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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	In accordance with the letter dated May 21, 2004,
1. Department of the Army U.S. Army Communications - Electronics Command AMSEL-SF-RER	3. License number 29-01022-14 is amended in its entirety to read as follows:
2. Fort Monmouth, New Jersey 07703-5024	4. Expiration date October 31, 2013
	5. Docket No. 030-29741 Reference No.

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
A. Cobalt 60	A. Sealed Sources (Ohmart/VEGA Models A-2100, A-58804, and A-60324)	A. 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
B. Cobalt 60	B. Sealed sources (Gamma Industries Type VD-HP, Gamma Industries Dwg. No. 602-7001-04 and J.L. Shepherd Type 78 10, J.L. Shepherd Dwg. No. A-0466-A)	B. 10 curies per source and 80 curies total
C. Cobalt 60	C. Sealed sources (Gulf Nuclear Inc., Dwg. No. A-5001; US Army Edgewood Arsenal, USAEA Dwg. No. C124-10-34)	C. 130 millicuries per source and 13 curies total
D. Cobalt 60	D. Sealed source (U.S. Nuclear Type 366)	D. 13 curies

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E. Krypton 85	E. Sealed sources (USAEA Dwg. No. B124-12-8)	E. 6 millicuries per source and 120 curies total
F. Strontium 90	F. Sealed sources (US Army Electronics Command, ECOM Dwg. No. SM-B-509057)	F. 50 millicuries per source and 60 curies total
G. Strontium 90	G. Sealed sources (ECOM Dwg. No. SM-B-509048)	G. 150 microcuries per source and 45 millicuries total
H. Strontium 90	H. Sealed sources (Minnesota Mining and Manufacturing Company, 3M Dwg. No. 12-1921-0474-8)	H. 45 millicuries per source and 90 curies total
I. Strontium 90	I. Sealed sources (3M Dwg. No. 12-1921-0474-8)	I. 36 microcuries per source and 18 millicuries total
J. Cesium 137	J. Sealed sources (Type 371 Gamma Source Dwg. No. R.-0060)	J. 150 curies per source and 600 curies total
K. Cesium 137	K. Sealed sources (J.L. Shepherd Type 6810, J.L. Shepherd Dwg. No. A-0096-C)	K. 130 curies per source and 2600 curies total
L. Plutonium 239	L. Electroplated sources (Eberline Instrument Corp., Model 594-1)	L. 23 micrograms (1.4 microcuries) per set and 0.0115 grams total
M. Americium 241	M. Sealed sources (Amersham Radiochemical Center, Amersham Code 2084)	M. 10 millicuries per source and 50 millicuries total
N. Thorium 230	N. Electroplated source (Eberline Instrument Corp., Model No. CS-12)	N. 0.98 micrograms (20 nanocuries) per source and 1 milligram total

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O. Thorium 232	O. Metal foils	O. 2.7 grams (300 nanocuries) per source and 4.05 kilograms total
P. Plutonium 239	P. Electroplated sources (Eberline Instrument Corp., Model No. CS-1)	P. 163 nanograms (10 nanocuries) per source and 1 gram total
Q. Thorium 232	Q. Solid (Thorium Fluoride coating on optical systems)	Q. 3 grams (0.330 microcuries) per optical system and 40 kilograms total
R. Hydrogen 3	R. Tritiated paint in Lensatic Compasses (NSN 6605-00-846-7618)	R. 120 millicuries per compass and 480 curies total
S. Hydrogen 3	S. Sealed light sources in Lensatic Compasses (NSN-6605-00-151-5337)	S. 190 millicuries per compass and 5700 curies total
T. Cesium 137	T. Sealed sources (3M Model 4F6S, Monsanto Research Co. Model 24148, and Amersham Model CDC.700 and CDC.711m)	T. 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
U. Americium 241	U. Sealed sources (AEA Technologies Models AMM.1001 and AMM.1001H)	U. 4 microcuries per source and 4 millicuries total
V. Californium 252	V. Sealed neutron source (Frontier Technology Corporation Model 100)	V. Not to exceed 10micrograms (5.2millicuries) per source and 100 micrograms (52 millicuries) total
W. Cobalt 60	W. Sealed Sources (Ohmart Models A-60324 and A-2100)	W. 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

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X. Cesium 137	X. Sealed Sources (Ohmart Models A-2102, A-2104, and A-57878)	X. 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

9. Authorized use:

A. For use in SAIC Mobile VACIS Co-60 devices for the detection of explosives and/or contraband.
B. through P. Calibration and operational checking of radiation detection instrumentation.
Q. Optical coating on thermal imaging devices.
R. and S. Possession, storage, and distribution to any U.S. Department of Defense elements and reserve components including the U.S. Army, U.S. Navy, U.S. Marine Corps, U.S. Air Force, Defense Supply Agency, the National Guard and the Air National Guard.
T. For use in Ohmart Models SH-F2 ,and SH-F3 gauging devices included in Science Applications International, Inc. (SAIC) Model Mobile VACIS devices for the detection of explosives and/or contraband.
U. For use as an ionization source in lightweight laser designator rangefinders custom built for the licensee by Litton Laser Systems.
V. For use in conjunction with a Portable Isotopic Neutron Spectroscopy (PINS) Chemical Assay System for nondestructive chemical analysis of munitions and chemical agents.
W. and X. For use in Science Applications International Corp., Inc. VACIS II devices for the detection of explosives and/or contraband.

CONDITIONS

10. Licensed material may be used or stored at the licensee's facilities located at Forth Monmouth, New Jersey and at Department of Defense installations anywhere in the United States 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 and in the physical presence of, individuals who have completed the training described in application dated November 25, 2003.

B. The Radiation Safety Officer for this license is Craig S. Goldberg.

12. In addition to the possession limits in Item 8, the licensee shall further restrict the possession of licensed material to quantities below the minimum limit specified in 10 CFR 30.35(d), 40.36(b), and 70.25(d) for establishing financial assurance for decommissioning.

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13. 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. 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.

    H. Records of leak test results shall be kept in units of microcuries and shall be maintained for 5 years.

14. Sealed sources or source rods containing licensed material shall not be opened or sources removed or detached from source rods or gauges by the licensee, except as specifically authorized.

15. 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

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the inventory.

16. A. Each gauge shall be tested for the proper operation of the on-off mechanism (shutter) and indicator, if any, at intervals not to exceed 6 months or at such longer intervals as specified in the certificate of registration issued by the U.S. Nuclear Regulatory Commission pursuant to 10 CFR 32.210 or the equivalent regulations of an Agreement State.

    B. Notwithstanding the periodic on-off mechanism (shutter) and indicator test, the requirement does not apply to gauges that are stored, not being used, and have the shutter lock mechanism in a locked position. The gauges exempted from this periodic test shall be tested before use.

17. The following services shall not be performed by the licensee: installation, initial radiation surveys, relocation, removal from service, dismantling, alignment, replacement, disposal of the sealed source and non-routine maintenance or repair of components related to the radiological safety of the gauge (i.e., the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, shielding). These services shall be performed only by persons specifically licensed by the U.S. Nuclear Regulatory Commission or an Agreement State to perform such services.

18. A. The licensee may maintain, repair, or replace device components that are not related to the radiological safety of the device and that do not result in the potential for any portion of the body to come into contact with the primary beam or in increased radiation levels in accessible areas.

    B. The licensee may not maintain, repair, or replace any of the following device components: the sealed source, the source holder, source drive mechanism, on-off mechanism (shutter), shutter control, or shielding, or any other component related to the radiological safety of the device, except as provided otherwise by specific condition of this license.

19. Prior to initial use and after installation, relocation, dismantling, alignment, or any other activity involving the source or removal of the shielding, the licensee shall assure that a radiological survey is performed to determine radiation levels in accessible areas around, above, and below the gauge with the shutter open. This survey shall be performed only by persons authorized to perform such services by the U.S. Nuclear Regulatory Commission or an Agreement State.

20. The licensee shall operate each device containing licensed material within the manufacturer's specified temperature and environmental limits such that the shielding and shutter mechanism of the source holder are not compromised.

21. The licensee shall assure that the shutter mechanism, for each device containing licensed material, is locked in the closed position during periods when a portion of an individual's body may be subject to the direct radiation beam. The licensee shall review and modify, as appropriate, its "lock-out" procedures whenever a new device is obtained to incorporate the device manufacturer's recommendations.

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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. Letter and application dated November 25, 2003
    B. Letter dated December 8, 2003
    C. Letter dated May 21, 2004
    D. Letter dated June 8, 2004

For the U.S. Nuclear Regulatory Commission

Date June 15, 2004

By Judith A. Joustra

Judith A. Joustra
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