

APPLICATION FOR MATERIALS LICENSE – MEDICAL

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

Veterans Administration Medical Center
Lyons, N. J. 07939

TELEPHONE NO.: AREA CODE () _____

1.b. STREET ADDRESS(ES) AT WHICH RADIOACTIVE MATERIAL WILL BE USED (If different from 1.a.) INCLUDE ZIP CODE

(Same)

2. PERSON TO CONTACT REGARDING THIS APPLICATION

A. Paul Kidd
Medical Center Director
TELEPHONE NO.: AREA CODE (201) 647-0180

3. THIS IS AN APPLICATION FOR: (Check appropriate item)

- a. ☐ NEW LICENSE
b. ☒ AMENDMENT TO LICENSE NO. 29-17045-01
c. ☐ 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.)

Jyoti Shah, M.D.

Arnold Olefson, M.D.

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.)

Arnold Olefson, M.D.

6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE

RADIOACTIVE MATERIAL LISTED IN:	ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	ADDITIONAL ITEMS:	MARK ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)
10 CFR 31.11 FOR IN VITRO STUDIES			IODINE-131 AS IODIDE FOR TREATMENT OF HYPERTHYROIDISM		
10 CFR 35.100, SCHEDULE A, GROUP I		AS NEEDED	PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES		
10 CFR 35.100, SCHEDULE A, GROUP II		AS NEEDED	PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.		
10 CFR 35.100, SCHEDULE A, GROUP III			GOLD-198 AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.		
10 CFR 35.100, SCHEDULE A, GROUP IV		AS NEEDED	IODINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA		
10 CFR 35.100, SCHEDULE A, GROUP V		AS NEEDED	XENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.		
10 CFR 35.100, SCHEDULE A, GROUP VI					

6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 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
8610070526 860924 REG1 LIC30 29-17045-01	PDR		

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

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			
NAME OF HOSPITAL N/A		b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.	
MAILING ADDRESS		c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.	
CITY	STATE	ZIP CODE	

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)	b. APPLICANT OR CERTIFYING OFFICIAL (Signature) Paul
(1) LICENSE FEE CATEGORY:	(1) NAME (Type of Print)
Exempt	A. Paul Kidd
(2) LICENSE FEE ENCLOSED: \$	(2) TITLE
	Medical Center Director
	c. DATE
	7/17/86

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 NRC Form 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.

MATERIALS LICENSE

Amendment No. 07

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with application dated April 17, 1986,
1. V. A. Medical Center		3. License number 29-17045-01 is amended in its entirety to read as follows:
2. Lyons, New Jersey 07939		4. Expiration date July 31, 1987
		5. Docket or Reference No. 030-12104
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license
A. Any byproduct material listed in Groups I and II of Schedule A, Section 35.100 of 10 CFR 35	A. Any radiopharmaceutical listed in Groups I and II of Schedule A, Section 35.100 of 10 CFR 35	A. As necessary for uses authorized in Subitem 9.A.
B. Any byproduct material listed in Group III of Schedule A, Section 35.100 of 10 CFR 35	B. Any form listed in Group III of Schedule A, Section 35.100 of 10 CFR 35	B. 2 curies of each byproduct material authorized in Subitem 6.B.
C. Any byproduct material listed in Section 31.11(a) of 10 CFR 31	C. Prepackaged kits	C. 3 millicuries of each byproduct material authorized in Subitem 6.C.

9. Authorized use

- A. Any diagnostic procedure listed in Groups I and II of Schedule A, Section 35.100, Title 10, Code of Federal Regulations.
- B. Preparation and use of radiopharmaceuticals for any diagnostic procedure listed in Group III of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.
- C. In vitro studies.

CONDITIONS

- 10. Licensed material shall be used only at V. A. Medical Center, Lyons, New Jersey.
- 11. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individual(s) for the materials and uses indicated:

Arnold Olefson M.D.

Groups I, II, and III
In vitro studies~~8606170213~~ 5pp

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License number

29-17045-01

Docket or Reference number

030-12104

Amendment No. 07

(Continued)

CONDITIONS

12. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days for decay-in-storage before disposal in ordinary trash provided:

- A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
- B. Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
- C. Generator columns shall be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.

13. For a period not to exceed 60 days in any calendar year, a visiting physician is authorized to use licensed material for human use under the terms of this license, provided the visiting physician:

- A. Has the prior written permission of the hospital's Administrator and Radiation Safety Committee, and
- B. Is specifically named as a user on a Nuclear Regulatory Commission license authorizing human use, and
- C. Performs only those procedures which the physician is specifically authorized to perform pursuant to a license issued by the Nuclear Regulatory Commission.

The licensee shall maintain for inspection by the Commission copies of the written permission specified in A. above and of the license(s) specified in B. and C. above for a period of 5 years from the date permission is granted under A. above.

- 14. Each radiopharmaceutical dose shall be assayed in the dose calibrator prior to patient administration.
- 15. Syringe shields shall be used for preparation and administration of radiopharmaceuticals to patients.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

29-17045-01

Docket or Reference number

030-12104

Amendment No. 07

(Continued)

CONDITIONS

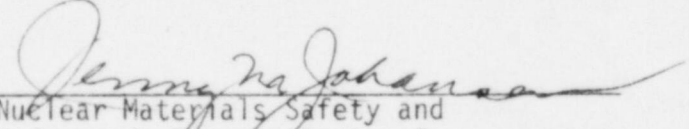
16. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.

- A. Application dated May 17, 1982
- B. Model ALARA Program, Appendix O, Regulatory Guide 10.8 (Rev. 1) October, 1980
- C. Letter dated May 22, 1984
- D. Letter dated September 27, 1984
- E. Letter dated August 12, 1985
- F. Letter dated April 17, 1986

For the U.S. Nuclear Regulatory Commission

Date MAY 12 1986

By


Nuclear Materials Safety and
Safeguards Branch, Region I
King of Prussia, Pennsylvania 19406

**TRAINING AND EXPERIENCE
AUTHORIZED USER OR RADIATION SAFETY OFFICER**

Approved by OMB
3150-0041
Expires 9-30-86

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER Jyoti M. Shah, M.D.	2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE
---	--

3. CERTIFICATION		
SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
Boards in Diagnostic Radiology		

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	Overlook Hospital Summit, New Jersey, 1974-1977	> 30	> 70
b. RADIATION PROTECTION	"	> 22	> 10
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	"	> 20	> 20
d. RADIATION BIOLOGY	"	> 25	-
e. RADIOPHARMACEUTICAL CHEMISTRY	"	> 20	> 10

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-125	50 mci/case	Overlook Hospital	1974 - 1977	see supplement B Preceptor Statement
Cr-51	250 mci/case			
Tc-99m	500 mci/avg			
Xe-133	10 mci/case			

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			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.
FULL NAME			
Jyoti M. Shah, M.D.			
STREET ADDRESS			
17 Crest Drive			
CITY	STATE	ZIP CODE	
Bernardsville,	N.J.	07924	

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	100	
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME	4	
	LIVER FUNCTION STUDIES		
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES	20	
	IN VITRO STUDIES		
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING		
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER			
Tc-99m	BRAIN IMAGING	200	
	CARDIAC IMAGING	150	
	THYROID IMAGING	10	
	SALIVARY GLAND IMAGING		
	BLOOD POOL IMAGING	50	
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING	200	
	LUNG IMAGING	20	
	BONE IMAGING	100	
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		
Sn-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS		
Other			

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

7/16/85 - 5/28/86 600 hrs.

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

a. NAME OF SUPERVISOR

Arnold Olefson, M.D.

b. NAME OF INSTITUTION

VA Medical Center

c. MAILING ADDRESS

Lyons, New Jersey 97939

d. CITY

5. MATERIALS LICENSE NUMBER(S)

29-17045-01

6. PRECEPTOR'S SIGNATURE

Arnold Olefson

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

Arnold Olefson, M.D.

8. DATE

May 28, 1986



Veterans
Administration

MAR 30 1984

'84 APR 11 AIO:55

In Reply Refer To:

James J. Smith, M.D.
Director
Nuclear Medicine Service (115)
VA Central Office
Washington, D.C. 20420

SUBJ: Amendment to By-product Materials
License # 29-17045-01

It is requested that Jyoti Shah, M.D. be included in the subject license for the procedures listed in the accompanying preceptor's statement.

A. PAUL KIDD
Medical Center Director

Encl.

APR 06 1984

JAMES J. SMITH, M. D. (115)
Director, Nuclear Medicine Service
VA Central Office
Washington, D.C. 20420

FEE EXEMPT

"OFFICIAL RECORD COPY"

ML10 17398

0291

FORM NRC-313M-SUPPLEMENT A

U.S. NUCLEAR REGULATORY COMMISSION

(8-78)

TRAINING AND EXPERIENCE AUTHORIZED USER OR RADIATION SAFETY OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION SAFETY OFFICER

Jyoti M. Shah, M.D.

2. STATE OR TERRITORY IN
WHICH LICENSED TO
PRACTICE MEDICINE

New York

3. CERTIFICATION

SPECIALTY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C
Boards in Diagnostic Radiology		

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	Overlook Hospital Summit, New Jersey, 1974-1977	> 30	> 70
b. RADIATION PROTECTION	"	> 22	> 10
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY	"	> 20	> 20
d. RADIATION BIOLOGY	"	> 25	-
e. RADIOPHARMACEUTICAL CHEMISTRY	"	> 20	> 10

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-125	50mci/case	Overlook Hospital	1974- 1977	see supplement B Preceptor Statement
Cr-51	250mci/case			
Tc-99m	500mci/avg			
Xe-133	10mci/case			

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

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.

FULL NAME

Jyoti M. Shah, M.D.

STREET ADDRESS

17 Crest Drive

CITY

STATE

ZIP CODE

Bernardsville

N.J. 07924

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	> 30	
	DETERMINATION OF BLOOD AND BLOOD PLASMA VOLUME	> 7	
	LIVER FUNCTION STUDIES	> 3	
	FAT ABSORPTION STUDIES		
	KIDNEY FUNCTION STUDIES	> 15	
	IN VITRO STUDIES		
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING		
P-32	EYE TUMOR LOCALIZATION		
Se-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES	> 50	
OTHER			
Tc-99m	BRAIN IMAGING	> 212	
	CARDIAC IMAGING	> 50	
	THYROID IMAGING	> 50	
	SALIVARY GLAND IMAGING	> 2	
	BLOOD POOL IMAGING	> 150	
	PLACENTA LOCALIZATION	> 1	
	LIVER AND SPLEEN IMAGING	> 100	
	LUNG IMAGING	> 100	
	BONE IMAGING	> 75	
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		
Sn-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS		
Other			

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

1974- 1977

1000 hours

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

a. NAME OF SUPERVISOR

James Korsten, M.D.

b. NAME OF INSTITUTION

OVERLOOK HOSPITAL

c. MAILING ADDRESS

193 Morris Avenue

d. CITY

Summit, N.J. 07901

e. MATERIALS LICENSE NUMBER(S)

29-03308-01

5. PRECEPTOR'S SIGNATURE

James Korsten

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

James Korsten, M.D.

8. DATE

March 13, 1984

JYOTI M. SHAH, M.D.

Continuation of Nuclear Medicine activities from 1977 to 1984.

In 1977 - 1979, I was fellow in ultrasound and clinical instructor in Diagnostic Radiology at College of Physicians and Surgeons in Columbia-Presbyterian Hospital, New York, N.Y. I was indirectly involved in nuclear medicine through regular twice a day radiology conference and direct involvement for correlation of ultrasound with nuclear scanning especially ultrasound gallbladder with HIDA scan study. Those two years I was preparing for my radiology boards, Part I and Part II with special evening coaching classes in every field of diagnostic radiology including nuclear medicine. Since then I am attending New York Roetgen Ray Society meeting every 3rd Monday.

From 1979 to 1984, I have joined Veterans Administration Medical Center, Lyons, New Jersey. I am directly involved in nuclear medicine under Dr. Timmins supervision. We are doing in vitro studies such as T3, T4, TSH, B12 folate, cortisol, ferretine blood volume studies for RBC mass or plasma volume, schilling test.

Imaging studies such as liver spleen scan, hepatobilliary scan, brain scan, lung scan, thyroid imaging, sequestration study for spleen gallium study, Tc^{99m} flow study. With Tc cases of GI bleeding, testicular scanning. We have cardiac nuclear imaging facility. We do imaging with Tc pyrophosphate and thallium stress study. Cardiac multigated acquisition study.

We have SPECT or Emission Computer Tomography and we do liver and cardiac SPECT study.

I am planning to attend Clinical Nuclear Medicine Update 1984 - Harvard Medical School Conference in April 9 - 12 1984.