

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

1. AMENDMENTS AND PROGRAM CHANGES SINCE LAST INSPECTION:

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
10	11/4/2014	License Renewal

2. INSPECTION AND ENFORCEMENT HISTORY:

The last inspection of this licensee was on October 30, 2013. One SLIV violation of 10 CFR 71.5(a) was identified for the licensee's failure to ensure its hazmat employees (gauge users) were provided hazmat training at least once every 3 years. This violation was not corrected by the licensee and was not closed by the inspector during the current inspection.

3. INCIDENT/EVENT HISTORY:

No open items or events since the last routine inspection.

PART II – INSPECTION DOCUMENTATION

1. ORGANIZATION AND SCOPE OF PROGRAM:

Materials Inspection and Testing, Inc. was authorized under NRC Materials License No. 13-16961-02 to use licensed material for measuring physical properties of materials with nuclear gauging devices. Licensed material was authorized to be used anywhere in the United States in areas of NRC jurisdiction. The licensee used the gauges almost daily for construction engineering projects throughout the state of Indiana. The licensee used CPN Model MC Series portable gauges, containing cesium-137 (Cs-137) and americium-241/beryllium (Am-241/Be).

2. SCOPE OF INSPECTION:

Inspection Procedure(s) Used: 87124

Focus Areas Evaluated: All

The inspector toured the licensee's main office to evaluate the licensee's measures for material security, hazard communication, and exposure control. At the time of the inspection, the licensee was not using any of their gauges, so the inspector was unable to visit any temporary jobsites.

Through interviews with the RSO, the inspector found that the licensee's staff was knowledgeable of radiation protection principles and licensee procedures for use, storage and transportation of portable gauges. The inspector also witnessed demonstrations by the staff of gauge security, transportation practices, and emergency response.

The inspector reviewed a selection of licensee records for inventories, leak tests, use logs, and dosimetry. The inspector also reviewed the licensee's training materials, procedures, and shipping papers.

In the Region III office, the licensee reviewed additional leak test records, training records, and usage logs to follow up on issues identified during the onsite inspection.

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

Using a Thermo Scientific RadEye G survey meter calibrated on April 23, 2018, the inspector conducted independent surveys at the main office. The inspector found no readings that would indicate residual contamination or exposures to members of the public in excess of regulatory limits.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

On August 29, 2018, the inspector identified two Severity Level IV violations.

The first was a violation of License Condition 13.A. for failure to leak test the sources of one of the licensee's four portable gauges at the required frequency. Specifically, the licensee used a CPN Model MC-1 portable gauge numerous time from October 15, 2017, through August 28, 2018, without having performed a leak test on the gauge sources within the prior one year as specified in the certificate of registration.

The last leak test performed on the gauge was October 14, 2016, and the certificate of registration for the CPN Model MC Series portable gauges (CA0208D102S, dated May 16, 2012), specified a leak test frequency of one year. Between October 14, 2017, and the date of the inspection, the licensee had used that gauge approximately 50 times. The inspector determined that the root cause of the violation was an oversight by the RSO. The inspector informed the licensee that the gauge cannot be used until the licensee had received a satisfactory leak test. As a corrective action, the licensee performed a leak test on August 29, 2018, with satisfactory results. Going forward, the licensee planned to coordinate leak tests of their gauges on a 6 month frequency such that all of their gauges are leak tested at the same time and twice as frequent as the requirement to ensure that a single gauge will not be inadvertently missed.

The second violation was a violation of 10 CFR 71.5(a)(vi) and 49 CFR 172.704(c)(2) for failure to provide hazmat employees with hazmat training at least once every three years. Specifically, licensee hazmat employees (gauge users) who routinely transported portable gauges had not received hazmat training since approximately 2006, which exceeded three years.

The inspector identified that it appeared that the licensee had not provided hazmat training to any of the gauge users, potentially since they received their initial gauge user training, in some cases as far back as 2006. During the previous inspection in 2013, the inspector identified the same violation, but the licensee failed to adequately correct the violation. The inspector determined that the root cause of the violation was the licensee's lack of adequate corrective actions to the previously cited violation. The inspector informed the licensee that no employee could transport a portable gauge until they had received the required hazmat training. As a corrective action, the RSO facilitated hazmat training for the licensee's gauge users on September 6, 2018, and planned to provide hazmat training to the gauge users on an annual basis coincident with the annual radiation safety program review.

5. PERSONNEL CONTACTED:

Timothy Reams, RSO

Participated in telephonic exit meeting on September 14, 2018.

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