

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:

DLP Marquette General Hospital, LLC
d/b/a UP Health System - Marquette
580 West College Avenue
Marquette, MI 49855

REPORT NUMBER(S) 2015-001

2. NRC/REGIONAL OFFICE

Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

3. DOCKET NUMBER(S)

030-18133

4. LICENSE NUMBER(S)

21-05432-04

5. DATE(S) OF INSPECTION

October 5, 2015

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:

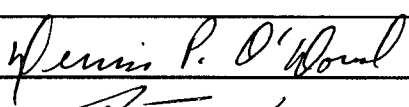
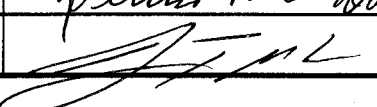
- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is being taken, and the remaining criteria in the NRC Enforcement Policy, to exercise discretion, were satisfied.

_____ Non-cited violation(s) were discussed involving the following requirement(s):

- 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and 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	DATE
LICENSEE'S REPRESENTATIVE			
NRC INSPECTOR	Dennis P. O'Dowd		10/05/15
BRANCH CHIEF	Aaron T. McCraw		11/6/15

Docket File Information

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6. INSPECTION PROCEDURES USED 87131, 87132	7. INSPECTION FOCUS AREAS 03.01-03.07
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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 02240	2. PRIORITY 2	3. LICENSEE CONTACT Kevin S. Gostenik, M.D., RSO	4. TELEPHONE NUMBER (906) 225-3328
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Main Office Inspection Next Inspection Date: 10/05/2017
 Field Office Inspection
 Temporary Job Site Inspection

PROGRAM SCOPE

This was a routine, unannounced inspection of a large hospital that served Marquette, Michigan and the surrounding area. The licensee was authorized to perform diagnostic and therapeutic nuclear medicine, PET studies, and yttrium-90 SIR-Spheres for liver cancer treatments. The licensee received a Mo-99/Tc-99m generator each week for diagnostic studies, including bone (179/year(y)), lung (84/y), gastric emptying (42/y), cardiac (1348/y). No xenon-133 studies were performed. The licensee performed thyroid treatments administering iodine-131 (I-131) in capsule form: approx. 7 ablations/year using greater than 100 mCi of I-131; 11 hyperthyroid treatments using 15-20 mCi of I-131. The licensee also performed approx. 950 PET diagnostic scans/y using F-18. The licensee performed two treatments with Y-90 microspheres in 2015, and three in 2014. In August 2015, the licensee transferred its inventory of Cs-137 low dose brachytherapy sources (possessed for several years as "storage use only") to a licensed radioactive waste broker. The licensee employed 5 full-time technologists who rotated between nuclear medicine, PET, and the cardiac stress lab.

Performance Observations

This inspection consisted of interviews with select licensee personnel; tour of all materials use/storage areas; independent measurements; and a review of select records. Through interviews conducted with available staff, and direct observations of three diagnostic administrations, the licensee demonstrated an adequate level of understanding of emergency and material handling procedures and techniques. Dose calibrator constancy checks, package receipt, daily and weekly surveys, waste handling and disposal procedures were successfully demonstrated. The inspector reviewed written directives (WD) and supporting documentation for all administrations requiring a WD (incl Y-90 microspheres) since the previous inspection. The administrations were completed in accordance with regulatory requirements and licensee's procedures. In July 2015, a new RSO was designated replacing the previous long-serving RSO. The licensee recently employed the services of an outside consultant to perform quarterly program audits that appear to be adequate to maintain program compliance. Licensed material was observed as adequately secured during the review and was not readily accessible to members of the general public. Survey meters were found to be calibrated and operational, and performed well (within 10 percent) in side-by-side comparison with an NRC instrument. The well counter and the thyroid probe were calibrated by the licensee annually. Sources were inventoried and leak tested at appropriate frequencies. Personal whole body and extremity dosimetry badges were observed being worn by the staff during the inspection, and records since the previous inspection did not indicate doses in excess of 10 CFR Part 20 limits. No violations were identified during this inspection.