

INSPECTION RECORD

Region: III

Inspection Report No. 2016001

License No. 21-01430-01

Docket No. 030-02009

Licensee: Edward W. Sparrow Hospital  
1215 East Michigan Avenue  
Lansing, MI 48909

Locations Inspected: 1215 East Michigan Avenue, Lansing, MI  
805 South Oakland Street, St. Johns, MI

Licensee Contact: Marty Johnson, Radiation Safety Officer Telephone No. 517-364-2167

Program Code: 02230 Priority: 2

Type of Inspection: ( ) Initial (X) Routine ( ) Announced  
( ) Special (X) Unannounced

Last Inspection Date: 01/14-16/2014 Date of This Inspection: 04/12-13/2016

Next Inspection Date: 04/12/2018 (X) Normal ( ) Reduced

Summary of Findings and Actions:

- ( ) No violations cited, clear U.S. Nuclear Regulatory Commission (NRC) Form 591 or regional letter issued
- ( ) Non-cited violations (NCVs)
- ( ) Violation(s), Form 591 issued
- (X) Violation(s), regional letter issued
- ( ) Follow-up on previous violations

Inspector: Ryan Craffey, Health Physicist

/RA/ \_\_\_\_\_  
Signature

Date 5/9/2016

Approved: Aaron T. McCraw, Chief, MIB

/RA/ \_\_\_\_\_  
Signature

Date 5/9/2016

## **PART I – LICENSE, INSPECTION, INCIDENT/EVENT AND ENFORCEMENT HISTORY**

### 1. AMENDMENTS AND PROGRAM CHANGES SINCE LAST INSPECTION:

| <u>AMENDMENT #</u> | <u>DATE</u> | <u>SUBJECT</u> |
|--------------------|-------------|----------------|
| 115                | 08/28/15    | Renewal        |
| 114                | 12/01/14    | Upgraded HDR   |

### 2. INSPECTION AND ENFORCEMENT HISTORY:

| <u>REPORT</u> | <u>DATE</u> | <u>RESULTS</u>                           |
|---------------|-------------|--|
| 2014001       | 01/14-16/14 | Previous violation closed                |
| 2011002       | 10/25-27/11 | No violations of NRC safety requirements |
| 2011001       | 10/25-27/11 | Security related violation               |

### 3. INCIDENT/EVENT HISTORY:

No open items or events since the last routine inspection.

## **PART II – INSPECTION DOCUMENTATION**

### 1. ORGANIZATION AND SCOPE OF PROGRAM:

Edward W. Sparrow Hospital was authorized by its NRC license to use byproduct material for diagnostic and therapeutic medical purposes at its main facility in Lansing, Michigan, and for diagnostic medical purposes at a satellite facility in St. Johns, Michigan. At the time of the inspection, the licensee's cancer center routinely performed HDR treatments for breast and gynecological cancers (200-300 fractions annually), I-131 administrations for thyroid carcinoma (50 capsules annually) and occasional permanent implant brachytherapy for prostate cancer (two treatments in 2015, none yet in 2016). The licensee's main nuclear medicine department performed occasional I-131 administrations (up to 33 mCi) as well as 10-15 general nuclear medicine studies per day using unit and bulk doses over two shifts, while a separate department at the facility performed four to five cardiac stress tests over one shift. At the satellite facility in St. Johns, the licensee performed four to five diagnostic administrations each weekday. The licensee also possessed a blood irradiator at the main facility.

The licensee's Radiation Safety Officer (RSO) was an Authorized Medical Physicist, based in the cancer center. The licensee retained the services of a medical physics consultant to audit various aspects of the radiation safety program, and retained a Radiation Safety Committee (RSC), which met quarterly.

The licensee was currently building a new cancer center across the street from its main facility, and expected the new center to be completed by June 2017. The RSO was aware of the need for an amendment to the license prior to moving licensed material and beginning licensed activities.

2. SCOPE OF INSPECTION:

Inspection Procedures Used: 87131, 87132

Focus Areas Evaluated: All

The inspector toured the facilities in Lansing and St. Johns to evaluate the licensee's measures for materials security, hazard communication and exposure control. The inspector observed the conduct of one HDR fraction at the cancer center and numerous diagnostic administrations at both facilities. The licensee's staff also demonstrated the implementation of various procedures, including those for planning and administration of treatments requiring a written directive, receipt of packages containing radioactive material, decay-in-storage waste handling, and area surveys. The inspector also discussed the use and maintenance of the licensee's blood irradiator with laboratory staff.

The inspector reviewed a sample of relevant records, including written directives, treatment plans and verifications for HDR, manual brachytherapy and I-131 administrations, HDR daily spot check documentation, routine nuclear medicine records, personnel dosimetry reports, irradiator use logs and maintenance records, quarterly consultant audits, quarterly RSC meeting minutes.

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

Using a Ludlum 2403 survey meter with a model 44-38 energy-compensated GM detector calibrated on August 8, 2015, and a ThermoFisher Scientific RadEye G instrument calibrated on November 16, 2015, the inspector conducted independent and confirmatory surveys at each of the locations inspected. The inspector found no readings that would indicate residual contamination or exposures to members of the public in excess of regulatory limits. Furthermore, the inspector found that the licensee's survey instruments were calibrated, operable, and appropriate for the circumstances in which they were used.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

No violations of NRC safety requirements were identified as a result of this inspection. However, violations of NRC security requirements were identified, and are discussed further in the non-public Security Addendum to this inspection report.

5. PERSONNEL CONTACTED:

- Aaron Anzell – Nuclear Medicine Technologist
- Susan Baylis – Lieutenant (Lansing Police Department)
- Briggite Becker – Charge Clinical Lab Scientist
- Jeanne Beresford – Nuclear Medicine Technologist
- Todd Cassidy – Security and Parking Manager
- Jim Dorosch – Security Officer
- Ashley Gilpin, Nuclear Medicine Technologist
- James Herman, MD – Medical Director, Radiation Oncology
- #^ Marty Johnson – Authorized Medical Physicst, RSO
- # Jeff Kay – Safety Officer
- # Diana Locke – Radiology Director
- # Tom Ostrander – Vice President of Professional Services
- # Joy Szila – Radiology Director
- # Teresa Verscheure – Human Resources Executive Director
- # Ashley Wezensky – Team Advisor, Nuclear Medicine
- # Stephanie Wickman – Recruiter (Human Resources)
- # Dan Williams – Administrative Director, Radiation Oncology
  
- # Attended preliminary exit meeting on April 13, 2016.
- ^ Participated in final exit meeting by telephone on April 19, 2016