



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

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1. LICENSEE <b>Phelps County Regional Medical Center</b> REPORT NUMBER(S) 2005-001		2. NRC/REGIONAL OFFICE <b>Region III</b>	
3. DOCKET NUMBER(S) <b>030-14804</b>	4. LICENSE NUMBER(S) <b>24-18295-01</b>	5. DATE(S) OF INSPECTION <b>December 14, 2005</b>	
6. INSPECTION PROCEDURES USED <b>87131, 87132</b>		7. INSPECTION FOCUS AREAS <b>03.01 - 03.07, 03.01 - 03.07</b>	

**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S) <b>02230</b>	2. PRIORITY <b>2</b>	3. LICENSEE CONTACT <b>Edward F. Downey, Jr., D.O, RSO</b>	4. TELEPHONE NUMBER <b>573-364-8899</b>
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Main Office Inspection      Next Inspection Date: **Dec. 2007**

Field Office \_\_\_\_\_

Temporary Job Site \_\_\_\_\_

**PROGRAM SCOPE**

The licensee was a 220-bed hospital located in Rolla, Missouri, which served the central Missouri region. Licensee had authorization to use byproduct materials under Sections 35.100, 35.200, 35.300, and 35.400, as well as iridium-192 for a high dose rate (HDR) remote afterloader. The HDR unit was provided by Midwest Brachytherapy (St. Louis, Missouri) when needed and was not available at the time of the inspection. Licensed activities were conducted only at the facility indicated on the license.

The nuclear medicine department was staffed with five full-time and one part-time nuclear medicine technologists. The licensee's nuclear medicine staff typically performed 350 diagnostic procedures monthly in the nuclear medicine area. Doses were primarily technetium-99m for cardiac, bone, liver, and other studies. In addition, licensee occasionally performed studies using indium-111 and gallium-67. Doses were received as unit doses from a licensed radiopharmacy or prepared from a technetium-99m generator. Licensee performed around 25 iodine-131 treatments annually, including whole-body scans, hyperthyroid treatments, and thyroid ablations, with the iodine-131 in capsule form. All waste was held for decay-in-storage (DIS).

The radiation therapy staff consisted of one oncologist and five physicists and dosimetrists. From January through early December, 2005, the staff performed nineteen HDR fractions on six patients with a GammaMed 12it HDR device and three samarium-153 radiopharmaceutical therapies. All waste from the radiopharmaceutical therapies was returned to nuclear medicine for DIS.

**Performance Observations**

The inspector observed one diagnostic administration of licensed material including dose preparation and disposal, and identified no issues with the procedures. Licensee personnel demonstrated package receipt, dose calibrator constancy tests, and survey meter checks, and explained procedures for daily and weekly contamination surveys, generator milking, kit preparation, and HDR daily checks. The inspector found no concerns with these activities. The inspector reviewed written directives for radiopharmaceutical therapies and HDR treatments 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.