



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

July 28, 2004

Docket No. 03036574
Control No. 135002

License No. 19-10306-02

MG John C. Doesburg
Commander
Department of the Army
U.S. Army Research, Development and Engineering Command
ATTN: AMSRD-MSF
5183 Blackhawk Road
Aberdeen Proving Ground, MD 21010-5424

SUBJECT: DEPARTMENT OF THE ARMY, ISSUANCE OF NEW LICENSE, CONTROL
NO. 135002

Dear MG Doesburg:

Please find enclosed your new NRC License No. 19-10306-02. This action was prompted by your letter dated April 2, 2004, that requested a change in your mailing address to the U.S. Army Research, Development and Engineering Command at Aberdeen Proving Ground. Concurrent with the issue of this license, NRC License No. 45-00953-01 has been terminated under a separate cover letter mailed this date.

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 I Office, Licensing Assistance Team, (610) 337-5239, so that we can provide appropriate corrections and answers.

The NRC is required to have your Taxpayer Identification Number in order to make payments (refunds). The self-addressed, stamped NRC Form 531, "Request for Taxpayer Identification Number," is enclosed.

The NRC expects licensees to conduct their programs with meticulous attention to detail and high standards 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 program according to NRC regulations, the conditions of your NRC license, and the representations made in your application. 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 the NRC in writing of any change in mailing address.
3. In accordance with 10 CFR 30.36(d), notify the NRC, promptly, in writing, and request termination of the license

- a) when you decide to terminate all activities involving materials authorized under the license; or
 - b) if you decide not to acquire or possess and use authorized material.
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 different than authorized on the license; or
 - c) add or change the areas of use, or addresses of use identified in the license application or on the license; or
 - d) change the name or ownership of your organization.
5. Submit a complete renewal application or termination request at least 30 days before the expiration date of your license. You will receive a reminder notice approximately 90 days before the expiration date. Possession of byproduct material after your license expires is a violation of NRC regulations.

In addition, please note that NRC Form 313 requires the applicant, by 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 a certifying official of the licensee rather than a consultant.

You will be periodically inspected by the 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 NUREG 1600, "General Policy and Procedure for NRC Enforcement Actions" (Enforcement Policy).

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

In accordance with 10 CFR 2.390, a copy of this letter will be placed in the NRC Public Document Room and will be accessible from the NRC Web site at <http://www.nrc.gov/reading-rm.html>.

J. Doesburg
Department of the Army

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Thank you for your cooperation.

Sincerely,

Original signed by Kathy Dolce Modes

Kathy Dolce Modes
Health Physicist
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety

Enclosures:

1. License No. 19-10306-02
2. 10 CFR Parts 19, 20, 21, 30, 31, 33, 70, 71, 170, and 171
3. NRC Forms 3, 313, 314, and 531
4. Section 206 of the Energy Reorganization Act of 1974
5. NUREG 1600, General Policy and Procedure for NRC Enforcement Actions (Enforcement Policy)

cc:

Joyce Kuykendall, Radiation Safety Officer

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OFFICE	DNMS/RI	N	DNMS/RI	N	DNMS/RI			
NAME	JSchmidt /JWS2/		KModes /KDM/					
DATE	7/28/04		7/28/04					

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

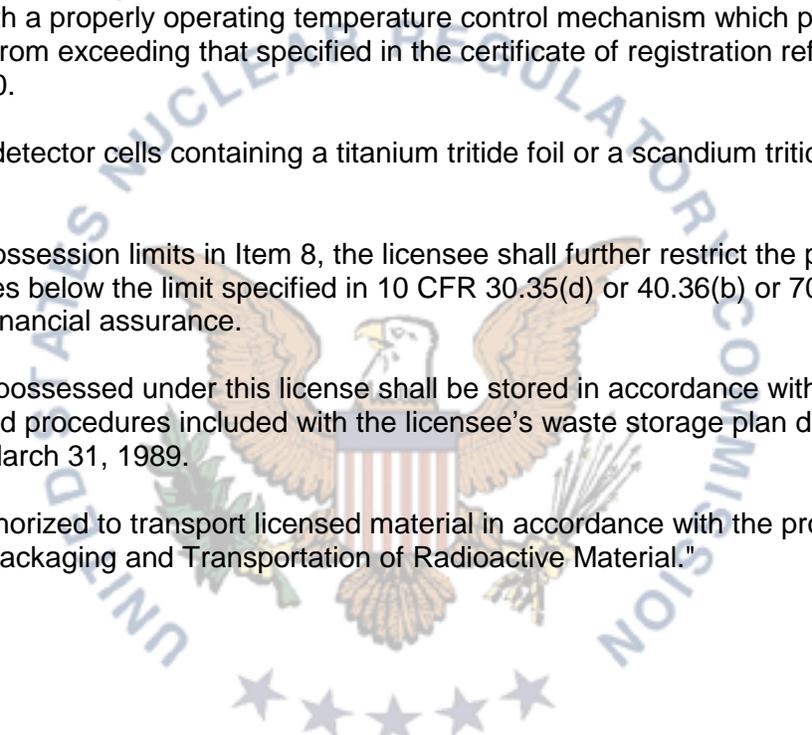
CONDITIONS

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.
- 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.

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- 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 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.

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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."
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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:
- 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]

For the U.S. Nuclear Regulatory Commission

Date July 28, 2004

By ***Original signed by Kathy Dolce Modes***

Kathy Dolce Modes
Nuclear Materials Safety Branch 2
Division of Nuclear Materials Safety
Region I
King of Prussia, Pennsylvania 19406