

**Docket File Information
SAFETY INSPECTION REPORT
AND COMPLIANCE INSPECTION**

1. LICENSEE Capital Region Medical Center REPORT NUMBER(S) 2007-001		2. NRC/REGIONAL OFFICE Region III	
3. DOCKET NUMBER(S) 030-02375	4. LICENSE NUMBER(S) 24-12699-01	5. DATE(S) OF INSPECTION Nov. 8, 2007	
6. INSPECTION PROCEDURES USED 87131, 87132	7. INSPECTION FOCUS AREAS 03.01 - 03.08; 03.01 - 03.08		
SUPPLEMENTAL INSPECTION INFORMATION			
1. PROGRAM CODE(S) 02120	2. PRIORITY 3	3. LICENSEE CONTACT Ron Thompson, NM Supervisor	4. TELEPHONE NUMBER 573-632-5286
<input checked="" type="checkbox"/> Main Office Inspection <input type="checkbox"/> Field Office <input type="checkbox"/> Temporary Job Site		Next Inspection Date: Nov. 2010	

PROGRAM SCOPE

The licensee was a 100-bed hospital located in Jefferson City, Missouri, which served central Missouri. Licensee had authorization to use byproduct materials under 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 two full-time and one part-time nuclear medicine technologists, and the supervisor assisted as needed. The licensee's nuclear medicine staff typically administered 300 diagnostic doses monthly in the nuclear medicine area. Doses were primarily technetium-99m for cardiac, bone, and other studies. Doses were received as unit doses from a licensed radiopharmacy or prepared from bulk technetium. The nuclear medicine staff also performed around four procedures monthly using iodine-131, mostly hyperthyroid treatments and occasional thyroid cancer treatments, with the iodine-131 in capsule form, as well as occasional therapy procedures using samarium-153. All waste was held for decay-in-storage (DIS) or returned to the radiopharmacy.

The hospital used an outside oncology group, Missouri Cancer Associates in Columbia, Missouri, for seed implant procedures, though the procedures were performed at the hospital, the seeds were ordered by and received in nuclear medicine, and all required records were retained in the nuclear medicine area. The oncology group included two oncologists, two physicists, and three dosimetrists who were involved in procedures performed at the hospital; the oncologists were authorized users on the license. The oncologists had performed eighteen prostate implant procedures using iodine-125 in the previous year.

Performance Observations

The inspector observed three diagnostic administrations of licensed material including dose preparation and disposal, as well as well counter QC and package receipt surveys, and identified no issues with the activities. Licensee personnel demonstrated dose calibrator constancy checks, survey meter QC, and daily and weekly contamination surveys. The inspector found no concerns with these activities. The inspector reviewed written directives for radiopharmaceutical therapies and seed implants, and found no issues. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures. Radiation surveys indicated radiation levels consistent with licensee survey records.