

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

1. LICENSEE/LOCATION INSPECTED:

Memorial Hospital  
615 North Michigan Street  
South Bend, IN 46601

REPORT NUMBER(S) 2018001

2. NRC/REGIONAL OFFICE

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

3. DOCKET NUMBER(S)

030-17335

4. LICENSE NUMBER(S)

13-18881-01

5. DATE(S) OF INSPECTION

July 9-11, 2018

**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:

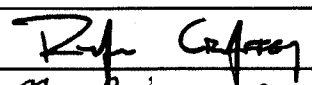

- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is 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	Ryan Craffey		7/11/18
BRANCH CHIEF	Aaron McCraw	 for ATM	8/15/18

**Docket File Information**

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6. INSPECTION PROCEDURES USED 87131, 87132	7. INSPECTION FOCUS AREAS All
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**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S) 02230	2. PRIORITY 2	3. LICENSEE CONTACT Daniel Archambeault, MS - RSO	4 TELEPHONE NUMBER (574) 204-7215
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- Main Office Inspection      Next Inspection Date: 07/09/2020
- Field Office Inspection    610 N Michigan Avenue & 301 E Day Road
- Temporary Job Site Inspection

**PROGRAM SCOPE**

This was an unannounced routine inspection of a regional hospital authorized to use byproduct material for diagnostic and therapeutic medical purposes at its campus in South Bend, Indiana, and at a satellite facility in Mishawaka. At the main hospital (615 North Michigan), the licensee operated its HDR unit weekly to perform gynecological, breast, and prostate cancer treatments, performed occasional permanent implant brachytherapy for prostate cancer, and performed around a dozen diagnostic administrations per day and 8-10 therapeutic administrations per quarter at its nuclear medicine laboratory. At Beacon Advanced Cardiovascular Specialists (610 N Michigan), the licensee performed 4-6 cardiac stress tests each morning, and at the Memorial Regional Cancer center (301 E Day), the licensee performed around four PET scans each morning. The licensee has not performed any administrations of Y-90 microspheres since before the last inspection. Note that the licensee's RSO currently works most days at the facility on Day Road, but will be moving back (along with the PET lab) to the main hospital later in 2018.

**PERFORMANCE OBSERVATIONS:** The inspector toured all three facilities to evaluate the licensee's measures for materials security, hazard communication, and exposure control. The inspector conducted independent and confirmatory surveys of these facilities, and found no evidence of residual contamination or exposures to members of the public in excess of regulatory limits. The inspector observed a prostate HDR treatment (including HDR unit spot checks and treatment planning), a therapeutic administration of I-131, and several diagnostic administrations at each facility. The inspector also observed the conduct of area surveys and receipt of packages containing licensed material, HDR annual drills, and a demonstration of HDR unit full calibrations. The inspector interviewed members of the licensee's staff to discuss procedures for the safe use of licensed material, ALARA practices, and oversight of the radiation safety program. The inspector reviewed written directives as well as planning and verification documentation for a selection of HDR treatments, prostate seed implants, and I-131 and Ra-223 therapies performed since the last inspection. The inspector found that the licensee's procedures provided high confidence that such treatments were performed in accordance with these written directives. The inspector also reviewed a selection of other records, including RSC meeting minutes, health physics consultant audits, HDR spot check and full calibration records, personnel dosimetry, and training documentation.

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

*GW for ATM*  
*8/15/18*