



Materials Inspection Record

1. Licensee Name: Michigan Department of Transportation		2. Docket Number(s): 030-04813		3. License Number(s): 21-03039-01	
4. Report Number(s): 2022-001			5. Date(s) of Inspection: May 17, 2022; exit May 23, 2022		
6. Inspector(s): Ryan Craffey		7. Program Code(s): 04417		8. Priority: 5	9. Inspection Guidance Used: IP 87124
10. Licensee Contact Name(s): Thomas Killingsworth - RSO Dan Rautiola - ADS		11. Licensee E-mail Address: killingswortht@michigan.gov rautiola@michigan.gov		12. Licensee Telephone Number(s): 517-636-4961 906-244-1189	
13. Inspection Type: <input type="checkbox"/> Initial <input type="checkbox"/> Routine <input type="checkbox"/> Announced <input checked="" type="checkbox"/> Non-Routine <input checked="" type="checkbox"/> Unannounced		14. Locations Inspected: <input type="checkbox"/> Main Office <input type="checkbox"/> Field Office <input checked="" type="checkbox"/> Temporary Job Site <input type="checkbox"/> Remote		15. Next Inspection Date (MM/DD/YYYY): No Change <input type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input checked="" type="checkbox"/> No change	

16. Scope and Observations:

The Michigan Department of Transportation's Construction Field Services Division was authorized to use and store portable moisture density gauges for measuring the physical properties of construction materials at 31 field offices and at temporary job sites throughout the State of Michigan. The scope of this inspection was limited to observations of licensed activities (compaction testing of road construction materials using an InstruTek 3500 portable gauge, s/n 3961) at a temporary job site along College Avenue (US-41) near the intersection of Agate Street in Houghton, Michigan.

While en-route to other duties, the inspector noticed an individual using a portable gauge at a road reconstruction project. The inspector parked across the street and observed the individual for a time. The individual maintained control and constant surveillance of his gauge at all times. After observing the individual perform several density tests on College Avenue, the inspector announced his presence, and discussed radiation safety topics and procedures for safe use and transport of the gauge, including response to postulated emergency scenarios. The individual was knowledgeable of radiation safety topics and licensee procedures, and wore personnel dosimetry as assigned. The gauge and its custom transport case were in good condition and properly labeled. Independent surveys in the vicinity of the gauge were consistent with the radiation profiles in the applicable SS&D safety evaluation (NC-1241-D-101-S). The inspector also reviewed the gauge user's shipping papers and emergency response instructions, which were readily available in the cab of the vehicle.

Following the on-site inspection, the inspector interviewed the area density specialist (ADS) responsible for overseeing the use of density gauges in the Upper Peninsula, who earlier that week had audited the same individual in the field to evaluate his performance of density testing. The inspector and the ADS discussed their observations. The inspector also held an exit meeting with the Department's RSO by telephone on May 23, 2022.

No violations of NRC requirements were identified as result of this inspection.