

Docket File Information
SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE Battle Creek Health System REPORT NUMBER(S) 10-01	2. NRC/REGIONAL OFFICE U.S. Nuclear Regulatory Commission, Region III 2443 Warrenville Road, Suite 210 Lisle, Illinois 60532
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3. DOCKET NUMBER(S) 030-12899	4. LICENSEE NUMBER(S) 21-01354-04	5. DATE(S) OF INSPECTION 11/29/2010
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6. INSPECTION PROCEDURES 871131, 87132, 87133	7. INSPECTION FOCUS AREAS 03.01 – 03.07
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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM 02230	2. PRIORITY 2	3. LICENSEE CONTACT Robert Sieffert, RSO	4. TELEPHONE NUMBER 269/966-8146
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Main Office Inspection
 Field Office Inspection _____
 Temporary Job Site Inspection _____

Next Inspection Date: 11/2012

PROGRAM SCOPE

The licensee was an approximately 350 bed hospital, which served the city of Battle Creek and surrounding area. The licensee had authorization to use byproduct material under Sections 35.100, 35.200, 35.300 and 35.400 along with an HDR remote afterloader. The licensee used a consultant to perform quarterly audits of the radiation safety program.

The Nuclear Medicine department was staffed with three full-time and 2 part-time technologists, and two students. The staff normally performed 13-16 studies per day in three nuclear medicine areas, the outpatient clinics, inpatient clinic, and cardiology. The doses were primarily technicium-99m and with most studies being cardiac and bone. The licensee received unit doses from a local nuclear pharmacy. Nuclear Medicine radioactive waste was held for decay in storage or returned to the nuclear pharmacy.

The Radiation Oncology department was staffed with one medical physicist, two dosimetrists and one authorized user/oncologist. The staff performed approximately 10 iodine-125 seed prostate implants per year, although only four treatments had been performed in 2010 to date. The licensee was planning the first HDR treatment. The licensee also performed approximately 30 studies/treatments using iodine-131 per year, all in capsule form. Cesium-137 manual brachytherapy was not being performed. Iodine-125 was held for decay in storage.

Performance Observations

The inspector observed one diagnostic administration of licensed material including dose disposal. Licensee personnel demonstrated package receipt, dose calibrator constancy checks, HDR daily checks, and discussed daily/weekly surveys. The inspector reviewed written directives for whole-body scans using iodine-131, iodine-131 therapies and seed implants. The inspector reviewed 10 treatment plans and post treatment plans for iodine-125 seed prostate implants. Interviews with licensee staff indicated an adequate knowledge of radiation safety procedures. Radiation surveys indicated radiation levels consistent with licensee survey data.

Maximum exposure were 231 mrem whole body and 3350 mrem extremity for 2009; and 147 mrem whole body and 1390 mrem extremity for 2010 to October.

No violations of regulatory requirements were identified.