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U.S. NUCLEAR REGULATORY COMMISSION

Amendment No. 109

MATERIALS LICENSE

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.

Licensee	In accordance with the letter dated June 28, 2012,
1. Saint Francis Hospital and Medical Center	3. License number 06-00854-03 is amended in its entirety to read as follows:
2. 114 Woodland Street Hartford, Connecticut 06105-1299	4. Expiration date July 31, 2014
	5. Docket No. 030-01246 Reference No. 06-14734-01

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
Outside of Scope		
E. Strontium 90 permitted by 10 CFR 35.400	E. Sealed Source (Tech Ops Model M1)	E. 50 millicuries
Outside of Scope		

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Information in this record was deleted in accordance with the Freedom of Information Act. Exemptions Outside Scope FOIA/PA 2013-0003

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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
Outside of Scope		
N. Strontium 90	N. Sealed source (PTW-Freiburg Model BR 206)	N. 1 millicurie
Outside of Scope		

9. Authorized use:

A. Any uptake, dilution and excretion study permitted by 10 CFR 35.100.
B. Any imaging and localization study permitted by 10 CFR 35.200.
C. Any diagnostic study or therapy procedure permitted by 10 CFR 35.300.
D. Any manual brachytherapy procedure permitted by 10 CFR 35.400.
E. Strontium-90 for ophthalmic radiotherapy permitted by 10 CFR 35.400.
F. One source for medical use permitted by 10 CFR 35.600, in a Nucletron Model 105.999 remote afterloader unit. The source activity may not exceed 12 curies at the time of use. One source in its shipping container as necessary for replacement of the source in the remote afterloader unit.
G. through M. Research and development as defined in 10 CFR 30.4.
N. Calibration and checking of the licensee's instruments.
O. For use in a Nuclear Associates or Technical Operations Model 773 calibrator for calibrations and checking of licensee's survey instruments.
P. In vitro studies.
Q. For irradiation of materials in an MDS Nordion Gammacell 1000 Elite self-shielded irradiator device that has been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State and which has been distributed in accordance with a Commission or Agreement State specific license authorizing distribution to persons specifically authorized by a Commission or Agreement State license to receive, possess, and use the device.

CONDITIONS

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10. Licensed material may be used or stored only at the licensee's facilities located at 114 Woodland Street, Hartford, Connecticut.

11. The Radiation Safety Officer for this license is Robert Zamenhof, Ph.D.

12. Licensed material is only authorized for use by, or under the supervision of:

A. Individuals permitted to work as an authorized user and/or authorized medical physicist in accordance with 10 CFR 35.13 and 35.14.

B. The following individuals are authorized users for medical use as indicated:

Authorized Users	Material and Use
James D. Slavin, M.D.	35.100; 35.200; 35.300
Mozafareddin Karemeddini, M.D.	35.100; 35.200; 35.300; In vitro studies
Richard Shumway, M.D.	35.300; 35.400; Iridium 192 for uses in a High Dose Rate Remote Afterloader Unit; Strontium 90 in an eye applicator
Bruce Kaplan, M.D.	35.300; 35.400; Iridium 192 for uses in a High Dose Rate Remote Afterloader Unit; Strontium 90 in an eye applicator
Eric Van Rooy, M.D.	35.300; 35.400; Iridium 192 for uses in a High Dose Rate Remote Afterloader Unit; Strontium 90 in an eye applicator
Anthony F. Posteraro, III, M.D.	35.100; 35.200; 35.300
Joseph Colasanto, M.D.	35.400; Iridium 192 for uses in a High Dose Rate Remote Afterloader Unit; Strontium 90 in an eye applicator
Stephen Zink, M.D.	35.100; 35.200; Oral administration of sodium iodide Iodine 131

C. The following individuals are authorized medical physicists as indicated:

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Authorized Medical Physicists	Material and Use
Ellen E. Wilcox, Ph.D.	Iridium 192 in a High Dose Rate Remote Afterloader Unit for calibrations, spot-checks, and training; Strontium 90 in an Eye Applicator for activity calculations; Cesium 137, Strontium 90, and Carbon 14 for instrument calibration
George M. Daskalov, Ph.D.	Iridium 192 in a High Dose Rate Remote Afterloader Unit for calibrations, spot-checks, and training; Cesium 137, Strontium 90, and Carbon 14 for instrument calibration
Alicia Harris, M.S.	Iridium 192 in a High Dose Rate Remote Afterloader Unit for calibrations, spot-checks, and training

D. The following individuals are authorized users for non-medical uses as indicated:

Users	Material and Use
George H. Barrows, M.D.	Phosphorus 32
Ernesto M. Canalis, M.D.	Hydrogen 3; Carbon 14; Phosphorus 32; Phosphorus 33; Sulfur 35; Calcium 45; Iodine 125

E. Licensed material in Item 6.Q. shall be used by, or under the supervision of, individuals who have received the training described in the letter dated May 11, 2004 and have been designated, in writing, by the Radiation Safety Officer. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.

13. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d) for establishing decommissioning financial assurance.

14. The licensee will comply with the requirements for the "Order Imposing Increased Controls" (ADAMS Accession No. (ML053130183) published in the Federal Register on December 1, 2005 (70 FR 72128); and with the "Order Imposing Fingerprinting and Criminal History Records Check Requirements for Unescorted Access to Certain Radioactive Materials" (fingerprinting Order) (ADAMS Accession No. (ML073230738) published in the Federal Register on December 13, 2007 (72 FR 70901). The licensee

will complete implementation of said requirements by the first day that radionuclides in quantities of concern are possessed at or above the limits specified in "Table 1: Radionuclides of Concern" contained within the fingerprinting Order. Notwithstanding any provisions of the Commission's regulations to the contrary, all measures implemented or actions taken in response to these Orders shall be maintained until the Commission orders otherwise, or until the Commission explicitly modifies its regulations to reflect the increased controls and fingerprinting requirements, and states in modifying its regulations, that the revisions are to supersede these Orders. The licensee shall notify the Director, Office of Federal and State Materials and Environmental Management Programs, U. S. NRC, Washington, DC, 20555, in writing, within 25 days after it has completed the requirements of this condition. In addition, licensee responses applicable to this license condition shall be marked as "Withhold From Public Disclosure Under 10 CFR 2.390."

15. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."

16. The licensee is authorized to hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if the licensee:

    A. Monitors byproduct material at the surface before disposal and determines that its radioactivity cannot be distinguished from the background radiation level with an appropriate radiation detection survey meter set on its most sensitive scale and with no interposed shielding; and

    B. Removes or obliterates all radiation labels, except for radiation labels on materials that are within containers and that will be managed as biomedical waste after they have been released from the licensee; and

    C. Maintains records of the disposal of licensed materials for 3 years. The record must include the date of disposal, the survey instrument used, the background radiation level, the radiation level measured at the surface of each waste container, and the name of the individual who performed the disposal.

17. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.

18. The licensee shall conduct a physical inventory every six months, or at other intervals approved by the U.S. Nuclear Regulatory Commission, to account for all sources and/or devices received and possessed under the license. Records of inventories shall be maintained for 5 years from the date of each inventory and shall include the radionuclides, quantities, manufacturer's name and model numbers, and the date of the inventory.

19. For sealed sources not associated with 10 CFR Part 35 use, the following conditions apply:

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A. Sealed sources shall be tested for leakage and/or contamination at intervals not to exceed six months or at the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State.

B. In the absence of a certificate from a transferor indicating that a leak test has been made within the intervals specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or under equivalent regulations of an Agreement State, prior to the transfer, a sealed source received from another person shall not be put into use until tested and the test results received.

C. Sealed sources need not be tested if they contain only hydrogen-3; or they contain only a radioactive gas; or the half-life of the isotope is 30 days or less; or they contain not more than 100 microcuries of beta- and/or gamma-emitting material or not more than 10 microcuries of alpha-emitting material.

D. Sealed sources need not be tested if they are in storage and are not being used; however, when they are removed from storage for use or transferred 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 shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.

E. The leak test shall be capable of detecting the presence of 0.005 microcurie (185 becquerels) of radioactive material on the test sample. If the test reveals the presence of 0.005 microcurie (185 becquerels) or more of removable contamination, a report shall be filed with the U.S. Nuclear Regulatory Commission in accordance with 10 CFR 30.50(c)(2), and the source shall be removed immediately from service and decontaminated, repaired, or disposed of in accordance with Commission regulations.

F. Tests for leakage and/or contamination, including leak test sample collection and analysis, shall be performed by the licensee or by other persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

G. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.

20. The licensee shall not repair, remove, replace, or alter any of the following: electrical and mechanical

systems that control source or shielding movement, the irradiator's shielding or sealed source, safety interlocks, or any component that may affect safe operation of the irradiator. These activities shall be performed by a person specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

21. The licensee shall not use licensed material in field applications where it is released except as provided otherwise by specific condition of this license.

22. 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. This license condition applies only to those procedures that are required to be submitted in accordance with the regulations. Additionally, this license condition does not limit the licensee's ability to make changes to the radiation protection program as provided for in 10 CFR 35.26. 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. Letter dated March 22, 2004, except low dose rate remote afterloader [ML040910440]
B. Letter dated May 6, 2004, except low dose rate remote afterloader and intravascular brachytherapy programs and facilities [ML041460513]
C. Letter dated May 11, 2004 [ML041470163]
D. Letter dated June 21, 2004, except intravascular brachytherapy program [ML041840092]
E. Letter dated October 24, 2007 [ML072980229]
F. Letter dated March 26, 2009 (limited to Attachment A) [ML090980510]
G. Letter dated February 4, 2010 [ML100400208]
H. Letter dated May 6, 2010 [ML101270064]

For the U.S. Nuclear Regulatory Commission

Date July 19, 2012

By ***Original signed by Sandra Gabriel***

Sandra Gabriel
Medical Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406