

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

1. LICENSEE/LOCATION INSPECTED:  <b>Borgess Medical Center</b> <b>1521 Gull Road</b> <b>Kalamazoo, MI 49001</b>  REPORT NUMBER(S) <b>2010-001</b>	2. NRC/REGIONAL OFFICE  <b>U.S. Nuclear Regulatory Commission</b> <b>Region III</b> <b>2443 Warrenville Road</b> <b>Suite 210</b> <b>Lisle, Illinois 60532-4351</b>
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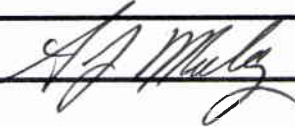
3. DOCKET NUMBER(S) <b>030-02115</b>	4. LICENSEE NUMBER(S) <b>21-12275-02</b>	5. DATE(S) OF INSPECTION <b>March 29-30, 2010</b>
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**LICENSEE:**  
 The inspection was an examination of the activities conducted under your license as they relate to radiation 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	S. J. Mulay		3/30/10

*Handwritten initials: JRS*

SAFETY INSPECTION REPORT  
AND COMPLIANCE INSPECTION

1. LICENSEE <b>Borgess Medical Center</b> REPORT NUMBER(S) <b>2010-01</b>	2. NRC/REGIONAL OFFICE <b>Region III</b> <b>2443 Warrenville Road, Suite 210</b> <b>Lisle, IL 60532</b>
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3. DOCKET NUMBER(S) <b>030-02115</b>	4. LICENSE NUMBER(S) <b>21-12275-02</b>	5. DATE(S) OF INSPECTION <b>March 29-30, 2010</b>
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6. INSPECTION PROCEDURES USED <b>87134</b>	7. INSPECTION FOCUS AREAS <b>03.01-03.07</b>
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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM <b>2110</b>	2. PRIORITY <b>G2</b>	3. LICENSEE CONTACT <b>Paul Jursinic, Ph.D., RSO</b>	4. TELEPHONE NUMBER <b>269-373-7407</b>
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Main Office Inspection      Next Inspection Date: March 2012

Field Office \_\_\_\_\_

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

PROGRAM SCOPE

The licensee is a 325 bed medical broadscope facility performing approximately 400 diagnostic nuclear medicine procedures monthly. Four full-time technologists currently perform all patient procedures. The licensee performs about two iodine-131 treatments for hyperthyroid per month and about 20 iodine-131 therapies over 30 millicuries annually, both in capsule form. The licensee obtains licensed material as unit doses from an area nuclear pharmacy.

The licensee's brachytherapy program is limited to approximately 20 iodine-125, ultrasound guided prostate implants annually with treatment planning and technical support provided by West Michigan Cancer Center, Kalamazoo, MI. (21-32501-01). The animal research program was terminated in accordance with the letter dated July 20, 2009 (Amendment No. 89), and no other research activities are performed.

Performance Observations

Interviews conducted with available staff revealed an adequate level of understanding of emergency and material handling procedures and techniques. Dose calibrator constancy checks, injection technique, daily surveys, waste handling and disposal, and package receipt procedures, were successfully demonstrated or observed. An outside consultant performs quarterly program audits which appears to adequately oversee licensed activities.

Licensed material was observed adequately secured during the review and was not readily accessible to members of the general public. Survey meters were found to be calibrated and operational and compared well in side-by-side comparison with the NRC instrument. Written directives, patient instructions and staff responses to QMP questions were adequately addressed with no issues identified.

Independent measurements taken did not indicate readings in excess of 10 CFR Pt. 20 limits in restricted or unrestricted areas. Personal dosimetry records reviewed indicated whole-body and extremity readings for 2009 of 170mRem and 1530 mRem respectively. YTD 2010 whole-body and extremity readings were 48 mRem and 350 mRem respectively.

The licensee's Borgess-Pipp Health Ctr., Plainwell, MI, was reviewed in January 2008 (ML080420332), with no violations identified and was not inspected at this time.