NRC FORM 591M PART 1
(11-2003)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Barnes-Jewish St. Peter's Hospital 10 Hospital Drive, 100 Entrance Way, and 150 Entrance Way in St. Peters, MO REPORT NUMBER(S) 2007-001	REGION III US NUCLEAR REGULATORY COMMISSION 801 WARRENVILLE ROAD LISLE IL 60532-4351

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
03017414	24-18968-01	Onsite 9/18-19/2007

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 violations(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) 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. 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			
NRC INSPECTOR	Robert G. Gattone, Jr.	Robert G. Gattone, Jr.	10/9/07

NRC FORM 591M PART 3
(11-2003)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information

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1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Barnes-Jewish St. Peter's Hospital REPORT NUMBER(S) 2007-001	REGION III

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6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
87131	03.01-03.07

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
02120	3	Constance Courtois, M.D., RSO	314-495-3438

☑ Main Office Inspection Next Inspection Date: 09/19/2010

☐ Field Office Inspection

☐ Temporary Job Site Inspection

PROGRAM SCOPE

The inspection required receipt and review of information that was unavailable during the onsite inspection as it pertained to a whole body dose record for 2005 and a fetal dose in 2007 (summarized below). Therefore, the inspection was completed on 10/9/07.

The licensee conducted about 15 nuclear medicine procedures per day and about half were cardiac imaging studies. The licensee administered about 40 iodine-131 dosages per year for hyperthyroidism therapy. In addition, the licensee administered iodine-125 seeds for prostate cancer therapy about 75 times per year. Iodine-131 was not administered during the onsite inspection.

Based on review of dosimetry records and additional information provided to the inspector after the onsite inspection, the maximum whole body and extremity doses received through July 24, 2007, were 2,337 millirem and 6,070 millirem, respectively.

PERFORMANCE OBSERVATIONS

The inspector observed that licensed material was secured from unauthorized access, that selected facilities were as authorized on the license, licensee staff prepare and administer iodine-125 seeds to a patient, that selected facilities were posted as required, that selected licensee survey instruments were calibrated as required, an authorized medical physicist (AMP) and a nuclear medicine technologist (NMT) conduct survey instrument operability checks, licensee staff wearing dosimetry badges, an AMP conduct a post-iodine-125 implant patient survey, an AMP conduct a post-iodine-125 implant source inventory, an AMP demonstrate how quarterly post-iodine-125 implant therapy quality control checks were done, an NMT demonstrate implementation of procedures to ensure that administered iodine-131 dosages are as prescribed, and an NMT prepare and administer a diagnostic imaging dosage.

An individual's whole body badge, worn on the outside of a lead apron during x-ray studies, received 5,766 millirem in 2005. The individual was involved with x-ray and byproduct material use. Based on the licensee's dose estimate and the inspector's dose assessment, the maximum whole body dose received by the individual was 2,337 millirem in 2005.

In April 2007, the licensee administered 5.2 millicuries of technetium-99m labeled Choletec to a patient who initially denied pregnancy despite being pregnant. Based on the licensee's dose estimate and the inspector's dose assessment, the resulting fetal dose was approximately 300 millirem.