

## MATERIALS LICENSE

Amendment No. 2

Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 39, 40 and 70, and in reliance on statements and representations heretofore made by the licensee, a license is hereby issued authorizing the licensee to receive, acquire, possess, and transfer byproduct, source, and special nuclear material designated below; to use such material for the purpose(s) and at the place(s) designated below; to deliver or transfer such material to persons authorized to receive it in accordance with the regulations of the applicable Part(s). This license shall be deemed to contain the conditions specified in Section 183 of the Atomic Energy Act of 1954, as amended, and is subject to all applicable rules, regulations and orders of the Nuclear Regulatory Commission now or hereafter in effect and to any conditions specified below.

Licensee		In accordance with letter dated November 9, 1992	
1. Radford University		3. License number	45-25052-01
2. Radford, Virginia 24142		is amended in its entirety to read as follows:	
		4. Expiration date	June 30, 1994
		5. Docket or Reference No	030-31149
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. Hydrogen 3	A. Any	A. 100 millicuries	
B. Carbon 14	B. Any	B. 50 millicuries	
C. Phosphorus 32	C. Any	C. 25 millicuries	
D. Sulfur 35	D. Any	D. 10 millicuries	
E. Iron 59	E. Any	E. 25 millicuries	
F. Iodine 125	F. Any	F. 25 millicuries	
9. Authorized Use:			
A. through F. Laboratory research and educational training purposes.			

## CONDITIONS

10. Licensed material shall be used only at Radford University, Biology Department, Radford, Virginia.
11. A. Licensed material shall be used by, or under the supervision of, Judy H. Niehaus, Ph.D., Patrick H. Ireland, Ph.D., Jane E. Rudolph, Ph.D., Samuel J. Zeakes, Ph.D. or Vivian Mah, Ph.D.
- B. The Radiation Protection Officer (RPO) for this license is Tom S. Smithwick or in his absence Judy H. Niehaus, Ph.D., alternate RPO.
12. Licensed material shall not be used in or on human beings.

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MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number: 45-25052-01

Docket or Reference number: 030-31149

Amendment No. 2

(cont.)

CONDITIONS

13. The licensee shall maintain records of information important to safe and effective decommissioning at Radford University, Radford, Virginia, in accordance with the provisions of 10 CFR 30.35(g) until this license is terminated by the Commission.
14. The licensee is authorized to hold radioactive material with a physical half-life of less than 90 days (including; P-32, S-35, Fe-59, and I-125) for decay-in-storage before disposal in ordinary trash provided:
- A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
  - B. Before disposal as ordinary trash, byproduct material shall be surveyed at the container surface with the appropriate meter set on its most sensitive scale and with no interposed shielding to determine that its radioactivity cannot be distinguished from background. All radiation labels shall be removed or obliterated.
  - C. A record of each disposal permitted under this License Condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.
15. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear Regulatory Commission's regulations shall govern unless the statements, representations and procedures in the licensee's application and correspondence are more restrictive than the regulations.
- A. Application dated May 2, 1989 (with attachments)
  - B. Letters dated:
    - August 7, 1990
    - November 9, 1992

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

EARL G. WRIGHT

Date

DEC 07 1992

By

*Earl G. Wright*

Region II, Nuclear Materials Licensing Section  
101 Marietta Street N.W., Suite 2900  
Atlanta, GA 30323

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

: (FOR LFMS USE)  
: INFORMATION FROM LTS  
: -----

: PROGRAM CODE: 03620  
: STATUS CODE: 0  
: FEE CATEGORY: EX 3M  
: EXP. DATE: 19940630  
: FEE COMMENTS: 170.11(A)(4)  
: DECJM FIN ASSUR REQ: N  
: ::::::::::::::::::::::::::::::

LICENSE FEE TRANSMITTAL

A. REGION

1. APPLICATION ATTACHED

APPLICANT/LICENSEE: RADFORD UNIVERSITY  
RECEIVED DATE: 921113  
DOCKET NO: 3031149  
CONTROL NO.: 255036  
LICENSE NO.: 45-25052-01  
ACTION TYPE: AMENDMENT

2. FEE ATTACHED

AMOUNT: -----  
CHECK NO.: -----

3. COMMENTS

SIGNED  
DATE

*Crane O. Herr*  
11/19/92

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN FEE CATEGORY 13 IS ENTERED) ☒

1. FEE CATEGORY AND AMOUNT: EX 3M

**FEE EXEMPT**

170.11(A)(4)

2. CORRECT FEE PAID. APPLICATION MAY BE PROCESSED FOR:

AMENDMENT ☒  
RENEWAL -----  
LICENSE -----

3. OTHER

SIGNED  
DATE

*Shirley Crutchfield*  
11-24-92



Radford University

Radford, Virginia 24142  
(703) 831-5346

Department of Physical Plant

11/13/92  
EAG

November 9, 1992

Earl G. Wright  
Region II, Nuclear Materials  
Safety Section  
101 Marietta Street, Suite 2900  
Atlanta, GA 30323

Dear Mr. Wright:

We would like to make the following changes to our Radioactive Materials License, number 45-25052-01:

Delete: Judy H. Niehaus, Ph.D. as Radiation Protection Officer

Add: Tom S. Smithwick as Radiation Protection Officer

A resume of my experience with radiation is enclosed. If you have any questions please call me at 703-831-5860.

NOV 24 11 00

Sincerely

Tom Smithwick  
Safety Coordinator

c: Judy Niehaus

RECEIVED BY LFDCS	
Date	Nov. 24, 1992
Log	Nov. 4 - II
By	Butchfield
Date Completed	11-24-92

**FEE EXEMPT**

170.11(a)(4)

ITEM 5. RADIATION PROTECTION OFFICER

1. Name- Mr. Tom Smithwick

2. Type of training

- a. Principals and practices of radiation protection
- b. Radioactivity measurement standardization and monitoring techniques and instruments
- c. Mathematics and calculations basic to the use and measurement of radioactivity
- d. Biological effects of radiation

3. Where trained- Items 2a, b, c, and d at Boca Raton Community Hospital, East Tennessee State University, and Virginia Tech

4. Duration of training- 6 months

5. On the job- yes

6. Formal course- yes

7. Experience with radiation

- a. Isotopes- Tc-99m, I-131, I-125, Co-57, U-235, U-238, Pu-239, Cr-51, Se-75, Cs-137, Xe-133, PuBe
- b. Maximum amount- microcurie to curies
- c. Where experience gained- Boca Raton Community Hospital (registered nuclear medicine technologist), East Tennessee State University (graduate teaching assistant, radiologic health) Virginia Tech (radiation safety officer in charge\* of research reactor and x-ray equipment, Furman University (radiation safety officer)
- d. Duration of experience- 15 years
- e. Type of use- medical. teaching, research

\* 12/7/92 TCT Doug Smiley 703-231-5364  
RSO VA Polytechnic. Doug confirmed that  
Mr Smithwick worked with him for about  
8 yrs. EGW