



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION IV  
611 RYAN PLAZA DRIVE, SUITE 400  
ARLINGTON, TEXAS 76011-4005

August 16, 2007

Department of the Army  
Commander, Tripler Army Medical Center  
ATTN: MCHK-PVR (Radiation Safety Officer)  
Tripler AMC, HI 96859-5000

SUBJECT: LICENSE AMENDMENT

Please find enclosed Amendment No. 83 to NRC License No. 53-00458-04 **naming Major Frank M. Fota as Radiation Safety Officer, Lou N. Shimabuku as Alternate Radiation Safety Officer (RSO) and adding Captain Latisha T. Littleton as an Authorized Nuclear Pharmacist. Also the possession limit for 10 CFR 35.400 material has been reduced as requested. In addition, license conditions 12.A., 12.C., 12.E., 12.F., 12.G., 19.A., 19.B., 19.C., 20 and 22 were updated to comport with the revisions made to 10 CFR Part 35, Medical Use of Byproduct Material.** An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14)(iv) and (v). Please review this license carefully and be sure that you understand all conditions. If you have any questions call me at 817-860-8189.

NRC expects licensees to conduct their programs with meticulous attention to detail and a high standard of compliance. Because of the serious consequences to employees and the public that can result from failure to comply with NRC requirements, you must conduct your radiation safety program according to the conditions of your NRC license, representations made in your license application, and NRC regulations. In particular, note that you must:

1. Operate by NRC regulations 10 CFR Part 19, "Notices, Instructions and Reports to Workers: Inspection and Investigations," 10 CFR Part 20, "Standards for Protection Against Radiation," and other applicable regulations.
2. Notify NRC in writing of any change in mailing address.
3. By 10 CFR 30.36(d) and/or license condition, notify NRC, promptly, in writing, and request termination of the license:
  - a. When you decide to terminate all activities involving materials authorized under the license whether at the entire site or any separate building or outdoor area; or
  - b. If you decide not to acquire or possess and use authorized material; or
  - c. When no principal activities under the license have been conducted for 24 months.

4. In accordance with 10 CFR 35.14, notify the NRC no later than 30 days after:
  - a. The date that the licensee permits an individual to work as an authorized user, an authorized nuclear pharmacist or an authorized medical physicist under 10 CFR 35.13(b)(1) through (b)(4);
  - b. An authorized user, an authorized nuclear pharmacist, a Radiation Safety Officer, or an authorized medical physicist permanently discontinues duties under the license or has a name change;
  - c. The licensee's mailing address changes;
  - d. The licensee's name changes, but the name change does not constitute a transfer of control of the license as described in 10 CFR 30.34(b); or
  - e. The licensee has added to or changed the areas of use identified in the application or on the license where byproduct material is used in accordance with either 35.100 or 35.200.
5. Request and obtain a license amendment before you:
  - a. Change Radiation Safety Officers;
  - b. Order byproduct material in excess of the amount, radionuclide or form authorized on the license;
  - c. Add or change the areas or address(es) of use identified in the license application or on the license, except for areas of use where byproduct material is used only in accordance with either 10 CFR 35.100 or 35.200; or
  - d. Change the name or ownership of your organization.
6. Submit a complete renewal application or termination request at least 30 days before the expiration date on your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of radioactive material after your license expires is a violation of NRC regulations.

NRC will periodically inspect your radiation safety program. Failure to conduct your program according to NRC regulations, license conditions, and representations made in your license application and supplemental correspondence with NRC may result in enforcement action against you. This could include issuance of a notice of violation; imposition of a civil penalty; or an order suspending, modifying, or revoking your license as specified in the Enforcement Policy. The NRC Enforcement Policy is available on the following internet address:  
<http://www.nrc.gov/what-we-do/regulatory/enforcement/enforc-pol.pdf>.

The NRC no longer publishes the NRC Rules and Regulations loose leaf supplements. However, an electronic version of the NRC's regulations is available on the NRC Web site at [www.nrc.gov](http://www.nrc.gov). To view these regulations, highlight "Electronic Reading Room" and choose "Regulations" on the drop down menu. An electronic version of the NUREG-1556 Series publications is also available on the NRC Web site. To view these guidance documents, highlight "Electronic Reading Room"; choose "All Collections" on the drop down menu; choose "NUREGS (NRC Reports)"; and select "Publications Prepared by the NRC Staff". Then, choose "NUREG-1556" from the table and select the appropriate volume(s) for your license type.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter and its enclosure will be available electronically for public inspection in the NRC Public Document Room or from the NRC's document system (ADAMS). ADAMS is accessible from the NRC Web site at <http://www.nrc.gov/reading-rm/adams.html>.

Thank you for your cooperation.

Sincerely,

**/RA/**

Roberto J. Torres, Senior Health Physicist  
Nuclear Materials Licensing Branch

Docket: 030-03537  
License: 53-00458-04  
Control: 471420

Enclosure: As stated

**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, 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.

<p style="text-align: center;">Licensee</p> <p>1. Department of the Army Commander, Tripler Army Medical Center</p> <p>2. ATTN: MCHK-PVR (Radiation Safety Officer) Tripler AMC, Hawaii 96859-5000</p>	<p>In accordance with letter and e-mail dated June 18, 2007, and August 16, 2007, respectively</p> <p>3. License number 53-00458-04 is amended in its entirety to read as follows:</p> <p>4. Expiration date September 30, 2011</p> <p>5. Docket No. 030-03537 Reference No.</p>	
<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with atomic numbers 1 through 83, except as specified below</p> <p>B. Molybdenum-99</p> <p>C. Technetium-99m</p> <p>D. Iodine-131</p> <p>E. Xenon-133</p> <p>F. Any byproduct material with atomic numbers 1 through 92</p> <p>G. Gadolinium-153</p> <p>H. Cesium-137</p> <p>I. Depleted Uranium</p>	<p>7. Chemical and/or physical form</p> <p>A. Any, except sealed sources</p> <p>B. Any, except sealed sources</p> <p>C. Any, except sealed sources</p> <p>D. Any, except sealed sources</p> <p>E. Any, except sealed sources</p> <p>F. Sealed sources or foils</p> <p>G. Sealed sources (North American Scientific, Inc. Model MED 3601 or DuPont Merck Model NES-8412</p> <p>H. Sealed sources (Isotope Products Laboratories Model HEG-137)</p> <p>I. Shielding</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not to exceed 100 millicuries per radionuclide, except for the following isotope: (See Condition 18) Yttrium-90 500 millicuries</p> <p>B. 8 curies</p> <p>C. 6 curies</p> <p>D. 1 curie</p> <p>E. 3 curies</p> <p>F. 700 millicuries</p> <p>G. 300 millicuries per housing, total possession 2 curies</p> <p>H. 30 millicuries per source, total possession 120 millicuries</p> <p>I. 999 kilograms</p>

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
53-00458-04Docket or Reference Number  
030-03537

Amendment No. 83

- |   |   |  |
|---|---|--|
| 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 |
| J. Any byproduct material permitted by 10 CFR 35.400  | J. Any brachytherapy source identified in 10 CFR 35.400 | J. 2.6 curies  |
| K. Samarium-153                                       | K. Any, except sealed sources                           | K. 300 millicuries   |

## 9. Authorized use:

- A. through E. and K. Medical research, diagnosis, and therapy. In vitro studies. Studies in laboratory animals.
- F. Calibration and reference standards
- G. For use in an ADAC Laboratories Model Vantage line source housing for SPECT cameras.
- H. For use in an ADAC Laboratories Model MCD/AC system for attenuation correction.
- I. As shielding for linear accelerators, molybdenum-99/technetium 99m generators, or in shielding blocks to be used in selected radiation therapy procedures.
- J. Any medical brachytherapy use permitted by 10 CFR 35.400.

## CONDITIONS

10. Licensed material shall be used only at the licensee's facility located at Jarrett White Road, Tripler Army Medical Center, Hawaii.
11. A. Licensed material shall be used by or under the supervision of individuals designated in writing by the Radiation Safety Committee.
- B. The Radiation Safety Officer for this license is MAJ Frank M. Fota.
- C. The Alternate Radiation Safety Officer for this license is Lou N. Shimabuku.
- D. The Authorized Nuclear Pharmacists for this license are LTC Edna Garcia-Pena and CPT Latisha T. Littleton.
12. A. Sealed sources and detector cells shall be tested for leakage and/or contamination at intervals not to exceed 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.

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
53-00458-04Docket or Reference Number  
030-03537

Amendment No. 83

- 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 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 or detector cell received from another person shall not be put into use until tested and the test results received.
- D. Each sealed source fabricated by the licensee shall be inspected and tested for construction defects, leakage, and contamination prior to any use or transfer as a sealed source.
- E. Sealed sources need not be leak 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.
- F. 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 or detector cell shall be stored for a period of more than 10 years without being tested for leakage and/or contamination.
- G. 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. 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 IV, 611 Ryan Plaza Drive, Suite 400, Arlington, Texas 76011, ATTN: Director, Division of Nuclear Materials Safety. The report shall specify the source involved, the test results, and corrective action taken.
- H. 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.
13. The licensee shall not acquire licensed material in a sealed source or device unless the source or device has been registered with the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or equivalent regulations of an Agreement State.
14. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
15. Maintenance, repair, cleaning, replacement, and disposal of foils contained in detector cells shall be performed only by the device manufacturer or other persons specifically authorized by the Commission or an Agreement State to perform such services.



**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
53-00458-04Docket or Reference Number  
030-03537

Amendment No. 83

16. 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 the foil temperature from exceeding that specified in the certificate of registration referred to in 10 CFR 32.210.
- B. When in use, detector cells containing a titanium tritide foil or a scandium tritide foil shall be vented to the outside.
17. Experimental animals, or the products from experimental animals, that have been administered licensed materials shall not be used for human consumption.
18. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of unsealed licensed material to quantities less than  $10^5$  times the applicable limits in Appendix B of 10 CFR Part 30, as specified in 10 CFR 30.35(d).
19. 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 the 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.
20. The licensee shall conduct a physical inventory every 6 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.
21. 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."

**MATERIALS LICENSE  
SUPPLEMENTARY SHEET**License Number  
53-00458-04Docket or Reference Number  
030-03537

Amendment No. 83

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. Application dated May 23, 2001 (ML012770223, ML012770244, ML012770410, ML012770459, ML012770469, ML012770477, ML012780062)
- B. Facsimile dated September 20, 2001 (ML012980269)
- C. Letter dated May 27, 2003 (ML031900637)
- D. Letter dated June 17, 2003 (ML031900637)
- E. Letter dated February 4, 2004 (ML040480467)
- F. Letter dated December 2, 2005 (ML060230215)



FOR THE U.S. NUCLEAR REGULATORY COMMISSION

/RA/

Date August 16, 2007

By

Roberto J. Torres, Senior Health Physicist  
Nuclear Materials Licensing Branch  
Region IV  
Arlington, Texas 76011