

Region III Inspection Report No. 2014001 **License No.** 21-32838-01
Docket No. 030-38500
EA-14-039

Date: 03/26/2014

PART I-LICENSE, INSPECTION, INCIDENT/EVENT, AND ENFORCEMENT HISTORY

1. AMENDMENTS AND PROGRAM CHANGES:

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
05	08/01/2013	changes/exemption for leak testing certain CAMs
04	7/16/2013	changes to locations of use
03	4/19/2013	add locations of use
02	4/4/2013	add locations of use & storage
01	4/27/2012	add Warren, MI location of use & storage
New License	11/29/2011	transfer all activities authorized on "Rock Island" License No. 12/00722-06/Docket No. 030-13027

2. INSPECTION AND ENFORCEMENT HISTORY:

On December 28, 2012, the NRC issued a Notice of Violation (SLIV) to the licensee for its failure to secure from unauthorized removal or access, or maintain control and constant surveillance of licensed materials the licensee reported the loss of an improved chemical agent monitor (ICAM) containing a nickel-63 (Ni-63) source (EA-12-259). Non-Cited Violations of NRC regulatory requirements involving the failure to secure from unauthorized removal or access, or maintain control and constant surveillance of licensed materials were identified during the last routine inspection conducted on November 21, 2008. A previous inspection on October 11, 2005, reviewed the licensee's corrective actions in response to the loss of two americium-241 (Am-241) sources. No violations were identified during the October 11, 2005 inspection.

3. INCIDENT/EVENT HISTORY:

Between 2007 and 2013 the licensee reported six events to the NRC; two of these events were retracted by the licensee. The inspector reviewed the circumstances of the four open NMED items with licensee personnel and closed all four.

NMED No. 140004

The licensee reported the theft of three ICAMs containing Ni-63 sources from a storage facility in Fort Bragg, North Carolina. The ICAMs were stored in a secured building. The licensee noted that the locks on the building, storage area, and storage locker were damaged. The licensee added that additional items were also stolen. An investigation was conducted by the Fort Bragg Criminal Investigation Unit. This NMED item is considered closed.

NMED No. 120693

On November 20, 2012, the licensee reported the loss of an ICAM at Fort Riley, Kansas. The ICAM contained Ni-63 source. The U.S. Army became aware that the device was missing as early as March 2012, when an investigation was initiated. The NRC issued a Notice of Violation to the licensee on December 28, 2012. This NMED item is considered closed.

NMED No. 100355

In a letter dated August 2, 2010, the licensee reported two ICAMs containing Ni-63 damaged in a fire on July 2, 2010, at Fort Bragg, North Carolina. The electrical fire destroyed the entire building and the area was covered by a foot of ash. The fire department secured the building until July 14, 2010, while completing their investigation. On July 15, 2010, the RSO entered the building and found the devices severely burned. Direct radiation surveys of the immediate area surrounding the devices and leak tests of the sources were negative. The devices were moved to the low-level waste storage area pending disposal. This NMED item is considered closed.

NMED No. 090555

In letter dated July 27, 2009, the licensee reported the loss of two ICAMs containing Ni-63 sources. The monitors were lost during military shipment from the Oregon National Guard (ONG) to the Guam National Guard (GNG) in Barrigada, Guam. The monitors were packaged by ONG personnel in May 2007. The monitors were reported to the Army as missing on February 9, 2009. In the weeks following the notification, the Army conducted an investigation to determine if the monitors were actually lost or misplaced within military control. This item is discussed further below in the "Violations, NCVs, and Other Safety Issues" section. This NMED item is considered closed.

PART II - INSPECTION DOCUMENTATION**1. ORGANIZATION AND SCOPE OF PROGRAM:**

The Department of the Army TACOM Lifecycle Management Command relocated its base from Rock Island, Illinois, to Warren, Michigan, in 2009. The licensee requested to terminate its Rock Island license concurrently with the issuance of the Warren, Michigan license. The licensee is authorized to possess and use a variety of military control devices and chemical agent detectors containing hydrogen-3 (H-3), Ni-63, or Am-241. The licensee was also authorized to possess promethium-147 (Pm-147) for collection and disposal. The licensee was authorized to use and store radioactive material at numerous locations listed on the licensee as part of its military activities. The licensee is gradually replacing the Ni-63 ICAMs with non-radiological technology and anticipates all ICAMs will be changed out in 3 years.

The RSO for this licensee is based in the Warren, Michigan office.

2. SCOPE OF INSPECTION:

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: 03.01 - 03.08

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

None; the licensee does not possess radioactive material at its Warren, Michigan facility.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

One SL IV violation of NRC requirements was identified during this inspection:

Title 10 of the *Code of Federal Regulations* (CFR) 20.1802 states that the licensee shall control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area that is not in storage.

Contrary to the above, as of August 2007, the licensee failed to maintain control and constant surveillance of licensed material that was not in storage. Specifically, the licensee failed to maintain control and constant surveillance of two improved chemical agent monitors each containing a Ni-63 source in a quantity 10 times greater than the quantity specified in Appendix C to 10 CFR Part 20.

The root cause of the loss was multiple packaging and consolidation activities of numerous items in the shipment. The package was signed for by GNG personnel on August 20, 2007, and is believed to be misplaced within military control. Corrective actions included procedure modification such that similar devices will be shipped as excepted packages via commercial carrier with tracking capability and delivery verification.

5. PERSONNEL CONTACTED:

+Thomas Gizicki, Radiation Safety Officer

*#Karen McGuire, TACOM Radiation Safety Manager

*#Patrick J. Kelly, TACOM LCMC, Director for System and Radiation Safety

Use the following identification symbols:

Individual(s) present at entrance meeting

* Individual(s) present at exit meeting

+Individual contacted by telephone