

(10-2003)  
10 CFR 2.201

### SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION



1. LICENSEE/LOCATION INSPECTED: <b>St. Mary's Medical Center</b> <b>3700 Washington Avenue</b> <b>Evansville, Indiana 47750</b>	2. NRC/REGIONAL OFFICE  <b>REGION III</b> <b>US NUCLEAR REGULATORY COMMISSION</b> <b>2443 WARRENVILLE ROAD, SUITE 210</b> <b>LISLE, ILLINOIS 60532</b>
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REPORT 2007-001, -002, -003

3. DOCKET NUMBER(S) <b>030-20812</b>	4. LICENSEE NUMBER(S) <b>13-03226-04</b>	5. DATE(S) OF INSPECTION <b>January 24-25, 2007</b>
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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, NUREG-1600, to exercise discretion, were satisfied.

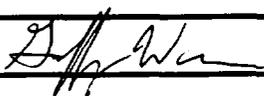
\_\_\_\_\_ Non-Cited Violation(s) was/were discussed involving the following requirement(s) and Corrective Action(s):

- 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		1/25/07

**Docket File Information**  
**SAFETY INSPECTION REPORT**  
**AND COMPLIANCE INSPECTION**



1. LICENSEE <b>St. Mary's Medical Center</b> REPORT NUMBER(S) 2007-001, -002, -003	2. NRC/REGIONAL OFFICE <b>Region III</b>
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3. DOCKET NUMBER(S) 030-20812	4. LICENSE NUMBER(S) 13-03226-04	5. DATE(S) OF INSPECTION January 24-25, 2007
6. INSPECTION PROCEDURES USED 87131, 87132, 87122	7. INSPECTION FOCUS AREAS 03.01 - 03.08, 03.01 - 03.08, 03.01 - 03.07	

**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S) 02230	2. PRIORITY 2	3. LICENSEE CONTACT Saiyid M. Shah, Ph.D., RSO	4. TELEPHONE NUMBER 812-474-1110
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Main Office Inspection      Next Inspection Date: Jan. 2009

Field Office    Radiation Oncology Center (3801 Bellemeade Ave),

Temporary Job Site    Outpatient Clinic (901 St. Mary's Dr.)

**PROGRAM SCOPE**

The licensee was a 450-bed hospital located in Evansville, Indiana, which served the southwest Indiana region and nearby areas of Illinois and Kentucky. Licensee had authorization to use byproduct materials under Sections 35.100, 35.200, and 35.300, as well as a high dose rate (HDR) remote afterloader and a blood irradiator as described in the license. Licensed activities were conducted at the four facilities identified on the license. The new nuclear medicine clinic was as described in information submitted to the NRC. Licensee also operated a PET facility.

The nuclear medicine department was staffed with six full-time nuclear medicine technologists. The licensee's nuclear medicine staff typically administered 250 diagnostic doses monthly in the two nuclear medicine areas in the hospital and outpatient clinic. Doses were primarily technetium-99m for cardiac, bone, and other studies. In addition, licensee performed studies using indium-111 and iodine-123. Doses were received as unit doses from a licensed radiopharmacy or prepared from bulk technetium. Licensee performed around 75 iodine-131 treatments annually, including hyperthyroid treatments and thyroid ablations with the iodine-131 in capsule form. All waste was held for decay-in-storage (DIS) or returned to the radiopharmacy.

At the Radiation Oncology Center, the radiation therapy staff consisted of one oncologist, two physicists, and one dosimetrist. In 2006, the staff treated 14 patients with an HDR unit, primarily for breast cancer, with up to 10 fractions per patient, and also performed two radiopharmaceutical therapies, one each of yttrium-90 and samarium-153. All waste from these radiopharmaceutical therapies was returned to the pharmacy.

**Performance Observations**

The inspector observed three diagnostic administrations of licensed material including dose preparation and disposal, as well as a package receipt survey, and identified no issues with the procedures. Licensee personnel demonstrated dose calibrator and well counter constancy tests and daily and weekly contamination surveys, as well as HDR daily checks and blood irradiator procedures. The inspector found no concerns with these activities. The inspector reviewed written directives for radiopharmaceutical therapies and HDR treatments, and found no issues. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures. Radiation surveys indicated radiation levels consistent with licensee survey records.