

## APPLICATION FOR MATERIALS LICENSE - MEDICAL

INSTRUCTIONS - Complete Items 1 through 25 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. Mail two copies 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 NRC Materials License. A 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  Reid Memorial Hospital 1401 Chester Boulevard Richmond, Indiana 47374  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
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2. PERSON TO CONTACT REGARDING THIS APPLICATION  John V. Cooke M.D. TELEPHONE NO.: AREA CODE (317) 962-5152	3. THIS IS AN APPLICATION FOR: (Check appropriate item) a. <input type="checkbox"/> NEW LICENSE b. <input type="checkbox"/> AMENDMENT TO LICENSE NO. 13-03284-02 c. <input checked="" type="checkbox"/> RENEWAL OF LICENSE NO. 030-01614
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4. INDIVIDUAL USERS (Name individuals who will use or directly supervise use of radioactive material. Complete Supplements A and B for each individual.) John Spellmeyer, M.D. John Dehner, M.D. Thomas Glynn, Jr., M.D. John V. Cooke, M.D. Olin N. Wiland, M.D. Richard M. Butler, 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 Supplement A.)  John V. Cooke M.D. 2/28/79 JVC
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## 6.a. RADIOACTIVE MATERIAL FOR MEDICAL USE

RADIOACTIVE MATERIAL LISTED IN:	MARK ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)	ITEM	MARK ITEMS DESIRED "X"	MAXIMUM POSSESSION LIMITS (In millicuries)
10 CFR 31.11 FOR IN-VITRO STUDIES	X	3	IODINE-131 AS IODIDE FOR TREATMENT OF HYPERTHYROIDISM AND CARDIAC DYSFUNCTION	X	AS NEEDED
10 CFR 35.100, SCHEDULE A, GROUP I	X	AS NEEDED	PHOSPHORUS-32 AS SOLUBLE PHOSPHATE FOR TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA AND BONE METASTASES	X	30
10 CFR 35.100, SCHEDULE A, GROUP II	X	AS NEEDED	PHOSPHORUS-32 AS COLLOIDAL CHROMIC PHOSPHATE FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.	X	30
10 CFR 35.100, SCHEDULE A, GROUP III	X	2000	GOLD-199 AS COLLOID FOR INTRACAVITARY TREATMENT OF MALIGNANT EFFUSIONS.	X	500
10 CFR 35.100, SCHEDULE A, GROUP IV	X	AS NEEDED	IODINE-131 AS IODIDE FOR TREATMENT OF THYROID CARCINOMA	X	200
10 CFR 35.100, SCHEDULE A, GROUP V	X	AS NEEDED	XENON-133 AS GAS OR GAS IN SALINE FOR BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES.	X	1000
10 CFR 35.100, SCHEDULE A, GROUP VI	X	1000			

## 6.b. RADIOACTIVE MATERIAL FOR USES NOT LISTED IN ITEM 6.a. (Small sealed sources (up to 3m Ci) 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 MILLCURIES OF EACH FORM	DESCRIBE PURPOSE OF USE
Cesium-137	sealed source	0.20	calibrator check
Nickel-63	sealed source	15	gas chromatograph
Strontium-90	sealed source	50	surface applicator
Iridium	stainless steel encased seeds	200	interstitial implants

# INFORMATION REQUIRED FOR ITEMS 7 THROUGH 23

Submit a detailed description of all the information requested in Items 7 through 23. Begin each item on a separate sheet. Identify the item number and the date of the application in the lower right hand corner of each page. Two copies of each appended sheet should be submitted with the application.

## 7. MEDICAL ISOTOPES COMMITTEE.

- Committee's Duties and Responsibilities.
- Meeting Frequency.
- Name and Specialty of Each Committee Member.

## 8. TRAINING AND EXPERIENCE.

- Authorized User(s). (Each physician must complete Supplements A and B.)
- Radiation Safety Officer.  
(Complete Supplement A, if other than a physician already listed.)

## 9. INSTRUMENTATION. (List by manufacturer's name and model number.)

- Survey Instruments.
- Dose Calibrator.
- Diagnostic Instruments.
- Other (e.g. liquid scintillation counter, area monitor.)

## 10. CALIBRATION OF INSTRUMENTS.

- Methods.
- Frequency.
- Standards (Radionuclide and Activity).

## 11. FACILITIES AND EQUIPMENT. (Complete description and diagram.)

## 12. PERSONNEL TRAINING PROGRAM AND FREQUENCY.

## 13. PROCEDURES FOR ORDERING AND RECEIPT OF RADIOACTIVE MATERIAL.

Applicant. 24184  
Check No. 0150176  
Amount/Fee Category  
Type of Fee. Renewal  
Date Check Rec'd. JAN 29 1979  
Received By. Brown

## 14. PROCEDURES FOR SAFELY OPENING PACKAGES CONTAINING RADIOACTIVE MATERIAL.

## 15. GENERAL LABORATORY RULES FOR THE SAFE USE OF RADIOACTIVE MATERIALS.

## 16. EMERGENCY PROCEDURES, INCLUDING NAMES AND TELEPHONE NUMBERS OF PERSONNEL TO BE NOTIFIED.

## 17. AREA SURVEY PROCEDURES.

## 18. WASTE DISPOSAL PROCEDURES.

## 19. THERAPEUTIC USE OF RADIOPHARMACEUTICALS.

- Procedures
- Precautions.
- Personnel Instructions.

## 20. THERAPEUTIC USE OF SEALED SOURCES.

- Procedures.
- Precautions.
- Personnel Instructions.

## 21. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE GASES. (e.g., xenon-133)

## 22. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL IN ANIMALS.

## 23. PROCEDURES AND PRECAUTIONS FOR USE OF RADIOACTIVE MATERIAL SPECIFIED IN ITEM 6.B.

RECEIVED BY LFMB	
Date	JAN 29 1979
Log	Jan 12 III
By	Brown
Orig. To	
Action Compl.	1/31/79

## 24. PERSONNEL MONITORING DEVICES

	TYPE (Check appropriate box)	SUPPLIER	EXCHANGE FREQUENCY
a. WHOLE BODY	<input checked="" type="checkbox"/> FILM	R.S. Landauer	monthly
	<input type="checkbox"/> TLD		
	<input type="checkbox"/> OTHER (Specify)		
b. FINGER	<input checked="" type="checkbox"/> FILM	R.S. Landauer	monthly
	<input type="checkbox"/> TLD		
	<input type="checkbox"/> OTHER (Specify)		

c. OTHER (Specify)

## 25. FOR PRIVATE PRACTICE APPLICANTS ONLY

a. HOSPITAL AGREEING TO ACCEPT PATIENTS CONTAINING RADIOACTIVE MATERIAL

NAME OF HOSPITAL

MAILING ADDRESS

CITY

STATE

ZIP CODE

b. ATTACH A COPY OF THE AGREEMENT LETTER SIGNED BY THE HOSPITAL ADMINISTRATOR.

c. WHEN REQUESTING THERAPY PROCEDURES, ATTACH A COPY OF RADIATION SAFETY PRECAUTIONS TO BE TAKEN AND LIST AVAILABLE RADIATION DETECTION INSTRUMENTS.

## 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, 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.

a. LICENSE FEE REQUIRED  
(See Section 170.31, 10 CFR 170)

(1) LICENSE FEE CATEGORY:

(2) LICENSE FEE ENCLOSED: \$

150.00

b. APPLICANT OR CERTIFYING OFFICIAL (Signature)

(1) NAME (Type of Print)

Barry S. MacDowell

(2) TITLE

Executive Vice President

c. DATE

January 19, 1979

(7-77)  
10 CFR 30TRAINING AND EXPERIENCE  
AUTHORIZED USER OR RADIATION PROTECTION OFFICER

1. NAME OF AUTHORIZED USER OR RADIATION PROTECTION OFFICER		2. STATE OR TERRITORY IN WHICH LICENSED TO PRACTICE MEDICINE	
3. CERTIFICATION			
SPECIALITY BOARD A	CATEGORY B	MONTH AND YEAR CERTIFIED C	
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			
b. RADIATION PROTECTION			
c. MATHEMATICS PERTAINING TO THE USE AND MEASUREMENT OF RADIOACTIVITY			
d. RADIATION BIOLOGY			
e. RADIOPHARMACEUTICAL CHEMISTRY			



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

STREET ADDRESS

CITY

STATE

ZIP CODE

KEY TO COLUMN C

PERSONAL PARTICIPATION SHOULD CONSIST OF:

1-Supervised examination of patients to determine the suitability for radiostopes 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		
	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		
	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		
P-32 (Colloidal)	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA		
	TREATMENT OF HYPERTHYROIDISM AND CARDIAC CONDITION		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192 Co-60 or Cs-137	INTERSTITIAL TREATMENT		
	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

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

a. NAME OF SUPERVISOR

b. NAME OF INSTITUTION

c. MAILING ADDRESS

d. CITY

5. MATERIALS LICENSE NUMBER(S)

6. PRECEPTOR'S SIGNATURE

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

8. DATE

## 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.

## 7. MEDICAL ISOTOPES COMMITTEE

Radiation Safety Program will be under authority of Medical Isotopes Committee.

- a. The Medical Isotopes Committee will review safety aspects of present program; keep records of committee meetings, actions, recommendations, and decisions; prepare and disseminate information pertaining to radiation safety; delegate responsibility to RSO for conduct of routine radiation safety programs; maintain records of receipts, transfers, and disposal of radioactive materials and also total possession level; initiate corrective actions as necessary to assure radiation safety to personnel and to patients; review training and experience of any individual who uses radioactive material and determine that qualifications are sufficient to perform duties safely.
- b. The Committee shall meet quarterly (or more often if deemed necessary). The records of these meetings will be kept by John V. Cooke, M.D.
- c. The Medical Isotopes Committee includes the following members:

John V. Cooke, M.D., Chairman, Radiologist  
John Dehner, M.D., Radiologist  
Olin K. Wiland, M.D., Pathologist  
Glen Ramsdell, M.D., Internist  
Michael Hinshaw, M.D., Surgeon  
Editha deDios, M.D., OB GYN  
James Kereiakes, Ph.D.

Item No. 7  
January 1, 1979



8. TRAINING AND EXPERIENCE

# 8. Training and Experience

RICHARD M. BUTLER, M.D.

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration of Training</u>	<u>On the Job</u>	<u>Formal Course</u>
A. Diagnostic Radiology Radioisotopes	Methodist Hospital Indianapolis, Indiana	3 years	Yes	Yes
Isotope Therapy	Methodist Hospital Indianapolis, Indiana		Yes	Yes

## Isotopes

	<u>Maximum Amount</u>	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
I-131	100 mc	Methodist Hospital	3 years	Diagnosis and Treatment of Human Disease
Cr-51	10 mc	Indianapolis, Indiana		
Ga-67	10 mc			
Hg-197	10 mc	Reid Memorial Hospital	4 years	
Hg-203	10 mc			
I-123	100 mc			
Tc-99m	300 mc			
Xe-133	1000 mc			
P-32	200 mc			
Au-198	200 mc			
Sr-85	10 mc			

## 8. TRAINING AND EXPERIENCE

John V. Cooke, M.D.

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration of Training</u>	<u>On the Job</u>	<u>Formal Course</u>
A. X-Ray Therapy Radioisotopes Diagnosis	Robert Packer Hospital Sayre, Pennsylvania	3 years 1967-70	Yes	Yes
B. Radiation Therapy Orthovoltage training and experience	J.W.J. Carpender, M.D. Guthrie Clinic	1 year	Yes	Yes
Rotational Co-60 Super voltage	Robert Packer Hospital Sayre, Pennsylvania	1969-70		
Orthovoltage radiation therapy	Reid Memorial Hospital Richmond, Indiana	2 years	Yes	No

### Experience with Radiation

	<u>Maximum Amount</u>	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
A. Radium	300 mg.	Robert Packer Hosp. Sayre, Pennsylvania	1 year	Therapy of Human Disease including Interstitial and Intracavitary Application
B. Orthovoltage	90-120 KVP	Robert Packer Hosp. Sayre, Penn.	1 year	Therapy of Human Disease
	90-120 KVP	Reid Memorial Hosp. Richmond, Indiana	3 years	Therapy of Human Disease
	200-250 KVP	Robert Packer Hosp. Sayre, Penn.	1 year	Therapy of Human Disease
	280 KVP	Reid Memorial Hosp. Richmond, Indiana	3 years	Therapy of Human Disease
C. Rotational-Co.		Robert Packer Hosp. Sayre, Penn.	1 year	Therapy of Human Disease
		Reid Memorial Hosp. Richmond, Indiana	2 years	

Cont. John V. Cooke, M.D.

Isotopes

	<u>Maximum Amount</u>	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>	
I-131	100 mc	Robert Packer Hosp. Sayre, Penn.	3 years	Diagnosis and Treatment of Human Disease	
P-32	200 mc				
Hg-197	10 mc	Reid Memorial Hosp.	7 years		
Hg-203	10 mc				
Cr-51	10 mc				
Au-198	200 mc				
Tc-99m	300 mc				
Sr-85	10 mc				
Co-60	5000 curies				
I-123	100 mc				
Xe-133	1000 mc				
Ga-67	10mc				

## 8. Training and Experience

JOHN R. DEHNER, M.D.

### DIPLOMATE AMERICAN BOARD OF RADIOLOGY (1965)

<u>Training</u>	<u>Location</u>	<u>Duration of Training</u>	<u>On the Job</u>	<u>Formal Course</u>
A. X-Ray Therapy, Diagnosis, and Radioisotopes	Indiana University Medical Center (Dr. John Campbell)	3 years 1961-1964	Yes	Yes
B. Radiation Oncology	Arizona Medical Center Tucson, Arizona	1 year 1974-1975	Yes	Yes

(Total Radiation Therapy Training of 24 months)

1. 12 months at University of Indiana with Dr. Rodney Million
2. 12 months at Arizona Medical Center with Dr. Max Boone

### EXPERIENCE WITH THERAPEUTIC RADIATION

<u>Item</u>	<u>Location</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
A. External Radiation Therapy			
Cobalt 60 (AECL Eldorado 8)	Indiana University Medical Center	1 year	Therapy of Human Disease
Rotational Cobalt (Theratron 60 and and Picker C9)	Reid Memorial Hospital Richmond, Indiana	5 years	Therapy of Human Disease
GE 2MEV	Indiana University Medical Center	1 year	Therapy of Human Disease
Megavoltage 4 MEV and 18 MEV Linear Accelerator	Arizona Medical Center Tucson, Arizona	1 year	Therapy of Human Disease
Superficial (100 KV) Orthovoltage (280 KV Vanguard)	Reid Memorial Hospital Richmond, Indiana	12 years	Therapy of Human Disease
B. Intracavitary Therapy			
Cobium Capsules (Maximum 130 mil-R)	Reid Memorial Hospital Richmond, Indiana	8 years	Therapy of Human Disease
Cesium 225 mg Rad. Equiv.	Reid Memorial Hospital Richmond, Indiana	4 years	Therapy of Human Disease
Radium (250 mg)	Indiana University Medical Center	1 year	Therapy of Human Disease
Radium (500 mg)	Arizona Medical Center Tucson, Arizona	1 year	Therapy of Human Disease



Page II.

John R. Dehner, M.D.

C. Therapeutic Radioisotopes	Reid Memorial Hospital Richmond, Indiana	12 years	Therapy of Human Disease
P-32	"	"	"
Au-198	"	"	"
I-131	"	"	"
D. Strontium-90 - Ophthalmic Applicator	Arizona Medical Center Reid Memorial Hospital	1 year 3 years	Therapy of Human Disease

E. Isotopes

	<u>Maximum Amount</u>	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
I-131	100 mc	Indiana University Medical Center	3 years	Diagnosis and Treatment of Human Disease
P-32	200 mc			
Hg-197	10 mc			
Hg-203	10 mc	Reid Memorial Hospital	12 years	
Cr-51	10 mc			
Au-198	200 mc			
Tc-99m	300 mc			
Sr-85	10 mc			
CO-60	5000 curies			
I-123	100 mc			
Xe-133	<del>1000</del> 100 mc			
Ga-67	10 mc			

## 8. Training and Experience

Tom Glynn, M.D.

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration of Training</u>	<u>On the Job</u>	<u>Formal Course</u>
A. Diagnostic Radiology Nuclear Medicine Radioisotopes Radiation Therapy	Ohio State University Hospital Columbus, Ohio	3 years 1972-75	Yes	Yes
B. Radiation Therapy Superficial voltage Orthovoltage Megavoltage: C9-60, 4 MeV Rotational Linear Accelerator, Betatron, Electron Therapy	Ohio State University Hospital Radiation Therapy Department Columbus, Ohio  Frank Batley, M.D. Director, Division of Radiotherapy	9 months 1972-73-74	Yes	Yes

### Experience with Radiation

	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
A. Superficial Voltage, Orthovoltage, Megavoltage	Ohio State University Hospital Columbus, Ohio	9 months	Therapy of Human Disease
B. Superficial Voltage, Orthovoltage	Mercy Hospital Hamilton, Ohio	3 years	Therapy of Human Disease
C. Radioactive Cesium, Radon Seeds	Ohio State University Hospital Columbus, Ohio	9 months	Interstitial and Intracavitary Application

### Isotopes

	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
Tc-99m Cr-51 Hg-197 Hg-203 Sr-85 Radioactive Xenon Sellino Methionine	Ohio State University Columbus, Ohio  Mercy Hospital Hamilton, Ohio (all except sellino Methionine)	2 months  3 years 2 months	Diagnosis of Human Disease
I-131 I-123	Ohio State University Hospital  Mercy Hospital Hamilton, Ohio	2 months  3 years 2 months	Treatment of Human Disease  Treatment of Human Disease

## 8. Training and Experience

JOHN C. SPELLMEYER, M.D.

DIPLOMATE AMERICAN BOARD OF RADIOLOGY (1966)

DIPLOMATE AMERICAN BOARD OF RADIOLOGY - NUCLEAR MEDICINE (1976)

<u>Type of Training</u>	<u>Where Trained</u>	<u>Duration of Training</u>	<u>On the Job</u>	<u>Formal Course</u>
A. X-Ray Therapy Radioisotopes, Diagnosis	University of Iowa General Hospital Iowa City, Iowa	3 years 1963-65	Yes	Yes
B. Radiation Therapy Orthovoltage training and experience.	Dr. Howard B. Latourette University of Iowa General Hospitals Iowa City, Iowa	1 year 1964	Yes	Yes
Rotational cobalt- 60-super-voltage.	Dr. Howard Latourette University of Iowa General Hospitals Iowa City, Iowa	1 year 1964	Yes	Yes
Orthovoltage radiation therapy.	Reid Memorial Hospital	13 years	Yes	No
Rotational cobalt- <sup>60</sup> (60)-super-voltage	Reid Memorial Hospital	3 years 1974-76	Yes	No
Rotational cobalt- <sup>60</sup> (80)-super-voltage	Reid Memorial Hospital	2 years 1977-78	Yes	No

### EXPERIENCE WITH RADIATION

	<u>Maximum Amount</u>	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
A. Radium	300 mgms.	University of Iowa General Hospitals Iowa City, Iowa	1 year	Therapy of Human Disease including interstitial and intracavitary application.
B. Ortho-Voltage	90-120 KVP	University of Iowa General Hospitals	1 year	Therapy of Human Disease
	90-120 KVP	Reid Memorial Hospital Richmond, Indiana	13 years	Therapy of Human Disease
	200-250 KVP	University of Iowa General Hospitals	1 year	Therapy of Human Disease
	250 KVP	Reid Memorial Hospital Richmond, Indiana	2 years	Therapy of Human Disease
	280 KVP	Reid Memorial Hospital Richmond, Indiana	11 years	Therapy of Human Disease

C. Rotational Cobalt-60	University of Iowa General Hospitals	1 year	Therapy of Human Disease
D. Rotational Cobalt-60cm	Reid Memorial Hospital Richmond, Indiana	3 years	Therapy of Human Disease
Rotational Cobalt-80cm	Reid Memorial Hospital Richmond, Indiana	2 years	Therapy of Human Disease
E. Strontium-90 50 mc.	Reid Memorial Hospital	4 years	Treatment of Human Eye
F. Cesium-137 225 MG Rad. Eq.	Reid Memorial Hospital	4 years	Treatment of Human Disease

#### ISOTOPES

	<u>Maximum Amount</u>	<u>Experience Gained</u>	<u>Duration of Experience</u>	<u>Type of Use</u>
I-131	100 mc.	University of Iowa	13 years	Diagnosis and
P-32	200 mc.	General Hospitals		Treatment of
Hg-197	10 mc.	Iowa City, Iowa		Human Disease
Hg-203	10 mc.	and		
Cr-51	10 mc.	Reid Memorial Hospital		
Au-198	200 mc.	Richmond, Indiana		
Tc99m	300 mc.			
Sr-85	10 mc.			
CO-60	5000 curies			
I-123	100 mc.			
Xe-133	1000 mc.			
Ga-67	10 mc.			

Reference: Reid Memorial Hospital  
 Department of Radiology  
 Richmond, Indiana, USNRC material license 13-03284-02  
 amendment #32; that material license indicates that license  
 material shall be used under the supervision of John C. Spellmeyer, M.D.,  
 or John R. Dehner, M.D., . . . over the signature of John Bowyer, that  
 amendment dated 11-7-77. A reference copy is included.

John C. Spellmeyer, M.D.  
 Director  
 Department of Radiology  
 1/5/79