

**INSPECTION RECORD**

Region III Inspection Report No. 2006-001

License No. 21-03039-01  
Docket No. 030-04813

Licensee (Name and Address):  
Michigan Department of Transportation  
8885 Ricks Road  
Lansing, MI 48909

Location (Authorized Site) Being Inspected:  
As above

Licensee Contact: Thomas Killingsworth, RSO Telephone No. 517-322-6450

Priority: 5 Program Code: 03121

Date of Last Inspection: N/A Date of This Inspection: June 20, 2006

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

This inspection was focused on the licensee's response to a gauge which had been struck by a vehicle.

Next Inspection Date: 6/2008 (unchanged) ( ) Normal ( ) Reduced

Justification for reducing the routine inspection interval:  
N/A

Summary of Findings and Actions:

- (x) 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(s) Geoge Parker  
(Name)

Date 7/12/06

*Geoge Parker*  
(Signature)

Approved John R. Madera  
(Name)

Date 7/12/2006

*J. Madera*  
(Signature) J. MADERA

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

1. AMENDMENTS AND PROGRAM CHANGES:

(License amendments issued since last inspection, or program changes noted in the license)

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
40	Sep 29, 2004	Delete Troxler Model 3241 asphalt gauge

2. INSPECTION AND ENFORCEMENT HISTORY:

(Unresolved issues; previous and repeat violations; Confirmatory Action Letters; and orders)

None

3. INCIDENT/EVENT HISTORY:

(List any incidents, or events reported to NRC since the last inspection. Citing "None" indicates that regional event logs, event files, and the licensing file have no evidence of any incidents or events since the last inspection.)

This was a special inspection on June 20, 2006, to gather the facts surrounding the report of a Troxler gauge being struck by a vehicle. On June 18, 2006, a coop technician was performing backscatter measurements on I-75 southbound at approximately 1:00 am. The tech had placed his gauge adjacent to truck one (T1) about four feet from where he was standing. A second vehicle (T2) owned by the Michigan Department of Transportation (MDOT) approached the location where the tech was taking readings. T2 was going northbound in the southbound lanes of I-75. The second MDOT truck operator saw the tech standing in front of his truck (T1) but failed to see the gauge because of the headlights from (T1) were in his eyes. The driver of (T2) struck the gauge damaging its handle. The driver of T2 and the tech are both qualified gauge operators. They immediately roped off the area and contacted radiation safety.

Radiation safety responded to the site and was able to retract the source into the shielded position even though the handle was slightly bent. Radiation surveys were taken of the gauge as well as wipes. Radiation readings were consistent with past readings and field evaluation of wipes did not identify any contamination. The gauge was secured in its case and the case was secured in the vehicle by radiation safety staff for transport to the lab. At the lab, the gauge was once again surveyed and wipes were taken for analysis. Radiation survey results were consistent with past results and the results of wipe testing did not detect any leakage.

## **PART II - INSPECTION DOCUMENTATION**

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

(Management organizational structure; authorized locations of use, including field offices and temporary job sites; type, quantity, and frequency of material use; staff size; delegation of authority)

Thomas Killingsworth is the radiation safety Officer for this licensee. He reports to the chief engineer for the State of Michigan. Licensee has field offices throughout the state and in possession of 82 moisture density gauges. Gauges are in use daily throughout the construction season. Licensee has approximately twenty permanent gauge users trained in use of the gauge and a number of summer hires trained to assist in the program.

### **SCOPE OF INSPECTION:**

(Identify the inspection procedure(s) used and focus areas evaluated. If records were reviewed, indicate the type of record and time periods reviewed)

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: 01-07

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

(Areas surveyed, both restricted and unrestricted, and measurements made; comparison of data with licensee's results and regulations; and instrument type and calibration date)

Measurements taken around the damaged gauge were consistent with readings normally encountered. Approximately 1.5 mrem/hr at one foot.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:  
(State the requirement, how and when the licensee violated the requirement, and the licensee's proposed corrective action plan. For NCVs, indicate why the violation was not cited. Attach copies of all licensee documents needed to support violations.)

None

5. PERSONNEL CONTACTED:  
(Identify licensee personnel contacted during the inspection, including those individuals contacted by telephone.)

Use the following identification symbols:

- # Individual(s) present at entrance meeting
- Individual(s) present at exit meeting

- #\* Thomas Killingsworth, Radiation Safety Officer
- \* Michael Bastuba, Gauge Operator
- Daniel Carron, Gauge Operator
- Victor Judnic, Project Engr.