

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

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| <b>1. LICENSEE/LOCATION INSPECTED:</b><br>Munson Medical Center<br>1105 Sixth Street<br>Traverse City, Michigan 49684<br><br><b>REPORT NUMBER(S)</b> 2009-001 | <b>2. NRC/REGIONAL OFFICE</b><br><br><b>Region III</b><br><b>U.S. Nuclear Regulatory Commission</b><br><b>2443 Warrenville Road, Suite 210</b><br><b>Lisle, Illinois 60532-4351</b> |
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| <b>3. DOCKET NUMBER(S)</b><br>030-02074 | <b>4. LICENSEE NUMBER(S)</b><br>21-08317-01 | <b>5. DATE(S) OF INSPECTION</b><br>Jan. 15, 2009 |
|---|---|--|

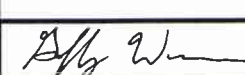
**LICENSEE:**  
 The inspection was an examination of the activities conducted under your license as they relate to radiation safety and to compliance with the Nuclear Regulatory Commission (NRC) rules and regulations and the conditions of your license. The inspection consisted of selective examinations 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 |  | 1/15/09 |



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| 1. LICENSEE<br>Munson Medical Center<br>REPORT NUMBER(S) 2009-001 |                                     | 2. NRC/REGIONAL OFFICE<br>NRC Region III<br>2443 Warrenville Road, Suite 210<br>Lisle, Illinois 60532-4351 |  |
| 3. DOCKET NUMBER(S)<br>030-02074                                  | 4. LICENSE NUMBER(S)<br>21-08317-01 | 5. DATE(S) OF INSPECTION<br>Jan. 15, 2008  |  |
| 6. INSPECTION PROCEDURES USED<br>87131, 87132                     |                                     | 7. INSPECTION FOCUS AREAS<br>03.01 – 03.08, 03.01 – 03.08  |  |

**SUPPLEMENTAL INSPECTION INFORMATION**

|                             |                  |   |                                     |
|-----------------------------|------------------|---|-------------------------------------|
| 1. PROGRAM CODE(S)<br>02240 | 2. PRIORITY<br>2 | 3. LICENSEE CONTACT<br>Dennis R. Szmania, M.S., RSO | 4. TELEPHONE NUMBER<br>231-935-7100 |
|-----------------------------|------------------|---|-------------------------------------|

Main Office Inspection Next Inspection Date: Jan. 2011

Field Office Biederman Cancer Treatment Center, Traverse City MI

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

**PROGRAM SCOPE**

The licensee operated a 390-bed hospital in Traverse City, Michigan, which treated patients from the surrounding region. The licensee performed activities under Sections 35.100, 200, 300, and 400, and also used strontium-90 for intravascular brachytherapy (IVB) and iridium-192 for a high dose rate remote afterloader (HDR) system as authorized on the license.

The nuclear medicine department was staffed with six full-time technologists and one student. The staff typically administered 700 diagnostic doses monthly in the nuclear medicine area. Doses were primarily technetium-99m for bone, cardiac, and other studies, received as unit doses from a licensed radiopharmacy or prepared from bulk technetium. In addition, the licensee used unit doses of xenon-133, iodine-123, and iodine-131 for diagnostic procedures. Licensee performed therapeutic procedures using iodine-131 capsules (around 20 per month) and yttrium-90. All waste was stored for decay in storage.

The licensee's radiation oncology group included four oncologists, three physicists, and two dosimetrists. Oncology staff performed approximately 130 HDR fractions, 12 IVB treatments, 50 permanent seed implants, and 2-3 radiopharmaceutical therapies using samarium-153 annually.

**Performance Observations**

The inspector observed two diagnostic administrations of licensed material including dose preparation and disposal, and noted no concerns. Nuclear medicine staff demonstrated kit preparation, package receipt and return surveys, survey meter QC, dose calibrator constancy, and daily and weekly contamination surveys, and described a variety of diagnostic and therapeutic procedures. Oncology staff demonstrated daily HDR checks and described HDR, IVB, seed implant, and radiopharmaceutical therapy procedures. The inspector noted no concerns with these activities. The inspector reviewed written directives for whole body scans, radiopharmaceutical therapies, and oncology procedures and found no issues. Interviews with licensee staff indicated adequate knowledge of radiation safety procedures. Radiation surveys indicated radiation levels consistent with licensee postings and measurements.

The inspector reviewed the licensee's disposal of unused seeds from prostate implants and determined that the licensee was disposing of the seeds every six months as they had committed to do following the previous inspection. Because of this, the violation cited in the previous inspection report is considered closed.