

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:

Goshen General Hospital
200 High Park Avenue
Goshen, IN 46527

REPORT NUMBER(S) 2006-001

2. NRC/REGIONAL OFFICE

REGION III
US NUCLEAR REGULATORY COMMISSION
801 WARRENVILLE ROAD
LISLE IL 60532-4351

3. DOCKET NUMBER(S)

030-14254

4. LICENSE NUMBER(S)

13-18845-01

5. DATE(S) OF INSPECTION

January 31, 2006

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) were discussed involving the following requirement(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.

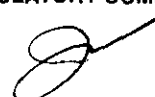
(Violations and Corrective Actions)

Statement of Corrective Actions

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 | | | |
| NRC INSPECTOR | Geoffrey M. Warren |  | 1/31/06 |

Docket File Information
SAFETY INSPECTION REPORT
AND COMPLIANCE INSPECTION



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| 1. LICENSEE Goshen General Hospital REPORT NUMBER(S) 2006-001 | | 2. NRC/REGIONAL OFFICE Region III | |
| 3. DOCKET NUMBER(S) 030-14254 | 4. LICENSE NUMBER(S) 13-18845-01 | 5. DATE(S) OF INSPECTION January 31, 2005 | |
| 6. INSPECTION PROCEDURES USED 87131, 87132 | 7. INSPECTION FOCUS AREAS 03.01 - 03.07, 03.01 - 03.07 | | |

SUPPLEMENTAL INSPECTION INFORMATION

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|------------------------------------|-------------------------|--|--|
| 1. PROGRAM CODE(S) 02230 | 2. PRIORITY 2 | 3. LICENSEE CONTACT Eugene Long, M.D., RSO | 4. TELEPHONE NUMBER 574-533-2141 |
|------------------------------------|-------------------------|--|--|



Main Office Inspection

Next Inspection Date: **January 2008**

Field Office



Temporary Job Site

PROGRAM SCOPE

The licensee was a 113-bed hospital located in Goshen, Indiana, which served the northern Indiana and southern Michigan region. Licensee had authorization to use byproduct materials under Sections 35.100, 35.200, and 35.300, as well as iridium-192 for a high dose rate (HDR) remote afterloader and yttrium-90 for microsphere therapy. Licensed activities were conducted only at the facility indicated on the license.

The nuclear medicine department was staffed with four full-time nuclear medicine technologists. The licensee's nuclear medicine staff typically performed 250 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 xenon-133, indium-111, and iodine-123. Doses were received as unit doses from a licensed radiopharmacy or prepared from bulk technetium-99m. Licensee performed around five iodine-131 treatments monthly, including hyperthyroid treatments and thyroid ablations, with the iodine-131 in capsule form, as well as occasional therapies using yttrium-90 and samarium-153. In addition, nuclear medicine staff had performed twelve microsphere therapies using yttrium-90 since late 2004. All waste was returned to the radiopharmacy or held for decay-in-storage.

The radiation therapy staff consisted of one oncologist, one physicist, and one dosimetrist. In 2005, the staff performed 86 fractions for HDR therapies, ranging from 2 through 22 fractions per treatment.

Performance Observations

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