

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.

FEDERAL AGENCIES FILE APPLICATIONS WITH:

U.S. NUCLEAR REGULATORY COMMISSION
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY, NMSJ
WASHINGTON, DC 20555

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

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

U.S. NUCLEAR REGULATORY COMMISSION, REGION I
NUCLEAR MATERIAL SECTION B
631 PARK AVENUE
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
MATERIAL RADIATION PROTECTION 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
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
MATERIAL RADIATION PROTECTION 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 47-19315-01

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

The West Virginia School of Osteopathic Medicine
400 North Lee Street
Lewisburg, West Virginia 24901

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

THE WEST VIRGINIA SCHOOL OF OSTEOPATHIC MEDICINE
400 North Lee Street
Lewisburg, West Virginia 24901

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Dr. Joan L. Moore, Associate Professor Dept. of Radiology

TELEPHONE NUMBER

304-645-6270

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.

10. RADIATION SAFETY PROGRAM

11. WASTE MANAGEMENT.

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

FEE CATEGORY State School AMOUNT ENCLOSED \$ None required

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

Robert C. Dalgleish

TYPED/PRINTED NAME: **ROBERT C. DALGLEISH, PH.D.**
DEAN FOR SERVICE & RESEARCH
WEST VIRGINIA SCHOOL OF
OSTEOPATHIC MEDICINE

DATE

6 June 1985

14. ANNUAL RECEIPTS

<\$250K	\$1M-3.5M
\$250K-500K	\$3.5M-7M
\$500K-750K	\$7M-10M
\$750K-1M	>\$10M

15. NUMBER OF EMPLOYEES (Total for entire facility excluding outside contractors)

16. NUMBER OF BEDS

d. WOULD YOU BE WILLING TO FURNISH COST INFORMATION (Dollar and/or staff hours) ON THE ECONOMIC IMPACT OF CURRENT NRC REGULATIONS OR ANY FUTURE PROPOSED NRC REGULATIONS THAT MAY AFFECT YOU? (NRC regulations permit it to protect confidential commercial or financial—proprietary—information furnished to the agency in confidence)

☒ YES

☐ NO

FOR NRC USE ONLY

TYPE OF FEE <u>Renewal</u>	FEE LOG <u>June 1-11</u>	FEE CATEGORY <u>EX 3M</u>	COMMENTS <u>State</u>	APPROVED BY <i>W. Jackson</i>
AMOUNT OF FEE 8508120698 850724 REG LIC30 47-19315-01 PDR				DATE <u>6/24/85</u>

PRIVACY ACT STATEMENT

Pursuant to 5 U.S.C. 552a(e)(3), enacted into law by section 3 of the Privacy Act of 1974 (Public Law 93-579), the following statement is furnished to individuals who supply information to the Nuclear Regulatory Commission on NRC Form 313. 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, 32, 33, 34, 35 and 40 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 (a) provided to State health departments for their information and use; and (b) provided 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 an NRC decision or to an appropriate Federal agency to the extent relevant and necessary for that agency's decision about you.
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. A request that information be held from public inspection must be in accordance with the provisions of 10 CFR 2.790. Withholding from public inspection shall not affect the right, if any, of persons properly and directly concerned need to inspect the document.
5. **SYSTEM MANAGER(S) AND ADDRESS:** U.S. Nuclear Regulatory Commission
Director, Division of Fuel Cycle and Material Safety
Office of Nuclear Material Safety and Safeguards
Washington, D.C. 20555

ROBERT C. DALGLEISH JR.
DIRECTOR
DIVISION OF FUEL CYCLE AND MATERIAL SAFETY
OFFICE OF NUCLEAR MATERIAL SAFETY AND SAFEGUARDS
WASHINGTON, D.C. 20555

U. S. NUCLEAR REGULATORY COMMISSION MATERIALS LICENSE

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter 1, Parts 30, 31, 32, 33, 34, 35, 36, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s); and to import such byproduct and source material. This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee 1. West Virginia School of Osteopathic Medicine 2. 400 North Lee Street Lewisburg, West Virginia 24901			3. License number 47-19315-01
			4. Expiration date June 30, 1985
			5. Docket or Reference No.
6. Byproduct, source, and/or special nuclear material	7. Chemical and/or physical form	8. Maximum amount that licensee may possess at any one time under this license	
A. Carbon 14	A. Any	A. 500 millicuries	
B. Hydrogen 3	B. Any	B. 700 millicuries	
C. Phosphorus 32	C. Any	C. 500 millicuries	
D. Cesium 51	D. Any	D. 20 millicuries	
E. Iron 51	E. Any	E. 1 millicurie	
9. Authorized use A. through E. Laboratory research including animal studies. Teaching and training of students.			

CONDITIONS

10. Licensed material shall be used only at West Virginia School of Osteopathic Medicine, 400 North Lee Street, Lewisburg, West Virginia.
11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

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MATERIALS LICENSE
Supplementary Sheet

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License Number 87-12315-01

Docket or
Reference No. _____

CONDITIONS

12. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individual(s) for the materials and uses indicated:

Charles M. Paroda, Ph.D.	ALL
John Chambers, Ph.D.	Carbon 14 Hydrogen 3
David L. Crandall, Ph.D.	Carbon 14 Hydrogen 3
Larry Davis, Ph.D.	ALL
Robert J. Croonan, Ph.D.	Carbon 14 Hydrogen 3
Anne Cooper, M.D.	Carbon 14 Hydrogen 3 Chromium 51 Irra 59
Harold E. Lautsch, Ph.D.	Chromium 51 Carbon 14 Hydrogen 3
John H. Fugans, Ph.D.	Carbon 14 Hydrogen 3
Joelith G.C. Westrik, Ph.D.	Carbon 14 Hydrogen 3

13. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas shall be tested for leakage and/or contamination at intervals not to exceed six months, except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed three months. In the absence of a certificate from a transferor, indicating that a test has been made within six months prior to the transfer, a sealed source received from another person shall not be put into use until tested.

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MATERIALS LICENSE

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License Number 47-17315-01

Docket or
Reference No. _____

CONDITIONS

- (2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.
- (3) Except for alpha sources, the periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.
- B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.
- C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U. S. Nuclear Regulatory Commission, Region II, Office of Inspection and Enforcement, 101 Marietta Street, Suite 3100, Atlanta, Georgia 30303, describing the equipment involved, the test results, and the corrective action taken.
- D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.
14. Sealed sources containing licensed material shall not be opened.
15. A. Detector cells containing titanium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 225 degrees Centigrade.
- B. Detector cells containing scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding 325 degrees Centigrade.

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License Number 47-19315-01

Docket or
Reference No. _____

CONDITIONS

16. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.
17. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific condition of this license.
18. 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 February 29, 1960 and letter dated April 28, 1960. 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.

For the U. S. Nuclear Regulatory Commission
MICHAEL A. LAMASTRA

by Material Licensing Branch

Division of Fuel Cycle and
Radioactive Waste

Date JUN 06 1980

FULL NAME: KENNETH W. DOWLER, Ph.D.

TITLE: ASST. PROF. MICROBIOLOGY

I. LICENSED MATERIAL

Element - and Mass Number	Chemical - and/or Physical Form	Name of Manufacturer and/or Model Number (if sealed source)	Maximum number of millicuries and/or sealed sources and maximum activity per source which will be possessed at any one time

II. Describe use of licensed material:

III. Type of Training	Where Trained	Duration of Training	On The Job	Formal Course
a. Principles & Practices of radiation protection	WV UNIVERSITY	SEMESTER COURSE	<input checked="" type="radio"/> YES <input type="radio"/> NO	<input type="radio"/> YES <input type="radio"/> NO
b. Radioactivity measure- ment, standardization & monitoring techniques & instruments			<input type="radio"/> YES <input type="radio"/> NO	<input type="radio"/> YES <input type="radio"/> NO
c. Mathematics & calculat- ions, basic to use & measurements of radio- activity	WV UNIVERSITY	SEMESTER COURSE	<input checked="" type="radio"/> YES <input type="radio"/> NO	<input checked="" type="radio"/> YES <input type="radio"/> NO
d. Biological effects of radiation	WV UNIVERSITY	SEMESTER COURSE	<input type="radio"/> YES <input type="radio"/> NO	<input checked="" type="radio"/> YES <input type="radio"/> NO

IV. Experience with Radiation (actual use of radioisotopes)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
^3H	VARYING AMOUNTS	WV UNIVERSITY	3 yrs.	IMMUNOASSAYS

FULL NAME: Arnold H. Hassen

TITLE: Associate Professor of Physiology

I. LICENSED MATERIAL

Element - and Mass Number	Chemical - and/or Physical Form	Name of Manufacturer and/or Model Number (if sealed source)	Maximum number of millicuries and/or sealed sources and maximum activity per source which will be possessed at any one time
^3H	S-adenosyl-L-methionine (^3H -methyl)	Upjohn	$5 \mu\text{Ci}/10 \mu\text{l}$

II. Describe use of licensed material:

Used in catecholamines radioenzymatic assay kit

III. Type of Training	Where Trained	Duration of Training	On The Job	Formal Course
a. Principles & Practices of radiation protection	USUHS		<input checked="" type="radio"/> YES <input type="radio"/> NO	<input type="radio"/> YES <input type="radio"/> NO
b. Radioactivity measurement, standardization & monitoring techniques & instruments	USUHS		<input checked="" type="radio"/> YES <input type="radio"/> NO	<input type="radio"/> YES <input type="radio"/> NO
c. Mathematic & calculations, basic to use & measurements of radioactivity	USUHS		<input checked="" type="radio"/> YES <input type="radio"/> NO	<input type="radio"/> YES <input type="radio"/> NO
d. Biological effects of radiation	USUHS		<input type="radio"/> YES <input checked="" type="radio"/> NO	<input type="radio"/> YES <input checked="" type="radio"/> NO

IV. Experience with Radiation (actual use of radioisotopes)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
^3H	$5 \mu\text{Ci}/10 \mu\text{l}$	USUHS	1 year	assay
^{125}I	$5000 \text{ cpm}/100 \mu\text{l}$	USUHS	3 mos	assay

FILE NAME: MASHBURN, T. A. Jr. Ph.D

TITLE: Assoc Prof, Biochemistry

I. LICENSED MATERIAL

Element - and Mass Number	Chemical - and/or Physical Form	Name of Manufacturer and/or Model Number (if sealed source)	Maximum number of millicuries and/or sealed sources and maximum activity per source which will be possessed at any one time
^{34}S , 250 millic C	} Any		
^{14}C , 10 millic C			
^{35}S , 250 millic C			
^{32}P , 50 millic C			
^{125}I , 10 millic C			

II. Describe use of licensed material:

In vivo tracer studies in rodents, general *in vitro* enzyme assays, chemical syntheses, preparation of molecular probes, cell labeling.

III. Type of Training	Where Trained	Duration of Training	On The Job	Formal Course
a. Principles & Practices of radiation protection	} Please See attached!		YES NO	YES NO
b. Radioactivity measurement, standardization & monitoring techniques & instruments			YES NO	YES NO
c. Mathematic & calculations, basic to use & measurements of radioactivity			YES NO	YES NO
d. Biological effects of radiation			YES NO	YES NO

IV. Experience with Radiation (actual use of radioisotopes)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE

MEMORANDUM

5 June 1985

To: Joan Moore, D.O.

From: T. A. Mashburn, Jr., Ph.D. *T. A. Mashburn*

Re: Addendum to Isotope User Request

My radiological training has been both formal and on the job. I have been using radioisotopes since about 1964 (mostly ^{14}C , ^3H , ^{32}P , and ^{35}S) in quantities up to 60 millicuries.

I completed a formal radiation monitoring course at New Castle, Delaware in 1962 (State of Delaware Civil Defense) and served as Section Leader, Radiation Monitoring, State of Delaware Civil Defense, Wilmington, Delaware for 1962-1964. My duties included operation of training exercises and instructing in radiation hazards and monitoring.

From 1964-1977, I held a personal license from the City of New York for a variety of isotopes including ^3H , ^{14}C , ^{45}Ca , ^{32}P , ^{125}I , and ^{131}I . During much of this time, I also served (in addition to my normal academic responsibilities) as Radiation Safety Officer of The Research Institute for Skeletomuscular Diseases of the Hospital for Joint Diseases and Medical Center. As RSO, I supervised the use of isotopes both under my license as well as the other two licenses in the Institution, gave advice on the design of experiments using isotopes, instructed new staff (both individually and in formal group courses) in handling, monitoring, and record-keeping procedures, carried out internal compliance (and monitoring) inspections, served as liaison with the New York City Office of Radiation Control, and was in charge of disposal of isotopes. During this time, we refined the operating and record-keeping procedures to meet the then current, strict NYC standards. The total technical staff of the Institute was ca. 35-40 people. Concurrently, I was a member of the Isotope and Radiation Committee of the Hospital. This committee had the oversight and approval responsibility for radiation therapy, radiology, and research with isotopes (both for the Hospital and the Research Institute).

Since that time I have continued to use isotopes under Institutional Licenses since Tennessee, unlike New York, recognizes such licenses. My entire experience has been with cell labeling, tracer studies, enzyme assays, preparation of molecular probes, and synthetic work. The studies have been in vivo in rodents and in vitro in a number of other systems.

FULL NAME: Joan L. Moore, D.O.; M.Sc. (Radiology)

TITLE: Associate Professor

I. LICENSED MATERIAL

Element - and Mass Number	Chemical - and/or Physical Form	Name of Manufacturer and/or Model Number (if sealed source)	Maximum number of millicuries and/or sealed sources and maximum activity per source which will be possessed at any one time

II. Describe use of licensed material:

III. Type of Training	Where Trained	Duration of Training	On The Job	Formal Course
a. Principles & Practices of radiation protection	Hahnemann Hospital Hospital P.C.O.M.	6 months 6 Years	YES <input checked="" type="radio"/> YES <input type="radio"/> NO	yes <input checked="" type="radio"/> YES <input type="radio"/> NO
b. Radioactivity measurement, standardization & monitoring techniques & instruments	Both Hospitals named above in Philadelphia	same amount of time	YES <input checked="" type="radio"/> YES <input type="radio"/> NO	YES <input checked="" type="radio"/> YES <input type="radio"/> NO
c. Mathematic & calculations, basic to use & measurements of radioactivity	same hospitals	same time frame	YES <input checked="" type="radio"/> YES <input type="radio"/> NO	YES <input checked="" type="radio"/> YES <input type="radio"/> NO
d. Biological effects of radiation	same hospitals	same time frame	YES <input checked="" type="radio"/> YES <input type="radio"/> NO	YES <input checked="" type="radio"/> YES <input type="radio"/> NO

IV. Experience with Radiation (actual use of radioisotopes)

ISOTOPE	MAXIMUM AMOUNT	WHERE EXPERIENCE WAS GAINED	DURATION OF EXPERIENCE	TYPE OF USE
⁹⁰ Sr	Varying amounts as implants 80mg	Hahnemann Hospital		Radiation Therapy Ovarygum Breast Implant Prostate Implant Thyroid
Iridium ¹³¹ I ¹²⁵ I		Hahnemann Hospital & Hospital P.C.O.M.		Radiation Therapy uterus Cervix
Radium		Same as above & Metropolitan Hospital Phila (central div.)		Nuclear medicine Scans/Studies
^{99m} Tc ¹³¹ I ¹³³ Xe				