

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, 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.

<p>Licensee</p> <p>1. Department of the Navy Naval Undersea Medical Institute Box 159, Naval Submarine Base New London Groton, Connecticut 06349</p>	<p>In accordance with application dated May 23, 1984</p> <p>3. License number 06-01765-01 is amended in its entirety to read as follows:</p> <p>4. Expiration date June 30, 1990</p> <p>5. Docket or Reference No. 030-00605</p>
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Hydrogen 3 B. Carbon 14 C. Sodium 24 D. Phosphorus 32 E. Iron 55 F. Iron 59 G. Cobalt 60 H. Rubidium 86 I. Strontium 89 J. Strontium 90/ Yttrium 90 K. Molybdenum 99 L. Technetium 99m M. Iodine 131 N. Any byproduct material with Atomic Nos. 3-83, inclusive O. Cobalt 60 P. Cobalt 60 Q. Cesium 137</p>	<p>7. Chemical and/or physical form</p> <p>A. Any B. Any C. Any D. Any E. Any F. Any G. Any H. Any I. Any J. Any K. Any L. Any M. Any N. Mixed Fission Products O. Sealed Sources P. Sealed Sources Q. Sealed Sources</p> <p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 5 millicuries B. 2 millicuries C. 5 millicuries D. 5 millicuries E. 3 millicuries F. 3 millicuries G. 2 millicuries H. 2 millicuries I. 2 millicuries J. 3 millicuries K. 1 millicurie L. 1 millicurie M. 1 millicurie N. 5 millicuries total O. 2.0 millicuries P. 400 microcuries Q. Three (3) sources not to exceed 600 microcuries each</p>

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Send Copy To Regulator

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SUPPLEMENTARY SHEET

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Docket or Reference number

030-00605

Amendment No. 29

9. Authorized use

- A. through O. For use in training courses for Navy Medical Officers, Medical Service Corps Officers, and Senior Petty Officers.

CONDITIONS

10. Licensed material shall be used only at the Department of the Navy, Naval Undersea Medical Institute, Naval Submarine Base New London, Groton, Connecticut.
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 shall be used by, or under the supervision of, individuals designated by the Radiation Safety Committee.
- B. The Radiation Protection Officer for the activities authorized by this license is LT. Thomas Hasselbacher, MSC, USN.
13. 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, except that each source designed for the purpose of emitting alpha particles shall be tested at intervals not to exceed three 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) Except for alpha sources, 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.

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13. Cont'd

- 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 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.
14. Sealed sources containing licensed material shall not be opened.
15. The licensee shall not use licensed material in or on human beings or in field applications where activity is released except as provided otherwise by specific conditions of this license.
16. 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.

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17. 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 May 23, 1984; and letters dated April 24, 1985 and April 25, 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 June 18, 1985

BY

Francis A. May
Material Licensing Branch
Division of Fuel Cycle and
Material Safety
Washington, D. C. 20555