

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: Mercy Hospital Jefferson P.O. Box 350 Crystal City, MO 63019 REPORT NUMBER(S) 17001	2. NRC/REGIONAL OFFICE Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352
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3. DOCKET NUMBER(S) 030-14837	4. LICENSE NUMBER(S) 24-18315-01	5. DATE(S) OF INSPECTION July 28, 2017
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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	Zahid Sulaiman, Health Physicist	<i>Zahid Sulaiman</i>	7/28/17
BRANCH CHIEF	Aaron T. McCraw, Chief, MIB	<i>[Signature]</i>	8/18/17

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) 02120	2. PRIORITY 3	3. LICENSEE CONTACT Brian Johnson, Manager Imaging Svcs	4. TELEPHONE NUMBER (636) 933-1202
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Main Office Inspection Next Inspection Date: 07/28/2020

Field Office Inspection _____

Temporary Job Site Inspection _____

PROGRAM SCOPE

This was a routine unannounced inspection of a 191-bed regional hospital that was authorized to use licensed materials under 10 CFR 35.100, 35.200, 35.300, and 35.400. The nuclear medicine department was staffed with four full-time nuclear medicine technologists (NMT) and one PRN who performed approximately 200 diagnostic procedures monthly, primarily cardiac stress tests, HIDA, bone scans, lung scans using DTPA or MAA, gastric emptyings, and other diagnostic procedures. The licensee also performed approximately five iodine-131 (I-131) therapies annually, and three radium-223 (Ra-223) xofigo treatments since the last inspection (last treatment performed was 7 May, 2015). The licensee received unit doses, and I-131 in capsule form from a licensed radiopharmacy. The licensee also The Shared Imaging Mobile PET/CT company provided the Mobile PET/CT diagnostic procedures every Tuesday afternoon. The cancer center was staffed with an oncologist, a dosimetrist, and a part-time authorized medical physicist (AMP) who performed approximately 15 manual barchytherapy procedures using iodine-125 (I-125) for prostate seed implants annually. The licensee performed manual brachytherapy prostate seed implant procedures on Tuesdays. The licensee was building a new cancer center facility at the main hospital and will relocate the cancer center to the new facility by end of this year. The licensee RSO and the AMP duties will be merged with the Mercy Hospital, St. Louis (Lic No. 24-00794-03). Licensee was in the process of submitting the license amendment request for the new transition.

Performance Observations

The inspection consisted of interviews with select licensee personnel; review of select records; tours of the nuclear medicine department and cancer center; and independent measurements. At the time of the inspection, no licensed activities were conducted. The inspector: (1) observed the NMT conduct a physical inventory of sealed sources, and all sources were accounted for; (2) had the NMT demonstrate the dose calibrator constancy check, package receipt and check-in procedures, the end of the day daily area surveys and weekly wipe test, and proper handling of radioactive waste and disposal procedures. The inspector reviewed the written directives for I-131 cancer therapy and Ra-223 xofigo treatments, with no issues noted. The inspector also reviewed selected I-125 prostate seed implants written directives, and discussed pre and post treatment plans, and the medical event criteria with an authorized user.

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Mercy Hospital Jefferson

P.O. Box 350

Crystal City, MO 63019

REPORT NUMBER(S) 17001

2. NRC/REGIONAL OFFICE

Region III

U. S. Nuclear Regulatory Commission

2443 Warrenville Road, Suite 210

Lisle, IL 60532-4352

3. DOCKET NUMBER(S)

030-14837

4. LICENSE NUMBER(S)

24-18315-01

5. DATE(S) OF INSPECTION

July 28, 2017

(Continued)

The inspector reviewed the following records: quarterly program audits conducted by an outside consultant, radiation safety committee minutes (last meeting was on November 16, 2016), package receipts, waste disposal records, daily surveys and weekly wipes test results, linearity and accuracy of the dose calibrator, sealed source inventory and leak tests, and DOT Hazmat training.

The inspector also reviewed the dosimetry records for 2016 and through April 30, 2017, indicating the maximum annual dose to be 161 mrem - DDE, and 1,827 mrem - SDE. The inspector performed independent radiation measurements in each functional area that were consistent with licensee survey records and within regulatory limits.

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