

**INSPECTION RECORD**

Region III Inspection Report No. 030-38067/10-01  
License No. 13-32754-01 Docket No. 030-38067

**Licensee (Name and Address):**  
Chicago Testing Laboratory, Inc.  
doing business as Indianapolis Testing Laboratory, Inc.  
1432 Sadlier Circle East Drive  
Indianapolis, IN 46239

**Licensee Contact:** Daniel Rogers – RSO **Telephone No.** 317-322-9500

**Priority:** 5 **Program Code:** 3121

**Date of Last Inspection:** N/A (Initial Inspection) **Date of This Inspection:** 5/12/2010 with in-office review through 5/27/10 to review leak test records

**Type of Inspection:** (X) Initial (X) Announced ( ) Unannounced  
( ) Routine ( ) Special

**Next Inspection Date:** 5/2015 (X) 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
- (X) Violation(s), regional letter issued
- ( ) Followup on previous violations

Inspectors Andrew M. Bramnik  
Andrew M. Bramnik, Health Physicist

Date 6/11/2010

Michael M. LaFranzo  
Michael M. LaFranzo, Health Physicist

Date 6/14/2010

Approved Tamara E. Bloomer  
Tamara E. Bloomer, Chief, MIB

Date 6/14/10

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

### **1. AMENDMENTS AND PROGRAM CHANGES:**

<u>Amendment No.</u>	<u>Date</u>	<u>Subject</u>
0 (Corrected Copy)	10/26/2009	Corrected Locations of Use
0	8/31/2009	New License Issued

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

This was an initial inspection of this licensee. The licensee had no previous inspection or enforcement history.

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

None

## **PART II - INSPECTION DOCUMENTATION**

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

#### Management Structure:

Chicago Testing Laboratory (CTL) CEO  
CTL Vice President  
Radiation Safety Officer  
Portable Gauge Operators

The licensee operated a portable moisture/density gauge program with a main office in Indianapolis, Indiana, and was authorized to possess and use sealed sources of cesium-137, americium-241, and radium-226 anywhere the NRC maintains jurisdiction. At the time of the inspection, the licensee possessed two Troxler Model 3440 gauging devices, one of which was in use at a temporary job site located off Interstate I-65 Northwest of Indianapolis. As of February 17, 2010, the licensee had sold their two Seaman Nuclear Model C-75 portable gauges to Patriot Engineering and Environmental, Inc., an NRC licensee authorized to receive and use this material. Also as of this date, the licensee possessed one Humboldt Manufacturing Gauge Model No. 5001P containing sealed sources of cesium-137 and americium-241 that was not authorized by the license. This item is discussed in greater detail in Section 4, below. The licensee employed approximately seven gauge operators, including the Radiation Safety Officer.

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

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: Sections 03.01 through 03.07

### **3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:**

The inspector took independent survey measurements around the licensee's areas for storing radioactive material at one temporary job site and their permanent storage facility. No radiation levels exceeded regulatory limits. The inspector also took independent survey measurements at the surface of two Troxler gauges and one Humboldt gauge. Radiation levels were within expected levels at the surface of the gauges. Side-by-side confirmatory measurements with the licensee's survey meter at the permanent storage facility were within an acceptable range.

4. **VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:**

- A. Title 10 Code of Federal Regulations (CFR) Part 30.34(c) requires, in part, that each licensee confine his possession and use of byproduct materials to the locations and purposes authorized by the license.

Condition 8.A. of NRC License No. 13-32754-01 states that the total possession of cesium-137 is not to exceed 18 millicuries. Condition 8.B. of NRC License No. 13-32754-01 states that the total possession of americium-241 is not to exceed 88 millicuries.

Conditions 9.A. and 9.B. limit the use of cesium-137 and americium-241 to Troxler Electronics, Inc., Model No. 3440 portable gauging devices.

Contrary to the above, between February 17 and May 12, 2010, the licensee possessed a Humboldt Manufacturing Gauge Model No. 5001P containing sealed sources of cesium-137 and americium-241, a device and quantity of licensed materials not authorized by the license.

This is a Severity Level IV violation (Supplement VI)

The root cause of this violation was that the licensee believed they could possess a third portable gauge so long as they had submitted a license amendment request. As corrective actions, the licensee now understands that their license must be amended to authorize a change of possession limits or devices before acquiring new materials. The licensee had submitted a license amendment request on March 1, 2010, to increase their possession limit and allow for different types of gauges, including Humbolts. The licensee did not intend to use the gauge until that amendment was approved. The licensee was in compliance after their license amendment was issued on June 3, 2010.

- B. 10 CFR 71.5(a) requires that a licensee who transports licensed material outside of the site of usage, as specified in the NRC license, or where transport is on public highways, or who delivers licensed material to a carrier for transport, comply with the applicable requirements of the regulations appropriate to the mode of transport of the Department of Transportation (DOT) in 49 CFR Parts 107, 171-180, and 390-397.

1. 49 CFR 177.817(a) requires that a carrier cannot accept hazardous material for transportation or transport unless it is accompanied by shipping papers prepared in accordance with 49 CFR 172.200-203. Pursuant to 49 CFR 172.101, radioactive material is classified as hazardous material.

Contrary to the above, on multiple occasions between September 10, 2009 and May 12, 2010, the licensee transported sealed sources of cesium-137 and americium-241 outside the confines of its plant without a shipping paper.

2. 49 CFR 172.403 requires, in part, with exceptions not applicable here, 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 transport 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., <sup>99</sup>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 the provisions of 49 CFR 173.433(f), 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, between September 10, 2009 and May 11, 2010, the licensee transported sealed sources of cesium-137 and americium-241 outside the confines of its plant, and the RADIOACTIVE label affixed to the packages did not identify the correct information. Specifically:

- i. On multiple occasions between March 4 and May 11, 2010, the licensee transported a device containing sealed sources of cesium-137 and americium-241 outside the confines of its plant, and the RADIOACTIVE label affixed to the package did not identify the activity of cesium-137 and the transportation index.
- ii. On multiple occasions between September 10, 2009, and May 11, 2010, the licensee transported a second device containing sealed sources of cesium-137 and americium-241 outside the confines of its plant, and the RADIOACTIVE label affixed to the package did not identify the transportation index.

This is a Severity Level IV violation (Supplement VI)

The root cause of the first example was that the licensee thought the paperwork they carried with the gauge were the correct shipping papers. The licensee had been using leak test certificates from their initial receipt of the gauges in 2006 along with selected pages from the gauge Owners Manuals in place of shipping papers. The licensee took immediate corrective actions on May 12, 2010 to identify the correct shipping papers for its gauges, including printing Bills of Lading and locating Emergency Response Information.

The root cause of the second example was that the licensee was unaware that the labels on two portable gauge cases were not completed correctly. On May 13, 2010, the licensee properly labeled its portable gauge cases with the correct activity and transportation index information, and will periodically check that labels are accurately and completely filled-out.

- C. Condition 21 of NRC License No. 13-32754-01 requires, in part, that the licensee conduct its program in accordance with the statements, representations, and procedures contained in its application dated June 24, 2009.

Appendix A titled "Operating Procedures" of the licensee's application dated June 24, 2009 states, in part, that gauge operators are to sign out the gauge in a logbook. The purpose of this utilization log is to identify the individual(s) who have worked with the gauge and its location of use over time.

Contrary to the above, on multiple occasions between April 13 and May 11, 2010, the licensee failed to sign a gauge out in a logbook prior to use. Specifically, licensee

personnel used a portable gauge at a temporary job site located in Indianapolis, Indiana, without signing out the gauge.

This is a Severity Level IV violation (Supplement VI)

The root cause of this violation was an oversight on the part of the portable gauge operator. As corrective actions, the individual gauge operator who had used the gauge during this time completed the logbook for this timeframe on May 13, 2010. As further corrective actions, the RSO or designee will periodically check that logbooks are completed prior to gauge use.

5. **PERSONNEL CONTACTED:**

Charity Neal – Senior Engineering Technician  
#\*& Daniel Rogers – Regional Manager, Radiation Safety Officer  
& Jay Miller – Vice President

Use the following identification symbols:

- # Individual(s) present at entrance meeting
- \* Individual(s) present at preliminary on-site exit meeting
- & Individual(s) present at telephone exit meeting

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