NRC FORM 592M
(10-2020)

U.S. NUCLEAR REGULATORY COMMISSION

Materials Inspection Record

1. Licensee Name:	2. Docket Number(s):	3. License Number(s)
McLaren - Greater Lansing	030-02037	21-04073-01

4. Report Number(s):	5. Date(s) of Inspection:
2022-001	January 10 and 12-13, 2022

6. Inspector(s):	7. Program Code(s):	8. Priority:	9. Inspection Guidance Used:
Ryan Craffey	02230	2	IP 87131 and 87132

10. Licensee Contact Name(s):	11. Licensee E-mail Address:	12. Licensee Telephone Number(s):
Kimberly Grove - RSO	kimberly.grove@mclaren.org	517-975-6376
Michael Huberts - AMP	michael.huberts@mclaren.org	517-975-7811
Tracy King - Consultant	tking@mpcphysics.com	734-662-3197

13. Inspection Type:	14. Locations Inspected:	15. Next Inspection Date (MM/DD/YYYY):
☐ Initial	☑ Main Office	01/10/2024
☑ Routine	☑ Field Office	☑ Normal
☑ Announced	☐ Temporary Job Site	☐ Extended
☐ Non-Routine	☐ Remote	☐ Reduced
☐ Unannounced		☐ No change

16. Scope and Observations:

This regional hospital was authorized to use byproduct material for diagnostic and therapeutic medical purposes at its main campus on Greenlawn in Lansing, MI, at two satellite facilities in Lansing and Okemos, MI, and at a new main campus on Collins in Lansing, expected to open by late February 2022. At the main campus on Greenlawn, the licensee performed diagnostic administrations daily at its general nuclear medicine and its cardiology departments, as well as occasional therapeutic administrations of I-131 NaI capsules and Ra-223 Xofigo. The licensee had not yet performed any Y-90 microsphere therapies but was expecting to do so after moving to the new hospital. The licensee occasionally used a Varian Bravos HDR unit at its radiation oncology department and had performed 13 manual brachytherapy treatments for prostate cancer with I-125 seeds since the last inspection. However, the licensee had transitioned to using its new HDR unit for prostate as well as gynecological cancer treatments, and thus had discontinued its use of manual brachytherapy. At the satellite facilities in Lansing and Okemos, the licensee performed diagnostic administrations daily and occasional I-131 NaI therapies (Lansing only).

The inspector visited the main campus on Greenlawn in Lansing as well as both satellite facilities, and toured the new hospital on Collins while it was still under construction. All areas were properly posted and all licensed material was adequately secured. The inspector noted that the doors to both hot labs at the new hospital did not lock; the licensee immediately addressed this. Readings from independent surveys in restricted and unrestricted areas of existing facilities were within regulatory limits, and no contamination was noted. The inspector observed several diagnostic administrations of Tc-99m and I-123 and receipt of packages containing licensed material at the main hospital's cardiovascular department and at both satellite facilities. The inspector also observed demonstrations of HDR daily spot checks and implementation of emergency response procedures at radiation oncology. The inspector interviewed several nuclear medicine technologists, a medical physicist, members of licensee management, and the RSO. All were knowledgeable of radiation protection principles, licensee procedures, and regulatory requirements, and utilized appropriate ALARA practices, personnel dosimetry, and calibrated instrumentation throughout.

The inspector reviewed a selection of records including RSC minutes, quarterly audits, dosimetry reports, routine nuclear medicine records, HDR source exchange, calibration, and annual documentation, as well as a selection of records for I-131 NaI and Ra-223 Xofigo therapies, HDR treatments, and permanent implant brachytherapy treatments. The inspector also reviewed the licensee's procedures for Y-90 microsphere therapies, and noted that the licensee was not yet authorized to perform these therapies at the new hospital. The licensee acknowledged this and committed to submit and obtain an amendment request prior to possessing or using microspheres there.

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