

Yale OFFICE OF THE PROVOST

Warner House
One Hillhouse Avenue
New Haven CT 06511

February 3, 2010

Re: Amendment Request License No. 06-00183-03

Mr. Thomas Thompson
USNRC Region I
475 Allendale Road
King of Prussia, PA 19406-1415

Dear Mr. Thompson:

I am writing to formally request that the above referenced Yale University license be amended to include the attached list of sources. This amendment is submitted to ensure Yale University's continued compliance with the NRC's expanded definition of byproduct material as per the final rule published in the Federal Register Vol. 72, No. 189, Monday, October 1, 2007.

As you will note, the Manufacturer names and Model numbers for most of the sealed sources that need to be added to our license are represented. However Yale University also possesses a number of very low activity (< 10 uCi), older (Pre November 30, 2007) Ra-226 sources for which we do not have this information. Per 10CFR30.32(g)(3) please find attached the information that we do have on these sources. Please amend Yale University's Broadscope license to include the attached list of newly designated byproduct material items.

Please also be advised (as discussed over the phone with our RSO, Tammy Stemen) that additional sources not represented in this amendment request are possessed by the University at the Yale PET Center. These PET Center sources are used with the scanners and instruments related to research performed on human research subjects and thus will be licensed under our new medical use license. This new license application will be submitted to the NRC as required by August 7, 2010.

If you have any questions on this amendment request, please call Tannmy Stemen, RSO at 203.737.2140.

Sincerely,

Peter Salovey
Peter Salovey

Peter Salovey
Provost

cc: Tammy Stemen, Yale University Radiation Safety Officer

RECEIVED
REGION 1
2010 FEB -5 AM 11:04

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NOV 27 1968 E-002

NRC FORM 313
(4-2008)
10 CFR 30, 32, 33,
34, 35, 36, 39, and 40

U.S. NUCLEAR REGULATORY COMMISSION

APPROVED BY OMB: NO. 3150-0120

EXPIRES: 10/31/2008

Estimated burden per response to comply with this mandatory collection request: 4.4 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. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F53), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollects@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0120), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

APPLICATION FOR MATERIALS 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:

ALABAMA, CONNECTICUT, DELAWARE, DISTRICT OF COLUMBIA, FLORIDA, GEORGIA, KENTUCKY, MAINE, MARYLAND, MASSACHUSETTS, NEW HAMPSHIRE, NEW JERSEY, NEW YORK, NORTH CAROLINA, PENNSYLVANIA, PUERTO RICO, RHODE ISLAND, SOUTH CAROLINA, TENNESSEE, VERMONT, VIRGINIA, VIRGIN ISLANDS, OR WEST VIRGINIA, SEND APPLICATIONS TO:

LICENSING ASSISTANCE TEAM
DIVISION OF NUCLEAR MATERIALS SAFETY
U.S. NUCLEAR REGULATORY COMMISSION, REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PA 19406-1415

IF YOU ARE LOCATED IN:

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

MATERIALS LICENSING BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION III
2443 WARRENVILLE ROAD, SUITE 210
LISLE, IL 60532-4352

ALASKA, ARIZONA, ARKANSAS, CALIFORNIA, COLORADO, HAWAII, IDAHO, KANSAS, LOUISIANA, MISSISSIPPI, 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 BRANCH
U.S. NUCLEAR REGULATORY COMMISSION, REGION IV
612 E. LAMAR BOULEVARD, SUITE 400
ARLINGTON, TX 76011-4125

03000582

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.

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

- ☐ A. NEW LICENSE
- ☒ B. AMENDMENT TO LICENSE NUMBER 06-00183-03
- ☐ C. RENEWAL OF LICENSE NUMBER _____

2. NAME AND MAILING ADDRESS OF APPLICANT (Include ZIP code)

Yale University
Environmental Health and Safety
135 College St., First Floor
New Haven, CT 06510

3. ADDRESS WHERE LICENSED MATERIAL WILL BE USED OR POSSESSED

Yale University, New Haven, CT
Licensed material may be used at any campus or building
under the direct control of Yale University, including the
Connecticut Mental Health Center and West Campus.

4. NAME OF PERSON TO BE CONTACTED ABOUT THIS APPLICATION

Tammy Stemen, RSO

TELEPHONE NUMBER

(203) 737-2140

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 EXPERIENCE.

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

9. FACILITIES AND EQUIPMENT.

10. RADIATION SAFETY PROGRAM.

11. WASTE MANAGEMENT.

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

FEE CATEGORY AMOUNT ENCLOSURE \$ 0.00

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, 36, 39, 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.

CERTIFYING OFFICER - TYPED/PRINTED NAME AND TITLE

Dr. Peter Salovey, Provost

SIGNATURE

Dr. Peter Salovey

DATE

2/14/10

FOR NRC USE ONLY

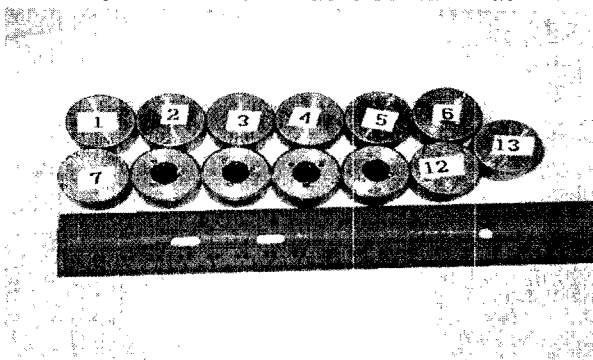
TYPE OF FEE	FEE LOG	FEE CATEGORY	AMOUNT RECEIVED	CHECK NUMBER	COMMENTS
			\$		
APPROVED BY				DATE	

Yale License 06-00183-03 Amendment Request 2/3/2010

5. a. Element and mass number	5. b. Chemical and/or physical form	5. c. Maximum amount which will be possessed at any one time
KK. Cobalt 57	KK. Sealed Sources (Radqual Model # BMNT)	KK. Not to exceed 10 millicuries each or 100 millicuries total
LL. Germanium 68	LL. Sealed Sources (Siemens Model # Concorde CS-10)	LL. Not to exceed 2 millicuries each or 20 millicuries total
MM. Germanium 68	MM. Sealed Sources (Siemens Model # LS-LA)	MM. Not to exceed 2 millicuries each or 20 millicuries total
NN. Cobalt 57	NN. Sealed Sources (Eckert & Ziegler Model # USM02-057-5M)	NN. Not to exceed 5 millicuries each or 25 millicuries total
OO. Cobalt 57	OO. Sealed Sources (Isotope Products Lab Model # FLPZ5-057-10M)	OO. Not to exceed 10 millicuries each or 50 millicuries total
PP. Cobalt 57	PP. Sealed Sources (Eckert & Ziegler Model # F3-956)	PP. Not to exceed 1 millicurie each or 10 millicuries total
QQ. Radium 226	QQ. Sealed Sources (Isotope Products Lab Model # 446-9)	QQ. Not to exceed 0.1 microcurie each or 1 microcurie total
RR. Radium 226	RR. Sealed Sources (Isotope Products Lab Model # GF-226)	RR. Not to exceed 1 microcurie each or 3 microcuries total
SS. Cobalt 57	SS. Sealed Sources (Siemens Model # 10119258)	SS. Not to exceed 5 millicuries each or 25 millicuries total

In addition, the following Radium 226 sealed sources are possessed by Yale University, however manufacturer names and model #'s are not available for these sources. Per 10CFR30.32(g)(3) please find below the information that is available on these sources.

- 13 Radium 226 check sources each estimated to be 0.21 uCi. These sources are used by the Physics Department for demonstration and instrument check purposes. They are all in good condition and leak test results show < 0.005 uCi of removable contamination.



Picture of 13 Radium 226 check sources

- 4 Radium 226 sources each with an activity of approximately 10 uCi. These sources are in good condition and leak tests show < 0.005 uCi of removable contamination. They are beads about the size of a large pea. The sources have not been used in recent years and thus have been designated as radioactive waste and are awaiting disposal.

This is to acknowledge the receipt of your letter/application dated

2/3/2010, and to inform you that the initial processing which includes an administrative review has been performed.

☒ ARCAD. 06-00183-03
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** 144422.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.