

January 14, 2005

Brigadier General Roger A. Nadeau  
Department of the Army  
U.S. Army Research Development and Engineering Command  
5183 Blackhawk Road  
Aberdeen Proving Ground, MD 21010-5424

SUBJECT: AMENDMENT NO. 1 TO SOURCE MATERIAL LICENSE NO. 19-10306-02  
CHANGING CERTIFYING OFFICIAL FOR FORT BELVOIR (TAC NO. L52638)

Dear Mr. Nadeau:

I am responding to your letter dated November 1, 2004, requesting that the U.S. Nuclear Regulatory Commission (NRC) amend Material License No. 19-10306-02 to change the certifying official from Major General John Doesburg, Office of the Commander, Department of the Army, 5183 Blackhawk Road, Aberdeen Proving Ground, MD, to Brigadier General Roger Nadeau at the same address. The recent departure of Major General Doesburg has resulted in the transfer of management of the Fort Belvoir site. A signed NRC Form 313 was submitted with the letter. Ms. Joyce E. Kuykendall will continue as the License Radiation Safety Officer for Fort Belvoir.

This license revision meets the condition that: (i) there is no significant change in the types, or significant increase in the amounts of any effluent that may be released offsite; (ii) there is no significant increase in individual or cumulative occupational radiation exposure; (iii) there is no significant construction impact; and (iv) there is no significant increase in the potential for, or consequences from radiological accidents. Therefore, in accordance with Title 10 of the *Code of Federal Regulations* Part 51.22(c)(11), neither an environmental assessment nor an environmental impact statement is warranted for this action.

Please note that on October 25, 2004, the NRC terminated public access to the Agencywide Documents Access and Management System (ADAMS) and initiated an additional security review of publicly available documents to ensure that potentially sensitive information is removed from the ADAMS database accessible through the NRC's web site. Interested members of the public may obtain copies of the referenced documents for review and/or copying by contacting the Public Document Room pending resumption of public access to ADAMS. The NRC Public Documents Room is located at NRC Headquarters in Rockville, MD, and can be contacted at (800) 397-4209.

Brigadier General Nadeau

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All license conditions shall remain the same. Enclosed is License No. 19-10306-02 Amendment No. 1. If you have any questions, please contact Mr. Tom McLaughlin, of my staff at (301) 415-5869.

Sincerely,

***/RA/***

Daniel M. Gillen, Deputy Director  
Decommissioning Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards

Docket No. 030-36574

License No. 19-10306-02

Enclosure: Amendment No. 1 to License 19-10306-02

Brigadier General Nadeau

-2-

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**ML050030078**

<b>OFC</b>	DWMEP:PM	DWMEP:SC	DWMEP:DD	
<b>NAME</b>	TMcLaughlin	KGruss	DGillen	
<b>DATE</b>	1/3/05	1/13/05	1/14/05	/ /05

**OFFICIAL RECORD COPY**

**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  1. Department of the Army U.S. Army Research, Development and Engineering Command (RDECOM)  2. ATTN: AMSRD-MSF 5183 Blackhawk Road Aberdeen Proving Ground, Maryland 21010-5424	3. License number 19-10306-02 is amended in its entirety to read as follows:  4. Expiration date September 30, 2010  5. Docket No. 030-36574 Reference No. 45-00953-01/03006511
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6. Byproduct, source, and/or special nuclear material  A. Any byproduct material with atomic numbers 5-95, inclusive  B. Hydrogen 3  C. Any byproduct material with atomic numbers 1-96  D. Any special nuclear material	7. Chemical and/or physical form  A. Sealed, plated or foil sources and gas or liquid sources in sealed or closed containers  B. Sealed luminous sources  C. Any  D. Any	8. Maximum amount that licensee may possess at any one time under this license  A. Not to exceed 185 gigabecquerels (GBq) [5 curies (Ci)] per radionuclide and 370 GBq (10 Ci) total  B. Not to exceed 925 GBq (25 Ci) per source and 18.5 terabecquerels (TBq) [500 curies] total  C. Not to exceed 370 megabecquerels (MBq) [10 millicuries (mCi)] per radionuclide and 3.7 GBq (100 mCi) total except as specified in Condition 20  D. Not to exceed 370 kilobecquerels (kBq) [10 microcuries (uCi)] per radionuclide and 3.7 MBq (100 uCi) total
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## 9. Authorized use:

- A. and B. Research and development as defined in 10 CFR 30.4; teaching and training of students; calibration and checking of the licensee's instruments; and demonstration of items being developed and/or tested. Preparation of low level counting standards. Quality control and prototype testing of manufactured items utilizing licensed materials.
- C. and D. Taking of, and analysis of, leak and wipe samples from Department of Army radioactive commodities.

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**CONDITIONS**

10. Licensed material may be used or stored at the licensee's facilities located at U.S. Army Research Development and Engineering Command, Fort Belvoir, Virginia and at temporary job sites of the licensee anywhere in the United States.
11. A. Licensed material shall only be used by, or under the supervision of, individuals designated, in writing, by the Radiation Safety Committee. The licensee shall maintain records of individuals designated as users for 3 years following the last use of licensed material by the individual.
- B. The Radiation Safety Officer for this license is Joyce E. Kuykendall.
12. The licensee shall not use licensed material in or on human beings.
13. The licensee shall not use licensed material in field applications where it is released except as provided otherwise by specific condition of this license.
14. A. Sealed sources 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.
- B. Notwithstanding Paragraph A of this Condition, sealed sources designed to primarily emit alpha particles shall be tested for leakage and/or contamination at intervals not to exceed 3 months.

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- C. 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.
- D. 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.
- E. 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.
- 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 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.
- H. 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.
- I. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.
15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. 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

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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.

17. 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 U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.
18. 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 temperatures 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.
20. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the limit specified in 10 CFR 30.35(d) or 40.36(b) or 70.25(d) for establishing decommissioning financial assurance.
21. Radioactive waste possessed under this license shall be stored in accordance with the statements, representations, and procedures included with the licensee's waste storage plan described in the application dated March 31, 1989.
22. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
23. 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 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 March 31, 1989
  - B. Belvoir R & D Center Regulation 385-11 dated July 26, 1988
  - C. Letters dated:

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- 1) April 10, 1990
- 2) February 2, 1994
- 3) March 3, 1994 [extend expiration date]
- 4) August 5, 1997 and June 1, 1996 [mailing address change and appointment of new RSO]
- 5) December 24, 1997 [fax clarifying mailing address change]
- 6) February 5, 1999 [change address; add alt. RSO (R. Bhat); change H-3 bioassay freq; change use rooms (Rms. 6, 016, 009 of Bldg 329; and change Bldgs 304 and 363C to 7304 and 7365]
- 7) February 26, 1999 [additional information clarifying items requested in 2/5/99 letter]
- 8) November 22, 1999 [final survey report to support release of Bldgs 363 and 7365C]
- 9) June 9, 2000 [renewal]
- 10) August 22, 2000 [fax describing leak test procedures]
- 11) May 8, 2001 [add location of use (Aberdeen); change RSO (J. Kuykendall); delete alt. RSOs (R. Bhat and L. Bender)]
- 12) December 7, 2001 [e-mail clarifying L/C 10 description]
- 13) April 3, 2003 [remove location of use (Aberdeen)]
- 14) April 2, 2004 [change licensee address from Ft. Belvoir to RDECOM, APG, Maryland]
- 15) November 1, 2004 [change certifying official to Roger Nadeau]

For the U.S. Nuclear Regulatory Commission

Date January 19, 2005

By

/RA/  
Claudia M. Craig, Acting Deputy Director  
Decommissioning Directorate  
Division of Waste Management  
and Environmental Protection  
Office of Nuclear Material Safety  
and Safeguards