



Materials Inspection Report

1. Licensee/Location Inspected: Western Michigan University 1903 West Michigan Avenue Kalamazoo, MI 49008 Report Number(s) 2022-001	2. NRC/Regional Office Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352	
3. Docket Number(s) 030-28669 / 030-35835	4. License Number(s) 21-03336-09 / 21-03336-10	5. Date(s) of Inspection November 17, 2022

LICENSEE:
 The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations of procedures and representative records, interviews with personnel, and observations by the inspector. The inspection findings are as follows:

- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements, and were assessed at Severity Level IV, in accordance with the NRC Enforcement Policy.
 - A. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy were satisfied.
 (Non-cited violation(s) was/were discussed involving the following requirement(s))

 - B. The following violation(s) is/are being cited in accordance with NRC Enforcement Policy. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.
 (Violations and Corrective Actions)

Statement of Corrective Actions

I hereby state that, within 30 days, the actions described by me to the Inspector will be taken to correct the violations identified. This statement of corrective actions is made in accordance with the requirements of 10 CFR 2.201 (corrective steps already taken, corrective steps which will be taken, date when full compliance will be achieved). I understand that no further written response to NRC will be required, unless specifically requested.

TITLE	PRINTED NAME	SIGNATURE AND DATE
LICENSEE'S REPRESENTATIVE		
NRC INSPECTOR	Ryan Craffey	 <small>Digitally signed by Ryan J. Craffey Date: 2022.12.06 13:47:30 -05'00'</small>
BRANCH CHIEF	Rhex Edwards	 <small>Digitally signed by Rhex A. Edwards Date: 2022.12.14 06:30:55 -06'00'</small>



Materials Inspection Record

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4. Report Number(s): 2022-001	5. Date(s) of Inspection: November 17, 2022
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6. Inspector(s): Ryan Craffey	7. Program Code(s): 01110 / 03620	8. Priority: 5	9. Inspection Guidance Used: IP 87126
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10. Licensee Contact Name(s): Jim Center - RSO	11. Licensee E-mail Address: james.center@wmich.edu	12. Licensee Telephone Number(s): 269-387-5933
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13. Inspection Type: <input type="checkbox"/> Initial <input checked="" type="checkbox"/> Routine <input type="checkbox"/> Announced <input type="checkbox"/> Non-Routine <input checked="" type="checkbox"/> Unannounced	14. Locations Inspected: <input type="checkbox"/> Hybrid <input checked="" type="checkbox"/> Main Office <input checked="" type="checkbox"/> Field Office <input type="checkbox"/> Temporary Job Site <input type="checkbox"/> Remote	15. Next Inspection Date (MM/DD/YYYY): 11/17/2027 <input checked="" type="checkbox"/> Normal <input type="checkbox"/> Extended <input type="checkbox"/> Reduced <input type="checkbox"/> No change
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16. Location(s) Inspected List:

West Campus - Haenicke Hall
Parkview Campus - Paper and Printing Science Pilot Plant

17. Scope and Observations:

WMU is a public research university with 16,600 students and 860 academic staff authorized by a broad scope license to use byproduct material for scientific research and a limited scope license to use fixed and portable nuclear gauges. Activities under the broad scope license were limited to the use of radiolabeled compounds containing C-14 by two principal investigators for plant microbiology research at Haenicke Hall on the West (main) campus as well as storage of waste, disused sources, and potentially contaminated laboratory equipment incident to disposal. Activities under the limited scope license included the use of one ABB Model TG-1 scanner and two Impact Systems 4400 series scanners containing Kr-85 sources for thickness measurements in paper science research as well as storage of various devices incident to disposal, including two Troxler 3216 portable roofing gauges, two CPN Model 503 Hydroprobe portable gauges and a Pm-147 source recently exchanged by the manufacturer for a new Kr-85 source in the ABB scanner. The licensee's RSO was based at Haenicke Hall.

The inspector toured areas of use and storage at WMU's West and Parkview campus. All areas were adequately posted, and all licensed material was adequately secured. Independent surveys in these areas found no evidence of residual contamination or exposures to members of the public in unrestricted areas. The inspector interviewed the RSO and personnel at the Paper and Printing Science Pilot Plant to discuss the safe use of material. The inspector confirmed that the licensee performed shutter checks of its fixed gauges more often than required, but did not maintain documentation that recorded the results of these tests. This was noted as a minor violation of LC 21.B. The licensee committed to develop and implement shutter check records and maintain them as required. The inspector also reviewed a selection of records, including semiannual sealed source inventories and leak test results, source transfer records, radiation safety training records, monthly area survey results, and annual audits. No other violations of NRC requirements were identified as a result of this inspection.

Signature and Date - Branch Chief

Digitally signed by Rhex A. Edwards
Date: 2022.12.14 06:30:25 -06'00'