





### 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): 2021001			5. Date(s) of Inspection: August 5, 2021		
6. Inspector(s): Jason Draper		7. Program Code(s): 04417	8. Priority: 5	9. Inspection Guidance Used: IP 87124	
10. Licensee Contact Name(s): Thomas Killingsworth, RSO		11. Licensee E-mail Address: killingswortht@michigan.gov		12. Licensee Telephone Number(s): 517-331-0314	
13. Inspection Type:		14. Locations Inspected:		15. Next Inspection Date (MM/DD/YYYY):	
<input type="checkbox"/> Initial <input checked="" type="checkbox"/> Routine <input checked="" type="checkbox"/> Announced <input type="checkbox"/> Non-Routine <input type="checkbox"/> Unannounced		<input type="checkbox"/> Main Office <input checked="" type="checkbox"/> Field Office <input checked="" type="checkbox"/> Temporary Job Site <input type="checkbox"/> Remote		8/17/2023 <input type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input checked="" type="checkbox"/> No change	

16. Scope and Observations:

This was an announced field office inspection of the Michigan Department of Transportation (MDOT), which was authorized to possess and use portable moisture density gauges at numerous field offices in Michigan and at temporary job sites. The scope of this inspection was limited to a review of the radiation safety program as implemented at the Davison Transportation Service Center (TSC). During the construction season (March-November), the licensee routinely stored 3 Instrotek 3500 portable moisture density gauges containing nominally 44 mCi of americium-241 and 11 mCi of cesium-137 at this TSC. The gauges were routinely returned to the Construction Field Services Location in Lansing, Michigan, for the off-season. This review also included an inspection of a temporary job site near the intersection of I-69 and MI-53.

Due to the Covid-19 public health emergency, the inspector contacted the licensee prior to the inspection to ensure an on-site inspection could be performed safely. During the field office inspection, the inspector toured the licensee's gauge storage area to evaluate the licensee's measures for materials security, hazard communication, and exposure control. The inspector conducted independent surveys of the facility and found that exposures in publicly accessible areas were below regulatory limits. The inspector also found that the gauges were adequately secured by at least two independent physical controls. The inspector discussed the use and transportation of licensed material with the RSO and authorized personnel, whom the inspector found to be knowledgeable of radiation protection principles and regulatory requirements. The inspector also reviewed a selection of records including utilization logs, shipping papers, leak tests, and training records.

At the temporary job site, the inspector observed the gauge user's blocking and bracing of the material during transport and the security of the gauge with two independent physical controls. The inspector also observed the gauge user demonstrate gauge use and control during use at the temporary job site. The inspector interviewed the gauge user regarding transportation of the gauge and the licensee's emergency procedures and found the gauge user to be knowledgeable of the radiation protection principles and regulatory requirements.

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