NRC Form 374
(3-83)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Amendment No. 46

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	In accordance with application dated September 23, 1983
1. Veterans Administration Hospital	3. License number: 41-00119-08 is amended in its entirety to read as follows:
2. 1030 Jefferson Avenue Memphis, Tennessee 38104	4. Expiration date: June 30, 1990
	5. Docket or Reference No.: 030-03253

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. 3 curies of each byproduct material authorized in Subitem 6.B.
C. Any byproduct material listed in Group IV of Schedule A, Section 35.100 of 10 CFR 35	C. Any radiopharmaceutical listed in Group IV of Schedule A, Section 35.100 of 10 CFR 35	C. As necessary for uses authorized in Subitem 9.C.
D. Any byproduct material listed in Group V of Schedule A, Section 35.100 of 10 CFR 35	D. Any radiopharmaceutical listed in Group V of Schedule A, Section 35.100 of 10 CFR 35	D. As necessary for uses authorized in Subitem 9.D.
E. Any byproduct material listed in Group VI of Schedule A, Section 35.100 of 10 CFR 35	E. Any sealed source listed in Group VI of Schedule A, Section 35.100 of 10 CFR 35	E. 1 curie total for all sources authorized in Subitem 6.E.

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(cont'd)

F. Xenon 133	F. Gas or gas in solution that is the subject of an active (i.e., not withdrawn or terminated) "New Drug Application" (NDA) approved by FDA or an active (i.e., not withdrawn, terminated, or on "clinical hold") "Notice of Claimed Investigational Exemption for a New Drug" (IND) that has been accepted by FDA.	F. 500 millicuries
G. Iodine 131	G. Any	G. 100 millicuries
H. Carbon 14	H. Any	H. 800 millicuries
I. Sulfur 35	I. Any	I. 100 millicuries
J. Hydrogen 3	J. Any	J. 900 millicuries
K. Iodine 125	K. Any	K. 800 millicuries
L. Chromium 51	L. Any	L. 100 millicuries
M. Phosphorus 32	M. Any	M. 100 millicuries
N. Uranium	N. Depleted uranium metal	N. 182 kilograms
O. Cesium 137	O. Sealed source (J. L. Shepherd Model 6810)	O. 100 millicuries
P. Strontium 90	P. Sealed source (Nuclear Enterprises Ltd., Model 2503)	P. 10 millicuries

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9. Authorized use

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

D. Any therapeutic procedure listed in Group V of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.

E. Any procedure listed in Group VI of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.

F. For use in blood flow and pulmonary function studies.

G. through M. Laboratory research studies including studies in animals.

N. Shielding for a linear accelerator.

O. For use in a Victoreen Model 681A (same as the J. L. Shepherd Model 28-5) calibrator for calibration of instruments.

P. For use in the calibration of instruments.

CONDITIONS

10. Licensed material shall be used only at the Veterans Administration Hospital, 1030 Jefferson Avenue, Memphis, Tennessee.

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. 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:

Murray L. Fields, M.D.	Groups I, II, III, IV, and V Iodine 125 as a sealed source to measure bone mineral content Xenon 133
Alys H. Lipscomb, M.D.	Groups I, II, III, IV, and V Iodine 125 as a sealed source to measure bone mineral content Xenon 133

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Ray Cox, M.D.	Non-human use
Hassan M. Omar, Ph.D.	Non-human use
Camilo U. Paig, M.D.	Group VI
Edwin H. Beachey, M.D.	Non-human use
Narayanagoud Memula, M.D.	Group VI

13. The Radiation Protection Officer for the activities authorized by this license is Hassan M. Omar, Ph.D.

14. A. (1) Each sealed source containing licensed material, other than Hydrogen 3, with a half-life greater than thirty days and in any form other than gas 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 sealed source received from another person shall not be put into use until tested.

(2) Notwithstanding the periodic leak test required by this condition, any licensed sealed source is exempt from such leak tests when the source contains 100 microcuries or less of beta and/or gamma emitting material or 10 microcuries or less of alpha emitting material.

(3) The periodic leak test required by this condition does not apply to sealed sources that are stored and not being used. The sources excepted from this test shall be tested for leakage prior to any use or transfer to another person unless they have been leak tested within six months prior to the date of use or transfer.

B. The test shall be capable of detecting the presence of 0.005 microcurie of radioactive material on the test sample. The test sample shall be taken from the sealed source or from the surfaces of the device in which the sealed source is permanently mounted or stored on which one might expect contamination to accumulate. Records of leak test results shall be kept in units of microcuries and maintained for inspection by the Commission.

C. If the test reveals the presence of 0.005 microcurie or more of removable contamination, the licensee shall immediately withdraw the sealed source 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 five (5) days of the test with the U.S. Nuclear Regulatory Commission, Region II, Division of Radiation Safety and Safeguards, Nuclear Materials Safety Section, 101 Marietta Street, Suite 2900, Atlanta, Georgia 30323, describing the equipment involved, the test results, and the corrective action taken.

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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.

15. Sealed sources containing licensed material shall not be opened.

16. Licensed material shall be used in accordance with the provisions of Section 35.14(b)(c)(e) and (f) of Title 10, Code of Federal Regulations.

17. Patients containing Iodine 131 for the treatment of thyroid carcinoma or patients containing therapeutic quantities of Gold 198 shall remain hospitalized until the residual activity is 30 millicuries or less.

18. 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 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.

19. Pursuant to Sections 20.106(b) and 20.302, 10 CFR 20, the licensee is authorized to dispose of licensed material by incineration provided the gaseous effluent from incineration does not exceed the limits specified for air in Appendix B, Table II, 10 CFR 20. Ash residues may be disposed of as ordinary waste provided appropriate surveys pursuant to Section 20.201 are made to determine that concentrations of licensed material appearing in the ash residues do not exceed the concentrations (in terms of microcuries per gram) specified for water in Appendix B, Table II, 10 CFR 20.

20. 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.

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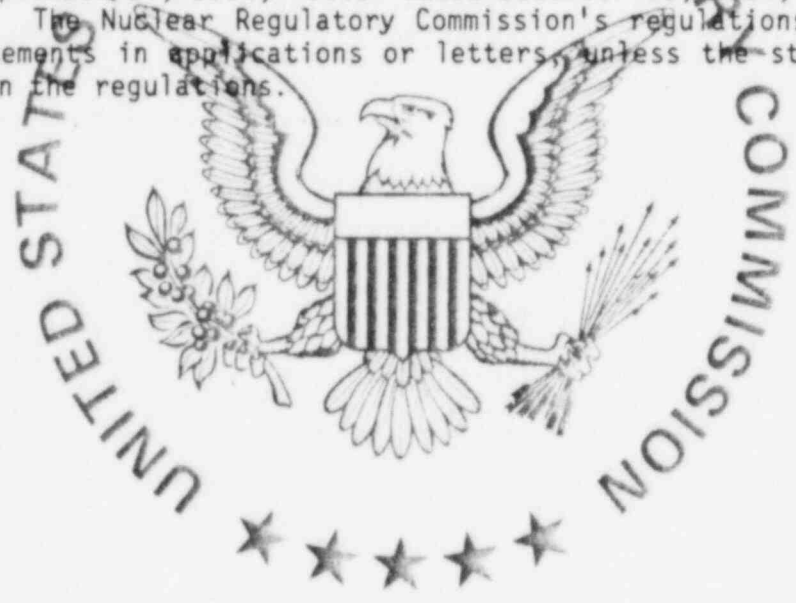
B. Prior to disposal as normal waste, radioactive waste shall be monitored to determine that its radioactivity cannot be distinguished from background with typical low-level laboratory survey instruments. All radiation labels will be removed or obliterated.

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

21. 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 ALARA program submitted with letter dated October 14, 1982; applications dated September 23, 1983 and September 24, 1984; letter dated December 31, 1984; and letter received April 22, 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

Date JUN 11 1985

By PAUL R. GUINN
Paul R. Guinn
Region II, Nuclear Materials
Safety Section
101 Marietta Street, Suite 2900
Atlanta, GA 30323

Medical Center
1030 Jefferson Avenue
Memphis TN 38104

Veterans Administration

APR 3 1985

NRC Region II

In Reply Refer To: 614/115

Regional Director (~~10BA3~~/115)
Veterans Administration Central Office
810 Vermont Avenue, N.W.
Washington, D.C. 20420

SUBJ: Response to inquiry regarding Amendment of By-Product Material License No. 41-00119-08 (Reference Control No. 18330)

1. Enclosed please find our response to Dr. Francis A. St. Mary's inquiry dated March 18, 1985 concerning our request to amend By-Product Material License No. 41-00119-08.

2. Please forward this information to Dr. Francis A. St. Mary, Material Licensing Branch, Division of Fuel Cycle and Material Safety, Washington, D.C. 20555.

HERBERT S. ARNETT
Director

Enclosure

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APR 12 1985

[illegible] D. (115)
Director, Nuclear Medicine Service
VA Central Office
Washington, D.C. 20420

FEE EXEMPT

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