

**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 189 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.

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<p>Licensee</p> <p>1. General Dynamics Land Systems</p> <p>2. 38500 Mound Road Sterling Heights, MI 48310-3269</p>	<p>In accordance with application dated <b>October 14, 2011,</b></p> <p>3. License number 21-21068-01 is amended in its entirety to read as follows:</p> <hr/> <p>4. Expiration date <b>September 30, 2015</b></p> <hr/> <p>5. Docket No. 030-19731 Reference No.</p>
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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. Hydrogen-3	A. Gas in glass ampules as sealed sources (Self-Powered Lighting Corporation or Mb-Microcrotec, Inc.)	A. No single source to exceed 10.2 curies per assembly. Total not to exceed 8,000 curies
B. Nickel-63	B. Nickel-63 metal electroplated on a brass cylinder	B. No single source to exceed 15 mCi per source. Total not to exceed 30 curies
C. Americium-241	C. Sealed source (Amersham Corporation Foil Source Model AMM)	C. No single source to exceed 250 microcuries. Total not to exceed 30 millicuries
D. Krypton-85	D. Krypton-85 gas Source Stick (MIL. SPEC.) No. MIL-R-51305 [MU]	D. No single source to exceed 5 millicuries per component. Total not to exceed 15 millicuries.

9. Authorized Use:
- A. To be used in light source cell assembly Model P/N 12304725, to be installed as Muzzle Reference Sensor (MRS) devices on military equipment (Abrams Tank Weapon System) for redistribution to the Department of Defense or contractors of the Department of Defense possessing a specific license issued by the U. S. Nuclear Regulatory Commission or an Agreement State.
  - B. and C. For possession incident to testing, installation and redistribution of CAM (nickel-63), M88/GID-3 (nickel-63) and M43A1 (americium-241) chemical agent detectors. Detectors may be directly redistributed as part of an integrated system to the Department of Defense or contractors of the Department of Defense possessing a specific license issued by the Nuclear Regulatory Commission or an Agreement State.

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- D. For possession and use of source sticks incident to the testing of the AN/VDR2 Radiac meter to verify proper system integration of the Central Data Processing Unit (CDPU) for use on the FOX Nuclear Biological Chemical Reconnaissance System.

CONDITIONS

10. A. Licensed material may be used at the licensee's facilities located at:

General Dynamics  
Land Systems  
Shelby Operations  
14820 28 Mile Road  
Shelby Township, MI 48315

General Dynamics  
Land Systems  
Central Office  
38500 Mound Road  
Sterling Heights, MI 48310-3268

General Dynamics  
Land Systems  
Joint Systems Manufacturing Center  
1161 Buckeye  
Lima, OH 45804

General Dynamics  
Land Systems  
Logistics & Engineering Facility  
8000 E. 17 Mile Road  
Sterling Heights, MI 48078

- B. Licensed material listed in Subitem 6.B. may also be used at the licensee's facilities located at:

General Dynamics  
Anniston Operations  
Anniston Army Depot  
7 Frankford Avenue  
Building 134 & 414  
Anniston, AL 36206

General Dynamics  
Land Systems  
Fort Lewis Operations  
Bldg 3750 South 17<sup>th</sup> St.  
Ft Lewis, WA 98433

- C. Authorized areas of use within Agreement States shall only be areas under exclusive federal jurisdiction.

- D. Licensed materials in devices which have been installed on military equipment may be used at temporary jobsites anywhere in the United States where the Nuclear Regulatory Commission maintains jurisdiction for regulating byproduct material for demonstration purposes as described in application dated August 26, 1995.

11. A. Licensed material shall be used by, or under the supervision of Boyd H. Rose.

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- B. The Radiation Safety Officer for the activities authorized by this license is Boyd. H. Rose.
12. Sealed sources containing licensed material shall not be opened or removed from their respective source holders by the licensee.
13. The licensee shall conduct a physical inventory every six (6) months to account for all sealed sources received and possessed under the license. The records of the inventories shall be maintained for two (2) years from the date of the inventory for inspection by the Commission, and shall include the quantities and kinds of byproduct material, manufacturer's name and model numbers, location of the sealed sources and the date of the inventory.
14. The licensee may transport licensed material in accordance with the provisions of 10 CFR Part 71, "Packaging and Transportation of Radioactive Material".
15. Individuals who work in or whose duties may require them to work in restricted areas or in the vicinity of licensed materials, shall be instructed in the items specified in 10 CFR 19.12 at the time of initial employment and at least annually thereafter.
16. 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 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. Applications dated August 26, 1995, February 24, 2005, August 26, 2005, May 12, 2009, and **October 14, 2011 (only close-out survey information for Muskegon Operations facility); and**
- B. Letters dated August 29, 2005, and May 12, 2009; and
- C. Facsimile letter dated August 10, 2009.

FOR THE U.S. NUCLEAR REGULATORY COMMISSION

Date JAN 06 2012

By William P. Reichhold  
William P. Reichhold  
Materials Licensing Branch  
Region III