NRC FORM 591M PART 1
(06-2010)
10 CFR 2.201

U.S NUCLEAR REGULATORY COMMISSION

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:	2. NRC/REGIONAL OFFICE
Capital Region Medical Center 1125 Madison Jefferson City, Missouri 65102 REPORT NUMBER(S): 2011-001	U.S. Nuclear Regulatory Commission, Region III 2443 Warrenville Road, Suite 210 Lisle, Illinois 60532

3. DOCKET NUMBER(S)	4. LICENSEE NUMBER(S)	5. DATE(S) OF INSPECTION
030-02375	24-12699-01	July 13 -14, 2011

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

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	Geoffrey M. Warren	GM Warren	7/14/11
Branch Chief	Tamara E. Bloomer	TE Bloomer	7/22/11

NRC FORM 591 M PART 3 (06-2010) 10 CFR 2.201

U.S. NUCLEAR REGULATORY COMMISSION

Docket File Information

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE	2. NRC/REGIONAL OFFICE
Capital Region Medical Center Jefferson City, MO REPORT NUMBER(S) 2011-001	U.S. Nuclear Regulatory Commission, Region III 2443 Warrenville Road, Suite 210 Lisle, Illinois 60532

3. DOCKET NUMBER(S)	4. LICENSEE NUMBER(S)	5. DATE(S) OF INSPECTION
030-02375	24-12699-01	July 13 – 14, 2011

6. INSPECTION PROCEDURES	7. INSPECTION FOCUS AREAS
87131, 87132	03.01 – 03.08; 03.01 – 03.08

SUPPLEMENTAL INSPECTION INFORMATION

1.PROGRAM	2. PRIORITY	3. LICENSEE CONTACT	4. TELEPHONE NUMBER
02120	3	Kenneth L. Andrews, M.S., RSO	573-632-5286

☒ Main Office Inspection — Next Inspection Date: July 2014

☐ Field Office Inspection _____

☐ Temporary Job Site Inspection _____

PROGRAM SCOPE

The licensee was a 100-bed hospital located in Jefferson City, Missouri, with authorization to use byproduct materials in Sections 35.100, 35.200, 35.300, and 35.400. Licensed activities were conducted only at the facility identified on the license.

The nuclear medicine department was staffed with three full-time nuclear medicine technologists and two part-time technologists, as well as students from the University of Missouri. The licensee's nuclear medicine staff typically administered 300 diagnostic doses monthly and 20 therapy doses annually. The diagnostic procedures were predominately technetium-99m and thallium-201 cardiac, bone, and lung imaging. Therapy doses included iodine-131 and samarium-153 doses, with iodine only in capsule form. The department received daily unit doses and bulk technetium-99m from a licensed nuclear pharmacy. All waste was either held for decay-in-storage (DIS) or returned to the radiopharmacy.

Missouri Cancer Associates (MCA) performed prostate implant procedures at the hospital under the hospital's license. One oncologist and two dosimetrists were involved in these procedures, performing approximately five to six implants annually with iodine-125 and palladium-103 seeds. No such procedures had been performed since 2010. MCA maintained patient records, including written directives, treatment plans, and post plans at their facility at 1600 E. Broadway, Columbia, MO, but hospital nuclear medicine staff maintained package receipt and room survey records, as well as copies of the written directives.

Performance Observations

The inspector observed three diagnostic administrations of licensed material, including dose preparation and disposal. Licensee personnel demonstrated dose calibrator constancy, well counter and survey meter QC, and daily and weekly contamination surveys, and described a variety of diagnostic and therapeutic administrations. The inspector noted no concerns with these activities. The inspector reviewed written directives for radiopharmaceutical therapies and written directives, treatment plans, and post plans for seed implants, and identified no concerns. Interviews with licensee personnel indicated adequate knowledge of radiation safety concepts and procedures. The inspector performed independent and confirmatory radiation measurements which indicated results consistent with licensee survey records and postings.