

MATERIALS LICENSE

Amendment No. 14

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.

OFFICIAL RECORD COPY

Licensee		In accordance with the letter dated August 6, 1996, 3. License Number SNM-52 is amended in its entirety to read as follows:	
Yale University Radiation Safety Section 2135 College Street New Haven, Connecticut 06510-2411		4. Expiration Date July 31, 2004	
		5. Docket or Reference No. 070-00053	
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. Uranium 233	A. Any	A. 0.01 millicurie	
B. Uranium 235	B. Fission chambers	B. 140 milligrams	
C. Plutonium	C. Sealed neutron sources	C. 144 grams	
D. Plutonium 239	D. Sealed alpha source	D. 3.5 micrograms	
E. Plutonium 239	E. Any	E. 10 microcuries	
9. Authorized use			
A. through E. Research and development as defined in 10 CFR Part 70.4.			

CONDITIONS

10. Licensed material may be used only at the licensee's facilities located at Yale University, New Haven, Connecticut.
11. A. Licensed material shall be used by, or under the supervision of, individuals designated in writing by the Radiation Safety Committee, William C. Summers, M.D., Chairperson.
B. The Radiation Safety Officer for this license is Agnes E. Barlow, M.S., CHP.
12. The licensee shall not use licensed material in or on human beings except as provided otherwise specific condition of this license.
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.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number

SNM-52

Docket or Reference number

070-00053

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14. A. Sealed sources and detector cells containing licensed material shall be tested for leakage and/or contamination at intervals not to exceed six months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed three years.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed three months.
- C. In the absence of a certificate from a transferor indicating that a leak test has been made within six months prior to the transfer, a sealed source or detector cell received from another person shall not be put into use until tested.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources and detector cells need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only a radioactive gas; or
 - (iii) the half-life of the isotope is 30 days or less; or
 - (iv) they contain not more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being used. However, when they are removed from storage for use or transfer to another person, and have not been tested within the required leak test interval, they shall be tested before use or transfer. No sealed source or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- F. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source or detector cell shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within five days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region I, ATTN: Chief, Nuclear Materials Safety Branch, 475 Allendale Road, King of Prussia, Pennsylvania 19406. The report shall specify the source or detector cell involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by the licensee. Alternatively, tests for leakage and/or contamination may be performed by persons specifically licensed by the Commission or an Agreement State to perform such services.

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15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. The licensee shall conduct a physical inventory every six months to account for all sealed sources and devices containing licensed material received and possessed under the license.
17. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
18. 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, except for minor changes in the medical use radiation safety procedures as provided in 10 CFR 35.31. The U.S. 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 April 27, 1994



For the U.S. Nuclear Regulatory Commission

Date SEP 24 1996

By Original Signed By:
Duncan White
Nuclear Materials Safety Branch
Region I
King of Prussia, Pennsylvania 19406

SEP 24 1996

Agnes Barlow, CHP
Radiation Safety Officer
Yale University
Radiation Safety Section
135 College Street
New Haven, Connecticut 06510-2411

Dear Ms. Barlow:

This refers to your license amendment requests. Enclosed with this letter are the amended licenses. Please note that as part of these amendments, in accordance with 10 CFR 30.36, effective February 15, 1996, the expiration date of your licenses have been extended by a period of five years. Your new expiration dates are stated in Item 4 of the licenses.

Please review the enclosed documents carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5093 or 5239, so that we can provide appropriate corrections and answers.

Thank you for your cooperation.

Sincerely,

Original Signed By:

Sheri A. Arredondo
Division of Nuclear Materials Safety

License Nos. 06-00183-03; 06-00183-06; SNM-52
Docket Nos. 030-00582; 030-06886; 070-00053
Control Nos. 123544; 123543; 123545

Enclosures:
Amendment Nos. 66; 22; 14

DOCUMENT NAME: R:\WPS\MLTR\L0600183.03

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI				
NAME	Arredondo						
DATE	08/09/96		08/ /96		08/ /96		08/ /96

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Yale University

Office of Environmental Health and Safety
Environmental Health
Environmental Services
Occupational Health and Safety
Radiation Safety

Campus address:
135 College Street
New Haven, Connecticut 06510-2411

Telephone: 203 785-3550
Fax: 203 785-7588

August 6, 1996

Francis M. Costello
U.S. Nuclear Regulatory Commission
475 Allendale Road
King of Prussia, PA 19406-1415

070-00053

Subject: Licenses 06-00183-06, 06-00183-03, SNM-52

Dear Mr. Costello:

As we indicated in our correspondence dated August 15, 1995, Dr. William Summers was on sabbatical for a period of one year. Please be advised that with the Radiation Safety Committee meeting scheduled for mid September, 1996, Dr. Summers will be returning as Chairman of the Radiation Safety Committee.

Your assistance in this matter is most appreciated. If you require any further information, please contact me at (203) 737-2142.

Thank you.

Sincerely,

Agnes Barlow

Agnes Barlow, CHP
RSO, Radiation Safety Section

123545

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AUG - 8 1996

BETWEEN:

LICENSE FEE MANAGEMENT BRANCH, ARM
AND
REGIONAL LICENSING SECTIONS

(FOR LFMS USE)
INFORMATION FROM LTS

PROGRAM CODE: 22120
STATUS CODE: 0
FEE CATEGORY: EX 1D
EXP. DATE: 20040731
FEE COMMENTS: 170.11(A)(4)
DECOM FIN ASSUR REQD: N
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LICENSE FEE TRANSMITTAL

A. REGION *I*

1. APPLICATION ATTACHED
APPLICANT/LICENSEE: YALE UNIVERSITY
RECEIVED DATE: 960808
DOCKET NO: 7000053
CONTROL NO.: 123545
LICENSE NO.: SNM-52
ACTION TYPE: AMENDMENT

2. FEE ATTACHED
AMOUNT: -----
CHECK NO.: -----

3. COMMENTS

REF. 123543/123544

SIGNED *M. A. Berlin*
DATE *8/19/96*

B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED) *8/14/96*

1. FEE CATEGORY AND AMOUNT: *EX 1D*

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

3. OTHER -----

SIGNED -----
DATE -----

FREE EXEMPT

RECEIVED BY LFDCB	
Date	<i>8/16/96</i>
Log	<i>Aug 10 I (40)</i>
By	<i>BB</i>
Date Completed	<i>8/16/96</i>

(Also ref 123543 & 123544)