

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

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| 1. LICENSEE/LOCATION INSPECTED: Saint Luke's Hospital of Kansas City 4401 Wornall Road Kansas City, MO 64111 REPORT NUMBER(S) 13-001 | | 2. NRC/REGIONAL OFFICE Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352 | |
| 3. DOCKET NUMBER(S) 030-02286 | 4. LICENSE NUMBER(S) 24-00889-01 | 5. DATE(S) OF INSPECTION August 19-22, 2013 | |

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:


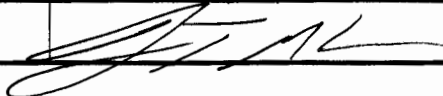
- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is 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 | Deborah A. Piskura, Health Physicist |  | 8/22/13 |
| BRANCH CHIEF | Aaron T. McCraw, Chief, MIB |  | 8/26/13 |

Docket File Information

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| 6. INSPECTION PROCEDURES USED 87130, 87131, 87132 | 7. INSPECTION FOCUS AREAS 03.01- 03.07 |
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SUPPLEMENTAL INSPECTION INFORMATION

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|---------------------------------|----------------------|--|---|
| 1. PROGRAM CODE(S) 02110 | 2. PRIORITY 2 | 3. LICENSEE CONTACT Roy N. Sions, RSO | 4. TELEPHONE NUMBER (816) 932-6296 |
|---------------------------------|----------------------|--|---|

- Main Office Inspection Next Inspection Date: August 2015
- Field Office Inspection Plaza III; East Hospital Lee's Summit(2 sites)
- Temporary Job Site Inspection Medical Bldg, Clinton, MO

PROGRAM SCOPE

This licensee was a large medical institution (600+ beds at the main hospital) and conducted licensed activities at 10 locations in the Kansas City area. The licensee operated a Type A broad scope program with authorization for materials in Sections 35.100, 35.200, 35.300, 35.400, 35.500, Ir-192 in an HDR unit, Y-90 microspheres, and medical R&D protocols. The hospital employed a dedicated full-time RSO supported by an Assistant RSO. Collectively, the licensee's nuclear medicine departments were staffed with 10 FT technologists (who rotate to the other sites) and PRNs who performed approximately 800+ diagnostic nuclear medicine procedures monthly. The licensee administered diagnostic studies at its Clinton facility on Wednesdays. Most locations performed a full spectrum of studies and received unit doses and bulk Tc-99m. The main hospital and its Lee Summit satellite hospital administered numerous I-131 dosages (capsules only) for whole body follow up studies, hyperthyroid, and CA treatments. The department administered 4-5 Y-90 microspheres (SIRSPheres) treatments annually.

Radiation therapy activities were performed at the main hospital. The radiation oncology department was staffed with 3 AMPs, 3 dosimetrists, and 4 authorized physician users. The licensee administered approximately 200-300 patient treatments annually utilizing its HDR. These treatments included a variety of cancer cases. All HDR patient treatments were administered by the attending radiation oncologist and the AMP. Service, maintenance, and source exchanges were performed by the HDR device manufacturer. Brachytherapy activities included I-125 eye plaques (5-6 cases/yr) Cs-137 temporary GYN implants (80-100 cases/yr) and Cs-137/Ir-192 temporary GYN implants (1-2 cases/yr).

This inspection consisted of interviews with select licensee personnel; a review of select records; tours of the nuclear medicine and radiation oncology departments; and independent measurements. The inspector observed the licensee staff administer several diagnostic dosages, 2 patient treatments utilizing its HDR unit, and 2 Cs-137 temporary GYN implants. The inspector reviewed the patients' written directives and the treatment plans and interviewed the attending physicians and AMPs. The inspection included observations of source inventories, source loadings, HDR safety checks, security of byproduct material, use of personnel monitoring, patient and patient room surveys, and patient room postings.