

Docket File Information
SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED: Riverview Hospital 395 Westfield Road Noblesville, Indiana 46219 REPORT NUMBER(S) 2011-001	2. NRC/REGIONAL OFFICE Region IV U. S. Nuclear Regulatory Commission 612 E. Lamar Boulevard, Suite 400 Arlington, TX 76011-4125
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3. DOCKET NUMBER(S) 030-10729	4. LICENSE NUMBER(S) 13-16286-01	5. DATE(S) OF INSPECTION 10/19/2011
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6. INSPECTION PROCEDURES USED 87130 & 87131	7. INSPECTION FOCUS AREAS 03.01-03.08
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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 02120	2. PRIORITY 3	3. LICENSEE CONTACT Phillip R. Partian, R.T., RSO	4. TELEPHONE NUMBER (317) 773-0760
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Main Office Inspection Next Inspection Date: 10/2014
 Field Office Inspection _____
 Temporary Job Site Inspection _____

PROGRAM SCOPE

This was an unannounced routine assist inspection for Region III. Riverview Hospital is a 154-bed hospital and is authorized for 35.100, 35.200, and 35.300 materials for diagnostic and therapeutic nuclear medicine. Riverview's Nuclear Medicine Department staffs two full time and two part time technologists for on-call duties. Licensee receives unit doses from the local nuclear pharmacy and the first delivery time is in the morning. The licensee retains the services of a radiation safety consultant to audit the radiation protection program on a quarterly basis and staff performs approximately 180-200 diagnostic nuclear medicine studies per month.

The nuclear medicine program conducts mostly heart studies, in addition to bone, MUGA studies, whole body scans and the occasional In-111 white blood cell labeling studies for joint replacement and bone deterioration patients. The licensee also performs lung perfusion studies one to two per month using Xe-133 and approximately three to four whole body scans per month using I-123. I-131 therapies are usually performed on an outpatient basis, with procedures in place for release criteria. Typically, the licensee administers 15-20 hyperthyroidism and thyroid carcinoma treatments using a range of activities from 15 mCi to 200 mCi of I-131 in capsule form only. Written directives were reviewed and contained all the appropriate information and authorized user signatures, including prescribed and administered doses. The licensee also incorporated a Bioassay program for personnel involved with I-123 and I-131 treatments. The hot lab is keyed with a mechanical local to control unauthorized access. The CNMT performs daily package receipt, all surveys, leak tests, and confirmation of dose calibrations. All waste generated is disposed of by decay in storage. Training, spill procedures, dosimetry, waste disposal, survey instrumentation and security were all adequate.

Performance Observations

The inspector observed CNMT conduct daily QA/QC, package receipt procedure and surveys. Through discussion and interview of personnel, the inspector confirmed knowledge of threshold for contamination, radiation safety techniques, ALARA, and emergency procedures. The inspector also observed multiple injections and CNMT's took ALARA precaution including vial shields and wore proper personal protection equipment. Posting and label were adequate. Annual exposure records were reviewed and the maximum occupational dose for 2009: WB-376 mrem; Extremity-1,390 mrem and 2010: WB-347 mrem; Extremity 1,280 mrem.

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Independent measurement taken with a Ludlum Model 2401-P radiation survey instrument (NRC s/n 21955G, cal due date 12/6/2011) in the hot-lab, imaging, and unrestricted areas, showed dose rates were indistinguishable from background (0.02-0.03 mr/hr).

Individual contacted: CNMTs, Sheriff Deputy, RN, RSO, Director of Imaging, Chief Executive Officer