NRC Form 374
(3-83)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Amendment 13

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, 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. V. A. Medical Center	In accordance with application dated April 30, 1985
2. 200 Springs Road Bedford, Massachusetts 01730	3. License number 20-10184-01 is amended in its entirety to read as follows:
	4. Expiration date September 30, 1985
	5. Docket or Reference No. 030-01927

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. Any byproduct material listed in Groups I and II of Schedule A, Section 35.100 of 10 CFR 35	A. Any radiopharmaceutical listed in Groups I and II of Schedule A, Section 35.100 of 10 CFR 35	A. As necessary for uses authorized in Subitem 9.A.
B. Any byproduct material listed in Group III of Schedule A, Section 35.100 of 10 CFR 35	B. Any form listed in Group III of Schedule A, Section 35.100 of 10 CFR 35	B. 2 curies of each byproduct material authorized in Subitem 6.B.
C. Any byproduct material listed in Section 31.11(a) of 10 CFR 31	C. Prepackaged kits	C. 10 millicuries of each byproduct material authorized in Subitem 6.C.
D. Hydrogen 3	D. Any	D. 100 millicuries
E. Calcium 45	E. Any	E. 5 millicuries
F. Carbon 14	F. Any	F. 20 millicuries
G. Phosphorus 32	G. Any	G. 30 millicuries
H. Sulfur 35	H. Any	H. 10 millicuries
I. Iron 59	I. Any	I. 2 millicuries
J. Iodine 131	J. Any	J. 5 millicuries
K. Iodine 125	K. Any	K. 20 millicuries
L. Chromium 51	L. Any	L. 20 millicuries
M. Nickel 63	M. Foil in Varian Model 01-001028-00 Detector Cell	M. 8 millicuries

9. Authorized use

A. Any diagnostic procedure listed in Groups I and II of Schedule A, Section 35.100, Title 10, Code of Federal Regulations.

B. Preparation and use of radiopharmaceuticals for any diagnostic procedure listed in Group III of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.

C. *In vitro* studies.

D. through L. Laboratory research including animal studies.

M. To be used in a Varian Model 3700 gas chromatograph.

ML10

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number
20-10184-01
Docket or Reference number
030-01927

Amendment No. 13

CONDITIONS

10. Licensed material shall be used only at the licensee's facilities, 200 Springs Road, Bedford, Massachusetts.

11. The licensee shall comply with the provisions of Title 10, Chapter 1, Code of Federal Regulations, Part 19, "Notices, Instructions, and Reports to Workers; Inspections" and Part 20, "Standards for Protection Against Radiation."

12. A. Licensed material listed in Item 6 above is authorized for use by, or under the supervision of, the following individual(s) for the materials and uses indicated:

Dean J. Rodman, M.D.	Groups I, II and III In vitro studies
Walter V. Collins, M.D.	Groups I, II and III In vitro studies
Allan M. Green, M.D., Ph.D.	Groups I, II and III In vitro studies
Kalidas Nandy, M.D., Ph.D.	In vitro studies Subitems D. through M.
Choompol Mahasaen, M.D.	In vitro studies Subitems D. through M.
Ladislav Volicer, M.D., Ph.D.	In vitro studies Subitems D. through M.
Victor N. Evdokimoff, M.S.	In vitro studies Subitems D. through M.
Vincent Agnello, M.D.	In vitro studies Subitems D. through M.
Carol Ann Toth, Ph.D.	In vitro studies Subitems D. through M.
Fredrick L. Moolten, M.D.	In vitro studies Subitems D. through L.
M. David Ullman, Ph.D.	Subitems D., E., F., G., and H.
Deepak Pandya, M.D.	Subitems D., E., F., and H.
Michael J. Malone, M.D.	Subitems D., E., F., and H.

B. The Radiation Protection Officer for the activities authorized by this license is Choompol Mahasaen, M.D.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number: 20-10184-01
Docket or Reference number: 030-01927
Amendment No. 13

(continued) CONDITIONS

14. For a period not to exceed sixty (60) days in any calendar year, a visiting physician is authorized to use licensed material for human use under the terms of this license, provided the visiting physician:

    (a) Has the prior written permission of the hospital's Administrator and its Medical Isotopes Committee, and

    (b) Is specifically named as a user on a Nuclear Regulatory Commission license authorizing human use, and

    (c) Performs only those procedures for which he is specifically authorized by a Nuclear Regulatory Commission license.

    The licensee shall maintain for the inspection by the Commission, copies of the written permission specified in subitem (a) above and of the license(s) specified in subitems (b) and (c) above. These records shall be maintained for five (5) years from the time the licensee grants its permission under subitem (a) above.

15. The licensee is authorized to hold radioactive material with a physical half-life of less than 65 days 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 ten (10) half-lives.

    B. Prior to disposal as normal waste, radioactive waste shall be monitored to determine that its radioactivity cannot be distinguished from background with typical low-level laboratory survey instruments. All radiation labels will be removed or obliterated.

    C. Generator columns shall be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.

16. The licensee shall not use licensed material specified in Subitems C through M in or on human beings or any licensed materials in field applications where activity is released except as provided otherwise by specific condition of this license.

17. Detector cells containing licensed material shall not be opened or the foil sources removed from the detector cell by the licensee.

18. In lieu of using the conventional radiation caution colors (magenta or purple on yellow background) as provided in Section 20.203(a)(1), Title 10, Code of Federal Regulations, Part 20, the licensee is hereby authorized to label detector cells and cell baths, containing licensed material and used in gas chromatography devices, with conspicuously etched or stamped radiation caution symbols without a color requirement.

19. A. Each chromatograph detector containing Nickel 63 shall be tested for leakage and/or contamination at intervals not to exceed six months. In the absence of a certificate from a transferor indicating that a test has been made within six months prior to the transfer, a detector received from another person shall not be put into use until tested.

MATERIALS LICENSE
SUPPLEMENTARY SHEET

License number 20-10184-01

Docket or Reference number 030-01927

Amendment No. 13

(19. continued) CONDITIONS

C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the foil from use and shall cause it to be decontaminated and repaired or to be disposed of in accordance with Commission regulations. A report shall be filed within 5 days of the test with the U.S. Nuclear Regulatory Commission, Region I, 631 Park Avenue, King of Prussia, Pennsylvania 19406, describing the equipment involved, the test results, and the corrective action taken.

D. Tests for leakage and/or contamination shall be performed by the licensee or by other persons specifically authorized by the Commission or an Agreement State to perform such services.

20. Except as specifically provided otherwise by this license, the licensee shall possess and use licensed material described in Items 6, 7, and 8 of this license in accordance with statements, representations, and procedures contained in application dated March 30, 1979 and letters dated September 4, 1980, July 25, 1980, April 27, 1981, April 30, 1984, October 4, 1984 and January 14, 1985; application dated April 30, 1985 including ALARA Program; and letters dated May 7, 1985 and June 7, 1985. The Nuclear Regulatory Commission's regulations shall govern the licensee's statements in applications or letters, unless the statements are more restrictive than the regulations.

For the U.S. Nuclear Regulatory Commission

Original Signed By:
Jenny M. Johansen

Date JUN 25 1985

By _____

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