NRC FORM 591M PART 1
(07-2012)
10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Southeast Missouri Hospital 1701 Lacey Street Cape Girardeau, MO 63701 REPORT NUMBER(S) 2012-001	Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352

3. DOCKET NUMBER(S)	4. LICENSE NUMBER(S)	5. DATE(S) OF INSPECTION
030-02264	24-00128-03	July 25-26, 2012

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, 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 in accordance with NRC Enforcement Policy. 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'S REPRESENTATIVE			
NRC INSPECTOR	Andrew Bramnik / Ryan Craffey	Andrew M Bramnik	7/26/12
BRANCH CHIEF	Tamara Bloomer	for	8/6/12

NRC FORM 591M PART 3
(07-2012)
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Docket File Information

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6. INSPECTION PROCEDURES USED	7. INSPECTION FOCUS AREAS
87131, 87132	87131: 03.01 - 03.09 87132: 03.01 - 03.10

SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S)	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
02240	2	Sam Hancock - RSO	(573) 651-5544

☑ Main Office Inspection Next Inspection Date: July 26, 2014

☑ Field Office Inspection 789 and 817 S. Mt. Auburn Rd., Cape Girardeau

☐ Temporary Job Site Inspection

PROGRAM SCOPE

NMED No. 100465

This was a routine inspection of a 260-bed regional hospital and a freestanding cancer center with an attached nuclear medicine imaging laboratory. The inspectors did not visit a private cardiology clinic that was also listed on the hospital's NRC license. The licensee was authorized to use byproduct material permitted under 10 CFR 35.100, 35.200, 35.300, 35.400, 35.500, 35.600 and 35.1000. At the main hospital, 6 nuclear medicine technologists (NMTs) conducted approximately 220 diagnostic administrations of byproduct material per month using unit doses and occasional bulk doses delivered by an area nuclear pharmacy. At the freestanding imaging laboratory, three NMTs conducted approximately three diagnostic nuclear medicine studies and three PET/CT scans per day. At the cancer center, the licensee conducted approximately 20 I-131 administrations per year, one Sr-90 eye applicator administration every other year, and 6 fractionated HDR treatments per year. At the time of this inspection, the licensee was preparing to switch from a Varian HDR unit to a Nucletron HDR unit in August 2012. The licensee had not conducted any I-125 GliaSite procedures since before the previous inspection. The licensee terminated the majority of its manual brachytherapy program in 2011 and demonstrated that all sealed sources for brachytherapy (excluding a Sr-90 eye applicator) had been properly disposed of or transferred to licensed entities.

PERFORMANCE OBSERVATIONS

Technologists at both nuclear medicine labs demonstrated or described incoming package survey and receipt procedures, dose calibrator constancy checks, dose preparation, daily surveys, and waste handling and disposal procedures. The inspectors confirmed that these activities were routinely and successfully completed by reviewing selected records. At the cancer center, radiation oncology staff members demonstrated quality control checks of the HDR unit and treatment room. Licensee staff members had completed required HDR unit training, and training had been scheduled for August 2012 for the new Nucletron HDR unit. The inspectors reviewed a selection of written directives and treatment plans for I-131 and HDR administrations since the previous inspection. The inspectors also reviewed written directives and treatment plans for the most recent Sr-90 and I-125 manual brachytherapy treatments, in August and October 2010, respectively. All of the administrations were completed in accordance with regulatory requirements and the licensee's written procedures.

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PROGRAM SCOPE

PERFORMANCE OBSERVATIONS (CONTINUED)

Licensed material was adequately labeled, secured, and not readily accessible to the general public at all locations of use. Licensee staff members wore whole body and extremity dosimetry throughout the inspection. A records review indicated that all occupational doses were below regulatory limits. The RSO performed quarterly and annual program audits that were adequate to oversee the program. Independent and confirmatory surveys at all of the licensee's facilities did not identify any dose rates in excess of 10 CFR Part 20 limits in restricted or unrestricted areas.

The inspectors reviewed the circumstances, root and contributing causes, and corrective actions for NMED event number 100465. In addition to the corrective actions described in the licensee's September 2010 letter to the NRC, the licensee moved the HDR unit from the main hospital to the freestanding cancer center in March 2011, and will return the unit to the manufacturer in August 2012. This event is closed.

No violations were identified during this inspection.