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
Bloomington Hospital 605-625 West Second Street Bloomington, Indiana 47403 REPORT 2007-001	REGION III US NUCLEAR REGULATORY COMMISSION 2443 WARRENVILLE ROAD, SUITE 210 LISLE, ILLINOIS 60532

3. DOCKET NUMBER(S)	4. LICENSEE NUMBER(S)	5. DATE(S) OF INSPECTION
030-01644	13-10408-02	August 9, 2007

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	Geoffrey M. Warren		8/9/07

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
Bloomington Hospital REPORT NUMBER(S) 2007-001	**Region III**

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-01644	13-10408-02	August 9, 2007

6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
87131, 87132	03.01 - 03.08; 03.01 - 03.08

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
02120	3	William Van de Riet, Ph.D., RSO	812-353-2800

[X] Main Office Inspection — Next Inspection Date: **August 2010**

[ ] Field Office _____

[ ] Temporary Job Site _____

PROGRAM SCOPE

The licensee was a 220-bed hospital located in Bloomington, Indiana, which served southwestern Indinana. Licensee had authorization to use byproduct materials under Sections 35.100, 35.200, 35.300, and 35.400, as well as gadolinium-153 under 35.500. Licensed activities were conducted only at the facilities identified on the license.

The nuclear medicine department was staffed with three full-time nuclear medicine technologists. The licensee's nuclear medicine staff typically administered 200 diagnostic doses monthly in the nuclear medicine area. Doses were primarily technetium-99m for cardiac, hepatobiliary, and other studies. Doses were received as unit doses from a licensed radiopharmacy or prepared from bulk technetium. The nuclear medicine staff also performed around one procedure monthly using iodine-131, either whole body scans or hyperthyroid treatments, with the iodine-131 in capsule form. All waste was held for decay-in-storage (DIS) or returned to the radiopharmacy.

In radiation oncology, the radiation therapy staff included two oncologists, two physicists, and one dosimetrist. The staff typically performed around 25-30 prostate implants using iodine-125 and palladium-103 seeds, as well as five temporary implants with cesium-137 seeds annually.

According to the radiation safety officer, the licensee performed approximately 2-3 procedures annually at the licensee's facility on Cota Drive. These procedures were limited to outpatient radiopharmaceutical therapies using samarium-153. All waste was returned to the radiopharmacy.

Performance Observations

The inspector observed one diagnostic administration of licensed material including dose preparation and disposal, as well as dose calibrator constancy tests, package receipt surveys, and survey meter QC, and identified no issues with the activities. Licensee personnel demonstrated daily and weekly contamination surveys, and described procedures for radiopharmaceutical therapies and seed implants. The inspector found no concerns with these activities. The inspector reviewed written directives for iodine-131 radiopharmaceutical therapies and whole-body scans, as well as temporary and permanent seed implants, and found no issues. The inspector verified the licensee's inventory of cesium-137 seeds. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures. Radiation surveys indicated radiation levels consistent with licensee survey records.