NRC FORM 591M PART 1
(4-2010)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
North Kansas City Hospital 2800 and 2750 Clay Edwards Drive, North Kansas City, MO REPORT NUMBER(S) 2010-001	REGION III US NUCLEAR REGULATORY COMMISSION 2443 WARRENVILLE ROAD STE 210 LISLE IL 60532-4352

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
03013966	24-18628-01	5/26-27/10

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)

10 CFR 35.92, titled, "Decay-In-Storage," requires, in part, that a licensee may hold byproduct material with a physical half-life of less than or equal to 120 days for decay-in-storage before disposal without regard to its radioactivity if it conducts an appropriate radiation survey and determines that the radioactivity cannot be distinguished from background, and it removes or obliterates all radiation labels.

Contrary to the above, on April 16, 2010, the licensee disposed of 8 cobalt-57 sealed sources totalling about 9E-5 millicuries and 1 gadolinium-153 sealed source containing about 10E-7 millicuries by the decay-in-storage method, and the half-lives of cobalt-57 and gadolinium-153 are greater than 120 days.

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	Martin S. Richman	Martin Richman	6/18/10
NRC INSPECTOR	Robert G. Gattone, Jr.	Robert G. Gattone Jr.	6/18/10

RGG

NRC FORM 591M PART 2
(4-2010)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE	
North Kansas City Hospital REPORT NUMBER(S) 2010-001	REGION III	
3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
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(Continued)

The violation is being cited because the licensee failed to complete corrective actions to prevent recurrence within a reasonable time frame after it identified the violation. Specifically, the licensee identified the violation on or about May 5, 2010. However, it planned to implement a new policy that clarified decay-in-storage requirements after the policy would be approved during the next routine quarterly Radiation Safety Committee Meeting in July 2010. In addtion, the inspector noted that the individual who caused the violation was still unaware of the half-life limit for decay-in-storage during the inspection.

As corrective action, the licensee committed to develop and implement a policy no later than June 25, 2010, that describes decay-in-storage requirements that more clearly state that only material with a physical half-life of less than or equal to 120 days can be disposed by the decay-in-storage method. In addtion, the licensee committed to train all applicable staff regarding the requirements of 10 CFR 35.92 no later than June 25, 2010.

NRC FORM 591M PART 3
(4-2010)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
North Kansas City Hospital REPORT NUMBER(S) 2010-001	REGION III

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6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
87131, 87132	03.01-03.07

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
02230	2	Martin Richman, RSO	816-346-7869

☑ Main Office Inspection Next Inspection Date: 05/27/2012

☑ Field Office Inspection 2750 Clay Edwards Drive

☐ Temporary Job Site Inspection

PROGRAM SCOPE

The licensee conducted one Mammosite HDR treatment per year. The licensee conducted about 6 palladium-103 prostate implants per year. No brachytherapy was conducted during the inspection. Nuclear medicine activities included about 15 diagnostic imaging studies per day, 25 iodine-131 hyperthyroidism therapies per year, 150 iodine-131 whole body scans per year, 30 iodine-131 cancer treatments per year, and one Zevalin treatment per year. No generators were used.

Performance Observations

The inspector observed: (1) that licensed material was secured from unauthorized access; (2) that his independent ambient exposure rate surveys of accessible areas adjacent to the brachytherapy source storage room that was done with an NRC survey instrument yielded expected results; (3) a radiation therapist demonstrate how survey instrument operability checks were done before use; (4) that his independent ambient exposure rate survey of the accessible area adjacent to the brachytherapy source storage safe that was done with an NRC survey instrument yielded expected results; (5) the RSO demonstrate/discuss how the licensee implemented its written directive procedures for prostate implants, including post treatment verification that the administered dose was in accordance with the written directive and treatment plan; (6) that the HDR facility and equipment were as authorized; (7) a radiation therapist demonstrate how HDR spot checks were conducted; (8) selected staff wear dosimeter badges as required; (9) the RSO demonstrate/discuss how the licensee implemented its written directive procedures for HDR treatments, including post treatment verification that the administered dose was in accordance with the written directive and treatment plan; (10) a radiation therapist demonstrate how she would respond to a stuck HDR source based on a scenario posed by the inspector; (11) the RSO conduct a physical inventory of stored cesium-137 brachytherapy sources to verify that all were accounted for based on comparison with the last inventory record; (12) a nuclear medicine technologist (NMT) prepare and administer a diagnostic dosage to a patient: (13) an NMT demonstrate how she would respond to a radioactive spill based on a scenario posed by the inspector; (14) an NMT demonstrate/discuss how the licensee implemented its written directive procedures for iodine-131 administrations, including post administration verification that the administered dosage was in accordance with the written directive; (15) an NMT demonstrate how iodine-131 was administered; and (16) an NMT demonstrate/discuss how the licensee implemented its written directive procedures for Zevalin administrations, including post administration verification that the administered dosage was in accordance with the written directive. Based on review of applicable records, radiation doses received by staff were well below regulatory limits.

A violation of 10 CFR 35.92 was identified (See Part I).