NRC FORM 591M PART 1 (10-2003) 10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

# SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

| 1. LICENSEE/LOCATION INSPECTED: | 2. NRC/REGIONAL OFFICE |
|---|---|
| Boone Hospital Center<br>1600 East Broadway<br>Columbia, MO 65201<br><br>REPORT 2005/002 | U.S. Nuclear Regulatory Commission<br>Region III<br>2443 Warrenville Road, Suite 210<br>Lisle, IL 60532-4351 |

| 3. DOCKET NUMBER(S) | 4. LICENSEE NUMBER(S) | 5. DATE(S) OF INSPECTION |
|---|---|---|
| 030-02304 | 24-01565-01 | 10/11/2005 |

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, NUREG-1600, to exercise discretion, were satisfied.

_____ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(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. This form is a NOTICE OF VIOLATION, which may be subject to posting in accordance with 10 CFR 19.11.

*(Violations and Corrective Actions)*

## Licensee's Statement of Corrective Actions for Item 4, above.

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 | Tony S. Go | | 10/19/05 |

NRC FORM 591M PART 3 (10-2003) 10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

*Docket File Information*

# SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

| 1. LICENSEE | 2. NRC/REGIONAL OFFICE |
|---|---|
| Boone Hospital Center<br>REPORT NUMBER(S) 2005/002 | U.S. Nuclear Regulatory Commission<br>Region III |

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| 6. INSPECTION PROCEDURES | 7. INSPECTION FOCUS AREAS |
|---|---|
| 87134 | 03.01 - 03.07 |

## SUPPLEMENTAL INSPECTION INFORMATION

| 1. PROGRAM | 2. PRIORITY | 3. LICENSEE CONTACT | 4. TELEPHONE NUMBER |
|---|---|---|---|
| 2240 | 2 | Liesje Dotson | (573)-815-3386 |

[X] Main Office Inspection — Next Inspection Date: 10/07

[ ] Field Office _____

[ ] Temporary Job Site _____

PROGRAM SCOPE

NRC FORM 591M PART 3 (10-2003)

## Program Scope

The licensee is a 375-bed hospital. At this facility, the nuclear medicine department performed approximately 400 diagnostic and therapeutic nuclear medicine procedures per month. As of the inspection date, the licensee performed approximately 80 treatments of hyperthyroid /ablation therapies, and palliative treatments using P-32, Sm-153 and Y-90 Zevalin pharmaceuticals. The licensee's oncology department also performed Sr-90 eye applicator treatments for pterygium, 20 permanent seed implants with I-125, 6 low dose brachytherapies, and 41 cases of HDR treatments in 2005. As of this inspection date, the licensee did not participate in the FDA approved investigational exemption (IDE) devices for human or animal clinical trials since the last inspection. The licensee's cordis IVB unit was returned to the manufacturer, and the licensee had not conducted IVB treatments since the last two inspections. At this facility, the licensee also possessed one Nucletron Micro Selectron HDR Version two Model. The licensee performed approximately 40 to 50 treatments per year with this unit. However, during the inspection, the licensee's management indicated to the inspector that the HDR unit will be decommissioned in the near future.

## Performance Observations

Since the last reactive inspection that resulted in Severity Level III (EA-05-127) with civil penalty, the licensee had corrected the violation. The licensee's RSO and management trained both surgical and central supply technicians on how to handle cartridges containing I-125 seeds prior any surgical implantations. The licensee also updated the procedures to better coordinate the communication between physicists/dosimetrists and the surgical staffs during any implantation procedures.

During the routine inspection, the licensee's technologists demonstrated the following activities to the inspector: (1) daily and weekly radiation surveys; (2) weekly removable contamination surveys; (3) a package receipt and return surveys by the technologists; and (4) a daily dose calibrator constancy check. The inspector also observed diagnostic administrations involving licensed materials, and observed that technologists use whole body and extremity dosimeters during dose administrations. In addition, the technologists were observed using syringe shields, dosimeters, lab coats and gloves during administering radioactive materials. The inspector also evaluated the licensee's oncology facility entrance control, specifically, to the HDR room. The inspector observed the testing of the HDR room safety systems. The room was equipped with an interlock system, and the inspector also verified the operability of the interlock system. As required by the license, the facility was also equipped with video camera and intercom system. The HDR unit was found locked inside a storage cabinet within the accelerator room. The keys for the HDR unit, the room, and the cabinet were maintained by the physicists. No repeat violations or concerns of NRC requirements were identified during the inspection.