



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION III
801 WARRENVILLE ROAD
LISLE, ILLINOIS 60532-4351

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National Health Physics Program (115HP/NLR)
ATTN: E. Lynn McGuire, Director
Department of Veterans Affairs
Veterans Health Administration
2200 Fort Root Drive
North Little Rock, AR 72114

Dear Mr. McGuire:

Enclosed is Amendment No. 47 renewing your NRC Material License No.13-00694-03 in accordance with your request.

Please review the enclosed document carefully and be sure that you understand all conditions. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region III office at (630) 829-9887 so that we can provide appropriate corrections and answers.

Please be advised that your license expires at the end of the day, in the month, and year stated in the license. Unless your license has been terminated, you must conduct your program involving byproduct materials in accordance with the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate in accordance with NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers; Inspections," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC, in writing, within 30 days:
 - a. When the Radiation Safety Officer permanently discontinues performance of duties under the license or has a name change; or
 - b. When the mailing address listed on the license changes.
3. In accordance with 10 CFR 30.36(b) and/or license condition, notify NRC, promptly, in writing, and request termination of the license when a decision is made to terminate all activities involving materials authorized under the license.
4. Request and obtain a license amendment before you:
 - a. Change Radiation Safety Officers
 - b. Order byproduct material in excess of the amount, or radionuclide, or form

Information in this record was deleted
in accordance with the Freedom of Information
Act, exemptions 2
FOIA- 2005-0293

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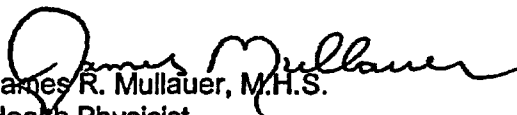
different than authorized on the license;

- c. Add or change the areas of use or address or addresses of use identified in the license application or on the license; or
- d. Change ownership of your organization.

In addition, please note that NRC Form 313 requires the applicant, by his/her signature, to verify that the applicant understands that all statements contained in the application are true and correct to the best of the applicant's knowledge. The signatory for the application should be the licensee or certifying official rather than a consultant.

You will be periodically inspected by NRC. Failure to conduct your program in accordance with NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC will result in enforcement action against you. This could include issuance of a notice of violation, or imposition of a civil penalty, or an order suspending, modifying or revoking your license as specified in the General Statement of Policy and Procedure for NRC Enforcement Actions. Since serious consequences to employees and the public can result from failure to comply with NRC requirements, prompt and vigorous enforcement action will be taken when dealing with licensees who do not achieve the necessary meticulous attention to detail and the high standard of compliance which NRC expects of its licensees.

Sincerely,


James R. Mullauer, M.H.S.
Health Physicist
Materials Licensing Branch

License No. 13-00694-03
Docket No. 030-01583

Enclosure: Amendment No. 47

MATERIALS LICENSE

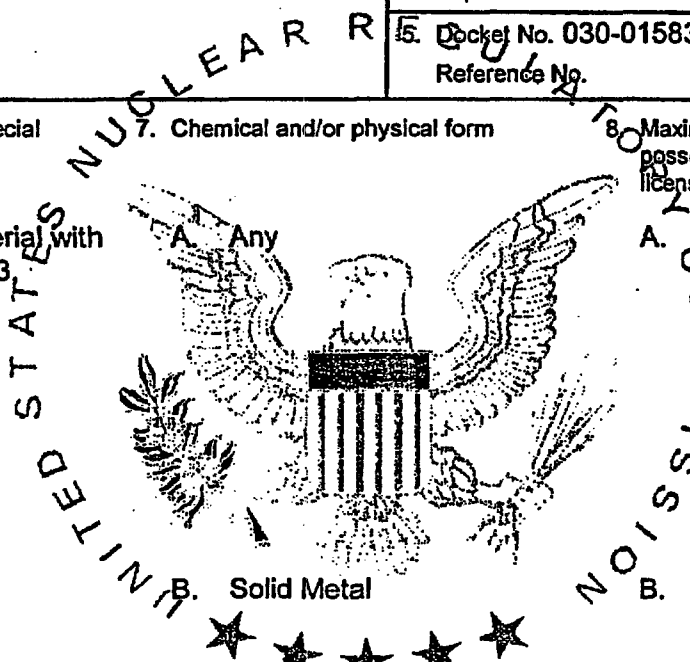
Pursuant to the Atomic Energy Act of 1954, as amended, the Energy Reorganization Act of 1974 (Public Law 93-438), and Title 10, Code of Federal Regulations, Chapter I, Parts 30, 31, 32, 33, 34, 35, 36, 39, 40, and 70, and in reliance on statements and representations heretofore made by the licensee, 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.

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<p>Licensee</p> <p>1. Department of Veterans Affairs Richard L. Roudebush Medical Center</p> <p>2. 1481 West Tenth Street Indianapolis, IN 46202</p>	<p>In accordance with application dated September 26, 2001,</p> <p>3. License number 13-00694-03 is renewed in its entirety to read as follows:</p> <p>4. Expiration date November 30, 2011</p> <p>5. Docket No. 030-01583 Reference No.</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with Atomic Number 3-83, inclusive</p> <p>B. Depleted uranium</p> <p>C. Americium-241</p>	<p>7. Chemical and/or physical form</p> <p>A. Any</p> <p>B. Solid Metal</p> <p>C. Sealed source (Amersham)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 200 millicuries per radionuclide, total possession not to exceed 10 curies for research and development with the following exception; Hydrogen-3, 5 curies As needed for medical use</p> <p>B. Total possession not to exceed 999 kilograms</p> <p>C. 1 source not to exceed 12 millicuries</p>
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<p>9. Authorized Use:</p> <p>A. 1. Medical use as defined in 10 CFR 35.2.</p> <p>2. Research and development as defined in 10 CFR 30.4, including animal studies, instrument calibration, and student instruction.</p> <p>B. For shielding.</p> <p>C. For calibration of licensee's own instruments.</p>
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**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

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CONDITIONS

10. Licensed material may be used at the licensee's facilities located at Indianapolis, Indiana, which have been approved by the licensee's Radiation Safety Committee. Ex 2
11. The Radiation Safety Officer for the activities authorized by this license is Thomas A. Schumacher, CHP.
12. A. The use of licensed material in or on humans shall be by a physician as defined in 10 CFR 35.2.
 B. Physicians designated to use licensed material in or on humans shall meet the training criteria established in 10 CFR 35, Subpart J and shall be designated by the licensee's Radiation Safety Committee, Robert M. Witt, Ph.D., Chairperson. The licensee shall maintain records of physicians designated as users.
 C. Licensed material for other than human use shall be used by, or under the supervision of, individuals designated by the Radiation Safety Committee, Robert M. Witt, Ph.D., Chairperson. The licensee shall maintain records of individuals designated as users.
13. The licensee shall possess and use byproduct material for human research use in accordance with the prescriptive and performance criteria in all sections of 10 CFR Part 35 except sections 35.49(a) and (b), 35.100, 35.200, and 35.300.
14. Notwithstanding the requirements of 10 CFR 35.49(a), 35.100, 35.200, 35.300, 35.400 and 35.500, the licensee may use for medical use any byproduct material listed in Subitem 6.A.. The licensee shall possess and use byproduct material for medical use in accordance with the prescriptive and performance criteria in all other sections of 10 CFR 35. This does not relieve the license from complying with applicable Food and Drug Administration (FDA) and other Federal and State requirements.
15. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the limits specified in 10 CFR 30.72 which require consideration of the need for an emergency plan for responding to a release of licensed material.
16. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 6 months or at such other intervals as specified by the certificate of registration, referred to in 10 CFR 32.210 or a certificate of registration issued by an Agreement State.
 B. Notwithstanding Paragraph A of this Condition, sealed sources designed to emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.
 C. In the absence of a certificate from a transferor indicating that a test has been made, a sealed source or detector cell received from another person shall not be put into use until tested.

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- D. Sealed sources need not be leak tested if:
- (i) they contain only hydrogen-3; or
 - (ii) they contain only krypton-85; or
 - (iii) the physical half-life of the isotope is 30 days or less; or
 - (iv) they contain no more than 100 microcuries of beta and/or gamma emitting material or not more than 10 microcuries of alpha emitting material; or
 - (v) they are not designed to emit alpha particles, are in storage, and are not being use. 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 or detector cell shall be stored for a period of more than 5 years without being tested for leakage and/or contamination.
- E. The leak 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, a report shall be filed with the U.S. Nuclear Regulatory Commission and the source shall be removed from service and decontaminated, repaired, or disposed of in accordance with Commission regulations. The report shall be filed within 5 days of the date the leak test result is known with the U.S. Nuclear Regulatory Commission, Region III, ATTN: Chief, Nuclear Materials Safety Branch. 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.
- F. 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. A. Detector cells containing a titanium tritide foil or a scandium tritide foil shall only be used in conjunction with a properly operating temperature control mechanism which prevents foil temperatures from exceeding that specified by the manufacturer and approved by NRC.
- B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.
18. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders or detector cells by the licensee.

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19. The licensee is authorized to hold radioactive material with a physical half-life of less than 120 days for decay-in-storage before disposal in ordinary trash provided:
- Radioactive waste to be disposed of in this manner shall be held for decay a minimum of 10 half-lives.
 - 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.
 - Generator columns shall be segregated so that they may be monitored separately to ensure decay to background levels prior to disposal.
 - A record of disposal permitted under this license condition shall be retained for three years. The record must include the date of disposal, the date on which the byproduct material was placed in storage, the radionuclides disposed, the survey instrument used, the background dose rate, the dose rate measured at the surface of each waste container, and the name of the individual who performed the disposal.
20. Experimental animals administered licensed materials or their products shall not be used for human consumption.
21. This license does not authorize commercial distribution of licensed material.
22. The licensee is authorized to transport licensed material only in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
23. Pursuant to 10 CFR 20.2004, the licensee is authorized to dispose of licensed material by incineration in accordance with letters dated June 21, 2000, July 18, 2000 and August 25, 2000.
24. A. Pursuant to 10 CFR 20.1302 and 10 CFR 20.2001, the licensee is authorized to dispose of licensed material by incineration at the Indiana University Medical Center Environmental Management Facility provided the gaseous effluent from incineration does not exceed the limits specified for air in Appendix B, Table II, 10 CFR Part 20.
- B. Pursuant to 10 CFR 20.2002, the licensee may dispose of incinerator ash containing radioactive materials with Atomic Nos. 1-83, other than those isotopes listed below, as ordinary waste in a landfill, provided the concentrations of the isotopes, expressed in μCi per gram of ash, at the time of disposal, do not exceed the numerical values listed in Table II, Column 2, 10 CFR 20, Appendix B. Isotopes not included are hydrogen-3, carbon-14, aluminum-26, chlorine-36, silver-108m, niobium-94, iodine-129, technetium-99, and thallium-204, for which the concentrations must not exceed 10 percent of the values listed in Table II, Column 2, 10 CFR Part 20, Appendix B.

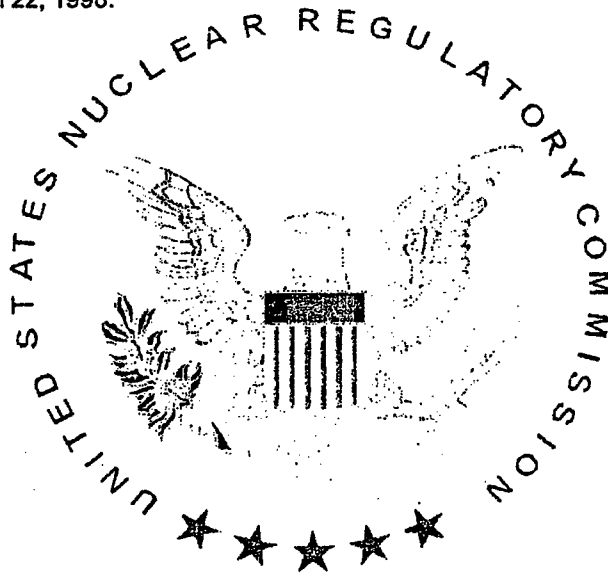
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25. Except as specifically provided otherwise in this license, the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the documents including any enclosures, listed below. The Nuclear 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 September 26, 2001, and;

B. Letter dated April 22, 1998.



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date NOV 16 2001

By

James R. Mullauer, M.H.S.
Materials Licensing Branch
Region III