

ENCLOSURE 6 - INSPECTION RECORD

Region: III Inspection Report No. 2013-001

License No. 21-18598-02  
Docket No. 030-18534

Licensee: Wade-Trim Incorporated  
3933 Monitor Road  
Bay City, MI 48706

Locations Being Inspected: 3933 Monitor Road 271 West McCoy Road  
Bay City, MI Gaylord, MI

Licensee Contact: Matthew K. Schultz, RSO Telephone No.: 989-686-3100

Priority: 5 Program Code: 03121

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

Date of Last Inspection: 11/4/2008 Date of This Inspection: 4/16-18/2013

Next Inspection Date: 4/16/2018 (X) Normal ( ) Reduced

Justification for reducing the routine inspection interval:

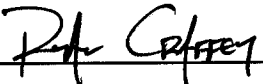
N/A

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
- ( ) Follow-up on previous violations

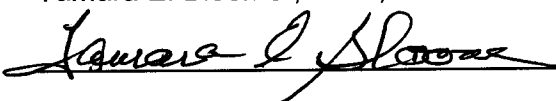
Inspector(s) Ryan Craffey, Health Physicist

Date: 5/17/13

  
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Signature

Approved Tamara E. Bloomer, Chief, MIB

Date: 5/17/13

  
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Signature

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

1. AMENDMENTS AND PROGRAM CHANGES:

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
7 (Corrected)	5/17/2011	Added total possession limits

The RSO intends to request an amendment in the near future to remove the Cadillac, MI office from the license, and to add a Wade-Trim facility in Flint, MI in its place.

2. INSPECTION AND ENFORCEMENT HISTORY:

The last routine inspections of Wade-Trim were on 11/4/08 and 1/29/04. No violations of NRC requirements were identified during either inspection.

3. INCIDENT/EVENT HISTORY:

None.

**PART II - INSPECTION DOCUMENTATION**

1. ORGANIZATION AND SCOPE OF PROGRAM:

The licensee is authorized to possess up to 180 mCi of Cs-137 and 880 mCi of Am-241 for use in Troxler moisture density gauges, which the licensee may use or store at their Michigan facilities in Bay City, Gaylord, Traverse City, and Cadillac, and at temporary job sites within NRC jurisdiction. The Radiation Safety Officer (RSO) is Matthew K. Schultz, who was appointed RSO in License Amendment No. 7, dated September 21, 2005.

The licensee is not authorized to perform service on the gauge, nor are they authorized to perform analysis of their own leak tests, which they conduct in the fall. The licensee ships their gauges in the spring via common carrier to a service provider in Ohio who is authorized to perform these activities. The licensee has access to a survey meter via Michigan Department of Transportation (MDOT), who has a facility across the street from Wade-Trim office in Bay City.

The licensee currently possesses four Troxler 3430, two Troxler 3440 and three Troxler 3411B portable gauges. The licensee currently stores six of its gauges at its main facility in Bay City, and the remaining three at its facility in Gaylord; they do not store their gauges at temporary job sites.

The RSO has currently designated ten individuals as authorized users, who receive radiation safety and hazardous materials training from Troxler when hired, and hazmat refresher training during in-house annual Inspector Training. The RSO is currently considering having a vendor provide hazmat refresher training once every three years instead.

2. SCOPE OF INSPECTION:

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: 1-7

At the Bay City office, the inspector reviewed gauge security and equipment condition, as well as the licensee's various records for dosimetry, usage, leak testing, transportation and training. The inspector interviewed the RSO to understand the organization and scope of the radiation safety program and to verify adequate knowledge of radiation safety principles and practices.

At the Gaylord office, the inspector reviewed gauge security and equipment condition, as well as available records for dosimetry, usage, and transportation. The inspector interviewed one authorized user to verify adequate knowledge of radiation safety principles and practices.

At the time of the inspection, there were no temporary job sites to inspect, owing to inclement weather during the week.

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

Using a Ludlum 2403 survey meter with a model 44-38 energy-compensated GM detector calibrated January 16, 2013, the inspector surveyed one gauge at the licensee's facility in Bay City and two in Gaylord, and found the readings consistent with the device's safety evaluation from the Registry of Radioactive Sealed Sources and Devices. The inspector also surveyed outside of the locked storage cabinets to verify compliance with posting requirements and public dose limits.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

A. Security of Portable Gauges

On April 16, 2013, the inspector identified a violation of 10 CFR 30.34(i) for failure to secure portable gauges with a minimum of two independent physical controls. As the RSO described the licensee's gauge transportation procedures, the inspector noted that the method of securing gauges at temporary job sites as described actually provided only one independent physical control against unauthorized removal of the gauge itself from the case while in a company van.

The licensee's procedure, revised by the RSO in January 2012 to more explicitly describe in writing the methods applied by the RSO since his appointment in September 2005 for meeting the two barriers requirement, instructed staff to secure the gauge in a manner that depended on the kind of vehicle used.

In the case of a company van, as used by staff at the Bay City office, the procedure instructed the staff to secure the case "by no less than two chains and two locks to the vehicle." The RSO elaborated that this meant one chain locked to a side handle of the gauge case, and the other chain looped through and locked to the only padlock securing the gauge lid. Although this setup provided two independent

physical controls against unauthorized removal of the gauge case, the lid (and thus the gauge itself) was only secured by one physical control – the single hasp padlock. The RSO intentionally did not take credit for the company van as a physical control, because it was his expectation that authorized users (himself included) routinely left the company vans unlocked while at a temporary job site. The licensee stored the gauge in this manner at a temporary job site in January 24, 2013.

In the case of a company truck, as used by staff at the Gaylord office, the procedure stated that “the case should be secured by no less than two chains and two locks to the vehicle in the bed of the trunk.” The inspector found that in addition to one locking chain in each truck and one padlock on each gauge case lid, the trucks were all fitted with locking bed covers. Through interviews, the inspector found that the authorized users in Gaylord knowingly and routinely employed these covers as a second physical control and thus fully met the security requirement when transporting and storing their gauges at temporary job sites.

In the third and final case, that of a personal vehicle, the procedure stated that “the case should be secured to the vehicle by no less than one chain and one lock with the trunk locked.” Because the gauge cases were transported with at least one padlock to secure the lid, the inspector found that this instruction and the RSO’s description of this scenario fully satisfied the requirement.

The inspector toured the gauge storage locations at the Bay City and Gaylord offices – the only two Wade-Trim locations where gauges are currently stored – and found that the six gauges in Bay City and three gauges in Gaylord were stored in accordance with the NRC’s requirements for security of portable gauges.

The inspector found that an incomplete understanding of NRC requirements was the root cause of this violation. The RSO did not realize that the two physical controls required by the procedure for use in company vans were not in fact independent of each other.

As a corrective action, the RSO revised the transportation procedure to require the locking of company vans when left unattended with Troxler gauges stored inside, and provided a copy of the revised procedure to the inspector on May 14, 2013. The RSO also discussed the requirement and the revised procedure with authorized users. In addition, the RSO expressed a desire to purchase new cases to ensure that all nine have two lockable hasps. In that way all gauges could be secured with two locks (one on each hasp) and two chains (one on each handle) and meet the two barriers requirement without having to rely on locking the company vans.

Violations of 10 CFR 30.34(i) are normally characterized in the Enforcement Policy as Severity Level III. However, in accordance with EGM-11-004, the region exercised discretion to characterize this as a Severity Level IV violation because: (1) at least one level of physical control existed, (2) there was no actual loss of material, (3) the failure was isolated, and (4) the failure does not demonstrate a programmatic weakness.

## B. Audits

On April 16, 2013, the inspector identified a violation of 10 CFR 20.1101(c) for failure to periodically (at least annually) review the radiation protection program content and implementation. While reviewing the training records for authorized users, the inspector could not locate any documentation indicating the completion of periodic audits. Although the RSO had reviewed the content and implementation of the program in January 2012 and had documented his efforts in the form of a revised radiation safety program manual, he was nevertheless unaware of the requirement to review the program periodically and as such had not performed an audit from the time he was named RSO in September 2005 through January 2012.

The inspector found that an incomplete understanding of NRC requirements was the root cause of this violation. The RSO did not realize that audits of the radiation protection program were required at least annually.

As a corrective action, the RSO performed an audit of the program on May 10, 2013, using NUREG-1556 Vol. 1, Rev. 1, Appendix F, "Portable Gauge Audit Checklist". The RSO provided a copy of the audit to the inspector on May 17, 2013, and committed to performing these audits on an annual basis from now on.

## 5. PERSONNEL CONTACTED:

#\*^ Matthew K. Schultz, Construction Technician (RSO)  
David Aschenfelter, Construction Technician

# Individual(s) present at the entrance meeting on April 16, 2013

\* Individual(s) present at the preliminary exit meeting on April 18, 2013

^ Individual(s) present at the final exit meeting on April 29, 2013

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