NRC Form 374
(5-84)

U.S. NUCLEAR REGULATORY COMMISSION

MATERIALS LICENSE

Amendment No. 43

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. The Norwalk Hospital	In accordance with letter dated June 12, 1987,
2. 24 Stevens Street Norwalk, Connecticut 06856	3. License number 06-06941-01 is amended in its entirety to read as follows:
	4. Expiration date June 30, 1988
	5. Docket or Reference No. 030-01267

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 V of Schedule A, Section 35.100 of 10 CFR 35	C. Any radiopharmaceutical listed in Group V 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 VI of Schedule A, Section 35.100 of 10 CFR 35	D. Any sealed source listed in Group VI of Schedule A, Section 35.100 of 10 CFR 35	D. 1000 millicuries total for sources authorized in Subitem 6.D.
E. Any byproduct material listed in Section 31.11(a) of 10 CFR 31	E. Prepackaged kits	E. 3 millicuries of each byproduct material authorized in Subitem 6.E.
F. Iodine 131	F. Any iodide that has been manufactured, labeled, packaged and distributed in accordance with a specific license issued pursuant to Section 32.72 of 10 CFR Part 32 or a specific license issued to the manufacturer by an Agreement State pursuant to equivalent State regulations	F. 250 millicuries

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(Items 6., 7 & 8. continued)

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
G. Phosphorus 32	G. Any soluble phosphate that has been manufactured, labeled, packaged and distributed in accordance with a specific license issued pursuant to Section 32.72 of 10 CFR Part 32 or a specific license issued to the manufacturer by an Agreement State pursuant to equivalent State regulations	G. 50 millicuries
H. Uranium (depleted in the isotope Uranium 235)	H. Cadmium plated metal	H. 140 kilograms
I. Gadolinium 153	I. Sealed source (Lunar GD series)	I. Not to exceed 1.5 curies curies per source, 3 curies total
J. Iodine 125	J. Sealed source (AECL Models C-235 or C-324 or Amersham Model IMC.P2)	J. Not to exceed 300 millicuries per source, 600 millicuries total
K. Strontium 90	K. Sealed source (Nuclear Associates, Inc., Model PTW-09)	K. 900 microcuries
L. Cesium 137	L. Sealed source (Tech-Ops Model 77302)	L. 150 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. Any therapeutic procedure listed in Group V of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.
D. Any procedure listed in Group VI of Schedule A, Section 35.100 of Title 10, Code of Federal Regulations.
E. In vitro studies.
F. For treatment of hyperthyroidism or cardiac dysfunction.
G. For treatment of polycythemia vera, leukemia, or bone metastases.
H. For use as shielding in a linear accelerator.
I. For use in Lunar Radiation Corporation Model DP3 bone mineral analyzer.
J. For use in Lunar Radiation Corporation Model SP2 bone mineral analyzer.
K. For instrument calibration
L. For use in Tech-Ops Model 773 source housing for calibration of instruments.

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CONDITIONS

10. Licensed material shall be used only at 24 Stevens Street, Norwalk, Connecticut.

11. 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:

William T. Cronin, M.D.	Groups I, II, III and VI In vitro studies Strontium 90 for calibration of instruments Depleted uranium for shielding Iodine 125 and Gadolinium 153 sealed sources for bone mineral analysis of patients Cesium 137 for calibration of instruments
Richard Lisi, M.D.	Group VI Strontium 90 for calibration of instruments Depleted uranium for shielding Iodine 125 and Gadolinium 153 sealed sources for bone mineral analysis of patients Cesium 137 for calibration of instruments
Hollis N. Truax	In vitro studies
Pradip N. Pathare, M.D.	Group VI Depleted uranium for shielding Iodine 125 and Gadolinium 153 sealed sources for bone mineral analysis of patients
Christopher W. McGary, M.D.	Groups I, II, III and V In vitro studies Phosphorus 32 as soluble phosphate for treatment of polycythemia vera, leukemia and bone metastases Iodine 131 for treatment of hyperthyroidism and cardiac dysfunction Iodine 125 and Gadolinium 153 sealed sources for bone mineral analysis of patients
Edward Strauss, M.D.	Groups I, II and III Phosphorus 32 as soluble phosphate for treatment of polycythemia vera, leukemia and bone metastases Iodine 131 for treatment of hyperthyroidism, cardiac oysfunction and thyroid carcinoma Iodine 125 and Gadolinium 153 sealed sources for bone mineral analysis of patients

12. 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:

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(12. continued) CONDITIONS

A. Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.

B. Before disposal as normal waste, radioactive waste shall be surveyed to determine that its radioactivity cannot be distinguished from background. All radiation labels shall 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.

13. For a period not to exceed 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 Radiation Safety Committee, and

B. Is specifically named as a user on a Nuclear Regulatory Commission license authorizing human use, and

C. Performs only those procedures which the physician is specifically authorized to perform pursuant to a license issued by the Nuclear Regulatory Commission.

The licensee shall maintain for inspection by the Commission copies of the written permission specified in A. above and of the license(s) specified in B. and C. above for a period of 5 years from the date permission is granted under A. above.

14. Patients containing cobalt-60, cesium-137 or iridium-192 implants shall remain hospitalized until a source count and surveys made with an appropriate radiation detection instrument indicate that all implants have been removed. The results of these surveys shall be recorded and maintained for inspection by the Commission for 5 years from the time the implants are removed.

15. 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.

16. A. The source(s) specified in Item(s) 7.J., 7.K., 7.L., shall be tested for leakage and/or contamination at intervals not to exceed 6 months and the source(s) specified in Item(s) 7.I., shall be tested for leakage and/or contamination at intervals not to exceed 1 year. Any source received from another person which is not accompanied by a certificate indicating that a test was performed within 6 months before the transfer shall not be put into use until tested.

B. Any source or detector cell in storage and not being used need not be tested. When the source or detector cell is removed from storage for use or transfer to another person, it shall be tested before use or transfer.

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(16. continued) CONDITIONS

C. 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, the source or detector cell shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. A 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 and Safeguards Branch, 631 Park Avenue, King of Prussia, Pennsylvania 19406. The report shall specify the source involved, the test results, and corrective action taken. Records of leak test results shall be kept in units of microcuries and shall be maintained for inspection by the Commission. Records may be disposed of following Commission inspection.

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

17. 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 April 12, 1983
B. Letter dated April 12, 1983
C. Letter dated January 27, 1986
D. Letter dated May 5, 1986
E. Letter dated July 31, 1986
F. Letter dated January 5, 1987
G. Letter dated January 30, 1987
H. Letter dated March 3, 1987
I. Letter dated June 12, 1987

For the U.S. Nuclear Regulatory Commission

Date AUG 19 1987

By Original Signed By: Judith A. Joustra

Nuclear Materials Safety and
Safeguards Branch, Region 1
King of Prussia, Pennsylvania 19406