

## INSPECTION RECORD

**Region:** III

**Inspection Report No.** 2016001

**License No.** SUC-1380

**Docket No.** 040-08767

**Licensee:** Department of the Army  
HQ, Joint Munitions Command  
Safety and Risk Management Directorate IAMSJM-SF  
2695 Rodman Avenue  
Rock Island, IL 61299-6000

**Locations Inspected:** Letterkenny Army Depot  
Chambersburg, PA

**Licensee Contact:** Kelly Crooks, RSO

**Telephone No.** 309-782-2969

**Program Code:** 11300

**Priority:** 5

**Type of Inspection:**      ☐ Initial              ☒ Routine              ☒ Announced  
   ☐ Special              ☒ Assist              ☐ Unannounced

**Last Inspection Date:** 01/22/16

**Date of This Inspection:** 02/24/16 and 02/26/16,  
with in-office review  
through 05/02/16

**Next Inspection Date:** 01/22/21

☒ Normal

☐ Reduced

### Summary of Findings and Actions:

- ☐ No violations cited, clear U.S. Nuclear Regulatory Commission (NRC) Form 591 or regional letter issued
- ☐ Non-cited violations (NCVs)
- ☐ Violation(s), Form 591 issued
- ☒ Violation(s), regional letter issued
- ☐ Follow-up on previous violations

**Inspectors:** Scott L. Wilson, Health Physicist (Region I)

/RA/

*Signature*

**Date** 5/27/2016

**Approved:** Aaron T. McCraw, Chief, MIB

/RA/

*Signature*

**Date** 5/27/2016

## **PART I – LICENSE, INSPECTION, INCIDENT/EVENT AND ENFORCEMENT HISTORY**

### **1. AMENDMENTS AND PROGRAM CHANGES SINCE LAST INSPECTION:**

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
54	06/23/15	Change of mailing address
53	12/05/14	Storage location removed – decommissioned

### **2. INSPECTION AND ENFORCEMENT HISTORY:**

Inspection 2016002 (01/22/2016); clear 591 issued.  
Inspection 2014001 (10/21/2014); clear 591 issued.  
Inspection 2010001 (08/22/2010); clear inspection report issued.

### **3. INCIDENT/EVENT HISTORY:**

From review of regional event logs, event files, and the licensing file, there was no evidence of any incidents or events since the last inspection.

## **PART II – INSPECTION DOCUMENTATION**

### **1. ORGANIZATION AND SCOPE OF PROGRAM:**

The licensee was authorized to possess, receive, store, and transfer military devices containing depleted uranium in ammunition and components at the Letterkenny facility. The offices of the Radiation Safety Officer (RSO), Kelly Crooks and the Alternate Radiation Safety Officer (ARSO), Gary Buckrop, were located at the Joint Munitions Command in Rock Island, IL. In accordance with the license application, the licensee maintained an RSO and Alternate at each location where depleted uranium munitions are stored throughout the United States. Each site RSO reported to the license RSO and ARSO, while maintaining day to day management of the radioactive materials program at their assigned site. The individual provided to the inspector as the RSO for the Letterkenny Army Depot (LAD) depleted uranium munitions licensed program was Mr. Chris Marshall. Mr. Marshall was a Health Physicist for the Letterkenny Safety Office, which operates under the LAD Command and not the Army Joint Munitions Command (JMC). The point-of-contact for the license at LAD was Joel Baylor. Mr. Baylor was recently appointed (within a year) the Safety Manager for the Letterkenny JMC and he reports to Mr. Kelly Crooks, the RSO named on the license. The Army stored thousands of rounds of depleted uranium ammunition at this site. The rounds were received and stored until the Rock Island Joint Munitions Command requested they be shipped for dismantling and disposal at another location. This facility only received, stored, maintained, and shipped the rounds.

### **2. SCOPE OF INSPECTION:**

Inspection Procedure(s) Used: 87126 & 86740

Focus Areas Evaluated: 3.01-3.07

Records reviewed: DU inventories, survey records, shipping records, training records, operating and emergency procedures, shipping information notices, DOT Special Permit 9649.

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

Instrument type: Ludlum Model 2401-P  
NRC S/N: 142673  
Calibration expiration date 10/07/2016

Survey/measurement results: Storage area 0.2 – 1.4 millirem per hour  
Unrestricted area 0.1 – 0.2 millirem per hour  
1 meter from munitions pallet 0.4 millirem per hour

All areas were found to be well within the regulatory requirements and comparable to the licensee's results.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

- A. Condition 15.A of License No. SUC-1380, Amendment 54, states, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the application dated April 21, 2014.

Supplement 3, Item No. 1.1, of this application, states, in part, that the Commander, Headquarters, US Army Joint Munitions Command, ensures the radiation safety officers at those installations storing depleted uranium ammunition implement the requirements of this license.

Contrary to the above, between July 14, 2015, and February 26, 2016, the Commander, Headquarters, US Army Joint Munitions Command, did not ensure the radiation safety officers at the Letterkenny Army Depot in Chambersburg, Pennsylvania, an installation storing depleted uranium ammunition under the license, implemented the requirements of the license. Specifically, the radiation safety officer for the license provided the name of an individual and stated that the individual was the Letterkenny Army Depot radiation safety officer; however, the individual was not assigned the task of managing and implementing the requirements of the license in accordance with License Condition 15 and the Application dated April 21, 2014. The individual whose name was provided to the inspector, as well as his manager, stated to the inspector that they had not been assigned the task, and did not manage or implement the requirements of the license. This is a Severity Level IV violation, in accordance with Enforcement Policy Section 6.3.

Based on direct observations, a review of program records, interviews with LAD and JMC personnel, and the violations cited during this inspection, the inspector concluded that the licensed program was not implemented as required by the license. The inspector based this determination on the statements made to the inspector by site personnel during interviews, the violations noted in this inspection, and the licensee's inability to produce records relevant to the program when the inspector was at the Letterkenny Army Depot on February 24 and 26, 2016.

The inspector determined that the root cause of the violation was a miscommunication and misunderstanding between JMC and LAD Safety Office. The licensee's RSO was not sure when the miscommunication first arose, but suspected it may have been as early as 2005. As corrective action, Mr. Crooks stated that JMC had negotiated a new agreement between JMC and the LAD Command Safety Office regarding the Safety Office taking responsibility for providing health physics support and partially maintaining key elements of the licensed depleted uranium munitions program. In addition, the Mr. Crooks also stated that the Letterkenny Joint Munitions Safety Manager, Joel Baylor, was scheduled to attend the necessary training to qualify as the Letterkenny Joint Munitions Command RSO.

- B. 10 CFR 71.5 requires, in part, that each licensee who transports licensed material outside the site of usage, as specified in the NRC license, shall comply with the applicable requirements of the DOT regulations in 49 CFR parts 171 through 180, appropriate to the mode of transport.

49 CFR 172.403(a) requires, in part, that unless excepted from labeling by 49 CFR 173.421 through 173.427 of this subchapter, each package of radioactive material must be labeled as provided in this section.

49 CFR 172.403 requires, in part, that each package of radioactive material be labeled, as appropriate, with two RADIOACTIVE WHITE-I, RADIOACTIVE YELLOW-II, or RADIOACTIVE YELLOW-III labels on opposite sides of the package. The contents, activity, and transportation index must be entered in the blank spaces on the label using a legible and durable, weather resistant, means. The contents entered on the label must include the name or abbreviation (e.g., 99 Mo) of the radionuclides as taken from the listing in 49 CFR 173.435, or for mixtures of radionuclides, those nuclides determined in accordance with provisions of 49 CFR 173.433(g), with consideration of space available on the label. The activity must be expressed in terms of the appropriate SI units (e.g., Becquerel, Terabecquerel etc.), or in terms of appropriate SI units followed by customary units (e.g., curies, millicuries, or microcuries).

Contrary to the above, on February 24, 2016, and February 26, 2016, the US Army Joint Munitions Command, transported licensed material outside the site of usage at Letterkenny Army Depot in Chambersburg, Pennsylvania, as specified in the NRC license, and did not comply with the applicable requirements of the Department of Transportation (DOT) regulations in 49 CFR parts 171 through 180, appropriate to the mode of transport. Specifically, the licensee transported multiple pallets of ammunition containing depleted uranium to General Dynamics in Marion, Illinois, over public highways, and the package was not marked with accurate information regarding the proper shipping name (contents); the activity of the radioactive contents in each package; and the transportation index, as required by 49 CFR 172.403. This is a Severity Level IV violation, in accordance with Enforcement Policy Section 6.3.

The inspector determined that the root cause of the violation was an oversight. The JMC staff at Letterkenny had ordered radioactive materials shipping labels from a vendor with the information printed on them, but the labels were not adequately inspected for accuracy of the printed information prior to use. As corrective action,

the RSO stated that after the inspector informed the staff of the errors on the labels, the labels were destroyed and compliant labels were being used. The RSO also stated that the individuals involved in the shipping were informed of the need to use only the compliant labels and to ensure none of the printed labels were used. The license RSO also stated that the Letterkenny Joint Munitions Safety Manager, Joel Baylor, would be attending hazmat employee and shipper training to allow for a trained individual to oversee the shipping of depleted uranium munitions from the Letterkenny Army Depot under the license.

- C. Title 10 CFR 71.5 requires, in part, that each licensee who transports licensed material outside the site of usage, as specified in the NRC license, shall comply with the applicable requirements of the DOT regulations in 49 CFR parts 171 through 180, appropriate to the mode of transport.

Title 49 CFR 172.702(a) requires that a hazmat employer shall ensure that each of its hazmat employees is trained in accordance with the requirements prescribed in this subpart.

Contrary to the above, on February 24, 2016, and February 26, 2016, the US Army Joint Munitions Command transported licensed material outside the site of usage at Letterkenny Army Depot in Chambersburg, Pennsylvania, as specified in the NRC license, and did not comply with the applicable requirements of the Department of Transportation (DOT) regulations in 49 CFR parts 171 through 180, appropriate to the mode of transport. Specifically, the licensee shipped multiple pallets of ammunition containing depleted uranium to Marion, Illinois, over public highways, and was unable to demonstrate that hazmat employees involved in preparing these shipments had been trained in accordance with the requirements of 49 CFR 172 Subpart H. This is a Severity Level IV violation, in accordance with Enforcement Policy Section 6.3.

The license RSO was unable to demonstrate that the individuals involved with the two shipments were trained in accordance with the requirements of 49 CFR 172 Subpart H. Moreover, the inspector's observations associated with the preparation of these shipments suggested that the individuals involved had not received the required training. The inspector provided the license RSO with information regarding the regulations and DOT's brochure "Training for the Safe Transportation of Hazardous Materials." The brochure included references to the regulations as well as a list of training requirements in bulleted format.

The inspector determined that the root cause of the violation was an oversight. As of May 2, 2016, JMC had not yet provided a statement of corrective actions.

The NRC concluded that because violations (B) and (C) above shared a common root cause, the two would be characterized as one Severity Level IV problem

The licensee will be required to respond to an NRC issued Notice of Violation providing the reasons for the violations, the corrective actions taken and planned, and date when full compliance will be achieved.

5. PERSONNEL CONTACTED:

MAJ Margaret Myers, Army Material Command Radiation Safety Officer, Redstone Arsenal\*

Michael Kurth, Technical Team Lead for Health Physics, JMC\*

Mike Styvaert, Director, Safety and Risk Management, JMC\*

Kelly Crooks, JMC RSO#\*

Gary Buckrop, JMC ARSO#\*

Joel Baylor, LEMC Safety Officer#

Christopher Marshall, LEAD RSO#\*

Michael Kirkpatrick, LEAD Safety Manager#\*

Diane Eichelburger, Letterkenny Transportation Officer

Allison Fowler, LEAD Inventory and Storage

Jeffrey Fox, LEAD Inventory and Storage

Dorothy Amy, LEAD Training Coordinator

Beau Cook, LEAD Equipment Operator

Daryl Ewan, LEAD Equipment Operator

# Individual(s) present at entrance meeting

\* Individual(s) present at exit meeting