

INSPECTION RECORD

Region III  
License No. 21-18680-01

Inspection Report No. 030-14031/11-01  
Docket No. 030-14031

Licensee (Name and Address):

Construction Testing Services  
3245 Card Drive  
Burton, Michigan 48529

Licensee Contact: Jack F. Geerlings, P.E. – RSO Telephone No. 810-603-0766

Priority: 5 Program Code: 3121

Date of Last Inspection: 7/20/2006 Date of This Inspection: 7/28/2011 with continued in-office review through 9/2/11 to review the licensee's use of personal dosimetry

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

Next Inspection Date: 7/2016 (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

Inspector Andrew M. Bramnik  
Andrew M. Bramnik, Health Physicist

Date 9/7/2011

Approved Tamara E. Bloomer  
Tamara E. Bloomer, Chief  
Materials Inspection Branch

Date 9/9/11

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

**1. AMENDMENTS AND PROGRAM CHANGES:**

<u>Amendment No.</u>	<u>Date</u>	<u>Subject</u>
8	10/1/2007	New Radiation Safety Officer (RSO) (J. Geerlings) listed
9	7/11/2008	New mailing address and location of use (Burton, Michigan)

**2. INSPECTION AND ENFORCEMENT HISTORY:**

Two Severity Level IV violations were identified during the previous inspection on July 20, 2006: 1) failure to comply with security requirements in Title 10 of the Code of Federal Regulations (CFR) 30.34(i) while gauges were being transported; and 2) failure to comply with License Condition 24 requiring the licensee to monitor authorized personnel using personal dosimetry. Two Severity Level IV violations were identified during a previous inspection on April 6, 2001: 1) failure to limit the use and storage of licensed materials to the location listed on the NRC license; and 2) failure to comply with License Condition 18 requiring the licensee to ensure that portable gauges had locks on source rods and outer containers during transport.

**3. INCIDENT/EVENT HISTORY:**

None

## **PART II - INSPECTION DOCUMENTATION**

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

#### **Management Structure:**

Tim Byrnes, Director of Operations

Frederick L. Gingell, General Manager

Jack F. Geerlings, P.E., Radiation Safety Officer

The licensee operated a testing and inspection company that utilized portable gauges for moisture and density testing. The licensee possessed four Troxler Model No. 3440 gauges and two Troxler Model No. 3411-B gauges. Less than ten individuals were authorized by the licensee to transport and operate the gauges. At the time of the inspection, the licensee's two Model No. 3411-B gauges were being calibrated by a service provider. The licensee was not authorized to perform any non-routine maintenance or service activities on the gauges.

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

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: Sections 03.01 through 03.07

No work at temporary job sites was available for observation at the time of the inspection. Interviews of the RSO and available gauge users revealed an adequate level of understanding of operating and emergency procedures. Licensee personnel demonstrated how gauges were stored and transported in accordance with the requirements of 10 CFR 30.34(i). Four gauges were observed as adequately secured with two independent barriers to removal while in storage; therefore, the previously-cited violation for failure to comply with 10 CFR 30.34(i) is closed.

The licensee stated that all of their gauges were transported to a service provider (Instrotek) on a rolling annual basis for calibration and leak testing. A records review indicated that required leak tests were performed at appropriate intervals. Licensee personnel described how they wore personal whole body dosimetry badges while transporting and using portable gauges; however dosimetry records between November 2008 and June 2011 could not be located during the inspection. This item is discussed in greater detail in Section 4, below.

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

Independent measurements taken did not indicate readings in excess of 10 CFR Part 20 limits in restricted or unrestricted areas. The licensee had access to a radiation survey meter from another company in the event of an incident or emergency involving a gauge.

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

- A. Title 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.

Title 49 CFR 172.702 requires that each hazmat employer ensure that each hazmat employee is trained and tested, and that no hazmat employee performs any function subject to the requirements of 49 CFR Parts 171-177 unless trained in accordance with Subpart H of 49 CFR Part 172. The terms Hazmat Employer and Hazmat Employee are defined in 49 CFR 171.8.

Title 49 CFR 172.704(a) specifies the elements of hazmat employee training as: (1) general awareness/familiarization training; (2) function-specific training; and (3) safety training. Title 49 CFR 172.704(c) requires, in part, that a hazmat employee receive initial training, and recurrent training at least once every three years.

Contrary to the above, the licensee did not provide training for its hazmat employees which satisfied the requirements in Subpart H to 49 CFR Part 172, in that the licensee's portable gauge users had not completed recurrent training at least once every three years, and the licensee otherwise meets the definition of a hazmat employer in 49 CFR 171.8. Specifically, the licensee's gauge users had not completed recurrent training since their initial training that was conducted between 2003 and 2008.

The root cause of this violation was the licensee's lack of awareness of the requirements to provide recurrent Hazmat training for all Hazmat Employees at least once every three years. During the inspection, the licensee informed the inspector that all portable gauge users had completed manufacturers' training courses for gauge safety operations between 2003 and 2008. The manufacturer's (Troxler) course also included initial Hazmat training. However, as several gauge users had completed their initial training greater than three years ago, and training documentation was not fully available for others, the RSO agreed that several individuals had transported portable gauges without recurrent training.

As corrective actions, the RSO committed to have all portable gauge users complete recurrent Hazmat training online before August 12, 2011. To prevent recurrence, employee training certificates will be retained and documented by management.

- B. Condition 24 of NRC License No. 21-18680-01 states, in part, that the licensee shall conduct its program in accordance with the statements, representations, and procedures contained in the Application dated January 20, 2006.

Item 10 of the Application dated January 20, 2006 states, in part, that "All authorized personnel are monitored using personal dosimetry badges that are monitored by Landauer on a monthly basis. All information obtained concerning the dosimetry badges become a part of our audit and are also provided to the authorized users."

Contrary to the above, between November 2008 and June 2011, the licensee failed to monitor authorized personnel using personal dosimetry badges that were processed on a monthly basis. Specifically, the licensee failed to return monthly personal dosimetry badges that had been worn by authorized personnel between November 2008 and June 2011 for monitoring until August 3, 2011.

Personal dosimetry badge records between November 2008 and June 2011 could not be located during the inspection. In response to the inspector's request for information during the inspection, the RSO sent all of the badges he possessed for processing on August 3, 2011. The RSO then provided the resulting dosimetry reports to the inspector via e-mail on August 16 and 22, 2011. The RSO did not inform the inspector during the on-site inspection that he had accumulated dosimetry badges for the months in question and not sent them to Landauer for processing. In an August 22, 2011 telephone conversation, the RSO said that he should have mentioned this during the inspection, and apologized to the inspector. The RSO stated that bad management and a lack of organization contributed to him not returning badges for processing, and that he hadn't realized how much time had passed without badges being processed.

**5. PERSONNEL CONTACTED:**

- \* Tim Byrnes, Director of Operations
- \* Frederick L. Gingell, General Manager
- \* Alba Gingell, Principal
- \* & Jack F. Geerlings, RSO

\* Individual present at July 28, 2011 preliminary on-site exit meeting  
& Individual present at September 2, 2011, telephone exit meeting

-END-