

INSPECTION RECORD

Region III
License No. 34-18533-02

Inspection Report No. 030-35093/12-01
Docket No. 030-35093

Licensee (Name and Address):
CTL Engineering, Inc.
2860 Fisher Road
Columbus, Ohio 43204

Licensee Contact: Dan Westphal – Indianapolis Site RSO Telephone No. 317-417-2258

Priority: 5 Program Code: 03121

Date of Last Inspection: 8/21/2006 Date of This Inspection: 5/9/2012 with continued in-office review until 5/31/12 to assess the licensee's security of licensed materials

Type of Inspection: Initial Announced Unannounced
 Routine Special

Next Inspection Date: 5/2017 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
- Followup on previous violations

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

Date 6/21/2012

Approved Hironori Peterson
Hironori Peterson, Acting Chief
Materials Inspection Branch

Date 6/25/2012

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

1. AMENDMENTS AND PROGRAM CHANGES:

<u>Amendment No.</u>	<u>Date</u>	<u>Subject</u>
12	3/5/2008	Authorized new portable gauge models and modified maximum possession limits
11	11/21/2007	Removed previous Indianapolis office location of use from license
10	7/16/2007	Added new Indianapolis office location of use, maximum possession limits, and license condition for two barrier rule

2. INSPECTION AND ENFORCEMENT HISTORY:

No violations were identified during the previous routine inspection on February 6 and August 21, 2006. One Severity Level IV violation was cited during the previous routine inspection on December 11, 2001, for the licensee's failure to store licensed material in portable gauges at locations that were authorized on the NRC license. Specifically, the licensee stored portable gauges containing sealed sources of cesium-137 and americium-241/beryllium at a location in South Charleston, West Virginia, that was not authorized by the license.

3. INCIDENT/EVENT HISTORY:

None

PART II - INSPECTION DOCUMENTATION

1. ORGANIZATION AND SCOPE OF PROGRAM:

Management Structure:

C.K. Satyapriya – President and Chief Executive Officer
James P. Gowarty Jr. – Corporate and Morgantown, West Virginia Site Radiation
Safety Officer (RSO)
Dan Westphal – Field Manager and Indianapolis Site RSO
Portable Gauge Users

The licensee operated an engineering, testing, and inspection services company that utilized portable gauges for moisture and density testing. The licensee's corporate office was located in Columbus, Ohio, but portable gauge operations were managed directly from the locations authorized on the company's NRC license. The Corporate RSO was stationed at one of the licensee's two sites in West Virginia. At the time of the inspection, the licensee's Indianapolis office possessed five portable gauges and had authorized three individuals to transport and operate the gauges, including the site RSO. The licensee was not authorized to perform any non-routine maintenance or service activities on their devices.

2. **SCOPE OF INSPECTION:**

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: Sections 03.01 through 03.07

The inspector observed a licensee gauge user transport and operate a portable gauge at a temporary job site located in Indianapolis, Indiana. These observations, combined with interviews of the RSO and the gauge user, revealed an adequate level of understanding of operating and emergency procedures. Licensee personnel demonstrated how gauges were transported and secured while maintaining control and constant surveillance of the gauge; however, the inspector identified one example where the licensee failed to use two independent physical controls that formed tangible barriers to secure portable gauges from unauthorized removal, and the gauge user did not maintain control and constant surveillance of the gauge. In addition, the inspector identified that the licensee's permanent storage facility was secured with only one independent physical control that formed a tangible barrier to secure portable gauges from unauthorized removal while in storage. These items will be described in greater detail in Section 4, below.

A records review indicated that all required leak tests were performed at appropriate intervals. Licensee personnel were not required to wear personal whole body dosimetry badges while transporting and using portable gauges, and a records review indicated that the lifetime exposure to the maximally-exposed individual was 30 millirem. The licensee conducted physical inventories at appropriate intervals, and maintained records of employee safety and HazMat training certificates.

3. **INDEPENDENT AND CONFIRMATORY MEASUREMENTS:**

Independent measurements taken at the licensee's facility and at a temporary job site at in Indianapolis, Indiana, did not indicate readings in excess of the limits in Title 10 of the Code of Federal Regulations (CFR) Part 20 in restricted or unrestricted areas. The licensee possessed a radiation survey meter for use during emergencies involving portable gauges at their West Virginia site location.

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

Condition 18 of NRC License No. 34-18533-02 states, in part, that a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal whenever the portable gauge is not under the control and constant surveillance of the licensee are required. Title 10 CFR 30.34(i) also states that each portable gauge licensee shall use a minimum of two independent physical controls that form tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges are not under the control and constant surveillance of the licensee.

Contrary to the above, on May 9, 2012, the licensee failed to use a minimum of two independent physical controls that formed tangible barriers to secure portable gauges from unauthorized removal, whenever portable gauges were not under the control and constant surveillance of the licensee. Specifically, the licensee secured portable gauges on a pickup truck bed and at its permanent storage location both located at its

Indianapolis, Indiana facility, used only one physical control that formed a tangible barrier, and did not maintain control and constant surveillance of the gauges.

On May 9, 2012, before leaving for the temporary job site with the inspector, a gauge user returned to the Indianapolis site office to retrieve paperwork and complete other work. The inspector was already at the Indianapolis site office when the gauge user arrived. When the inspector and the gauge user went to the user's truck, the inspector identified that one portable gauge was stored inside its transportation case on the truck bed. The lid to the transportation case was secured with two padlocks, but the case was secured to the truck with one padlocked chain and one tensioning strap. When tightened, the tensioning strap by itself prevented the transportation case from being removed; however, the latch to de-tension the strap was mounted to the strap itself and was readily accessible to passersby. Therefore, the tensioning strap was not sufficient to serve as a tangible barrier to secure the portable gauge. Accordingly, the gauge user used only one physical control that formed a tangible barrier to secure the portable gauge when in transit, and did not maintain control and constant surveillance of the pickup truck in the parking lot of the licensee's Indianapolis, Indiana facility.

Also on May 9, 2012, the inspector identified that the licensee's permanent storage location at their Indianapolis facility could be accessed by multiple routes: from inside the licensee's office, through an exterior roll-up garage door, or through a regular exterior door. At the time of the inspection, the exterior roll-up garage door was open by approximately two feet, and was also unlocked. Once inside the licensee's facility, portable gauges were stored inside a locked closet, and were not otherwise secured within the facility. Therefore, the licensee used only one physical control that formed a tangible barrier to secure portable gauges from unauthorized removal when in storage, and the licensee did not maintain control and constant surveillance of the gauges in the permanent storage location.

The root cause of the violation was oversights of the requirement in the NRC license and 10 CFR 30.34(i). Specifically, members of the licensee's staff believed that a tensioning strap used to block and brace packages on a pickup truck bed was an adequate barrier to secure a portable gauge when it was being transported. Additionally, the licensee's failure to lock an exterior garage door that served as the second tangible barrier to portable gauges in the permanent storage location was an isolated incident.

In an email to the NRC dated May 10, 2012, the licensee provided details and photographs of corrective actions that had been taken to address this issue. The corrective actions included adding a second padlocked chain to the transportation case when in transit and adding an independent, second hasp and lock to secure portable gauges at the permanent storage location. These actions were completed by May 10, 2012.

A violation of 10 CFR 30.34(i) was identified during this inspection and is described in a Notice of Violation. In accordance with the Enforcement Policy, although such violations are normally categorized at Severity Level III and considered for escalated enforcement action, because (1) one physical control existed to prevent loss or theft of the portable gauges; (2) the licensee retained possession of the gauges; (3) the violation was isolated; and (4) no indication of programmatic weakness was identified, the NRC exercised enforcement discretion in accordance with Enforcement Guidance Memorandum EGM-11-004 to categorize this violation as Severity Level IV.

5. **PERSONNEL CONTACTED:**

- * James P. Gowarty, Jr. - Corporate and West Virginia Site RSO
- *& Dan Westphal – Field Manager and Indianapolis Site RSO
Randy Fladeland – Gauge User

- * Individual present at May 9, 2012 preliminary exit meeting
- & Individual present at May 31, 2012 final telephone exit meeting

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