



MATERIALS TESTING CONSULTANTS

November 14, 2024

U.S. Nuclear Regulatory Commission, Region III
Materials Inspection Branch
2056 Westings Avenue
Suite 400
Naperville, IL 60563

Regarding: Response to the Apparent Violations in Inspection Report No.
03013918/2024001(DRSS); EA-24-097

We have reviewed the NRC reactive inspection report dated October 17, 2024 which identifies two apparent violations of NRC requirements. The apparent violations include: (1) the failure to control and maintain constant surveillance of a portable moisture density gauge containing regulated material, as required by Title 10 of the Code of Federal Regulations (10 CFR) Part 20.1802; and (2) the failure to conduct physical inventories every six months to account for all sealed sources and devices received and possessed under NRC License No. 21-15281-02 as required by Condition 15 of the license. We do not contest the apparent violations and are providing this written reply to address the four items outlined as a requirement of our response.

(1) The reason for the apparent violations

In general, we agree with the root causes described in section 4.2.A of the referenced inspection report. Inadequate oversight and material accountability practices lead to the loss of the gauge. The loss was realized after a period of transition of the Ann Arbor, Michigan office to its new location in Dexter, Michigan. Although a new security system had been ordered for the new Dexter office, security cameras were not in place at the time the loss was realized, and surveillance records from the vacated office were found to be no longer available. During our investigation we found a loss of the sign-in sign-out records during the time of the move.

Regarding the missing inventory for January 2024, a lack of recurring reminder contributed to this inventory not being completed.

(2) The corrective actions that have been taken and the results achieved

Once the loss of the gauge was identified, Materials Testing Consultants (MTC) immediately initiated an investigation into the loss of the gauge and implemented corrective actions as their need became apparent. Our June 26, 2024 written notice and June 28, 2024 amendment notice to the NRC outlines the completed and proposed corrective actions in section (vi) of this notice. The NRC investigation report also outlines these corrective actions in section 2.2. Below is an update of our corrective actions:

- i) During our investigation, MTC identified that the new Dexter, Michigan location did not yet have video surveillance. MTC now has video surveillance at each office storage location.
- ii) MTC has notified the gauge manufacturers currently listed by the American Portable Nuclear Gauge Association. They have indicated that the gauge has not been in their systems for service and repair and will notify us if it appears within their databases.



- iii) During our investigation, it was identified that MTC had Bluetooth location tracking in nearly all of its gauge inventory with the exception of the lost gauge and one other. Bluetooth location trackers are now in every gauge in our current inventory.
- iv) MTC has revised our policy where storage of gauges overnight in a truck is needed. We now only approve overnight storage to a gauge user for storage in a truck if the shipping container is enclosed in a permanently mounted secondary locking container (i.e. nux box). This provides another level of security and concealment.
- v) During our investigation, it was identified that the utilization log posted at the storage location in Dexter was not the one provided to and used at the other storage locations. The utilization log is now the same at each location. Further, each office's field department manager is now in communication regularly regarding any transfer of gauges between office location and control.
- vi) At the time of discovery of loss of control, MTC immediately performed an inventory of all gauges and contacted all gauge users. It was identified at that time that an inventory had not been performed at the last 6-month interval in January 2024. Further, the MTC RSO did not have a calendar reminder for this inventory to be performed at the 6-month interval. This inventory was performed again in July 2024 and is now a recurring 6-month calendar event with a follow up meeting to discuss results with a member of upper management.
- vii) At the time of the NRC investigation, it was indicated to the inspector, Mr. Ryan Craffey, that we planned to create a best practices document, internally referred to as "Nuclear Gauge Security Guidance Document" to help implement the lessons learned from this incident. This document has been created by the RSO and provided to appropriate management for implementation. This document not only includes the corrective actions outlined above but also clearly outlines the role and responsibilities of MTC gauge users, direct managers, RSO, and upper management in the implementation of the MTC nuclear gauge policies and procedures.

(3) The corrective steps that will be taken to avoid further violations

At this time the corrective actions described above and identified in the referenced NRC investigation have been implemented. Upcoming audits by the MTC RSO will review the continued implementation of the corrective actions and evaluate if further changes are needed.

(4) The date when full compliance was or will be achieved

MTC is now in full compliance with the NRC requirements.



If you have any questions, please feel free to contact me.

MATERIALS TESTING CONSULTANTS, INC.

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