

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: Barnes-Jewish St. Peter's Hospital 10 Hospital Drive Department of Radiology St. Peters, MO 63376 REPORT NUMBER(S) 2018001		2. NRC/REGIONAL OFFICE Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Rd, Suite 210 Lisle, IL 60532	
3. DOCKET NUMBER(S) 030-17414	4. LICENSE NUMBER(S) 24-18968-01	5. DATE(S) OF INSPECTION October 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	Zahid Sulaiman, Health Physicist	<i>Zahid Sulaiman</i>	10/11/18
BRANCH CHIEF	Aaron T. McCraw, Chief, MIB	<i>ATM</i> for ATM	10/26/18

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 Jeffery Springer, CNMT	4. TELEPHONE NUMBER (269) 985-4593
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Main Office Inspection Next Inspection Date: 09/20/2020
 Field Office Inspection
 Temporary Job Site Inspection

PROGRAM SCOPE

This was a routine, unannounced inspection of a hospital located in St. Peters, Missouri, with authorization to use byproduct materials under 10 CFR Sections 35.100, 35.200, 35.300, and 35.400. The nuclear medicine department was staffed with three full-time nuclear medicine technologists (NMTs) who performed approximately 200 diagnostic doses monthly, approximately twenty iodine-131 (I-131) hyperthyroid treatments, and approximately two radium-223 therapy procedures annually. The diagnostic procedures included a variety of imaging and uptake procedures using technetium-99m (Tc-99m) and xenon-133. Diagnostic doses were received as unit doses or prepared from bulk Tc-99m from a licensed radiopharmacy. I-131 doses were received as capsules only. All waste was either held for decay-in-storage (DIS) or returned to the radiopharmacy. The oncology department was staffed with one full-time and a part-time oncologists, two authorized medical physicists (AMPs), seven therapists, and two dosimetrists who performed approximately 60-70 iodine-125 (I-125) prostate permanent seeds implants annually.

Performance Observations:

The inspection consisted of interviews with select licensee personnel; a review of select records; and tours of the nuclear medicine, and oncology department. The inspector observed preparation and administration of Tc-99m for diagnostic procedures on two patients. The inspector: (1) observed the NMT and AMP conduct a physical inventory of sealed sources, and all sources were accounted for; (2) had the NMT demonstrate the package receipt surveys and wipes, dose calibrator constancy check, daily area surveys and weekly wipe tests, and proper handling of radioactive waste and disposal procedures; (3) provided a spill scenarios and had the NMT demonstrate the spill response and clean up. Interviews with licensee personnel indicated adequate knowledge of radiation safety, emergency procedures, and NRC regulations. The inspector reviewed select permanent seed implant brachytherapy and I-131 written directives and treatment plans. The inspector reviewed the following records: radiation safety committee minutes, quarterly program audits, package receipts, waste disposal records, DOT Hazmat training, linearity and accuracy of the dose calibrator, instrument calibration, sealed source inventory and leak tests, daily area surveys, and weekly wipe tests. The inspector reviewed the dosimetry records for 2017 and through August 31, 2018 indicating the maximum annual dose to be 194 mrem - DDE; and 1,685 mrem - SDE. The inspector conducted independent and confirmatory surveys and found no residual contamination or exposures to members of the public in excess of regulatory limits.

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