

**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, 37, 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                  HQ, US Army Joint Munitions Command</p> <p>2. ATTN: AMSJM-SF                  1 Rock Island Arsenal                  Rock Island, IL 61299-6000</p>	<p>In accordance with the application dated  <b>April 21, 2014,</b></p> <p>3. License No. SUC-1380 is <b>renewed</b> in its entirety to read as follows:</p> <hr/> <p>4. Expiration Date: <b>October 31, 2024</b></p> <hr/> <p>5. Docket No. 040-08767                  Reference No. SUB-1195/SUB-1578/SUC-1391</p>
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<p>6. Byproduct, source, and/or special nuclear material</p> <p>A. Depleted uranium</p> <p>B. Depleted uranium</p>	<p>7. Chemical and/or physical form</p> <p>A. Solid Metal alloy</p> <p>B. Solid Metal alloy</p>	<p>8. Maximum amount that licensee may possess at any one time under this license</p> <p>A. 42,000,000 kilograms</p> <p>B. 14,000 kilograms</p>
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9. Authorized use:
- A. To be used for receipt, storage and transfer of military devices containing depleted uranium components and for disassembly of depleted uranium munitions as described in application dated April 21, 2014.
  - B. For possession and storage incident to decommissioning of facilities.

CONDITIONS

10. A. Licensed material listed in Subitem 7.A. may be stored in bulk quantities at the Hawthorne Army Ammunition Plant, Hawthorne, Nevada; the Letterkenny Army Depot, Chambersburg, Pennsylvania; Crane Army Activity, Crane, Indiana; Bluegrass Army Depot, Richmond, Kentucky; Anniston Army Depot, Anniston, Alabama; Tooele Army Depot, Tooele, Utah and McAlester Army Ammunition Plant, McAlester, Oklahoma. Licensed material for deployment may be stored at non-bulk locations at U. S. Army bases anywhere in the United States.

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- B. Licensed material listed in Subitem 7.B. may be stored at the Lake City Army Ammunition Plant, (LCAAP) Independence, Missouri, incident to decommissioning of facilities.
- i. The licensee is authorized to remediate Area 10 of LCAAP in accordance with the licensee's "Lake City Army Ammunition Plant Area 10 (Sandpile) Radioactive Contaminated Soil Decommissioning Plan," Revision 5.1, dated April 22, 1998. The licensee shall use the unrestricted use criteria listed in "Guidance for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct, Source, or Special Nuclear Material" for surfaces of buildings and equipment, and the Branch Technical Position, "Disposal or Onsite Storage of Thorium or Uranium Wastes from Past Operations," for soils.
- Specific values are given below :
- Soils :
- Depleted uranium - 1.3 Bq/gm (35 pCi/gm) total uranium.
- Equipment and Surfaces :
- 5,000 dpm alpha/100 cm<sup>2</sup>; average contamination level over 1 m<sup>2</sup> or smaller area.  
5,000 dpm beta-gamma/100 cm<sup>2</sup>; average contamination level over 1 m<sup>2</sup> or smaller area.  
15,000 dpm alpha/100 cm<sup>2</sup>; maximum over 100 cm<sup>2</sup>.  
15,000 dpm beta-gamma/100 cm<sup>2</sup>; maximum over 100 cm<sup>2</sup>.  
1,000 dpm alpha/100 cm<sup>2</sup>; removable.  
1,000 dpm beta-gamma/100 cm<sup>2</sup>; removable.
- Exposure rate :
- Soils - 2.6 nCi/kg/hr (10 uR/hr) average above background at 1 meter.  
Equipment and Buildings - 1.3 nCi/kg/hr (5 uR/hr) above background at 1 meter.
- ii. Once the small sand piles are removed, the licensee shall perform a 100-percent surface scan, collect four samples per 10-meter by 10-meter grid, and perform an exposure rate measurement one meter above the ground surface. For the large sand pile, the licensee shall perform a 100-percent scan of this material as it is being conveyed to the large storage sacks. Further, the licensee will collect one sample per 3-cubic meters (105-cubic feet). This is approximately four samples per 10-meter by 10-meter grid. Once the large sand pile has been removed, the licensee shall perform a 100-percent surface scan, collect four samples per 10-meter by 10-meter grid, and perform an exposure rate measurement one meter above the ground surface.
- iii. Downwind area air sampling shall be performed when work activities would cause the potential of producing airborne radioactivity, such as earth moving.

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- iv. The procedure for licensee-initiated and approved changes as described in Revision 5.1 to the LCAAP Area 10 (Sandpile) Radioactive Contaminated Soil Decommissioning Plan, dated April 22, 1998, may be used provided that:
- a. Review of all proposed changes to the Area 10 Decommissioning Plan by the licensee's Project Manager (M. Styvaert) or his designee is in accordance with Administrative Procedure AROP No. 102, "Revisions to the Operational Procedures";
  - b. The licensee submits to NRC, for approval, any changes that would result in an unreviewed safety question, a change in a license condition, or changes that would have a significant adverse effect on the quality of the work, the remediation objectives, or health and safety;
  - c. The licensee documents the changes made.
- v. The licensee shall use the unrestricted use criteria listed in "Guidelines for Decontamination of Facilities and Equipment Prior to Release for Unrestricted Use or Termination of License for Byproduct, Source or Special Nuclear Material" for surfaces of buildings and equipment.
11. A. Licensed material shall be used by, or under the supervision of, Kelly Crooks, or Gary W. Buckrop.  
B. The Radiation Safety Officer (RSO) for this license is Kelly Crooks.  
C. The Alternative Radiation Safety Officer (ARSO) for this license is Gary W. Buckrop.
12. This license does not authorize the firing of ammunition containing licensed material.
13. The license shall not store more than 13,000,000 kilograms of licensed material at each bulk location and not more than 50,000 kilograms at each non-bulk storage location.
14. 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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15. 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 April 21, 2014; and
  - B. Letter dated August 8, 2001 (with enclosures).

FOR THE U. S. NUCLEAR REGULATORY COMMISSION

Date SEP 16 2014

By

William P. Reichhold  
Materials Licensing Branch  
Region III