



RECEIVED
REGION 1

200 SEP 18 PM 2:01

September 5, 2000

United States Nuclear Regulatory Commission
Region I
475 Allendale Road
King of Prussia, PA 19406-1415

NMS02

Attention: Sattar Lodhi, Ph.D.
Health Physicist
Nuclear Materials Safety Branch 1
Division of Nuclear Materials Safety
License No. 37-02286-05
Docket No. 030-09578

Dear Dr. Lodhi,

I am writing to request the following amendments to License No. 37-02286-05:

Request for Amendment of Condition 11A.

1. We request that the following users be retained on the Haverford College License:

Rachel Brewster, Ph.D., Assistant Professor
Rob Fairman, Ph.D., Assistant Professor
Karl Johnson, Ph.D., Associate Professor
Ariel Loewy, Ph.D, Research Professor
Robert Loudon, Ph.D., Visiting Assistant Professor
Philip Meneely, Ph.D, Associate Professor
Judith Owen, Ph.D, Professor
Jennifer Punt, VMD, Ph.D, Assistant Professor
Melvin Santer, Ph.D, Research Professor

1 2 8 6 7 2

NMSS/RGN MATERIALS-002

2. We request that the following users be added to the Haverford College License:
Blaine Moore, Ph.D., Visiting Assistant Professor
Amanda Norvell, Ph.D, Visiting Assistant Professor

A history of these individuals' radiation training and experience is appended.

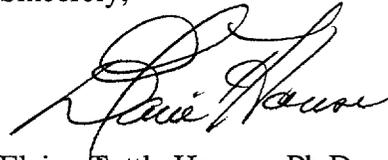
3. We request that the following users be removed from the Haverford College License:
Lois Banta (relocated to a different institution)

Request for Amendment of Condition 11B.

We request that the Radiation Safety Officer for this license be changed to Jennifer Punt, VMD, Ph.D., Assistant Professor, Haverford College.

Many thanks.

Sincerely,

A handwritten signature in black ink, appearing to read "Elaine Hansen", written in a cursive style.

Elaine Tuttle Hansen, Ph.D.
Provost

Attachment: Summary of qualifications for additional users

cc. Jennifer Punt, Haverford College

**Summary of qualifications for additional users
(Haverford College, September, 2000)**

Blaine Moore, Ph.D, Visiting Assistant Professor

Radiation Safety Training History:

University of Florida: March, 1995 (and annually until 1998)

University of Pennsylvania: December, 1998 (and annually until 2000)

Haverford College: September 2000

Radioisotopes Used:

P-32, S-35, I-125

Amanda Norvell, Ph.D, Visiting Assistant Professor

Radiation Safety Training History:

University of Pennsylvania: October, 1990 (and annually until 1996)

Princeton University: March, 1996 (and annually until 2000)

Haverford College: September 2000

Radioisotopes Used:

H-3, P-32, S-35

(7-99)
10 CFR 30, 32, 33
34, 35, 36, 39 and 40

Estimated burden per response to comply with this information collection request: 7 hours. Submittal of the application is necessary to determine that the applicant is qualified and that adequate procedures exist to protect the public health and safety. Forward comments regarding burden estimates to the Information and Records Management Branch (T-6 F33), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, and to the Paperwork Reduction Project (3150-0120), Office of Management and Budget, Washington, DC 20503. NRC may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number.

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.

APPLICATION FOR DISTRIBUTION OF EXEMPT PRODUCTS FILE APPLICATIONS WITH:

DIVISION OF INDUSTRIAL AND MEDICAL NUCLEAR SAFETY
OFFICE OF NUCLEAR MATERIALS SAFETY AND SAFEGUARDS
U.S. NUCLEAR REGULATORY COMMISSION
WASHINGTON, DC 20555-0001

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:

LICENSING ASSISTANT SECTION
NUCLEAR MATERIALS SAFETY BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

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

NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION II
101 MARIETTA STREET, NW, SUITE 2900
ATLANTA, GA 30323-0199

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
801 WARRENVILLE RD.
LISLE, IL 60532-4351

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MONTANA, NEBRASKA, NEVADA, NEW MEXICO, NORTH DAKOTA, OKLAHOMA, OREGON, PACIFIC TRUST TERRITORIES, SOUTH DAKOTA, TEXAS, UTAH, WASHINGTON, OR WYOMING, SEND APPLICATIONS TO:

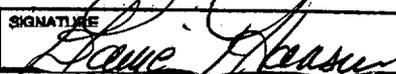
NUCLEAR MATERIALS LICENSING SECTION
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
611 RYAN PLAZA DRIVE, SUITE 400
ARLINGTON, TX 76011-6084

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 JURISDICTIONS.

<p>1. THIS IS AN APPLICATION FOR (Check appropriate item)</p> <p><input type="checkbox"/> A. NEW LICENSE</p> <p><input checked="" type="checkbox"/> B. AMENDMENT TO LICENSE NUMBER <u>37-02286-05</u></p> <p><input type="checkbox"/> C. RENEWAL OF LICENSE NUMBER _____</p>		<p>2. NAME AND MAILING ADDRESS OF APPLICANT (include Zip code)</p> <p>Haverford College 370 Lancaster Avenue Haverford, PA 19041-1392</p>	
<p>3. ADDRESS(ES) WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED</p> <p>Sharpless Hall Haverford College 370 Lancaster Avenue Haverford, PA 19041-1392</p>		<p>4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION</p> <p>Elaine Tuttle Hansen</p> <p>TELEPHONE NUMBER (610) 896-1014</p>	

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.

<p>5. RADIOACTIVE MATERIAL</p> <p>a. Element and mass number; b. chemical and/or physical form; and c. maximum amount which will be possessed at any one time.</p>	<p>6. PURPOSE(S) FOR WHICH LICENSED MATERIAL WILL BE USED.</p>				
<p>7. INDIVIDUAL(S) RESPONSIBLE FOR RADIATION SAFETY PROGRAM AND THEIR TRAINING EXPERIENCE.</p>	<p>8. TRAINING FOR INDIVIDUALS WORKING IN OR FREQUENTING RESTRICTED AREAS.</p>				
<p>9. FACILITIES AND EQUIPMENT.</p>	<p>10. RADIATION SAFETY PROGRAM.</p>				
<p>11. WASTE MANAGEMENT.</p>	<p>12. LICENSEE FEES (See 10 CFR 170 and Section 170.31)</p> <table border="1"> <tr> <th>FEE CATEGORY</th> <th>AMOUNT ENCLOSED \$</th> </tr> <tr> <td> </td> <td> </td> </tr> </table>	FEE CATEGORY	AMOUNT ENCLOSED \$		
FEE CATEGORY	AMOUNT ENCLOSED \$				
<p>13. CERTIFICATION. (Must be completed by applicant) THE APPLICANT UNDERSTANDS THAT ALL STATEMENTS AND REPRESENTATIONS MADE IN THIS APPLICATION ARE BINDING UPON THE APPLICANT.</p> <p>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, 36, 39 AND 40, AND THAT ALL INFORMATION CONTAINED HEREIN IS TRUE AND CORRECT TO THE BEST OF THEIR KNOWLEDGE AND BELIEF.</p> <p>WARNING: 18 U.S.C. SECTION 1001 ACT OF JUNE 25, 1948 (22 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.</p>					

<p>CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE</p> <p>Elaine Tuttle Hansen, Provost</p>	<p>SIGNATURE</p> 	<p>DATE</p> <p>9/7/00</p>
---	---	---------------------------

FOR NRC USE ONLY

TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			3		
<p>APPROVED BY</p>				<p>DATE</p>	

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 I, Parts 30, 31, 32, 33, 34, 35, 36, 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.

<p>Licensee</p> <p>1. Haverford College</p> <p>2. 370 Lancaster Avenue Haverford, Pennsylvania 19041-1392</p>	<p>In accordance with the letter dated September 6, 1999,</p> <p>3. License number 37-02286-05 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date March 31, 2001</p> <hr/> <p>5. Docket No. 030-09578 Reference No.</p>
---	---

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. 12 millicuries
B. Carbon 14	B. Any	B. 10 millicuries
C. Phosphorus 32	C. Any	C. 10 millicuries
D. Phosphorus 33	D. Any	D. 10 millicuries
E. Sulfur 35	E. Any	E. 35 millicuries
F. Chromium 51	F. Any	F. 25 millicuries
G. Iodine 125	G. Any	G. 1 millicurie
H. Iodine 131	H. Any	H. 1 millicurie

9. Authorized use:

A. through H. Research and development as defined in 10 CFR 30.4; teaching and training of students.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at Hilles Hall, Stokes Hall, and Sharpless Hall, Haverford College, Haverford, Pennsylvania.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
37-02286-05Docket or Reference Number
030-09578

Amendment No. 14

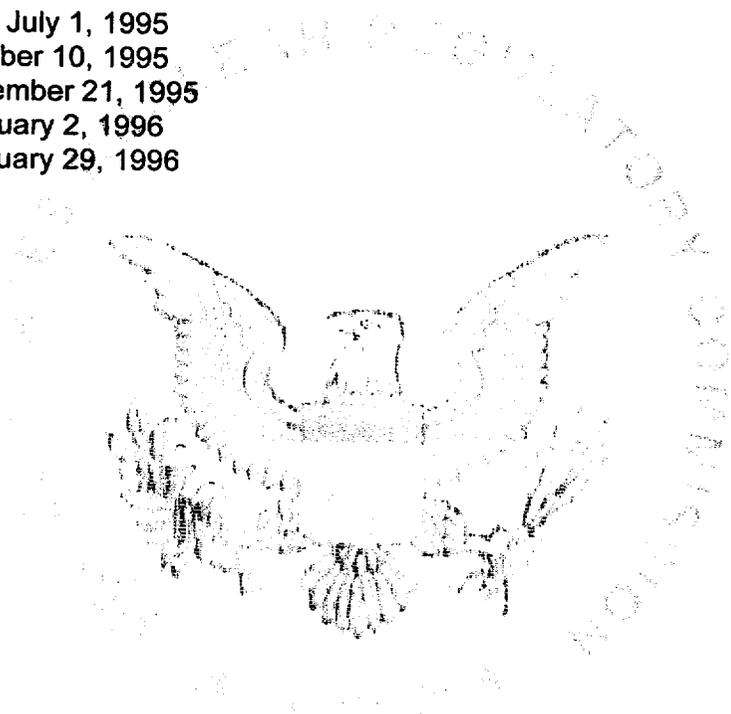
11. A. Licensed material shall be used by, or under the supervision of, Ariel Loewy, Melvin Santer, Karl Johnson, Judith Owen, Lois Banta, Philip Meneely, Jennifer Punt, Robert Fairman or Robert Loudon. Materials listed in items 6.C. and 6.D. may also be used by, or under the supervision of Rachel Brewster.
- B. The Radiation Safety Officer for this license is Karl Johnson, Ph.D.
12. Licensed material shall not be used in or on human beings.
13. The licensee shall not use licensed material in field applications where activity is released except as provided otherwise by specific condition of this license.
14. The licensee is authorized to hold radioactive material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal in ordinary trash, provided:
- A. Waste to be disposed of in this manner shall be held for decay a minimum of ten half-lives.
- B. Before disposal as ordinary trash, the waste shall be surveyed at the container surface with the appropriate survey instrument 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 such 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. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
37-02286-05Docket or Reference Number
030-09578

Amendment No. 14

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

- A. Application dated July 1, 1995
- B. Letter dated October 10, 1995
- C. Letter dated December 21, 1995
- D. Letter dated February 2, 1996
- E. Letter dated February 29, 1996



For the U.S. Nuclear Regulatory Commission

Date September 14, 1999

By

Original signed by Sattar Lodhi, Ph.D.

Sattar Lodhi, Ph.D.
Nuclear Materials Safety Branch 1
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406

1052016

BETWEEN:

License Fee Management Branch, ARM
and
Regional Licensing Sections

Program Code: 03620
Status Code: 0
Fee Category: EX 3M
Exp. Date: 20010331
Fee Comments: 170.11(A)(4)
Decom Fin Assur Reqd: N

LICENSE FEE TRANSMITTAL

A. REGION I

1. APPLICATION ATTACHED

Applicant/Licensee: HAVERFORD COLLEGE
Received Date: 20000918
Docket No: 3009578
Control No.: 128672
License No.: 37-02286-05
Action Type: Amendment

2. FEE ATTACHED

Amount: _____
Check No.: _____

3. COMMENTS

Signed M. A. Perkins
Date 9/19/2000

B. LICENSE FEE MANAGEMENT BRANCH (Check when milestone 03 is entered /_/_/)

1. Fee Category and Amount: _____

2. Correct Fee Paid. Application may be processed for:

Amendment _____
Renewal _____
License _____

3. OTHER _____

Signed _____
Date _____

This is to acknowledge the receipt of your letter/application dated 9/5/2000, and to inform you that the initial processing which includes an administrative review has been performed.

AMEND. 37-02286-05
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned Mail Control Number **128672**.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.