

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: Crittendon Hospital 1101 W. University Drive Rochester, MI		2. NRC/REGIONAL OFFICE Region III 2443 Warrenville Rd. Lisle, IL 60532	
REPORT NUMBER(S) 2609-001	3. DOCKET NUMBER(S) 030 02157	4. LICENSE NUMBER(S) 21-13562-01	5. DATE(S) OF INSPECTION 5/5/09

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) 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)
Contrary to 10CFR 35.40(b)(5), on several occasions as of 5/5/09, including 1/12/09, 3/23/09, 2/14/08, and 3/3/08, HDR afterloader written directives did not include the radionuclide.
The inspector observed that the licensee revised its HDR afterloader written directive form to include the radionuclide for future use.

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	Josiah L. Cavers	<i>Josiah L. Cavers</i>	5/5/09
NRC INSPECTOR	Robert G. Gattone, Jr.	<i>Robert G. Gattone, Jr.</i>	5/5/09

Docket File Information
SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: Crittenton Hospital REPORT NUMBER(S) 2009-01		2. NRC/REGIONAL OFFICE REGION III	
3. DOCKET NUMBER(S) 03002157		4. LICENSE NUMBER(S) 21-13562-01	5. DATE(S) OF INSPECTION 5/5/2009
6. INSPECTION PROCEDURES USED 87131, 87132		7. INSPECTION FOCUS AREAS 03.01-03.07	

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 02230	2. PRIORITY 2	3. LICENSEE CONTACT Judith Bender, M.D., RSO	4. TELEPHONE NUMBER 248-652-5325
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Main Office Inspection Next Inspection Date: 05/05/2011
 Field Office Inspection
 Temporary Job Site Inspection

PROGRAM SCOPE

The licensee used a Nucletron HDR unit with iridium-192 to conduct about 12 mammocyte treatments per year, and 3 gynecological treatments per year. Low dose rate brachytherapy was limited to 2 iodine-125 prostate implants per month. The licensee possessed no cesium-137 sources. Four full-time nuclear medicine technologists (NMTs) conducted the full spectrum of diagnostic nuclear medicine studies, averaging about 15 per day using unit dosages exclusively. Radiopharmaceutical therapy was limited to administration of less than 200 millicuries of iodine-131 (capsules only). No radiopharmaceutical therapy or brachytherapy was conducted during the inspection.

Performance Observations

The inspector noted: (1) that the Radiation Oncology Department was locked during off-duty hours; (2) that the hot lab was locked when unattended; (3) that, based on an interview with an NMT and review of selected records, the licensee implemented actions to ensure that iodine-131 was administered in accordance with the written directives; (4) the licensee evaluated the dose to members of the public prior to release of patients to achieve compliance with 10 CFR 35.75; (5) an NMT administer a diagnostic dosage to a patient; (6) that, based on review of selected records, the licensee's Radiation Safety Committee met quarterly and reviewed dosimetry results, written directive cases, and radiation survey results, among other things; (7) dosimetry records indicating that the staff received less than 10 percent of the occupational dose limits; (8) a maximum of 110 microrentgen per hour at selected surfaces in the hot lab based on the inspector's independent radiation surveys with an NRC survey instrument; (9) that, based on an interview with an authorized user and RSO and review of selected records, the licensee implemented actions to ensure that HDR and low dose brachytherapy administrations were in accordance with the written directives and treatment plans (e.g., CAT scans were done to verify Mammocyte balloon size prior to treatment, independent manual dose calculations were done to verify accuracy of treatment planning system dose calculations, patients were surveyed after treatment, checks were done to verify that the treatment plan data was accurately transferred from the treatment planning computer to the HDR unit, post implant images were done to verify iodine-125 seed location before patient release, and transrectal ultrasound imaging was done to verify proper iodine source positioning before implanting each source); (10) a maximum of 50 microrentgen per hour at selected surfaces of the HDR unit based on the inspector's independent radiation surveys with an NRC survey instrument; and (11) a violation of 10 CFR 35.40(b)(5) as documented in Part 1.

