



UNITED STATES
NUCLEAR REGULATORY COMMISSION
REGION I
475 ALLENDALE ROAD
KING OF PRUSSIA, PENNSYLVANIA 19406-1415

October 30, 2006

Docket No. 03000897 License No. 31-02102-02
04005828 SUD-311
Control No. 139611
139612

COL Raymond J. Winkel, Jr.
Head of the Department of Physics
Department of the Army
United States Military Academy
Department of Physics
West Point, NY 10996-1790

SUBJECT: DEPARTMENT OF THE ARMY, LICENSE AMENDMENT, CONTROL NOS.
139611 AND 139612

Dear COL Winkel:

This refers to your license amendment request. Enclosed with this letter is the amended license.

Please review the enclosed document carefully and be sure that you understand and fully implement all the conditions incorporated into the amended license. If there are any errors or questions, please notify the U.S. Nuclear Regulatory Commission, Region I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

An environmental assessment for this action is not required, since this action is categorically excluded under 10 CFR 51.22(c)(14).

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Medical, Academic, and Industrial Uses of Nuclear Material**; then **Toolkit Index Page**. Or you may obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-888-293-6498. The GPO is open from 7:00 a.m. to 8:00 p.m. EST, Monday through Friday (except Federal holidays).

Thank you for your cooperation.

Sincerely,

Original signed by Elizabeth Ullrich

Elizabeth Ullrich
Senior Health Physicist
Commercial and R&D Branch
Division of Nuclear Materials Safety

R. Winkel
Department of the Army

2

Enclosures:
Amendment No. 28
Amendment No. 23

cc:
MAJ David Phillips, Radiation Safety Officer

DOCUMENT NAME: C:\FileNet\ML063050028.wpd

SUNSI Review Complete: DLawyer

After declaring this document "An Official Agency Record" it will be released to the Public.

To receive a copy of this document, indicate in the box: "C" = Copy w/o attach/encl "E" = Copy w/ attach/encl "N" = No copy

OFFICE	DNMS/RI	N	DNMS/RI	N	DNMS/RI			
NAME	DLawyer/DRL		EUllrich/EU					
DATE	10/30/2006		10/30/2006					

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.

<p style="text-align: center;">Licensee</p> <p>1. Department of the Army United States Military Academy Department of Physics</p> <p>2. West Point, New York 10996-1790</p>	<p>In accordance with the memorandum dated August 16, 2006,</p> <p>3. License number 31-02102-02 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date November 30, 2011</p> <hr/> <p>5. Docket No. 030-00897 Reference No.</p>
---	--

<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Any byproduct material with Atomic Numbers 1 through 95</p> <p>B. Iron 55</p> <p>C. Nickel 63</p> <p>D. Cadmium 109</p> <p>E. Cesium 137</p> <p>F. Plutonium 239</p> <p>G. Americium 241</p>	<p>7. Chemical and/or physical form</p> <p>A. Sealed sources</p> <p>B. Sealed source (Isotope Products Laboratories Model AN-55-25)</p> <p>C. Foil or plated sources registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State.</p> <p>D. Sealed source (Isotope Products Laboratories Model AN-109-25)</p> <p>E. Sealed Sources (Capintec Inc. Model 252)</p> <p>F. Sealed Neutron Sources (Monsanto)</p> <p>G. Sealed source (Amersham-Searle Model AMC 2084)</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. Not to exceed 10 microcuries per source and 100 millicuries total</p> <p>B. 25 millicuries</p> <p>C. No single source to exceed the maximum activity specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission or an Agreement State</p> <p>D. 25 millicuries total</p> <p>E. 50 millicuries total</p> <p>F. 80 grams total</p> <p>G. 10 millicuries total</p>
---	--	--

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**

License Number
31-02102-02

Docket or Reference Number
030-00897

Amendment No. 28

- | | | |
|---|---|--|
| 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 |
| H. Americium 241 | H. Sealed source (Isotope Products Model AN-241-25) | H. 25 millicuries total |
| I. Americium 241 | I. Sealed source (Kevex Ray Model 0122) | I. 50 millicuries total |

9. Authorized use:

- A. , B., and D. through I. Teaching and training of students, calibration of licensee's instruments.
- C. To be used for sample analysis in compatible gas chromatography devices that have been registered either with the U.S. Nuclear Regulatory Commission under 10 CFR 32.210 or with an Agreement State and have 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 devices.

CONDITIONS

10. Licensed material may be used only at the licensee's facilities at the U.S. Military Academy, Department of Physics, Bartlett Hall, West Point, New York.
11. A. Licensed material shall be used by, or under the supervision of COL Brian E. Moretti, Ph.D., LTC Jeffrey Musk, Ph.D., COL Edward P. Naessens, Ph.D., or MAJ David Phillips.
- B. The Radiation Safety Officer for this license is MAJ David Phillips.
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.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
31-02102-02Docket or Reference Number
030-00897

Amendment No. 28

- 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.
- 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 received from another person shall not be put into use until tested and the test results received.
- D. 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.
- E. 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.
- F. 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.
- G. 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.
15. Sealed sources or detector cells containing licensed material shall not be opened or sources removed from source holders by the licensee.
16. 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.
17. The licensee shall conduct a physical inventory every six months, or at other interval approved by the U.S. Nuclear Regulatory Commission, to account for all sealed sources and/or devices received and possessed under the license.

**MATERIALS LICENSE
SUPPLEMENTARY SHEET**License Number
31-02102-02Docket or Reference Number
030-00897

Amendment No. 28

18. The licensee is authorized to transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material."
19. 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 June 15, 2001 (ML011860081)
B. Letter dated October 29, 2001 (ML013180497)



For the U.S. Nuclear Regulatory Commission

Original signed by Elizabeth UllrichDate October 30, 2006

By _____

Elizabeth Ullrich
Commercial and R&D Branch
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406