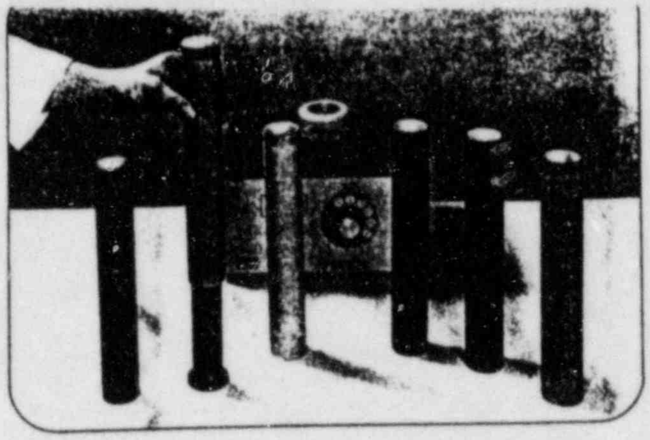
Anthony Camera, M.D.

C. An alternative method of verification of Dose Calibrator linearity

Please amend our NRC License #21-05432-04 to include the following alternative procedure for determination of dose calibrator linearity.

Linearity will be measured using the "Calicheck" device from Nuclear Medicine Consulting Firm. All instructions and directions given by the manufacturer will be followed. Enclosed you will find a description of the device taken from the product catalog.

Please note that we are proposing this as an alternative procedure. Measurement will be made with either the method described in our license currently or the proposed new method.



CALICHECK™

Dose Calibrator Linearity Test Kit

Easily checks linearity in minutes without sample decay or fractionating

- **Fast, accurate and reliable.**
- **Eliminates costly waste of radionuclide.**
- **Meets NRC and Agreement State guidelines*.**

The unique "Calicheck" Kit allows you to verify the linearity of your dose calibrator accurately and reliably—in minutes rather than days. No longer need you follow the decay of ^{99m}Tc for three days or more to collect data for this test. Radiation exposure is reduced radically, and the radionuclide can still be used for imaging. Testing with "Calicheck" allows the calibrator, isotope and you to return to productive service in minutes. Since the kit works so fast, linearity tests can be made more frequently to spot trouble before it becomes serious.

"Calicheck" is designed to attenuate ^{99m}Tc by known values. It provides for seven successive measurements of a vial of ^{99m}Tc, using radiation-absorbing shields that simulate decay at approximately 0, 6, 12, 20, 30, 40 and 50 hours from the initial assay.

Operation is simple. The central tube, with a vial of ^{99m}Tc inserted, is placed in the dose calibrator and counted, providing a "0" hour reading. Then, in sequence, each of the remaining color-coded tubes is positioned over the central tube and counted individually. The readings are then normalized with predetermined factors, and the degree of linearity can be seen virtually at a glance.

The "Calicheck" Kit includes seven color-coded, lead-wrapped plastic tubes, a supply of record-keeping sheets, and complete instructions. Maximum tube size is 11½" long x 1 15/16" diam. Will accept vials up to 30 cc (maximum 30-mm D.). Typical tube absorption factors for ^{99m}Tc: 1, 2, 3.5, 10, 30, 120 and 350. Storage container 13½" high x 6" D. Net weight 10 lbs.

34-210 "Calicheck" Linearity Test Kit $375.00

*NRC Regulatory Guide 10.8, Appendix D.

CONTROL NO. 8 0 1 5 8