

## MATERIALS LICENSE

Amendment No. 05

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

1. Hahnemann University  
Radiation Safety Office MS 102  
Broad and Vine Streets  
Philadelphia, Pennsylvania 19102

In accordance with letter dated  
August 18, 1992,  
3. License number 37-00467-35 is amended in  
its entirety to read as follows:

4. Expiration date December 31, 1993

5. Docket or  
Reference No 030-20830

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. Cesium 137

A. Sealed sources (ORNL  
Model RAMCO-50, or ISO-  
1000)

A. 3,264 curies

9. Authorized use

- A. For possession and use in an AECL Model Gamma Cell 1000 D, to irradiate blood tissues, homografts and biological samples.

## CONDITIONS

10. Licensed material shall be used only at Hahnemann University, Division of Immunohematology, 5th Floor North Tower, Philadelphia, Pennsylvania.
11. A. Licensed material shall be used by individuals designated by Hahnemann University's Ionizing Radiation Control Committee.  
B. The Radiation Safety Officer for this license is Lester M. Tripp, M.S.
12. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.
13. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as are specified by the certificate of registration referred to in 10 CFR 32.210, not to exceed 3 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 3 months.

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MATERIALS LICENSE  
SUPPLEMENTARY SHEET

License number

37-00467-35

Docket or Reference number

030-20830

Amendment No. 05

(13. Continued)

CONDITIONS

- C. 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 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 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. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. 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 shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 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 involved, the test results, and corrective action taken.
- G. The licensee is authorized to collect leak test samples for analysis by 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.
14. The licensee shall not perform repairs or alterations of the irradiator involving removal of shielding or access to the licensed material. Removal, replacement, and disposal of sealed sources in the irradiator shall be performed by a person specifically licensed by the Commission or an Agreement State to perform such services.

MATERIALS LICENSE  
SUPPLEMENTARY SHEET

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Amendment No. 05

(continued)

CONDITIONS

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 September 16, 1983
- B. Letter dated October 3, 1988
- C. Letter dated May 17, 1989
- D. Letter dated June 21, 1991
- E. Letter dated August 18, 1992

For the U.S. Nuclear Regulatory Commission

Original Signed By:  
Jenny Johansen

By

Nuclear Materials Safety Branch  
Region I  
King of Prussia, Pennsylvania 19406

Date SEP 26 1992

SEP 26 1992

License No. 37-00467-35  
Docket No. 030-20830  
Control No. 117180

Hahnemann University  
ATTN: Alan Lieber  
Assistant Vice President  
Broad and Vine Streets  
Philadelphia, Pennsylvania 19102-1192

Dear Mr. Lieber:

Please find enclosed an amendment to your NRC Material License.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the Region I Material Licensing Section, (215) 337-5093, so that we can provide appropriate corrections and answers.

Please be advised that you must conduct your program involving licensed radioactive materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, please note the items in the enclosed, "Requirements for Materials Licensees."

Since serious consequences to employees and the public can result from failure to comply with NRC requirements, the NRC expects licensees to pay meticulous attention to detail and to achieve the high standard of compliance which the NRC expects of its licensees.

You will be periodically inspected by NRC. A fee may be charged for inspections in accordance with 10 CFR Part 170. Failure to conduct your program safely and in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in prompt and vigorous enforcement action against you. This could include issuance of a notice of violation, or in case of serious violations, an imposition of a civil penalty or an order suspending, modifying or revoking your license as specified in the General Policy and Procedures for NRC Enforcement Actions, 10 CFR Part 2, Appendix C.

Hahnemann University

-2-

We wish you success in operating a safe and effective licensed program.

Sincerely,

Original Signed By:  
Jenny Johansen

Jenny M. Johansen, Chief  
Medical Licensing Section  
Division of Radiation Safety  
and Safeguards

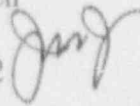
Enclosures:

1. Amendment No. 05
2. Requirements for Materials Licensees
3. NRC Forms 3 and 313

  
DRSS:RI  
Bhalla/cmm

9/25/92

DRSS:RI  
Johansen

9/26/92 

**HU**  
**Hahnemann University**

030-20830

August 18, 1992

Radiation Safety Office

215 448 7663

Broad & Vine  
Philadelphia, PA  
19102-1192

Jenny M. Johansen, Chief  
Medical Licensing Section  
Division of Radiation Safety  
and Safeguards  
United States Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19460

Re: Amendment to License Nos. 37-00467-34  
37-00467-35  
SNM-1369

Dear Ms. Johansen:

Please amend Hahnemann University's Nuclear Regulatory Commission licenses to change the Radiation Safety Officer to Lester M. Tripp, M.S. Enclosed is Mr. Tripp's curriculum vitae showing that he has the training required by 10 CFR 35.900(b)(1) and a statement from the named RSO stating that he has the experience required by 10 CFR 35.900(b)(2). If you have any questions about Mr. Tripp's training and experience, you may contact him at (215)-762-8768.

Also enclosed is our check in the amount of \$360.00 for the cost of amendment.

We further request that this application be expedited because Patrick T. Glennon will officially not be in the employ of Hahnemann University at the end of August, 1992.

Sincerely,

RECEIVED BY LFDCB	
Date	9/29/92
Log	Sep: 92
By	SR
Date Completed	9/29/92

Alan Lieber  
Assistant Vice President,  
Assistant Hospital Director  
for Clinical Support

AL/vw  
enclosure

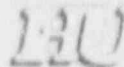
FREE EXEMPT  
170.116(4)

OFFICIAL RECORD COPY ML 10

117160

SEP 21 1992





**Hahnemann University**

August 13, 1992

Assisting Radiation  
Control Committee

215.448.7653

Grand & Vine  
Philadelphia, PA  
19102-1192

Jenny Johansen, Chief  
Nuclear Material Safety Section D  
United States Nuclear Regulatory Commission  
Region 1  
475 Allendale Road  
King of Prussia, PA 19460

Dear Ms. Johansen:

This letter is written as certification that Lester M. Tripp, M.S. has served fulltime in the capacity as Assistant Radiation Safety Officer at Hahnemann University, License Number 37-00467-34, under my supervision for the period from June 3, 1991 to August 14, 1992.

As such he has fulfilled the requirements specified in 10 CFR 35.900(b)(2).

If you have any questions please feel free to contact me at Cooper Hospital University Medical Center, Department of Radiation Oncology, Camden, NJ 08103, 609-342-4179.

Sincerely,

Patrick T. Glennon, M.S.

PTG/vw

## Lester M. Tripp

Training as specified in 10 CFR 35.900(b)(1)

(Documented in most recent SF 171 on file in Region 1)

Nuclear Regulatory Commission (NRC) sponsored courses including the following:

Radiation Safety and Health Physics (Five Weeks Course  
February-March 1988)  
Oak Ridge Associated University  
Oak Ridge, TN

(Coursework included classroom and laboratory training and experience specified in 10 CFR 35.900 (b)(1).

### The Medical Uses of Byproduct Material

The Medical Uses of Byproduct Material was given at the University of Texas Health Sciences Center at San Antonio, Texas. The course provided instruction in the following:

Title 10 CFR Part 35, "Medical Use of Byproduct Material" and USNRC Regulatory Guide 10.8, "Guide for the Preparation of Applications for Medical Use Programs."

Basic Radiobiology including the effects of radiation on tissues.

The facilities and equipment used in nuclear medicine departments including opportunities for hands on experience.

Clinical diagnostic and therapeutic procedures involving the administration of radiopharmaceuticals to patients.

The safe handling of patients and the protection of staff and visitors.

Area radiation surveys including types, equipment and frequency.



## Lester M. Tripp

Responsibilities and authority of key personnel, the function of the Radiation Safety Committee and the implementation of ALARA program and training requirements.

Diagnostic and therapeutic misadministrations.

Transport of radioactive materials and emergency procedures.

Requirements for recordkeeping, quality assurance, calibrations and waste disposal.

### Brachytherapy and Teletherapy

The Brachytherapy and Teletherapy course was given at the Cleveland Clinic, Cleveland, Ohio. The course provided instruction in the following:

Title 10 CFR Part 35, "The Medical Use of Byproduct Material" and USNRC Regulatory Guide 10.8 for the Preparation of Applications for Medical Use Programs."

Basic concepts of clinical radiation therapy procedures and dosimetry involving primarily cobalt-60 teletherapy and various brachytherapy sources.

The facilities and equipment used in radiation therapy departments including hands-on experience.

The safe handling of patients with implanted brachytherapy sources including radiation surveys and inventories.

Area radiation surveys including types of equipment and frequency.

Responsibilities and authority of key personnel, the function of Radiation Safety Committee and the implementation of the ALARA program and training requirements.

Transportation of radioactive materials and emergency procedures.

**Lester M. Tripp**

Misadministrations and requirements for reporting, recordkeeping and quality assurance.

Teletherapy room design and shielding.

Teletherapy spot checks, calibrations and source replacements.

DOI: 10.1002/for

LICENSE FEE MANAGEMENT BRANCH, ARM  
AND  
REGIONAL LICENSING SECTIONS

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1 PROGRAM CODE: Q3310
2 STATUS CODE: 0
3 FEE CATEGORY: EX 3E
4 EXP. DATE: 19931231
5 FEE COMMENTS: 170.11(A)(4)EX EFF 7/
6 DECOM FIN ASSUR REQD: N
7 *****

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### A. REGION

- APPLICANT/LICENSEE: HAHNEMANN UNIVERSITY  
RECEIVED DATE: 920921  
DOCKET NO: 3020830  
CONTROL NO.: 117180  
LICENSE NO.: 37-00467-35  
ACTION TYPE: AMENDMENT

- AMOUNT: \$ 00.00  
CHECK NO.: 000000

- ms 03 & 07 approved for  
9/22/92. Ref, 117181, 117179

SIGNED  
DATE

Rebecca J. Brown  
9/13/92

- B. LICENSE FEE MANAGEMENT BRANCH (CHECK WHEN MILESTONE 03 IS ENTERED /-/-)

1. FEE CATEGORY AND AMOUNT:

EX 3E

**FEE-EXEMPT**

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

170.11 (4)

## AMENDMENT

RENEWAL

LICENSE

- ### 3. OTHER

SIGNED  
DATE

9/29/93

U.S. AIR FORCE  
RECEIVED  
SEP 28 1964  
P. 4-19

NOTE TO DMB:

THE ATTACHED DOCUMENTS ARE TO BE PROCESSED AS ONE MATERIALS  
LICENSING PACKAGE UNDER.....

LICENSE NUMBER: 37-00467-35

DOCKET NUMBER: 080-20830

CONTROL NUMBER: 117180

250037