

**SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION**

<p>1. LICENSEE/LOCATION INSPECTED:</p> <p>Genesys Regional Medical Center One Genesys Parkway Grand Blanc, MI 48439</p> <p>REPORT NUMBER(S) 17001</p>	<p>2. NRC/REGIONAL OFFICE</p> <p>Region III U. S. Nuclear Regulatory Commission 2443 Warrenville Road, Suite 210 Lisle, IL 60532-4352</p>	
<p>3. DOCKET NUMBER(S)</p> <p>030-34188</p>	<p>4. LICENSE NUMBER(S)</p> <p>21-26740-01</p>	<p>5. DATE(S) OF INSPECTION</p> <p>March 2, 2017</p>

**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, to exercise discretion, were satisfied.

Non-cited violation(s) were discussed involving the following requirement(s):

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- 4. During this inspection, certain of your activities, as described below and/or attached, were in violation of NRC requirements and are being cited in accordance with NRC Enforcement Policy. 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'S REPRESENTATIVE			
NRC INSPECTOR	Zahid Sulaiman, Health Physicist	<i>Zahid Sulaiman</i>	3/2/17
BRANCH CHIEF	Aaron T. McCraw, Chief, MIB	<i>[Signature]</i>	3/16/17

**Docket File Information**

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6. INSPECTION PROCEDURES USED  87131 & 87132	7. INSPECTION FOCUS AREAS  03.01-03.07
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**SUPPLEMENTAL INSPECTION INFORMATION**

1. PROGRAM CODE(S)  02120	2. PRIORITY  3	3. LICENSEE CONTACT  Kelly Norrington, Radiology Mgr	4. TELEPHONE NUMBER  (810) 606-5345
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Main Office Inspection      Next Inspection Date: 03/02/2020

Field Office Inspection    302 Kensington Ave, Flint, MI

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

**PROGRAM SCOPE**

This was a routine inspection of a 410-bed hospital authorized to use licensed materials under 10 CFR 35.100, 35.200, 35.300, and 35.400. The licensee employed four full-time nuclear medicine technologists (NMTs) and two casuals. The licensee had two hot labs; the main hospital hot lab and one hot lab that was dedicated to perform cardiac procedures only within the hospital. The licensee performed approximately 300 diagnostic nuclear medicine procedures monthly, primarily cardiac stress tests, HIDA, lung scans using Xe-133, gastric emptying, MUGA, and bone scans. The licensee received unit doses, bulk technetium-99m (Tc-99m), and iodine-131 (I-131) in capsule form from a licensed radiopharmacy. The licensee performed approximately two I-131 hyperthyroidism and ablations procedures quarterly. The cancer institute center located at Flint was staffed with two medical physicists, three oncologists, and three dosimetrists. The licensee performed one prostate seed implant using Palladium-103 (Pd-103), approximately 10 Ra-223 Xofigo treatments, and one Y-90 Zevalin unit dose since the last inspection.

**Performance Observance:**

This inspection consisted of interviews with select licensee personnel; a review of select records; tours of the nuclear medicine department, cancer institute center and independent measurements. The inspectors observed the administration of Tc-99m for one parathyroid and two cardiac stress test diagnostic nuclear medicine procedures. The inspector: (1) observed the NMT conduct a physical inventory of sealed sources, and all sources were accounted for; (2) had the NMT demonstrate the dose calibrator constancy check, package receiving and check-in procedures, the end of the day daily area surveys and weekly wipe test, and proper handling of radioactive waste and disposal procedures. The inspector reviewed one Pd-103 manual brachytherapy procedure written directive and treatment plan, 10 I-131, five Ra-223, and one Y-90 procedures written directives, with no issues noted. The inspector reviewed the following records: radiation safety committee minutes, quarterly program audits conducted by an outside consultant, package receipts surveys report, waste disposal records, DOT Hazmat training, linearity and accuracy of the dose calibrator, and sealed source leak tests. The inspector reviewed the dosimetry records for 2014, 2015, and 2016 indicating the maximum annual dose to be 234 mrem - DDE; and 1370 mrem - SDE. The inspector performed independent radiation measurements in each functional area that were consistent with licensee survey records and postings.

No violations of NRC requirements were identified during this inspection.