

## SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION



1. LICENSEE/LOCATION INSPECTED: Deaconess Hospital 600 Mary Street Evansville, Indiana 47747 REPORT 2008-001		2. NRC/REGIONAL OFFICE REGION III US NUCLEAR REGULATORY COMMISSION 2443 WARRENVILLE ROAD, SUITE 210 LISLE, ILLINOIS 60532	
3. DOCKET NUMBER(S) 030-01580	4. LICENSEE NUMBER(S) 13-00142-02	5. DATE(S) OF INSPECTION February 12-13, 2008	

## 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) was/were discussed involving the following requirement(s) and Corrective Action(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.

(Violations and Corrective Actions)

## Licensee's Statement of Corrective Actions for Item 4, above.

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		2/13/08

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



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3. DOCKET NUMBER(S) 030-01580	4. LICENSE NUMBER(S) 13-00142-02	5. DATE(S) OF INSPECTION February 12-13, 2008	
6. INSPECTION PROCEDURES USED 87131, 87132	7. INSPECTION FOCUS AREAS 03.01 - 03.08; 03.01 - 03.08		
<b>SUPPLEMENTAL INSPECTION INFORMATION</b>			
1. PROGRAM CODE(S) 02230	2. PRIORITY 2	3. LICENSEE CONTACT Raymond Poston, Onco. Mgr., RSO	4. TELEPHONE NUMBER 812-858-2266
<input checked="" type="checkbox"/> Main Office Inspection		Next Inspection Date: <b>Feb. 2010</b>	
<input checked="" type="checkbox"/> Field Office <u>Deaconess Gateway Hosp., 4011 Gateway, Newburgh;</u>			
<input type="checkbox"/> Temporary Job Site <u>Chancellor Ctr. for Oncology, 4055 Gateway, Newburgh</u>			

**PROGRAM SCOPE**

The licensee operated two hospitals and an oncology center located in Evansville and Newburgh, Indiana, which served the southeastern corner of Indiana and surrounding areas in Kentucky and Illinois. Licensee was authorized to perform activities under Sections 35.100, 35.200, and 35.300, as well as a High Dose Rate (HDR) remote afterloader and a blood irradiator. Radiation Safety Committee meetings were held quarterly and had appropriate membership.

The licensee's facility in Evansville, Deaconess Hospital, was a 350-bed hospital, and operated a nuclear medicine department and a blood irradiator. The nuclear medicine department was staffed with five full-time technologists and one supplemental technologist. The staff typically administered 420 diagnostic doses monthly in the nuclear medicine area. Doses were primarily technetium-99m (Tc-99m) for cardiac, bone, and other studies. Doses were received as unit doses from a licensed radiopharmacy or prepared as kits from bulk technetium. The nuclear medicine staff also performed around 2-3 hyperthyroid treatments monthly, with iodine-131 in capsule form.

The licensee's second hospital was Deaconess Gateway Hospital in Newburgh. This hospital was a 117-bed hospital and included a diagnostic nuclear medicine department. While authorized to perform therapeutic nuclear medicine, no such procedures had been performed. The nuclear medicine department was staffed with 2 full-time technologists who typically administered 160 doses monthly. Doses were primarily Tc-99m for cardiac, lung, and other studies, received as unit doses from the radiopharmacy, or prepared as kits from bulk Tc-99m.

At the Chancellor Center for Oncology in Newburgh, the licensee operated an HDR unit. The oncology staff consisted of one oncologist, two dosimetrists, one physicist, and one therapist. Licensee staff typically performed around 5-10 HDR fractions monthly, primarily mammosite, lung, and GYN procedures.

This inspection was performed concurrent to an inspection of the licensee's implementation of the Increased Controls Order.

**Performance Observations**

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