

### APPLICATION FOR MATERIAL LICENSE

**INSTRUCTIONS:** SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

**APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

U.S. NUCLEAR REGULATORY COMMISSION  
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS  
WASHINGTON, DC 20556

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS, IF YOU ARE LOCATED IN:**

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
NUCLEAR MATERIALS SAFETY SECTION B  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
NUCLEAR MATERIALS SAFETY SECTION  
101 MARIETTA STREET, SUITE 2900  
ATLANTA, GA 30322

**IF YOU ARE LOCATED IN:**

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
MATERIALS LICENSING SECTION  
799 ROOSEVELT ROAD  
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
MATERIAL RADIATION PROTECTION SECTION  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TX 76011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V  
NUCLEAR MATERIALS SAFETY SECTION  
1450 MARIA LANE, SUITE 210  
WALNUT CREEK, CA 94606

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

**1. THIS IS AN APPLICATION FOR (Check appropriate item)**

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER
- C. RENEWAL OF LICENSE NUMBER 45-23007-01

**2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)**

JOHN A. WEAVER, M.D., Ph.D.  
505 WEST LEIGH STREET, SUITE 102  
P.O. Box 26448  
Richmond, VA 23261

**3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED**

- 1) 1000 N. THOMPSON ST, RICHMOND, VA 23227
- 2) 505 WEST LEIGH ST, Suite 102, Richmond, VA 23220
- 3) Richmond Community Hospital, 1500 N. 28th Street, Richmond, VA 23223
- 4) 306 EARL STREET, TAPPANNOCK, VA 22560
- 5) 2112 HARTFORD ROAD, HAMPTON, VA 23660

**4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION**

JOHN A. WEAVER, M.D., Ph.D.

**TELEPHONE NUMBER**

804 344-5055

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

**5. RADIOACTIVE MATERIAL** See ATTACHED  
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time.

**6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.** SEE ATTACHED

**7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.** SEE ATTACHED

**8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.** SEE ATTACHED

**9. FACILITIES AND EQUIPMENT.** SEE ATTACHED

**10. RADIATION SAFETY PROGRAM.** See ATTACHED

**11. WASTE MANAGEMENT.** See ATTACHED

**12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)**  
FEE CATEGORY AMOUNT ENCLOSED \$ 940.00

**13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.**

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE—CERTIFYING OFFICER

TYPED/PRINTED NAME

TITLE

DATE

*John A. Weaver, MD*

JOHN A. WEAVER, MD PSO

10-18-88

8910180263 881107  
REG 2 LIC 30  
45-23007-01 PDR

**FOR NRC USE ONLY**

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
			License Fee Information on 7/15/88 application.	
AMOUNT RECEIVED	CHECK NUMBER			DATE

ITEM 5--RADIOACTIVE MATERIAL and ITEM 6--PURPOSE

	<u>BYPRODUCT MATERIAL</u>	<u>AMOUNT</u>	<u>PURPOSE</u>
5. a	Material in &35.100	As Needed	6.a Medical Use
5. b	Material in &35.200	As Needed	6.b Medical Use
5. c	Material in &35.300	As Needed	6.c Medical Use
5. f	Material in &35.500	As Needed	6.f Medical Use
	Thallium-201 Chloride	As Needed	Medical Use
	Gallium-67 Citrate	As Needed	Medical Use
	Iodine-123 as NaI	As Needed	Medical Use

*I-131 for hyperthyroid & cardiac  
dysfunction - also approved  
no interest in P-32  
although he could have  
it if he wanted  
CPC*

*licensed by Dr.,  
not NRC!*

ITEM 7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY AND THEIR  
TRAINING AND EXPERIENCE.



CURRICULUM VITAE

NAME: JOHN A. WEAVER, M.D., Ph. D.

OFFICE: 505 WEST LEIGH STREET, SUITE 102, P. O. BOX 26448,  
RICHMOND, VA 23261.

EDUCATION:

VIRGINIA UNION UNIVERSITY, RICHMOND, VA., B.S., CHEMISTRY/  
MATHEMATICS, 1964

HOWARD UNIVERSITY, WASHINGTON, D.C., M.S., PHYSICAL INORGANIC  
CHEMISTRY IN SOLUTION CHEMISTRY, 1968

HOWARD UNIVERSITY, WASHINGTON, D. C., Ph. D., BIO-INORGANIC  
CHEMISTRY, 1970

HOWARD UNIVERSITY, WASHINGTON, D. C., M.D., 1978

HOWARD UNIVERSITY, INTERNSHIP IN STRAIGHT MEDICINE, 1978-79

HOWARD UNIVERSITY, RESIDENCY IN DIAGNOSTIC RADIOLOGY, 1979-81

THE JOHNS HOPKINS HOSPITALS, BALTIMORE, MD, FELLOWSHIP IN  
NUCLEAR MEDICINE, 1981-83  
CHIEF RESIDENT, 1983

AREAS OF MEDICAL SPECIALIZATION:

BOARD CERTIFIED IN DIAGNOSTIC RADIOLOGY WITH SPECIAL  
COMPETENCY IN NUCLEAR RADIOLOGY, JUNE 1982

BOARD CERTIFIED IN NUCLEAR MEDICINE, SEPTEMBER, 1983

ADDITIONAL TRAINING:

PATHOLOGIC/RADIOLOGIC CORRELATION AT THE AFIP, WALTER REED  
ARMY MEDICAL CENTER, WASHINGTON, DC. 1981.

NUCLEAR MEDICINE IMAGING AND RADIOISOTOPE TECHNIQUES  
AT THE NATIONAL NAVAL MEDICAL CENTER, BETHESDA, MD.  
1981.

CURRENT ENDEAVORS:

PRIVATE PRACTICE IN DIAGNOSTIC RADIOLOGY/NUCLEAR MEDICINE



WORK EXPERIENCES:

PRIVATE PRACTICE, NUCLEAR MEDICINE/RADIOLOGY, 1983-PRESENT.

CHIEF RESIDENT IN NUCLEAR MEDICINE, THE JOHNS HOPKINS HOSPITALS, BALTIMORE, MD, 1983

"Training residents & nuclear technologists, arranging conferences, proofing all imaging & nonimaging reports before they leave the department, etc. "

RESIDENCY/FELLOWSHIP IN NUCLEAR MEDICINE, THE JOHNS HOPKINS HOSPITALS, BALTIMORE, MD. 1981-1983

RESIDENCY IN DIAGNOSTIC RADIOLOGY, HOWARD UNIVERSITY, WASHINGTON, DC, 1979-1981

INTERNSHIP, INTERNAL MEDICINE, HOWARD UNIVERSITY, WASHINGTON, DC., 1978-1979.

PROGRAM COORDINATOR FOR THE HOWARD UNIVERSITY SUMMER SCHOOL UNDERGRADUATE PARTICIPANTS AND COURSE REQUIREMENTS FOR ALL MEDICAL AND DENTAL STUDENTS 1976.

"Review course content for the summer participants and medical and dental students who were enrolled in summer courses; supervise/coordinate all course instructors; arrange conferences, etc."

ASSOCIATE PROFESSOR OF CHEMISTRY, NORTH CAROLINA A & T STATE UNIVERSITY, GREENSBORO, NC., 1970-1974, SUMMER, 1975.

"Teaching duties; research grant recipient from NSF, NIH, other federal, state and local grants; published papers in scientific journals; presented papers at scientific meetings, etc."

RESEARCH ASSISTANT, DEPARTMENT OF CHEMISTRY, HOWARD UNIVERSITY, 1970, UNDER DR. W. P. HAMBRIGHT

"Preparation of metalloporphyrins that were used world-wide; published papers; attend/present papers at meetings; utilize UV, IR, Visible, Mass, atomic and reflective spectroscopies. solution chemistries in the research projects."

CHEMIST, DIVISION OF IMMUNOLOGY & TOXICOLOGY, FOOD & DRUG ADMINISTRATION, WASHINGTON, D. C., PART-TIME AND SUMMER, 1969.

"Preparation of large quantities of IgA in pure form by devising a new method; create mathematic models to monitor the IgA elution."

CHEMIST, DIVISION OF CHEMISTRY, D. C. DEPARTMENT OF PUBLIC HEALTH, WASHINGTON, DC, PART-TIME AND SUMMERS, 1966-1968.

"Analysis of body and nonbody fluids, water and food samples".

CLINICAL TECHNICIAN, DEPARTMENT OF CLINICAL PATHOLOGY, MEDICAL COLLEGE OF VIRGINIA, RICHMOND, VA., SUMMERS, 1964-1966.

"Work in the Department of Clinical Pathology and Labs."

GRANTS, AWARDS AND FELLOWSHIPS:

NATIONAL SCIENCE FOUNDATION GRANTEE, 1972-1974

NATIONAL INSTITUTES OF HEALTH GRANTEE (X 2), 1972-1974

NORTH CAROLINA BOARD OF SCIENCE & TECHNOLOGY GRANTEE, 1973-1974.

PIEDMONT (NORTH CAROLINA) EDUCATIONAL GRANTEE, 1974.

NORTH CAROLINA A & T STATE UNIVERSITY EDUCATIONAL GRANTEE, 1971.

AMERICAN CHEMICAL SOCIETY-PETROLEUM RESEARCH FUND FELLOWS, (HOWARD UNIV.), 1969-1970.

NDEA FELLOW (HOWARD UNIV.), 1966-1969.

UNIVERSITY TEACHING FELLOW (HOWARD UNIV.), 1965-1966.

DUPONT UNDERGRADUATE TEACHING FELLOWSHIP AWARD RECIPIENT, (HOWARD UNIV.) 1965-1966.

UNIVERSITY GRADUATE ASSISTANTSHIP RECIPIENT (HOWARD), 1964-1965.

MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

AMERICAN RADIOLOGICAL SOCIETY

AMERICAN MEDICAL ASSOCIATION

NATIONAL MEDICAL ASSOCIATION

VIRGINIA MEDICAL SOCIETY

OLD DOMINION MEDICAL SOCIETY

RADIOLOGICAL SOCIETY OF NORTH AMERICA

SOCIETY OF NUCLEAR MEDICINE

VA SECTION OF THE NUCLEAR MEDICINE SOCIETY

-4-

PAST MEMBERSHIPS:

NEW YORK ACADEMY OF SCIENCES

NORTH CAROLINA ACADEMY OF SCIENCE

AMERICAN CHEMICAL SOCIETY

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

BETA KAPPA CHI-NATIONAL INSTITUTES OF SCIENCE

RESEARCH INTERESTS:

MICRONUTRIENTS; PORPHYRINS AND RELATED COMPOUNDS; THIAZOLES AND DERIVATIVES (THIAMINE); AZO DYES; NATURAL PRODUCTS; AQUEOUS /NON-AQUEOUS SOLUTION CONDUCTANCES AND THE SYNTHESIS AND ANALYSES OF THESE COMPOUNDS USING UV, VISIBLE, IR, REFLECTANCE, ATOMIC, AND NMR SPECTROSCOPIES AND RIA TECHNIQUES.

PUBLICATIONS:

"PARATHYROID GLAND IMAGING USING DUAL ISOTOPES", J. WEAVER  
LETTER TO THE EDITOR, CLEVELAND CLINIC JOURNAL OF MEDICINE,  
MAY/JUNE, 1988, P 280.

"METAL COMPLEXES OF 2-METHYL-2-THIAZOLINE" WITH Y. J. WEAVER/  
J. INORG. NUCL. CHEM., 37, 1975.

"THE PREPARATION AND REACTIONS OF A "NEW" PORPHYRIN WITH  
S. F. SQUIREWELL, THE JOURNAL OF THE ELISHA MITCHELL  
SCIENTIFIC SOCIETY, 89 (4), 1973.

"COMPLEXES OF THIAZOLES. I. ZINC (II), COBALT(II), COPPER(II),  
NICKEL(II) AND PLATINUM(II) DERIVATIVES OF ALKYL-SUBSTITUTED  
THIAZOLES". WITH P. HAMBRIGHT, ET. AL., INORG. CHEM., 2, 268,  
1970.

"ZINC(II) AND COBALT(II) HALIDE INTERACTIONS WITH VITAMIN  
B-1 AND CERTAIN N-SUBSTITUTED THIAZOLIUM SALTS". WITH  
P. T. TALBERT AND P. H. HAMBRIGHT, J. INORG. NUCL. CHEM.,  
32, 2147, 1970.



"THE MAGNETIC SUSCEPTIBILITY OF HEMIN FROM 303-4.5 K.". WITH S. SULLIVAN, ET. AL., ARCH BIOCHEM. AND BIOPHYS., 137, 51, 1970.

"KINETICS OF THE INCORPORATION OF COPPER(II) INTO A WATER-SOLUBLE PORPHYRIN". WITH P. HAMBRIGHT, INORG. CHEM., 8, 167, 1969.

"LIGAND FIELD CALCULATIONS FOR A TETRAHEDRAL COBALT(II)-THIAZOLE COMPLEX", WITH Y. J. WEAVER, SUBMITTED TO A & T STATE BULLETIN.

Ph. D. THESIS: "METAL INTERACTION WITH THIAZOLE, THIAMINE AND N-SUBSTITUTED THIAZOLES", 1970.

M. S. THESIS: "ELECTRICAL CONDUCTANCE OF AQUEOUS SOLUTIONS OF HYDROXYLAMINE AND CERTAIN TRANSITION METAL IONS", 1968.

SEVERAL SCIENTIFIC PAPERS GIVEN AT VARIOUS MEETINGS IN GEORGIA, MARYLAND, LOUISIANA AND NORTH CAROLINA.

PAPERS PRESENTED AT SCIENTIFIC MEETINGS

"CT EVALUATION OF THE ANKLE", ANNUAL PODIATRY SECTION MEETING AT VA BEACH, VA, APRIL 1987.

"GASTRIC EMPTYING STUDY", ANNUAL MEETING OF THE NMA AT LAS VEGAS, JUNE 1986.

"TRANSITION METAL ION INTERACTION WITH A "NEW" PORPHYRIN SYSTEM", 1973 SOUTHEASTERN REGIONAL MEETING, NORTH CAROLINA.

PERSONAL

MARRIED: YVONNE J. WEAVER, M. D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

ONE CHILD: JENNIFER YVONNE

# The American Board of Nuclear Medicine

Incorporated 1971

A conjoint Board organized with the sponsorship of the American Board of Internal Medicine, American Board of Pathology, American Board of Radiology and the Society of Nuclear Medicine

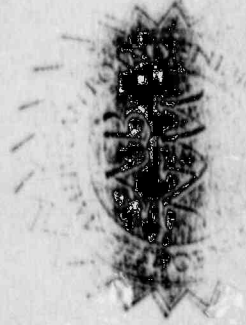
hereby certifies that

**John Arthur Coe, M.D., Ph.D.**

has met the requirements of this Board and is certified as qualified to practice as a specialist in all aspects of clinical and laboratory

## Nuclear Medicine

including but not limited to Radiobioassay, Nuclear Imaging, in Vivo Measurements & Therapy with unsealed Radionuclides.



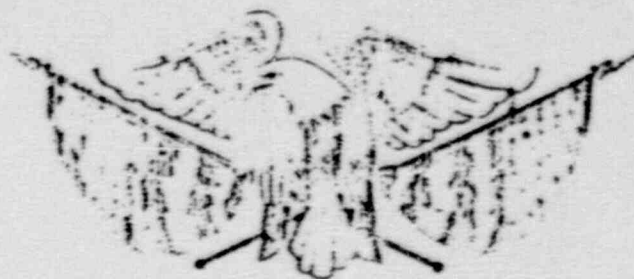
William H. Beale, M.D.

Robert E. Moore, M.D.  
SECRETARY

1912

9, 10, 53

**BUREAU OF MEDICINE AND SURGERY  
DEPARTMENT OF THE NAVY**



*This is to certify that*  
JOHN ARTHUR WEAVER, M.D.

*has attended the*  
NUCLEAR MEDICINE IMAGING AND RADIOISOTOPE TECHNIQUES--COURSE #8102  
(BASIC SCIENCE AND CLINICAL MODULES)

*given by the*  
National Naval Medical Center  
Bethesda, Maryland

17 FEBRUARY 1981 to 10 APRIL 1981

*John P. Smith*

COURSE DIRECTOR

*Gregory C. Cox*

WARGON GENERAL, UNITED STATES NAVY

*J. T. Hogan*

COMMANDING OFFICER, NATIONAL NAVAL MEDICAL CENTER



18 OCTOBER 1988

CURRICULUM VITAE

NAME: YVONNE JACKSON WEAVER, M.D., FACC

ADDRESS: 505 WEST LEIGH STREET  
SUITE 102  
RICHMOND, VA. 23220

TELEPHONE: (804) 344-5055

MARITAL STATUS: MARRIED

CITIZENSHIP: AMERICAN

UNDERGRADUATE EDUCATION: HOWARD UNIVERSITY  
WASHINGTON, D.C.  
B.S. DEGREE(CHEMISTRY), 1967

GRADUATE EDUCATION: AMERICAN UNIVERSITY  
WASHINGTON, D.C.  
BIOCHEMISTRY, 1968-70

BOWMAN GRAY SCHOOL OF MEDICINE  
WAKE FOREST UNIVERSITY  
WINSTON-SALEM, N.C.  
M.D. DEGREE, DECEMBER 1974

CURRENT POSITION: CARDIOLOGIST IN PRIVATE PRACTICE  
SINCE JULY 1983  
WEAVER MEDICAL ASSOCIATES, P.C.  
505 WEST LEIGH ST., SUITE 102  
P.O. BOX 26448  
RICHMOND, VA. 23261

PREVIOUS EMPLOYMENT AND PROFESSIONAL EXPERIENCE:

JULY 1980-JUNE 1983 ASSISTANT PROFESSOR OF MEDICINE  
DIVISION OF CARDIOVASCULAR DISEASE  
DEPARTMENT OF MEDICINE  
HOWARD UNIVERSITY COLLEGE OF MEDICINE

CONSULTANT IN NUCLEAR CARDIOLOGY  
DIVISION OF NUCLEAR MEDICINE  
DEPARTMENT OF RADIOLOGY  
HOWARD UNIVERSITY COLLEGE OF MEDICINE  
WASHINGTON, D.C., 20060

PAGE 2

CV: Y.J.WEAVER

JULY AND AUGUST 1980:

STUDENT, DIVISION OF NUCLEAR MEDICINE  
THE JOHNS HOPKINS MEDICAL INSTITUTIONS  
BALTIMORE, MD.

JULY 1978-JUNE 1980

FELLOW, DIVISION OF CARDIOVASCULAR  
DISEASES, DEPARTMENT OF MEDICINE,  
HOWARD UNIVERSITY HOSPITAL  
WASHINGTON, D.C.

JANUARY 1975-DECEMBER 1977

RESIDENT, DEPARTMENT OF MEDICINE  
HOWARD UNIVERSITY HOSPITAL  
WASHINGTON, D.C.  
(POST GRADUATE TRAINING IN  
INTERNAL MEDICINE)

JULY 1977-OCTOBER 1977

CHIEF RESIDENT, DEPARTMENT OF MEDICINE  
HOWARD UNIVERSITY HOSPITAL  
WASHINGTON, D.C.

JULY 1967- JANUARY 1971

CHEMIST, WALTER REED ARMY INSTITUTE  
OF RESEARCH, DEPARTMENT OF  
ENDOCRINOLOGY AND METABOLISM  
WASHINGTON, D.C.

BOARD CERTIFICATION:

AMERICAN BOARD OF INTERNAL MEDICINE  
SEPTEMBER, 1978

AMERICAN BOARD OF INTERNAL MEDICINE  
SUBSPECIALTY BOARD IN CARDIOVASCULAR  
DISEASES, NOVEMBER, 1981.

LICENSURE:

DISTRICT OF COLUMBIA (#10165), 1977  
VIRGINIA (#30305), 1978  
MARYLAND (#D23518), 1979

FELLOWSHIPS:

FELLOW, AMERICAN COLLEGE OF CARDIOLOGY  
(ELECTED, SEPTEMBER, 1982)

MEMBERSHIPS:

MEMBER, AMERICAN COLLEGE OF PHYSICIANS  
AMERICAN MEDICAL ASSOCIATION  
AMERICAN HEART ASSOCIATION, INC.  
NATIONAL MEDICAL ASSOCIATION  
MEDICAL SOCIETY OF VIRGINIA  
OLD DOMINION MEDICAL SOCIETY  
RICHMOND ACADEMY OF MEDICINE  
RICHMOND MEDICAL SOCIETY

PAPERS PRESENTED:

"POSITIVE THALLIUM SCAN ASSOCIATED WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE"(ABSTRACT), PRESENTED AT THE EASTERN SECTION, AMERICAN FEDERATION FOR CLINICAL RESEARCH, BOSTON, MASS., OCTOBER, 1981.

"NUCLEAR CARDIOLOGY", PRESENTED AT THE ASSOCIATION OF FORMER INTERNS AND RESIDENTS OF HOWARD UNIVERSITY HOSPITAL, MAY, 1981.

PUBLICATIONS:

1. MEHROTRA, P.P., WEAVER, Y.J. AND HIGGINBOTHAM, E.A.: MYOCARDIAL PERFUSION DEFECT ON THALLIUM 201 IMAGING IN PATIENTS WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE. JOURNAL OF THE AMERICAN COLLEGE OF CARDIOLOGY, 2 (NO.2):233, 1983.
2. MEHROTRA, P.P., WEAVER, Y.J. AND HIGGINBOTHAM, E.A.: POSITIVE THALLIUM SCAN ASSOCIATED WITH CHRONIC OBSTRUCTIVE PULMONARY DISEASE (ABSTRACT). CLINICAL RESEARCH, 29, (NO.3): 656A, SEPTEMBER, 1981.
3. CHISHOLM, R.C., WEAVER, Y.J., CHUNG, E.B. AND TOWNSEND, J.L.: PARATHYROID ADENOMA AND LIGHT CHAIN MYELOMA. JOURNAL OF THE NATIONAL MEDICAL ASSOCIATION, 73 (NO.9): 875, 1981.
4. WEAVER, J.A. AND WEAVER, Y.J.: METAL COMPLEXES OF 2-METHYL-2-THIAZOLINE. JOURNAL OF INORGANIC AND NUCLEAR CHEMISTRY 37:1309, 1975.
5. WEAVER, J.A. AND WEAVER, Y.J.: BLACK PROFILE: PART I. DR. CHARLES RICHARD DREW, 1904-1950. NORTH CAROLINA A&T STATE UNIVERSITY FACULTY REVIEW, 63 (NO.3):55, SPRING 1973.

CONTINUING MEDICAL EDUCATION PAST TWO YEARS

1. OLD DOMINION MEDICAL SOCIETY, 83RD ANNUAL SCIENTIFIC SESSION, VIRGINIA BEACH, VA., JUNE 23-26, 1988.
2. EASTERN VIRGINIA MEDICAL SCHOOL, THE MEDICAL MANAGEMENT OF ISCHEMIC HEART DISEASE, NORFOLK, VA., FEBRUARY 19-20, 1988.
3. AMERICAN COLLEGE OF CARDIOLOGY, NUCLEAR CARDIOLOGY: A CASE STUDY APPROACH, BETHESDA, MD., OCTOBER 22-24, 1987.
4. MEDICAL COLLEGE OF VIRGINIA, VARIOUS TOPICS IN INTERNAL MEDICINE, RICHMOND, VA., SEPTEMBER 1987-MAY 1988.



# THE JOHNS HOPKINS MEDICAL INSTITUTIONS

THE JOHNS HOPKINS UNIVERSITY SCHOOL OF MEDICINE • THE JOHNS HOPKINS HOSPITAL  
THE JOHNS HOPKINS UNIVERSITY SCHOOL OF HYGIENE AND PUBLIC HEALTH

CONTROL UNIT

N. Wolfe Street

Baltimore, Maryland 21205

TO WHOM IT MAY CONCERN:

This is to certify that Yvonne J. Weaver has successfully completed the course (ISAB68) "Introduction to Nuclear Medical Sciences," Summer Session, 1980.

Description: A course especially directed toward residents in radiology, medicine, and pathology who wish to obtain the minimum basic training necessary to use radioactive materials in research or who wish to understand more fully the physical principles underlying the use of such materials in medicine. Presentations consist of lecture, laboratory demonstrations, and workshops. Subject matter conforms closely to that which is considered essential by state and federal regulatory agencies for approval for an individual to use radioactive materials in the laboratory or clinic.

Sincerely yours,



Thomas G. Mitchell, Ph. D.  
Associate Professor

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  
Yvonne J. Weaver, M. D.

STREET ADDRESS  
2041 Georgia Avenue, N. W.

CITY | STATE | ZIP CODE  
Washington, D. C. 20060

**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		
OTHER			
I-125	DETECTION OF THROMBOSIS		
I-131	THYROID IMAGING		
P-32	EYE TUMOR LOCALIZATION		
Sm-75	PANCREAS IMAGING		
Yb-169	CISTERNOGRAPHY		
Xe-133	BLOOD FLOW STUDIES AND PULMONARY FUNCTION STUDIES		
OTHER	Tl-201	378	
Tc-99m	BRAIN IMAGING		
	CARDIAC IMAGING	377	
	THYROID IMAGING		
	SALIVARY GLAND IMAGING		
	BLOOD POOL IMAGING		
	PLACENTA LOCALIZATION		
	LIVER AND SPLEEN IMAGING		
	LUNG IMAGING		
BONE IMAGING			
OTHER			

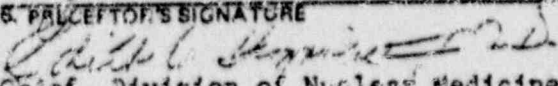
**PRECEPTOR STATEMENT (Continued)**

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

A ISOTOPE	B CONDITIONS DIAGNOSED OR TREATED	C NUMBER OF CASES INVOLVING PERSONAL PARTICIPATION	D COMMENTS <i>(Additional information or comments may be submitted in duplicate on separate sheets.)</i>
P-32 <i>(Soluble)</i>	TREATMENT OF POLYCYTHEMIA VERA, LEUKEMIA, AND BONE METASTASES		
P-32 <i>(Colloid)</i>	INTRACAVITARY TREATMENT		
I-131	TREATMENT OF THYROID CARCINOMA		
	TREATMENT OF HYPERTHYROIDISM		
Au-198	INTRACAVITARY TREATMENT		
Co-60 or Co-137	INTERSTITIAL TREATMENT		
	INTRACAVITARY TREATMENT		
I-125 or Ir-192	INTERSTITIAL TREATMENT		
	TELETHERAPY TREATMENT		
Co-60 or Co-137	TELETHERAPY TREATMENT		
Sr-90	TREATMENT OF EYE DISEASE		
	RADIOPHARMACEUTICAL PREPARATION		
Mo-99/ Tc-99m	GENERATOR		
Sr-113/ In-113m	GENERATOR		
Tc-99m	REAGENT KITS		
Other			

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

April 1980 - February 1982

<p><b>4. THE TRAINING AND EXPERIENCE INDICATED ABOVE WAS OBTAINED UNDER THE SUPERVISION OF:</b></p>	<p><b>6. PRECEPTOR'S SIGNATURE</b>                    Chief, Division of Nuclear Medicine</p>
<p><b>a. NAME OF SUPERVISOR</b> Edith A. Higginbotham, M. D.</p>	<p><b>7. PRECEPTOR'S NAME (Please type or print)</b> Edith A. Higginbotham, M. D.</p>
<p><b>b. NAME OF INSTITUTION</b> Howard University Hospital</p>	<p><b>8. DATE</b> June 28, 1982</p>
<p><b>c. MAILING ADDRESS</b> 2041 Georgia Avenue, N. W.</p>	
<p><b>d. CITY</b> Washington, D. C. 20060</p>	
<p><b>5. MATERIALS LICENSE NUMBER(S)</b> 08-03075-07</p>	



FORM-NRC-313- SUPPLEMENTAL (CONTINUED)

YVONNE J. WEAVER, M. D., FACC

Dr. Yvonne Weaver has performed about 1800 additional thallium scans and about 1500 additional heart studies since 1983 to 1988.

Dr John A. Weaver is

1) Certified by the American Board of Radiology with Special Competency in Nuclear Radiology, 1982.

2) Certified by the American Board of Nuclear Medicine, 1983.

Dr. Yvonne Weaver is

1) Certified by the American Board of Internal Medicine, 1978.

2) Certified by the American Board of Internal Medicine, Diplomate in Cardiovascular Disease, 1981.

3) Fellow, American College of Cardiology, 1982.

JOHN A. WEAVER, M.D., Ph.D. is responsible for

- 1) Ensuring that all individuals who work with or in the vicinity of radioactive material have sufficient training and experience to enable them to perform their duties safely and in accordance with NRC regulations and the conditions of the license.
- 2) Ensuring that all use of radioactive material is conducted in a safe manner and in accordance with NRC regulations and the conditions of the license.
- 3) Supervising all technologist(s) and ancillary personnel who will be handling the radioactive materials in the various mobile and stationary sites.

YVONNE J. WEAVER, M.D., FACC will be mainly responsible for

- 1) All cardiac studies and related studies of the cardiovascular system.

ALL STUDIES WILL BE INTERPRETED AND/OR REVIEWED BY ONE OF THE ABOVE.



ITEM 8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.

APPENDIX A

(TRAINING PROCEDURES)

We have developed a training program for you review that is appended as ATT 8.1

ATT 8.1

(TRAINING PROCEDURES)

1. For person handling or supervising the handling of RAM.

A basic course in radiation safety will be presented at least annually by John A. Weaver, M.D. The depth of instruction will be modified to suit the needs of the individuals being instructed.

The training program will include but not be limited to the following topics:

1. Radiation Physics
  - a. Decay processes and half-life
  - b. Radiation: Particulate and non-particulate
  - c. Interaction of radiation with matter
  - d. Detection of radiation
2. Radiation and Health
3. Radiation Safety Practices
  - a. Time
  - b. Distance
  - c. Shielding
  - d. Contamination control
  - e. Personnel monitoring and surveying methods
  - f. Instrumentation used in radiation protection program
  - g. Regulations (NRC and in-house)
  - h. Security
  - i. Emergency procedures
  - j. Notices posted and others required by 10 CFR Part 19

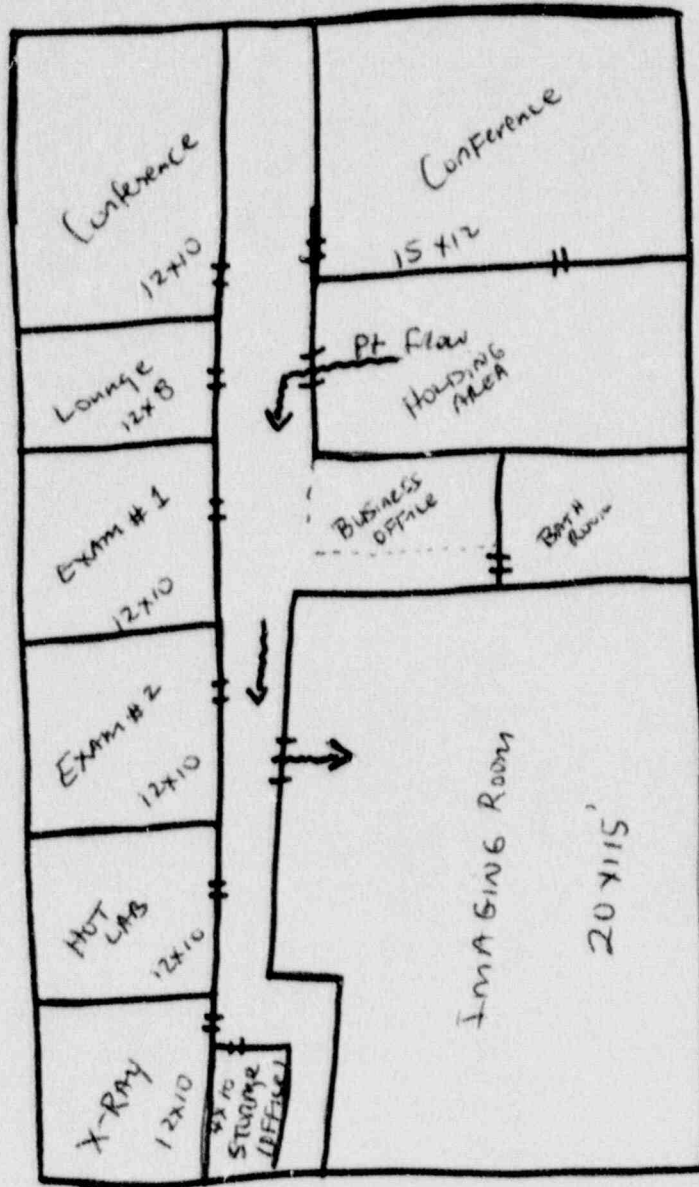


ITEM 9. FACILITIES AND EQUIPMENT.

## 1000 N. THOMPSON STREET (CURRENT)

INSTRUMENTS

TYPE OF INSTRUMENTS (INCLUDE MAKE AND MODEL NUMBER OF EACH)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm <sup>2</sup> )	USE (MONITORING, SURVEYING, MEASURING)
TECHNICARE 500 CAMERA	1	GAMMA	N/A	NaI(Tl) CRYSTAL	IMAGING
CRC-30	1	GAMMA	25 KeV to 3 MeV	PRESSURIZED ARGON IONIZATION CHAMBER	MEASURING
<u>DOSIMETER</u> LOW RANGE SURVEY METER (LUDLUM 14C OR EQUIVALENT)	1	BETA-GAMMA 0.8 MeV, 30 KeV to 50 KeV	0.0-0.5 mr/hr 0 - 5 mr/hr 0 - 50 mr/hr 0 - 2000 mr/hr	30 mg/cm <sup>2</sup>	MONITOR/MEASURE



Thompson Street.



THOMPSON STREET

X-RAY

OUTSIDE

Sink

DOOR (X-RAY)

Shield

Sink

EXAM

HALL

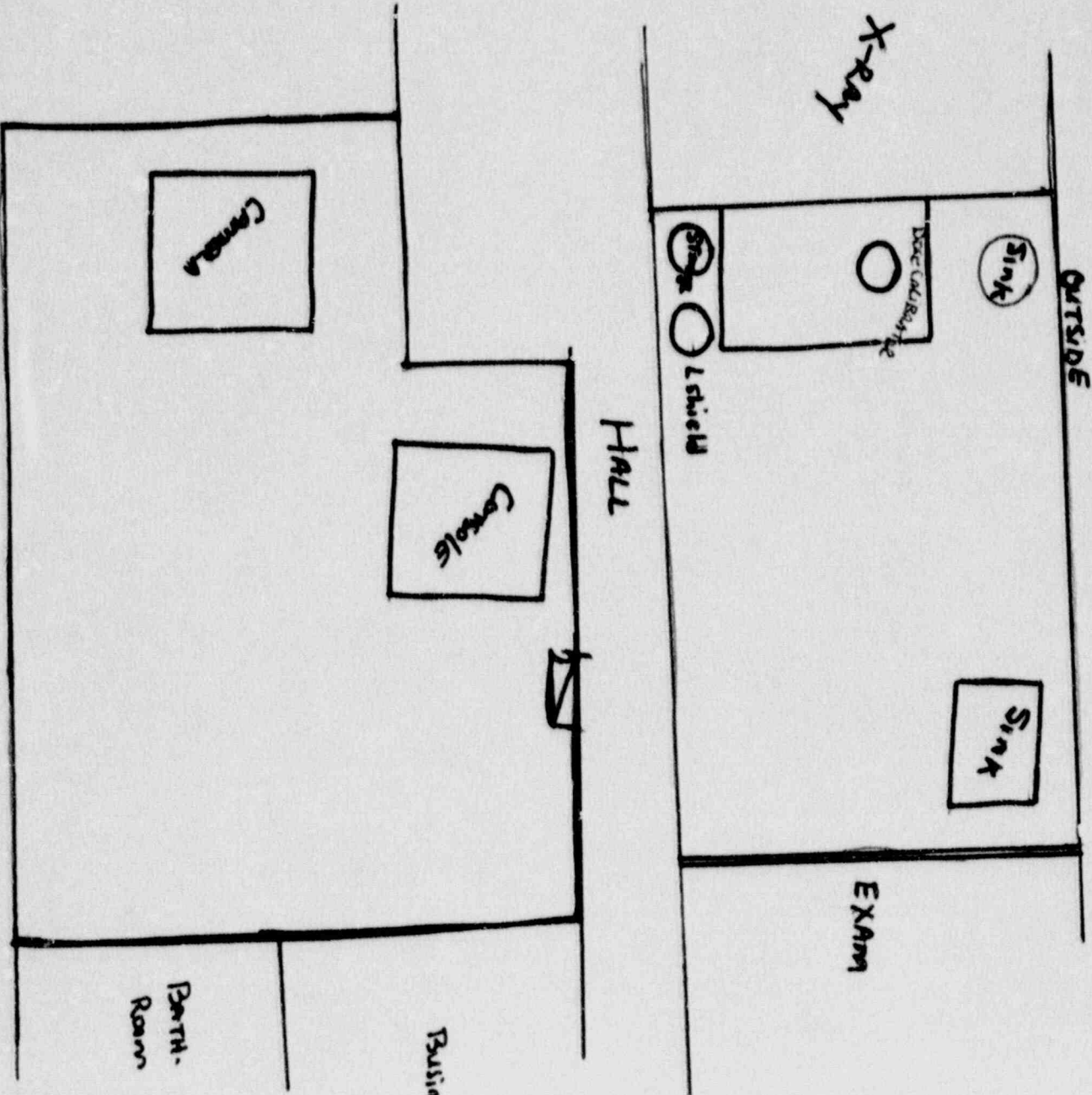
Business

Console

BATH ROOM

Console

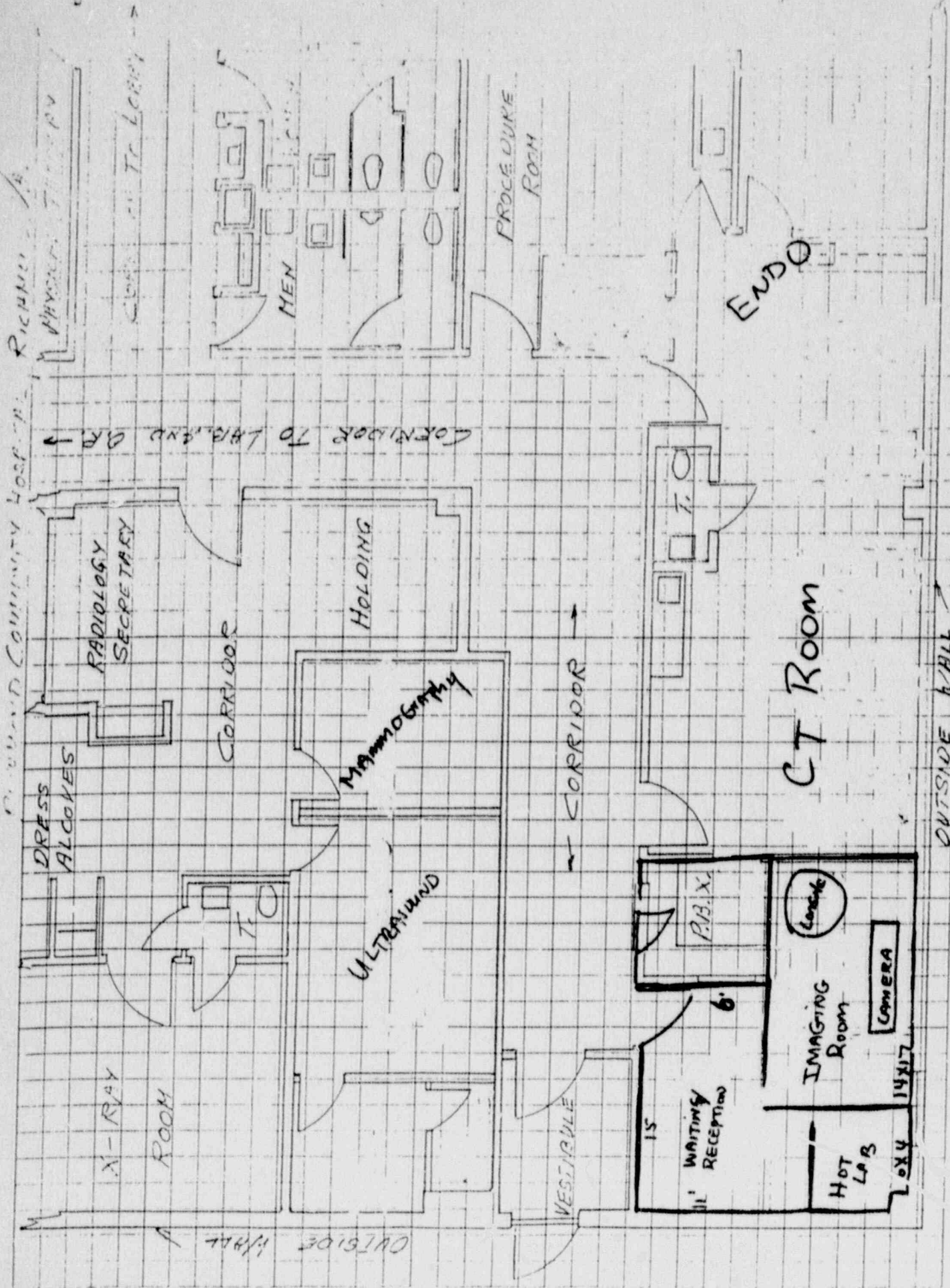
CORRIDOR



RICHMOND COMMUNITY HOSPITAL (PROPOSED)

TYPE OF INSTRUMENTS (INCLUDE MAKE AND MODEL NUMBER OF EACH)	NUMBER AVAILABLE	<u>INSTRUMENTS</u>			USE (MONITORING, SURVEYING, MEASURING)
		RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm <sup>2</sup> )	
TECHNICARE 500 CAMERA	1	GAMMA	N/A	NaI(Tl) CRYSTAL	IMAGING
CRC-30	1	GAMMA	25 Kev to 3 MeV	PRESSURIZED ARGON IONIZATION CHAMBER	MEASURING
<u>DOSIMETER</u> LOW RANGE SURVEY METER (LUDLUM 14C OR EQUIVALENT)	1	BETA-GAMMA 0.8 MeV, 30 KeV to 50 KeV	0.0-0.5 mr/hr 0 - 5 mr/hr 0 - 50 mr/hr 0 - 2000 mr/hr	30 mg/cm <sup>2</sup>	MONITOR/MEASURE

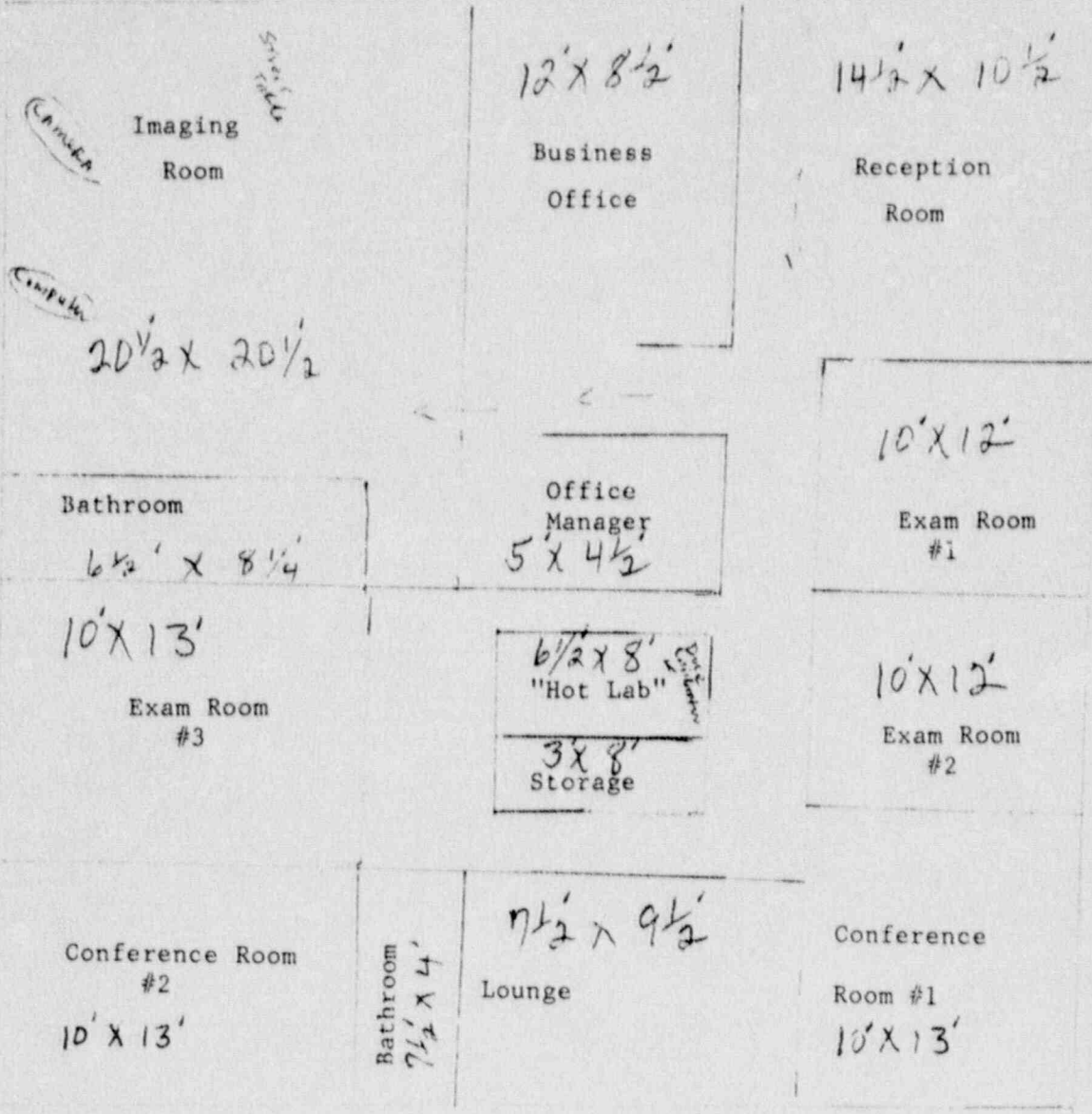
# PROPOSED NUCLEAR MEDICINE DEPARTMENT LAYOUT





INSTRUMENTS

TYPE OF INSTRUMENTS (INCLUDE MAKE AND MODEL NUMBER OF EACH)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm <sup>2</sup> )	USE (MONITORING, SURVEYING, MEASURING)
TECHNICARE 414 CAMERA AND 560 COMPUTER, EQUIVALENT OR BETTER	1	GAMMA	N/A	NaI(Tl) CRYSTAL	IMAGING
CRC-7 DETECTOR, EQUIVALENT OR BETTER	1	GAMMA	25 KeV to 3 MeV	PRESSURIZED ARGON IONIZATION CHAMBER	MEASURING
<u>DOSIMETER</u> LOW RANGE SURVEY METER (LUDLUM 14C OR EQUIVALENT)	2	BETA-GAMMA 0.8 MeV, 30 KeV to 50 KeV	0.0-0.5 mr/hr 0 - 5 mr/hr 0 - 50 mr/hr 0 - 2000 mr/hr	30 mg/cm <sup>2</sup>	MONITOR/MEASURE



Computer

Imaging Room

Storage

12' x 8 1/2'

Business Office

14 1/2' x 10 1/2'

Reception Room

Computer

20 1/2' x 20 1/2'

10' x 12'

Exam Room #1

Bathroom

6 1/2' x 8 1/4'

Office Manager

5' x 4 1/2'

10' x 13'

Exam Room #3

6 1/2' x 8' "Hot Lab"

3' x 8' Storage

10' x 12'

Exam Room #2

Conference Room #2

10' x 13'

Bathroom 7 1/2' x 4'

7 1/2' x 9 1/2'

Lounge

Conference Room #1

10' x 13'

TAPPAHANNOCK, VIRGINIA

<u>INSTRUMENTS</u>					
TYPE OF INSTRUMENTS (INCLUDE MAKE AND MODEL NUMBER OF EACH)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm <sup>2</sup> )	USE (MONITORING, SURVEYING, MEASURING)
TECHNICARE 414 CAMERA AND 560 COMPUTER, EQUIVALENT OR BETTER	1	GAMMA	N/A	NaI(Tl) CRYSTAL	IMAGING
CRC-7 DETECTOR, EQUIVALENT OR BETTER	1	GAMMA	25 KeV to 3 MeV	PRESSURIZED ARGON IONIZATION CHAMBER	MEASURING
<u>DOSIMETER</u> LOW RANGE SURVEY METER (LUDLUM 14C OR EQUIVALENT)	1	BETA-GAMMA 0.8 MeV, 30 KeV to 50 KeV	0.0-0.5 mr/hr 0 - 5 rr/hr 0 - 50 mr/hr 0 - 2000 mr/hr	30 mg/cm <sup>2</sup>	MONITOR/MEASURE



WASTE/STORAGE  
"L" SHAPED SHIELD

OFFICE  
STORAGE/SUPPLIES

HOT  
LAB

BATHROOM/  
DRESSING  
ROOM

SINK

DOSE  
CAL.

WORK  
TOP

COMPUTER

CONSOLE

CAMERA

TREADMILL

STRESS  
Room

HALL

Exam Rooms/OFFICES

TAPPANMUCK, VA

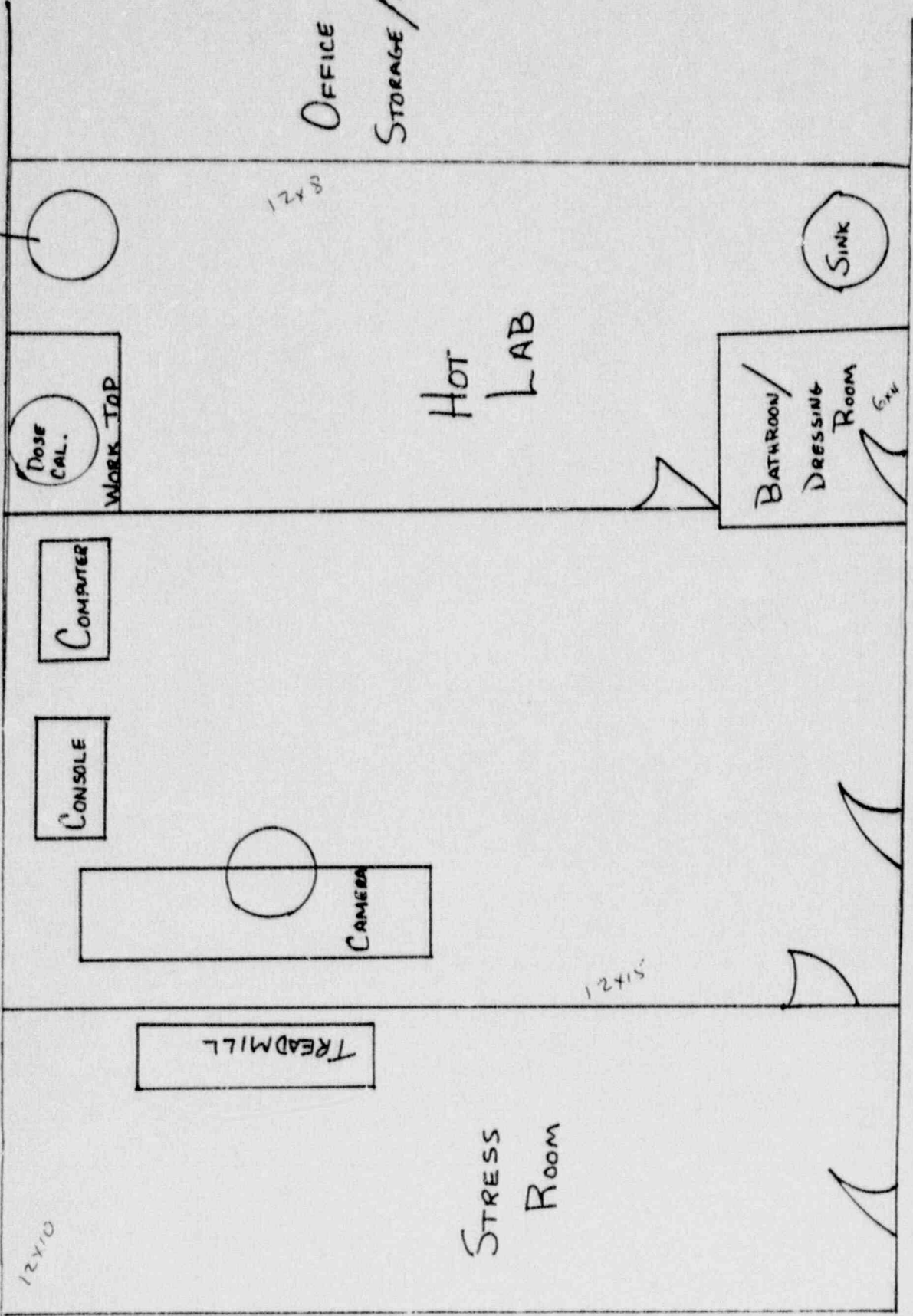
← TO WAITING ROOM

EXTERIOR

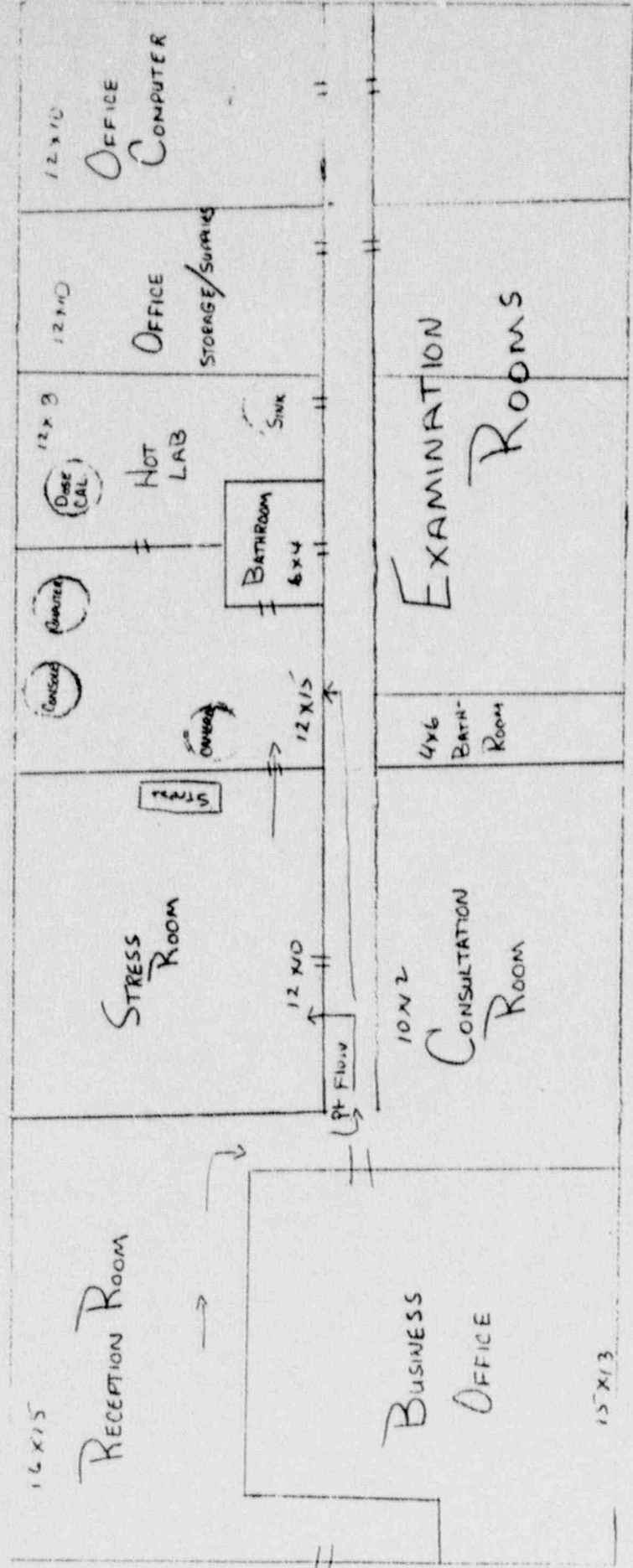
12x10

12x8

12x15



EXTERIOR



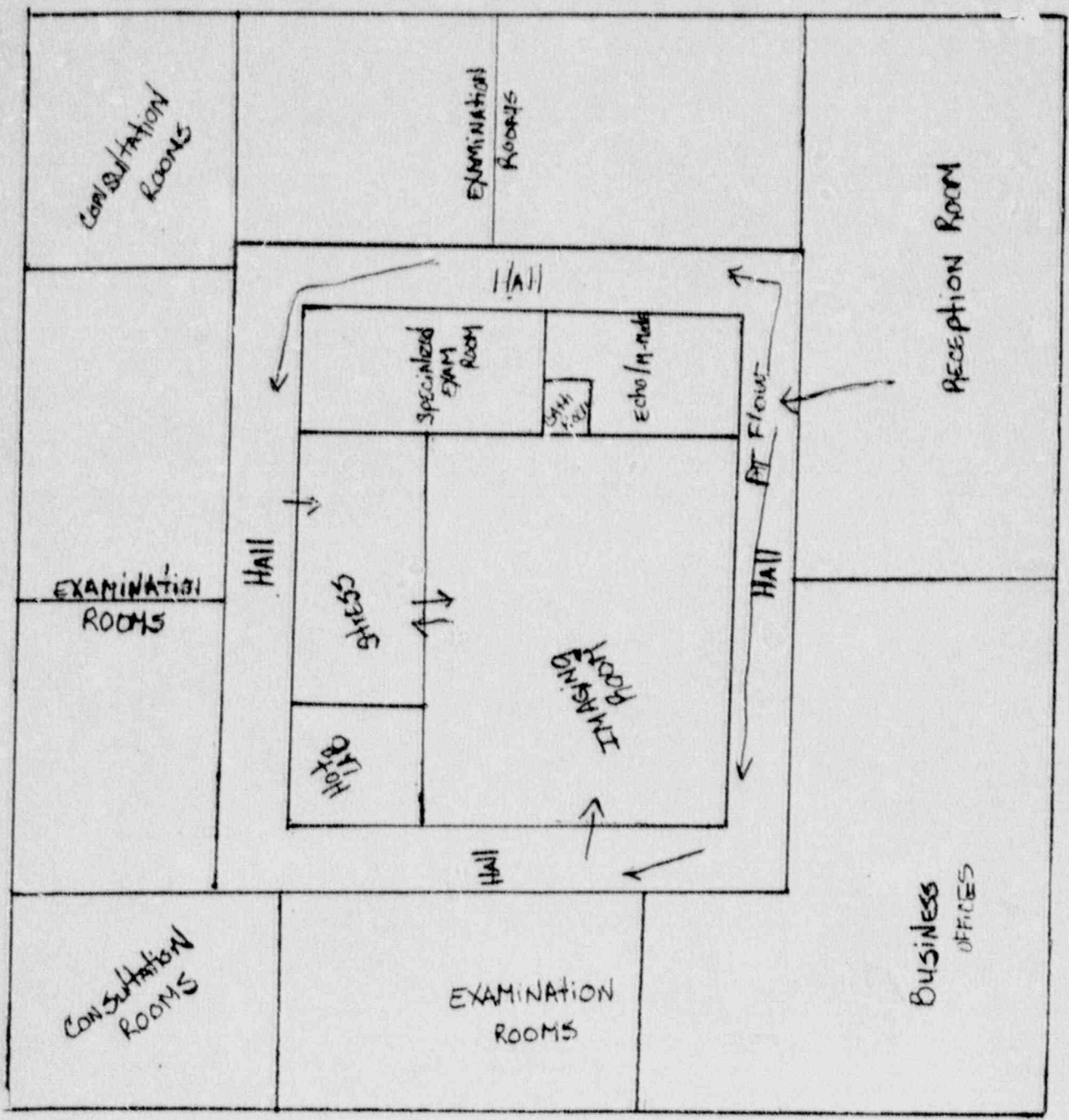
Tappahannock, VA

HAMPTON, VIRGINIA

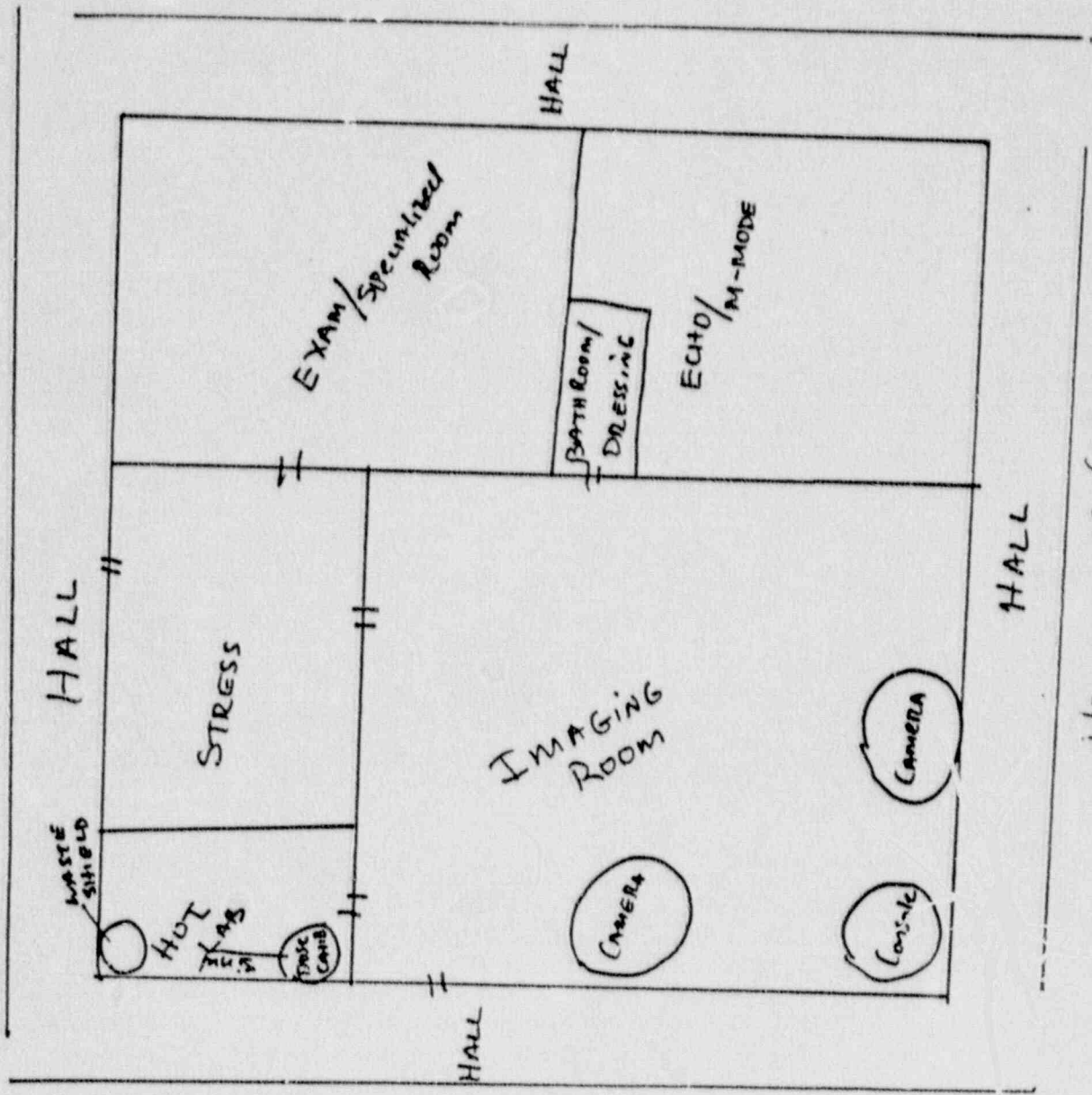
INSTRUMENTS

TYPE OF INSTRUMENTS (INCLUDE MAKE AND MODEL NUMBER OF EACH)	NUMBER AVAILABLE	RADIATION DETECTED	SENSITIVITY RANGE (mr/hr)	WINDOW THICKNESS (mg/cm <sup>2</sup> )	USE (MONITORING, SURVEYING, MEASURING)
TECHNICARE 414 CAMERA AND 560 COMPUTER, EQUIVALENT OR SETTER	1	GAMMA	N/A	NaI(Tl) CRYSTAL	IMAGING
<u>DOSIMETER</u> LOW RANGE SURVEY METER (LUDLUM 14C OR EQUIVALENT)	1	BETA-GAMMA 0.8 MeV, 30 KeV to 50 KeV	0.0-0.5 mr/hr 0 - 5 mr/hr 0 - 50 mr/hr 0 - 2000mr/hr	30 mg/cm <sup>2</sup>	MONITOR/MEASURE
CRC-7 DETECTOR, EQUIVALENT OR BETTER	1	GAMMA	25 KeV to 3 MeV	PRESSURIZED ARGON IONIZATION CHAMBER	MEASURING





HAMPTON, VA (PROPOSED)



HAMPTON, VA (PROPOSED)

ITEM 10. RADIATION SAFETY PROGRAM



APPENDIX B

(CALIBRATING SURVEY INSTRUMENTS)

We will establish and implement the model procedure for calibrating survey instruments that was published in Appendix B to Regulatory 10.8, Revision 2.

Qualifying Statement: We will perform this procedure annually in my office or send the instruments to a consultant or outside firm who has been approved by NRC or approved by an Agreement State for calibrating. We are currently using, but not limited to, RSO, Inc., Laurel, MD 20707 (Agreement State License No. MD-33-021-01).

## APPENDIX C

### (CALIBRATION OF DOSE CALIBRATOR)

We will establish and implement the model procedure for calibrating our dose calibrator that was published in Appendix C for Regulatory Guide 10.8, Revision 2.

#### A. Qualifying Statement for Constancy

1. The constancy of the dose calibrator will be done on the days when patients are tested ( $\pm 10\%$ ). On those days when no patients are scheduled or tested we will not perform this procedure.
2. The constancy test will be performed using at least 100 micro-curies Cs-137 sealed source in a plastic vial as the Benchmark Source. See attached letter of May 1, 1984 and the enclosed excerpts from the Capintec Manual for the CRC 30 and CRC 7.

#### B. Qualifying Statement for Linearity

1. We will use the Decay Method but will reserve the Shield Method when it is convenient on a quarterly basis ( $\pm 10\%$ ) as outlined in Appendix C to Regulatory Guide 10.8, Revision 2.

#### C. Geometry Independence/Accuracy

These procedures will be performed as outlined in Appendix C to Regulatory Guide 10.8, Revision 2 in my office by a consultant or an outside firm licensed by NRC or by an approved Agreement State. This currently will be done by Syncor International (NRC #45-17769-01MD)

The geometry will be checked at installation ( $\pm 10\%$ ). The accuracy will be checked at installation and annually thereafter ( $\pm 10\%$ ) by my office as outlined in Appendix C to Regulatory Guide 10.8, Revision 2 by me, a consultant or an outside firm licensed by NRC or by an approved Agreement State.

All of the above procedures will be repeated after repairs, adjustments, or relocations of the dose calibrator as appropriate.

All results will be reviewed by the RSO, dated and signed.

# Weaver Medical Associates

P.O. BOX 26148  
1000 NORTH THOMPSON STREET  
RICHMOND, VIRGINIA 23261

(804) 358-9962

JOHN A. WEAVER, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

YVONNE J. WEAVER, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

01/May/84

Mr. Paul Guinn  
U.S. Nuclear Regulatory Commission  
Region II  
101 Marietta St., N.W.  
Suite 3100  
Atlanta, GA 30303

RE: Mail Control No. 50038  
Application dated 6-30-83  
Revised  
License No. 45-23007-01

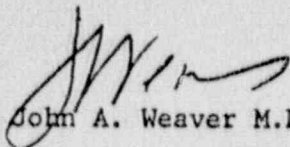
Dear Mr. Guinn:

As per our conversation of 4-2-84, I would like my license to be amended to include:

1. The transportation of the radioisotope, in the form of unit doses, from my office to the hospital for the purpose of administering the radiopharmaceutical to the in house patients. I shall follow the guidelines established by the Department of Transportation in Washington, D.C.
2. The deletion of the daily dose calibrator calibration using the isotopes  $^{57}\text{Co}$ ,  $^{60}\text{Co}$  and  $^{133}\text{Ba}$ . I have a Capintec model CRC 30 which does not use these isotopes for daily calibration. A  $^{137}\text{Cs}$  source is used daily to calibrate the dose calibrator and to check the daily variances between the energy ranges of  $^{57}\text{Co}$  (112),  $^{60}\text{Co}$  (990),  $^{133}\text{Xe}$ ,  $^{201}\text{Tl}$  and  $^{99\text{m}}\text{Tc}$ . The pre-set isotope settings of  $^{67}\text{Ga}$ ,  $^{111}\text{In}$ ,  $^{123}\text{I}$ ,  $^{133}\text{I}$ ,  $^{133}\text{I}$ ,  $^{201}\text{Tl}$  and  $^{99\text{m}}\text{Tc}$  are also tested daily for any abnormal fluctuations that would indicate improper functioning of the dose calibrator.

Enclosed is a copy of this procedure from the Capintec CRC <sup>30</sup> instruction manual. If there are any further questions regarding this matter, I will be happy to furnish them to you.

Thank you,

  
John A. Weaver M.D., Ph.D.

JAW/smy



### 5.2.3 (Cont'd)

The chamber well liner should be tested similarly if contamination is suspected.

#### CAUTION

NEVER USE THE CALIBRATOR WITHOUT THE CHAMBER WELL LINER!

### 5.2.4 Test with a Reference Source

About 100  $\mu\text{Ci}$  (4 MBq) of  $^{137}\text{Cs}$  sealed in a plastic vial or about 50  $\mu\text{g}$  of encapsulated Ra is recommended for this test.

Always use the same Reference Source (i.e., Benchmark Source).

- Step 1) Measure the activity of the Bench-mark Source using the proper calibration setting, and record the reading.
- Step 2) With the Bench-mark Source in the calibrator well, press the eight preset isotope select buttons one by one and record the reading for each.
- Step 3) Press "OTHER", set the CALIBRATION control to 112 and record the reading.
- Step 4) Set the CALIBRATION control to 990 and record the reading.
- Step 5) Similarly record the readings at all of the calibration settings for any radioisotopes, which are anticipated to be measured in the near future.

All readings should be consistent with previous readings to within  $\pm 0.2\%$ . If a  $^{137}\text{Cs}$  Source is used as a Bench-mark, the reading will decrease by 0.2% per month.

### 5.3. QUARTERLY TESTS

#### 5.3.1 Instrument Constancy at High Activity Levels

Repeat the procedure of Section 5.2.3 using a Strong Bench-mark Source (i.e. about 1-2 mg of Ra or about 2 mCi [75 MBq] of  $^{137}\text{Cs}$  to give a reading in the 2-20 mCi [75-750 MBq] range.

Compare the results with the previous readings recorded using this same Bench-mark Source at these settings. The variation should be within the specifications and never change more than  $\pm 5\%$  (after decay correction).

#### 5.3.2 Checking Preset Calibration

Any of the eight preset calibration numbers may be checked by the following procedure:

- Step 1) Verify that the Zero and Background adjustments are within specifications.
- Step 2) Press the preset push button to be checked.

APPENDICES K AND L  
(ORDERING AND RECEIVING RADIOACTIVE MATERIALS)

We have developed a procedure for ordering and receiving radioactive materials for your review that is appended as ATT 10.6.

(ORDERING AND RECEIVING RADIOACTIVE MATERIALS)

1. Ordering Radiopharmaceuticals: Orders for radioactive materials will be initiated by John A. Weaver, M. D., or person(s) designated by Dr. Weaver. Orders will be placed only after determining that the radioactive material will not exceed the possession limits.
2. Receiving Radiopharmaceuticals: These procedures will follow the guidelines set forth by N. R. C.

All radioisotopes covered by the Byproduct Material License issued by NRC shall be obtained from suppliers who are authorized by NRC or by an Agreement State. In our case, these materials will be supplied on a as needed basis by a centralized radiopharmacy. The Nuclear Technologist or authorized user in the unit will maintain records under the supervision of the RSO which includes the following information on all incoming radioisotopes:

Date of Receipt  
Radionuclide  
Assay Amount  
Assay Date  
Manufacturer  
Lot Number  
Received by - (NAME).

The Nuclear Technologist(s) or authorized user under the supervision of John Weaver, M. D., is responsible for the inventory of all byproduct material used routinely and no radioactive materials may be transferred from the nuclear medicine laboratory. Exceptions will be those dosages and calibrating sources for the mobile services and for Richmond Community Hospital. These will be transported to these sites by the RSO, the authorized user or a member of the staff.

All radioisotope material will be stored behind appropriate shielding and/or lead bricks in secured, locked areas accessible only to and under the direct control of the user or his staff. No storage will be at Richmond Community Hospital. These areas will be labeled with standard radiation warning signs. After normal working hours, these areas will be locked or secured (office labs will not necessarily be locked since no unauthorized personnel will be allowed in the office after normal working hours).

3. Radioisotope materials will only be received during normal working hours and the following will be carried out upon receipt: The package will be inspected for damage and monitored with a GM survey meter. The package will be surveyed at one meter and at the surface with the survey meter before opening. Disposable gloves will be worn when handling the radioactive material. The results will be logged in a log book and reviewed periodically by the RSO. In case of contamination or suspected contamination a wipe test will be performed and assayed by the survey meter.



The instruction for Radiation Safety as per Appendix G to Regulatory Guide 10.8, Revision 2 will be the guideline for our program. All users are responsible for promulgation of this information, especially related to safety precautions to all personnel working under his (her) direction. All persons working with byproducts materials or in "radiation areas" are required to wear film badge monitors and will be required to wear TLD finger badges when they are to handle radioisotopes.

There will be no vendor delivery or any storage of radioactive materials at Richmond Community Hospital. Unit doses and sources will be taken to Richmond Community Hospital by the RSO, the user or staff personnel when a test is to be performed. The doses will be injected, inhaled or ingested by the patient, depending on the test ordered, and the waste products and related materials will be returned to 505 W. Leigh Street, Suite 102, Richmond, VA 23220, for disposal or storage. Some records will be kept at Richmond Community Hospital, but no radioactive materials will be stored there.

APPENDIX D

(PERSONNEL EXTERNAL EXPOSURE MONITORING PROGRAM)

We will establish and implement model personnel external exposure monitoring program published in Appendix D to Regulatory Guide 10.8, Revision 2.

Qualifying Statement: The exposure records of films along with the name, age, sex, and location will be kept on file in the main office at 505 W. Leigh Street, Suite 102, Richmond, VA, 23220, with copies being stationed on a bulletin board at each site for those personnel at that particular site.

APPENDIX E  
MOBILE NULCEAR MEDICINE SERVICE

We will establish and implement the model procedure for ensuring equipment performance that was published in Appendix E to Regulatory Guide 10.3, Revision 2.

Qualifying Statement: We will do this procedure whenever the camera has been transported.



APPENDIX F  
RADIATION SAFETY COMMITTEE CHARTER

This will not be applicable to the office setting. For Richmond Community Hospital, we will issue the model Radiation Safety Committee Charter and Radiation Safety Officer Delegation of Authority that was established in Appendix F to Regulatory Guide 10.8, Revision 2.

APPENDIX G

ALARA

We will establish and implement the model ALARA program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

APPENDIX H  
LEAK-TESTING SEALED SOURCE

We will establish and implement the model procedure for leak-testing sealed sources that was established in Appendix H to Regulatory Guide 10.8, Revision 2.



APPENDIX I

(SAFE USE OF RADIOPHARMACEUTICALS)

We will establish and implement the model safety rules published in Appendix I to Regulatory Guide 10.8, Revision 2.

APPENDIX J

(SPILL PROCEDURES)

We will establish and implement the model spill procedure published in Appendix J to Regulatory Guide 10.8, Revision 2.

APPENDIX M

(RECORDS OF BYPRODUCT MATERIAL USE)

- Appendix M.1: We will establish and implement the model procedure for a unit dosage record system that was published in Appendix M.1 to Regulatory Guide 10.8, Revision 2.
- Appendix M.2: We will establish and implement the model procedure for a multidose vial record system that was published in Appendix M.2 to Regulatory Guide 10.8, Revision 2.
- Appendix M.3: We will establish and implement the model procedure for the measuring and recording molybdenum concentration that was published in Appendix M.3 to Regulatory Guide 10.8, Revision 2.



APPENDIX N

(AREA SURVEY PROCEDURES)

We will establish and implement the model procedure for area surveys that was published in Appendix N to Regulatory Guide 10.8, Revision 2.

Qualifying Statement: Wipe test in the areas of isotope preparation will be done weekly. The samples will be assayed by the survey meter that was recommended to me by NRC in 1984 (Ludum 14C, or equivalent, that was capable of a sensitivity range of 0-1000 mr/hr or better. These units have ranges of 0-2000 mr/hr). The isotope lab will be surveyed each day a patient is tested. All radioisotopes will be stored behind shielding which will be sufficient to reduce radiation level at the surface of the container to 2.0 mr/hr or less in controlled areas. No storage will be at Richmond Community Hospital.

APPENDIX O

(MONITORING, CALCULATING AND CONTROLLING AIR CONCENTRATIONS)

ITEM 10.13.1      N/A

ITEM 10.13.2:    We will collect spent aerosol in shielded trap and, for reusable traps, monitor the trap effluent with an air contamination monitor that we will check regularly according to the manufacturer's instructions.

We will be using mainly the single-use devices.

ITEM 10.13.3:    We will not directly vent spent aerosol and gases to the atmosphere and therefore no effluent estimation is necessary.

APPENDIX P

(RADIATION SAFETY DURING IODINE THERAPY OVER 30 MILLICURIES)

N/A.

APPENDIX Q

(RADIATION SAFETY DURING IMPLANT THERAPY)

N/A



ITEM 11. WASTE MANAGEMENT.

APPENDIX R  
(PROCEDURE FOR WASTE DISPOSAL)

We will establish and implement the general guidance and model procedure for waste disposal that were published in Appendix R to Regulatory Guide 10.8, Revision 2.

# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

October 6, 1988

Ms. Carroll Connell, Radiation Specialist  
Nuclear Materials Safety Section  
Nuclear Regulatory Commission  
Region II  
101 Marietta Street, N.W.  
Atlanta, GA 30323

RE: REFERENCE#: 252344;030-20161  
LICENSE # : 45-23007-01

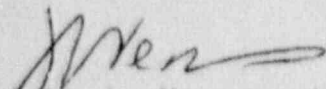
Dear Ms. Connell:

In accordance with your letter dated September 12, 1988,  
I am submitting the following information for your review.

Enclosed will be a separate listing for services that will be  
rendered at the Richmond Community Hospital, 306 Earl Street  
in Tappahannock, Virginia, at 2112 Hartford Road, Hampton,  
Virginia, 1000 N. Thompson Street and at 505 W. Leigh Street,  
Richmond, VA 23220.

Please address all correspondings to 505 W. Leigh Street, Suite  
102, P. O. Box 26448, Richmond, VA 23261

Sincerely,



John A. Weaver, M.D., Ph.D.

JAW/mpo

Enclosures: (5)

Received Oct. 12, 1988



# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

RICHMOND COMMUNITY HOSPITAL  
REFERENCE: 252344; 030-20161  
LICENSE: 45-23007-01

## Procedures/Film Badges

The procedures to be performed at the Richmond Community Hospital will be Bone, Liver/Spleen, Hepatobiliary, Dactocystography, Lung, Brain, GI Bleed, Cardiac, Gastric Emptying, Thyroid, Salivary Gland, Meckels, Gallium scans, In-111 scans (and other approved radioisotopes and procedures) and I-131 Thyroid Localization and/or therapeutic treatment of hyperthyroidism with 5-12 millicuries of I-131.

There will be no therapy at this facility other than occasional treatment of hyperthyroidism. The dosages for the routine scans will be the usual doses for the services listed above. We will be using unit doses from our supplier, Syncor International, Richmond, VA. All refuse and waste will be returned to our supplier as is currently being done.

Film badges and/or finger badges will be used by all personnel who will be handling the radioisotopes. These will be monitored monthly by Landauer, Inc. of Glenwood, Illinois. Any unusual high readings will be monitored and records kept as to the action(s) taken.

## Equipment

Initially we will have the Technicare Omega 500 Camera and its accessories at the Richmond Community Hospital. Later we hope to add the Technicare 414 camera and the Technicare 560 computer for completeness. The specifications for the equipment are as listed in the original application. The other equipment that will be housed at Richmond Community Hospital will be Capintec CRC 30 dose calibrator, and a Ludlem Model 14C survey meter or equivalent with a pan probe. These specifications are as listed in the original application. In addition, a lead-lined waste container will be used to store non-syringe items not returned to the supplier.

## Users/Supervisors

The authorized users of this Nuclear Medicine facility will be Dr. John A. Weaver, and Dr. Yvonne J. Weaver, who are listed on the original application. These same people will be responsible for the supervision of the work performed at this location. Several notebooks will be located at this site. One will be for patient records and will contain: patient name, date of service,

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(804) 344-5055

PAGE 2

isotope or chemical used, name of the study, millicuries or microcuries recorded and time of reading.

## Radiation Survey

A drawing of the location of each area to be monitored in the survey will be posted. Records will be kept in the other books containing: Daily or as needed survey on the dates services are being performed; a separate listing for the weekly wipe test; quarterly wipe test for the sealed source; a section on disposal of refuse; quarterly linearity test of the dose calibrator; a section on the dose calibrator daily monitoring with a sealed Cs-137 test dose and a section on spills or misuse along with remedies and/or actions taken.

The equipment will be serviced by Beta Enterprises, Richmond, VA. in accordance to manufacturer's guidelines. All equipment will be stationary or moved within the hospital as needed. Daily and/or as needed calibration with a point source will be performed either AM or PM, stored on computer or hard copies, to monitor the operation of the equipment.

## ALARM

We will establish and implement the model ALARM program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

Badges will be sent to Landauer monthly, results will be posted on a bulletin board and the originals will be kept at the main office at 505 West Leigh Street, Suite 102, Richmond, VA 23220. The books will be inspected each day of service.

## Licensure to Cover Richmond Community Hospital

Please see enclosed letter from NRC dated August 12, 1988.



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

AUG 12 1988

Weaver Medical Associates  
ATTN: John A. Weaver, M.D., Ph.D.  
1000 N. Thompson Street  
Richmond, VA 23230

Gentlemen:

SUBJECT: CLARIFICATION OF REGULATORY REQUIREMENTS AND LICENSE AUTHORIZATION  
(LICENSE NO: 45-23007-01)

In accordance with your letter dated July 19, 1988, this letter confirms that you do not need to amend your license in order to be authorized to perform imaging at Richmond Community Hospital. Condition 10 of your license authorizes material to be used at Richmond Community Hospital and authorizes you to transport the material. 10 CFR 35.2 defines your type of program as a "mobile nuclear medicine service." 10 CFR 35.80 lists the technical requirements for mobile nuclear medicine service. Enclosed is a copy of Part 35 with these sections highlighted.

The authorization for you to use material at Richmond Community Hospital is based on a letter from the executive director dated July 6, 1983. Since your license is due for renewal by August 31, 1988, please submit with your renewal an updated letter from the hospital. The 1983 letter stated that you had "temporary privileges on the Medical Staff..." and did not clearly state that radioactive materials could be used at their facility.

If you should have any questions, do not hesitate to contact me at (404) 331-2675.

Sincerely,

Carol Connell, Radiation Specialist  
Nuclear Materials Safety Section

Enclosure:  
10 CFR 35 (highlighted)





*John Weaver*

## Richmond Community Hospital

1300 N. 28th Street • P.O. Box 27184 • Richmond, VA 23261 • 804/275-1700

August 29, 1988

Carol Connell, Radiation Specialist  
Nuclear Materials Safety Section  
United States Nuclear Regulatory Commission  
101 Marietta Street, N.W.  
Atlanta, Georgia 23230

Dear Ms. Connell:

This letter is to confi. that Dr. John A. Weaver is a full-time active medical staff member at Richmond Community Hospital and authorized to bring radioactive material to the hospital for the imaging of patients.

Should you have any further questions or concerns please do not hesitate to contact me.

Sincerely,

*R. Curtis Winfrey*  
R. Curtis Winfrey  
Executive Director

RCW/pmg

# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1070 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

505 W. LEIGH STREET

REFERENCE: 252344; 030-20161  
LICENSE: 45-23007-01

## Procedures/Film Badges

The procedures to be performed at 505 W. Leigh Street will be Bone, Lung, Brain, GI Bleed, Cardiac, Gastric Emptying, Thyroid, Salivary Gland, Meckels, Gallium scans and I-131 Thyroid Localization.

There will be no therapy at this facility. The dosages for the routine scans will be the usual doses for the services listed above. We will be using unit doses from our supplier, Syncor International, Richmond, VA. All refuse and waste will be returned to our supplier as is currently being done.

Film badges and/or finger badges will be used by all personnel who will be handling the radioisotopes. These will be monitored monthly by Landauer, Inc. of Glenwood, Illinois. Any unusual high readings will be monitored and records kept as to the action(s) taken.

## Equipment

We will have the Technicare 414 Camera and its accessories at this location along with the Technicare 560 computer. The specifications for the equipment is as listed in the original application. The other equipment that will be housed at this location will be Capintec CRC 7 dose calibrator, and a Ludlem Model 14C survey meter or equivalent with a pan probe. There specifications are as listed in the original application. In addition, a lead-lined waste container will be used to store non-syringe items not returned to the supplier.

## Users/Supervisors

The authorized users of this Nuclear Medicine facility will be Dr. John A. Weaver, and Dr. Yvonne J. Weaver, who are listed on the original application. These same people will be responsible

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CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

PAGE 2

for the supervision of the work performed at this location. Several notebooks will be located at this site. One will be for patient records and will contain: patient name, date of service, isotope or chemical used, name of the study, millicuries or microcuries recorded and time of reading.

## Radiation Survey

A drawing of the location of each area to be monitored in the survey will be posted. Records will be kept in the other books containing: Daily or as needed survey on the dates services are being performed; a separate listing for the weekly wipe test; quarterly wipe test for the sealed source; a section on disposal of refuse; quarterly linearity test of the dose calibrator; a section on the dose calibrator daily monitoring with a sealed Cs-137 test dose and a section on spills or misuse along with remedies and/or actions taken.

The equipment will be serviced by Beta Enterprises, Richmond, VA, in accordance to manufacturer's guidelines. All equipment will be stationary or moved within the facility as needed. Daily and/or as needed calibration with a point source will be performed either AM or PM, stored on computer or hard copies, to monitor the operation of the equipment.

## ALARM

We will establish and implement the model ALARM program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

Badges will be sent to Landauer monthly, results will be posted on a bulletin board and the originals will be kept at the main office at 505 West Leigh Street, Suite 102, Richmond, VA 23220. The books will be inspected each day of service.

## Licensure to Cover 505 W. Leigh Street

Please see enclosed letter dated December 26, 1985. (NOTE: the reply was sent January 3, 1986, but I am unable to find a copy at present).



# Weaver Medical Associates

1000 NORTH THOMPSON STREET  
P.O. BOX 26448  
RICHMOND, VIRGINIA 23261  
(804) 358-9962

JOHN A. WEAVER, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

YVONNE J. WEAVER, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

December 26, 1985

Mr. Paul Guinn  
U. S. Nuclear Regulatory Commission  
Region II  
101 Marietta Street., N.W.  
Suite 3100  
Atlanta, GA 30303

RE: LICENSE NUMBER 45-23007-01

Dear Mr. Guinn:

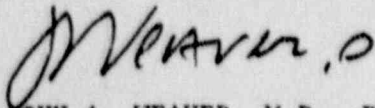
I would like to amend the above stated license to include a second office to be located at 505 West Leigh Street, Richmond, Virginia. A rough sketch of the proposed office is included.

The procedures for the acceptance of radiopharmaceuticals, handling of the radiopharmaceuticals, the radiation safety and bookkeeping for procedures will be similar to those outlined for the office at 1000 North Thompson Street, Richmond, Virginia 23230.

The effective date of opening is January, 1986.

Enclosed is my remittance of \$120.00 to cover the fees for amendment.

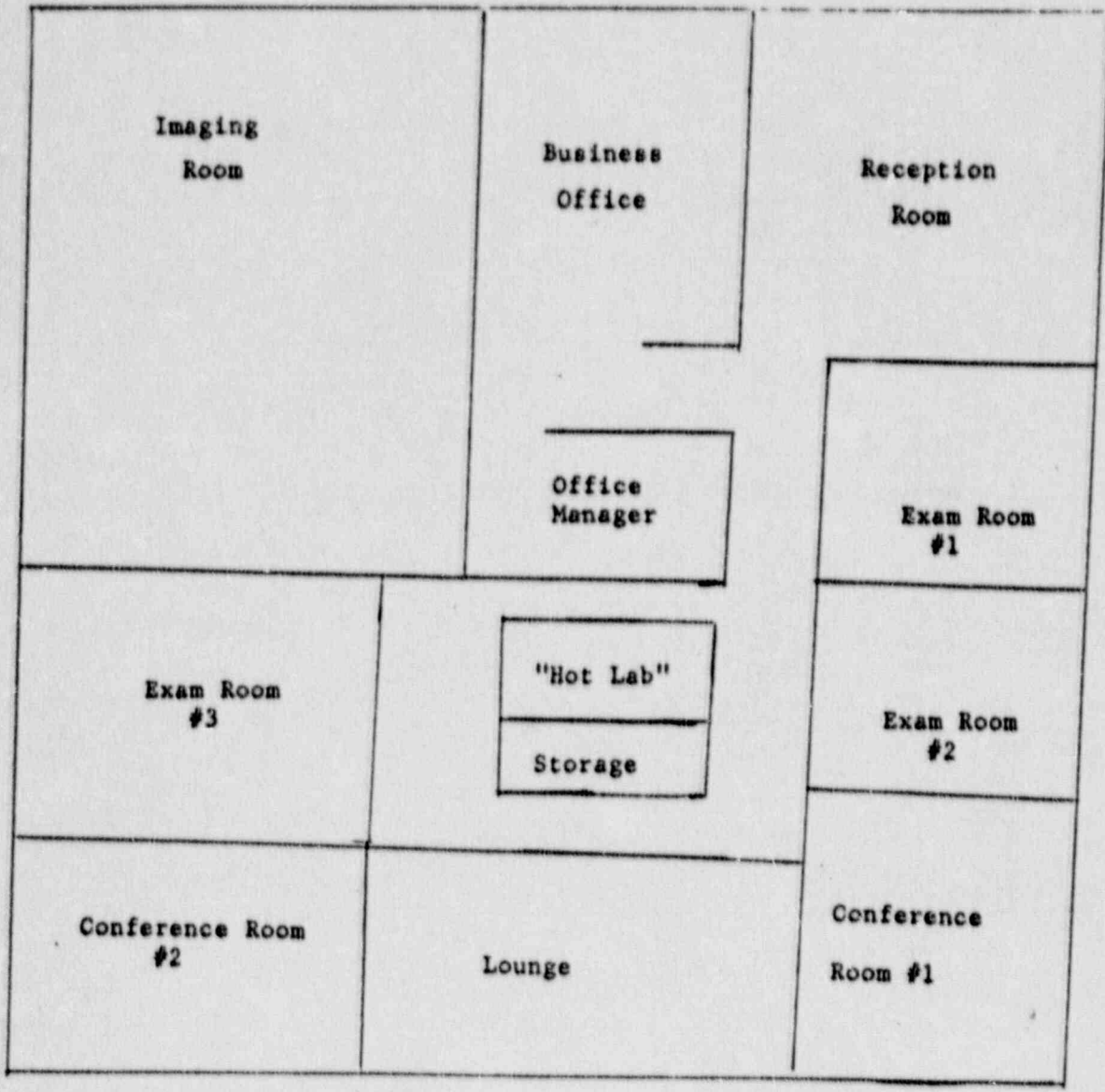
Sincerely,



JOHN A. WEAVER, M.D., Ph.D.

JAW/vdj

Enclosure



WEAVER MEDICAL ASSOCIATES, P. C.  
 P. O. BOX 26442  
 RICHMOND, VIRGINIA 23261

EXPLANATION	AMOUNT

68-12  
510

1566

PAY  
AMOUNT  
OF

One Hundred Twenty Dollars \$ <sup>02</sup>/<sub>100</sub> DOLLARS

CHECK  
AMOUNT

DATE	TO THE ORDER OF	GROSS	FICA	FED. W/M	STATE W/M	CHECK NUMBER
12/26/68	U.S. Nuclear Regulatory Commission Region II Atlanta GA					1566

\$ 120.00

CONSOLIDATED BANK & TRUST CO.  
RICHMOND, VIRGINIA

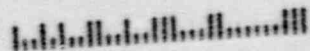
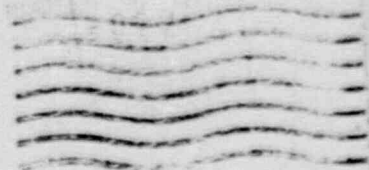
*John A Weaver* <sup>ms</sup>

⑈00001566⑈ ⑆051000127⑆ 010042927⑈12



UNITED STATES NUCLEAR REGULATORY COMMISSION  
REGION II, SUITE 2900  
101 MARIE TA STREET N.W.  
ATLANTA, GA 30303

OFFICIAL BUSINESS  
PENALTY FOR PRIVATE USE, \$300



# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

1000 N. THOMPSON STREET

REFERENCE: 252344; 030-20161  
LICENSE: 45-23007-01

## Procedures/Film Badges

The procedures to be performed at this location will be Bone, Lung, Brain, GI Bleed, Cardiac, Gastric Emptying, Thyroid, Salivary Gland, Meckels, Gallium scans, other approved radioisotopes and I-131 Thyroid Localization.

There will be no therapy at this facility. The dosages for the routine scans will be the usual doses for the services listed above. We will be using unit doses from our supplier, Syncor International, Richmond, VA. All refuse and waste will be returned to our supplier as is currently being done.

Film badges and/or finger badges will be used by all personnel who will be handling the radioisotopes. These will be monitored monthly by Landauer, Inc. of Glenwood, Illinois. Any unusual high readings will be monitored and records kept as to the action(s) taken.

## Equipment

We will have the Technicare 500 Camera and its accessories at this location along with the Technicare 560 computer. The specifications for the equipment is as listed in the original application. The other equipment that will be housed at this location will be Capintec CRC 30 dose calibrator, and a Ludlem Model 14C survey meter or equivalent with a pan probe. There specifications are as listed in the original application. In addition, a lead-lined waste container will be used to store non-syringe items not returned to the supplier.

## Users/Supervisors

The authorized users of this Nuclear Medicine facility will be Dr. John A. Weaver, and Dr. Yvonne J. Weaver, who are listed on the original application. These same people will be responsible

# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 356-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

PAGE 2

for the supervision of the work performed at this location. Several notebooks will be located at this site. One will be for patient records and will contain: patient name, date of service, isotope or chemical used, name of the study, millicuries or microcuries recorded and time of reading.

## Radiation Survey

A drawing of the location of each area to be monitored in the survey will be posted. Records will be kept in the other books containing: Daily or as needed survey on the dates services are being performed; a separate listing for the weekly wipe test; quarterly wipe test for the sealed source; a section on disposal of refuse; quarterly linearity test of the dose calibrator; a section on the dose calibrator daily monitoring with a sealed Cs-137 test dose and a section on spills or misuse along with remedies and/or actions taken.

The equipment will be serviced by Beta Enterprises, Richmond, VA. in accordance to manufacturer's guidelines. All equipment will be stationary or moved within the facility as needed. Daily and/or as needed calibration with a point source will be performed either AM or PM, stored on computer or hard copies, to monitor the operation of the equipment.

## ALARM

We will establish and implement the model ALARM program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

Badges will be sent to Landauer monthly, results will be posted on a bulletin board and the originals will be kept at the main office at 505 West Leigh Street, Suite 102, Richmond, VA 23220. The books will be inspected each day of service.

## Licensure to Cover 1000 N. Thompson Street

See the original application. Please note that we will not be imaging at this facility in the near future. All records and radioactive materials will be taken to the main office at 505 W. Leigh Street.



# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-8962

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CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

## TAPPAHANNOCK, VIRGINIA

REFERENCE: 252344; 030-20161  
LICENSE: 45-23007-01

### Procedures/Film Badges

The procedures to be performed at this location will be an occasional Bone, Lung, Brain, GI Bleed, Gastric Emptying, Thyroid, Liver/Spleen, Hapatobiliary, Salivary Gland, Meckels, and other approved radioisotopes. The service will be mainly cardiacs.

There will be no therapy at this facility. The dosages for the routine scans will be the usual doses for the services listed above. We will be using unit doses from our supplier, Syncor International, Richmond, VA. All refuse and waste will be returned to our supplier as is currently being done.

Film badges and/or finger badges will be used by all personnel who will be handling the radioisotopes. These will be monitored monthly by Landauer, Inc. of Glenwood, Illinois. Any unusual high readings will be monitored and records kept as to the action(s) taken.

### Equipment

We will have the Technicare 414 Camera or equivalent and its accessories at this location along with the Technicare 560 computer or equivalent. The specifications for the equipment is as listed in my original application. The other equipment that will be housed at this location will be Capintec CRC 7 or equivalent dose calibrator, and a Ludlem Model 14C survey meter or equivalent with a pan probe. There specifications are as listed in my original application. In addition, a lead-lined waste container will be used to store non-syringe items not returned to the supplier. Disposal will be after the product has decayed to background.

### Users/Supervisors

The authorized users of this Nuclear Medicine facility will be Dr. John A. Weaver, Dr. Yvonne J. Weaver, who are listed on the original application, and any technical personnel. The Drs. Weaver will be responsible for the supervision of the work performed at this location.

Several notebooks will be located at this site. One will be for patient records and will contain: patient name, date of service, isotope or chemical used, name of the study, millicuries

# Weaver Medical Associates

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Suite 102  
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P.O. Box 26448  
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(804) 344-5055

PAGE 2

or microcuries recorded and time of reading.

## Radiation Survey

A drawing of the location of each area to be monitored in the survey will be posted. Records will be kept in the other books containing: Daily or as needed survey on the dates services are being performed; a separate listing for the weekly wipe test; quarterly wipe test for the sealed source; a section on disposal of refuse; quarterly linearity test of the dose calibrator; a section on the dose calibrator daily monitoring with a sealed Cs-137 test dose and a section on spills or misuse along with remedies and/or actions taken.

The equipment will be serviced by Beta Enterprises, Richmond, VA, in accordance to manufacturer's guidelines. All equipment will be stationary. Daily and/or as needed calibration with a point source will be performed either AM or PM, stored on computer or hard copies, to monitor the operation of the equipment.

## ALARM

We will establish and implement the model ALARM program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

Badges will be sent to Landauer monthly, results will be posted on a bulletin board and the originals will be kept at the main office at 505 West Leigh Street, Suite 102, Richmond, VA 23220. The books will be inspected monthly, or as is needed.

# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

## HAMPTON, VIRGINIA

REFERENCE: 252344; 030-20161  
LICENSE: 45-23007-01

### Procedures/Film Badges

The procedures to be performed at this location will be an occasional Bone, Lung, Brain, GI Bleed, Gastric Emptying, Thyroid, Liver/Spleen, Hapatobiliary, Salivary Gland, Meckels, and other approved radioisotopes. The service will be mainly cardiacs.

There will be no therapy at this facility. The dosages for the routine scans will be the usual doses for the services listed above. We will be using unit doses from our supplier, Syncor International in the area.

All refuse and waste will be returned to our supplier as is currently being done.

Film badges and/or finger badges will be used by all personnel who will be handling the radioisotopes. These will be monitored monthly by Landauer, Inc. of Glenwood, Illinois. Any unusual high readings will be monitored and records kept as to the action(s) taken.

### Equipment

We will have the Technicare 414 Camera or equivalent and its accessories at this location along with the Technicare 560 computer or equivalent. The specifications for the equipment is as listed in my original application. The other equipment that will be housed at this location will be Capintec CRC 7 or equivalent dose calibrator, and a Ludlem Model 14C survey meter or equivalent with a pan probe. There specifications are as listed in my original application. In addition, a lead-lined waste container will be used to store non-syringe items not returned to the supplier. Disposal will be after the product has decayed to background.

### Users/Supervisors

The authorized users of this Nuclear Medicine facility will be Dr. John A. Weaver, Dr. Yvonne J. Weaver, who are listed on the original application, and any technical personnel. The Drs. Weaver will be responsible for the supervision of the work performed at this location.

Several notebooks will be located at this site. One will be for patient records and will contain: patient name, date of service, isotope or chemical used, name of the study, millicuries



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or microcuries recorded and time of reading.

## Radiation Survey

A drawing of the location of each area to be monitored in the survey will be posted. Records will be kept in the other books containing: Daily or as needed survey on the dates services are being performed; a separate listing for the weekly wipe test; quarterly wipe test for the sealed source; a section on disposal of refuse; quarterly linearity test of the dose calibrator; a section on the dose calibrator daily monitoring with a sealed Cs-137 test dose and a section on spills or misuse along with remedies and/or actions taken.

The equipment will be serviced by Beta Enterprises, Richmond, VA. in accordance to manufacturer's guidelines. All equipment will be stationary. Daily and/or as needed calibration with a point source will be performed either AM or PM, stored on computer or hard copies, to monitor the operation of the equipment.

## ALARM

We will establish and implement the model ALARM program that was published in Appendix G to Regulatory Guide 10.8, Revision 2.

Badges will be sent to Landauer monthly, results will be posted on a bulletin board and the originals will be kept at the main office at 505 West Leigh Street, Suite 102, Richmond, VA 23220. The books will be inspected monthly, or as is needed.

RSS

# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
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Richmond, Virginia 23261  
(804) 344-5055

September 12, 1988

Ms. Carol Connell, Radiation Specialist  
Nuclear Medicine Safety Section  
United States Nuclear Regulatory Commission  
101 Marietta Street, N.W.  
Atlanta, GA 23230

RE: LIC #: 45-23007-01  
DOCET#: 030-20161  
CONTROL #: 252344

Dear Ms. Connell:

I do have one question pertaining to section 35.29(d) which says:

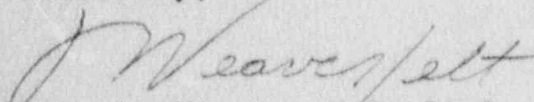
"a mobile Nuclear Medicine Service may not order bi-product material to be delivered directly from the manufacturer or distributed to the clients address of use".

Since I will have an office at each of the places specified in the license, will this mean that I cannot have the supplier to send to the radiopharmaceutical directly to these offices?

I would appreciate your input in this before we get started.

I trust that you have received all of the material for the renewed license by now.

Sincerely,

  
John A. Weaver, M.D., Ph.D.

JAW/mpo

*I called & explained the "mobile nuclear medicine service" concept & explained that he could not have radiopharmaceuticals delivered & stored at Richmond Community Hospital.*

OFFICIAL COPY

CAC

SEP 12 1988

Weaver Medical Associates  
ATTN: John A. Weaver, M.D.  
1000 N. Thompson Street  
Richmond, VA 23230

Gentlemen:

SUBJECT: REQUEST FOR ADDITIONAL INFORMATION CONCERNING A MATERIAL LICENSE  
APPLICATION (REFERENCE: 252344; 030-20161)

This refers to your letter and application dated July 25, 1988, for renewal of License No. 45-23007-01. The following additional information is needed in support of your request:

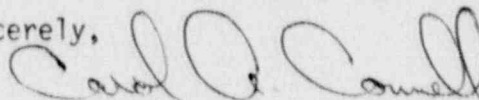
1. Describe the type of procedures and services to be provided at each location listed on your application. (Richmond Community Hospital was not listed.) Describe the equipment available at each location, such as survey meters, scanning equipment and dose calibrators. Name the "authorized users" responsible for supervision of the work performed at each location. (The definition of supervision may be found in 10 CFR 35.25.)
2. Describe your program for adequate review of all records at each location and submit an ALARA program as described in the enclosed Regulatory Guide 10.8, Rev. 2, August 1987.
3. Either resubmit your application with the information described in Regulatory Guide 10.8, Rev. 2, August 1987, or for each subject referenced, attach previously submitted documents which are still pertinent to your program and satisfy the requirements of the current 10 CFR 35.

Our review of your application will continue upon receipt of the above information. Please provide two copies of your reply and reference Mail Control Number 252344.

In order to continue prompt review of your application, we request that you submit your response to this letter within thirty (30) calendar days from the date of this letter.

If you should have any questions, do not hesitate to contact me at (404) 331-2675.

Sincerely,



Carol A. Connell, Radiation Specialist  
Nuclear Materials Safety Section

Encl: Reg Guide 10.8, Rev. 2,  
August 1987

RII   
CConnell

RII   
JPotter

9/12/88

9/12/88



# Weaver Medical Associates

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

August 29, 1988

Ms. Carol Connell, Radiation Specialist  
Nuclear Material Safety Section  
Nuclear Regulatory Commission  
Region 2  
101 Marietta Street, N.W.  
Atlanta, GA 30323

Dear Ms. Connell:

Thank you so very much for your letter dated August 12, 1988 giving me the authorization to begin imaging at Richmond Community Hospital.

Enclosed please find a copy of a letter from the administrator at Richmond Community Hospital so stating that we are able to use radioactive material at the hospital and that I am a full member of the hospital staff.

Also enclosed is a copy of the renewal of my license which was sent in earlier this month. This was sent to Mr. Potter. A copy is enclosed for your review. It did not contain the letter that you had requested in your letter. I was unaware of the need at that time.

Thank you again for your letter.

Sincerely,



John A. Weaver, M.D., Ph.D.

JAW/mpo

ENCLOSURES: Letter from Richmond Community Hospital  
Renewal of License.



# Richmond Community Hospital

1500 N. 28th Street • P.O. Box 27184 • Richmond, VA 23261 • 804-225-1700

August 29, 1988

Carol Connell, Radiation Specialist  
Nuclear Materials Safety Section  
United States Nuclear Regulatory Commission  
101 Marietta Street  
Atlanta, Georgia

Dear Ms. Connell:

This letter is to confirm that Dr. John A. Weaver is a full-time active medical staff member at Richmond Community Hospital and authorized to bring radioactive material to the hospital for the imaging of patients.

Should you have any further questions or concerns please do not hesitate to contact me.

Sincerely,

R. Curtis Winfrey  
Executive Director

RCW/pmg

OFFICIAL COPY



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION II  
101 MARIETTA STREET, N.W.  
ATLANTA, GEORGIA 30323

OFFICIAL RECORD COPY

AUG 24 1988

Weaver Medical Associates  
A : John A. Weaver, MD  
1000 N. Thompson St.  
Richmond, VA 23230

Docket No. 030-20161  
License No. 45-23007-01  
Control No. 252344

Gentlemen:

SUBJECT: LICENSE RENEWAL APPLICATION

This is to acknowledge receipt of your application for renewal of the nuclear material license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Any correspondence regarding your renewal application should reference the control number and license number specified above.

Sincerely,

Nuclear Materials Safety Section  
Division of Radiation Safety  
and Safeguards



(FOR LFMS USE)  
INFORMATION FROM LTS

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

PROGRAM CODE: 02200  
STATUS CODE: 2  
FEE CATEGORY: 7C  
EXP. DATE: 19880831  
FEE COMMENTS:

LICENSE FEE TRANSMITTAL

A. REGION U

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: WEAVER MEDICAL ASSOCIATES  
RECEIVED DATE: 880808  
DOCKET NO: 3020151  
CONTROL NO.: 252344  
LICENSE NO.: 45-23007-01  
ACTION TYPE: RENEWAL

2. FEE ATTACHED

AMOUNT: 940<sup>00</sup>  
CHECK NO.: 2452

3. COMMENTS

SIGNED  
DATE

Quinn O. Nelson  
8/15/88

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED 1-1)

1. FEE CATEGORY AND AMOUNT: 7C (\$570)

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

3. OTHER -----

SIGNED  
DATE

Mr. Nelson  
8/15/88

12  
11  
10  
9  
8  
7  
6  
5  
4  
3

# Weaver Medical Associates

252344

Received 8/8/88

John A. Weaver, M.D., Ph.D.  
NUCLEAR MEDICINE/DIAGNOSTIC RADIOLOGY

1000 North Thompson Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 358-9962

Yvonne J. Weaver, M.D., FACC  
CARDIOVASCULAR DISEASES/NUCLEAR CARDIOLOGY

Suite 102  
505 West Leigh Street  
P.O. Box 26448  
Richmond, Virginia 23261  
(804) 344-5055

JULY 25, 1988

Mr. John Potter  
U. S. Regulatory Commission  
Region II  
Nuclear Materials Safety Section  
101 Marietta Street, Suite 2900  
Atlanta, GA 30323

License No. 45-23007-01  
Docket No. 030-20161  
Control No. 50850

Dear Mr. Potter:

This letter is in support for the renewal of the above license with the appropriate Amendments Nos. 01 and 02 and the amended Conditions 10, 16 and 17 with the following modifications:

Condition 10 Add the following addresses, 505 West Leigh Street, Richmond, VA, 23220 (this was amended earlier but I cannot find the letter); 306 Earl Street, Tappahannock, VA 22560 and 2112 Hartford Road, Hampton, VA 23666.

All other Conditions will remain the same.

The 306 Earl Street and 2112 Hartford Road are proposed new sites. I will be in charged of all radioactive materials, instruct the technicians and approved users in the safe handling, recording of data, use, disposal and administering of the radiopharmaceuticals and periodically inspect all books to be sure of compliance to NRC's regulations and the conditions specified in my license as amended.

ITEMS 5,6 & 7. Radioactive materials to be used ,the purpose and the RSO will be as outlined in my license.

ITEM 8. All new technologist(s) and the approved users of the radiopharmaceuticals will be brought to my office at 505 W. Leigh Street, or to 1000 N. Thompson for orientation. This will include the safe handling of the radioactive materials, logging of the materials, record keeping, shielding, patient's and worker's care and safety. All doses will be checked by a dose claibrator to reduce the risk of misadministration. All pertinent materials send to me will be shared with

License Fee Information  
on application

PAGE 2

each facility in the form of verbal communications. Copies will be sent to each if that becomes necessary. The technologist(s) will be encouraged to attend the local/regional society meeting(s) and, where possible, to go to a national meeting. Procedures will be reviewed as needed. A refresher lecture will be given by me annually, or as needed, if it is deemed necessary.

ITEM 9. 505 W. Leigh Street and 1000 N. Thompson Street will have the equipment as outlined in the license as amended. (I hope to remove the imaging equipment from Thompson Street in the near future).

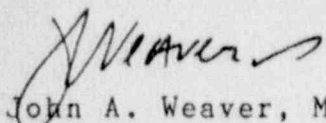
306 Earl Street and 2112 Hartford Road will have equipment similar to the Technicare 414 camera, or equivalent, and a computer similar to the 560 as outlined in my license. Outlines of the proposed facilities are enclosed as Exhibits 1A and 1B for Earl Street and 2A and 2B for Hartford Road.

ITEM 10. The radiation safety program will be as outlined in my license. NRC FORM 3 will be posted at each site. "Radiation Safety and Emergency Procedures" poster will be posted at each facility. A copy is enclosed as Exhibit A. All individuals who will frequent the imaging area or have reasons to handle the patients who will receive the radiopharmaceutical while at the facility will be required to wear a film badge.

ITEM 11. Each facility will use individual dosages. The unused dosages and waste will be returned to the vendor (in this case, Syncor International). All unreturned items that may contain radioactivity will be placed in lead-lined containers and stored for at least 10 half-lives and when the activity of the trash is background, the refuse will be discarded with the regular trash. Records will be kept of the dates of disposal and the activity.

ITEM 12: The fee enclosed is \$940.00. I am uncertain whether this renewal will be listed as "renewal with revisions", "renewal with amendments" or simply "renewal".

Sincerely yours,



John A. Weaver, M. D., Ph. D.  
Radiation Safety Officer

JAW/jw

ENCLOSURES: 89



### APPLICATION FOR MATERIAL LICENSE

**INSTRUCTIONS:** SEE THE APPROPRIATE LICENSE APPLICATION GUIDE FOR DETAILED INSTRUCTIONS FOR COMPLETING APPLICATION. SEND TWO COPIES OF THE ENTIRE COMPLETED APPLICATION TO THE NRC OFFICE SPECIFIED BELOW.

**APPLICATIONS FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:**

U.S. NUCLEAR REGULATORY COMMISSION  
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSS  
WASHINGTON, DC 20565

**ALL OTHER PERSONS FILE APPLICATIONS AS FOLLOWS. IF YOU ARE LOCATED IN:**

CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, PENNSYLVANIA, RHODE ISLAND, OR VERMONT, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION I  
NUCLEAR MATERIALS SAFETY SECTION B  
475 ALLENDALE ROAD  
KING OF PRUSSIA, PA 19406

ALABAMA, FLORIDA, GEORGIA, KENTUCKY, MISSISSIPPI, NORTH CAROLINA, PUERTO RICO, SOUTH CAROLINA, TENNESSEE, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION II  
NUCLEAR MATERIALS SAFETY SECTION  
101 MARIETTA STREET, SUITE 2900  
ATLANTA, GA 30323

**IF YOU ARE LOCATED IN:**

ILLINOIS, INDIANA, IOWA, MICHIGAN, MINNESOTA, MISSOURI, OHIO, OR WISCONSIN, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION III  
MATERIALS LICENSING SECTION  
790 ROOSEVELT ROAD  
GLEN ELLYN, IL 60137

ARKANSAS, COLORADO, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, SOUTH DAKOTA, TEXAS, UTAH, OR WYOMING, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION IV  
MATERIAL RADIATION PROTECTION SECTION  
611 RYAN PLAZA DRIVE, SUITE 1000  
ARLINGTON, TX 78011

ALASKA, ARIZONA, CALIFORNIA, HAWAII, NEVADA, OREGON, WASHINGTON, AND U.S. TERRITORIES AND POSSESSIONS IN THE PACIFIC, SEND APPLICATIONS TO:

U.S. NUCLEAR REGULATORY COMMISSION, REGION V  
NUCLEAR MATERIALS SAFETY SECTION  
1450 MARIA LANE, SUITE 210  
WALNUT CREEK, CA 94596

PERSONS LOCATED IN AGREEMENT STATES SEND APPLICATIONS TO THE U.S. NUCLEAR REGULATORY COMMISSION ONLY IF THEY WISH TO POSSESS AND USE LICENSED MATERIAL IN STATES SUBJECT TO U.S. NUCLEAR REGULATORY COMMISSION JURISDICTION.

**1. THIS IS AN APPLICATION FOR (Check appropriate item)**

- A. NEW LICENSE
- B. AMENDMENT TO LICENSE NUMBER \_\_\_\_\_
- C. RENEWAL OF LICENSE NUMBER 45-23007-01

**2. NAME AND MAILING ADDRESS OF APPLICANT (Include Zip Code)**

JOHN A. WEAVER, M.D., Ph.D.  
505 W. Leigh Street, Suite 102  
P.O. BOX 26448  
RICHMOND, VA 23261

**3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED.**

- A. 505 W. Leigh Street, Richmond, VA 23220
- B. 1000 N. THOMPSON ST RICHMOND, VA 23230
- C. 306 EARL STREET, TAPPAHANNOCK, VA 22560
- D. 2112 HARTFORD ROAD, HAMPTON, VA 23660

**4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION**

JOHN A. WEAVER, M.D., Ph.D.

**TELEPHONE NUMBER**

804-344 5055

SUBMIT ITEMS 5 THROUGH 11 ON 8 1/2 x 11" PAPER. THE TYPE AND SCOPE OF INFORMATION TO BE PROVIDED IS DESCRIBED IN THE LICENSE APPLICATION GUIDE.

**5. RADIOACTIVE MATERIAL**  
a. Element and mass number, b. chemical and/or physical form, and c. maximum amount which will be possessed at any one time

**6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.**

**7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING AND EXPERIENCE.**

**8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.**

**9. FACILITIES AND EQUIPMENT.**

See Attached

**10. RADIATION SAFETY PROGRAM.**

**11. WASTE MANAGEMENT.**

**12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)**

FEE CATEGORY AMOUNT ENCLOSED \$ 940.00

**13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.**

THE APPLICANT AND ANY OFFICIAL EXECUTING THIS CERTIFICATION ON BEHALF OF THE APPLICANT, NAMED IN ITEM 2, CERTIFY THAT THIS APPLICATION IS PREPARED IN CONFORMITY WITH TITLE 10, CODE OF FEDERAL REGULATIONS, PARTS 30, 32, 33, 34, 35, AND 40 AND THAT ALL INFORMATION CONTAINED HEREIN, IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.

WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948, 62 STAT. 749 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

SIGNATURE - CERTIFYING OFFICER

TYPED/PRINTED NAME

TITLE

DATE

*John A. Weaver, M.D., Ph.D.*

JOHN A. WEAVER, M.D., Ph.D. Radiation Safety Officer

7-25-88

**FOR NRC USE ONLY**

TYPE OF FEE	FEE LOG	FEE CATEGORY	COMMENTS	APPROVED BY
Ren	Aug 4-88	2c		M. Russin
AMOUNT RECEIVED	CHECK NUMBER			DATE
\$940 (6300 refunded)	3452			8/11/88

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**

License number

45-23007-01

Docket or Reference number

Amendment No. 02

Weaver Medical Associates  
1000 N. Thompson Street  
Richmond, VA 23230

In accordance with letter dated May 1, 1984, License Number 45-23007-01 is amended as follows:

Conditions 10 and 16 are amended to read:

- 10. Licensed material shall be used only at the licensee's facility located at 1000 N. Thompson Street, Richmond, Virginia; at Richmond Community Hospital, 1500 N. 28th Street, Richmond, Virginia; and for transportation purposes only, anywhere in the State of Virginia.
- 16. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated June 30, 1983, and letters dated July 21, 1983, November 14, 1983, May 1, 1984, and September 17, 1984. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

To add:

- 17. The licensee may transport licensed material or deliver licensed material to a carrier for transport in accordance with the provisions of Title 10, Code of Federal Regulations, Part 71, "Packaging of Radioactive Material for Transport and Transportation of Radioactive Material Under Certain Conditions."

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

PAUL R. GUINN

*Paul R. Guinn*

Region II, Nuclear Materials  
Safety Section  
101 Marietta Street, Suite 2900  
Atlanta, GA 30323

Date SEP 24 1984

*8410150141 TP*