

SAFETY INSPECTION REPORT AND COMPLIANCE INSPECTION

1. LICENSEE/LOCATION INSPECTED:

Beaumont Health System
3601 W. 13 Mile Road
Royal Oak, MI 48073-6769

REPORT NUMBER(S) 13-01

2. NRC/REGIONAL OFFICE

Region III
U. S. Nuclear Regulatory Commission
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

3. DOCKET NUMBER(S)

030-02006

4. LICENSE NUMBER(S)

21-01333-01

5. DATE(S) OF INSPECTION

April 23, 2013

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:


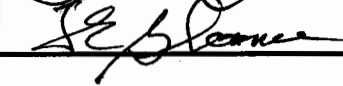
- 1. Based on the inspection findings, no violations were identified.
- 2. Previous violation(s) closed.
- 3. The violation(s), specifically described to you by the inspector as non-cited violations, are not being cited because they were self-identified, non-repetitive, and corrective action was or is 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):

- 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	Robert P. Hays		4/23/13
BRANCH CHIEF	Tamara E. Bloomer		5/21/13

Docket File Information

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3. DOCKET NUMBER(S) 030-02006	4. LICENSE NUMBER(S) 21-01333-01	5. DATE(S) OF INSPECTION April 23, 2013
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6. INSPECTION PROCEDURES USED 87132	7. INSPECTION FOCUS AREAS 03.01-03.07
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SUPPLEMENTAL INSPECTION INFORMATION

1. PROGRAM CODE(S) 02110	2. PRIORITY 2	3. LICENSEE CONTACT Cheryl Culver-Schultz	4. TELEPHONE NUMBER (248) 551-0548
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Main Office Inspection Next Inspection Date: 04/23/2015

Field Office Inspection Troy, Orion Township, & St. Clair Shores, MI

Temporary Job Site Inspection _____

PROGRAM SCOPE

The licensee was a medical broadscope authorized by the license to use byproduct material for medical use and research at ten locations specified on the license. During prior inspections, licensed activities at the main hospital and certain authorized locations were reviewed. This inspection focused on the licensee's two additional new locations of use added to the license and the Orion Township location.

At Orion Township, MI, the licensee is authorized to use licensed material authorized in Subitem Nos. 6.A. and 6.B., of the license, limited to materials permitted by 10 CFR 35.65, 35.100 and 35.200, as described in letter dated May 1, 2005. The licensee's Nuclear Medicine Department routinely conducts an average of 3-4 diagnostic patient studies each day with one nuclear medicine technologist (NMT). Patient studies are conducted Monday thru Friday each week. The licensee receives unit doses from the licensee's Royal Oak, MI, facility nuclear pharmacy. All waste was either held for decay-in-storage (DIS) or returned to the nuclear pharmacy as limited quantity shipments.

At St. Clair Shores, MI, the licensee is authorized to use licensed material authorized in Subitem No. 6.A., limited to materials permitted by 10 CFR 35.65, 10 CFR 35.100, and 35.200. The licensee conducts only F-18 PET studies and averaged 10 patient studies each Monday and Friday with two primary nuclear medicine technologists (NMTs). All PET scans are performed on site using the licensee's mobile PET coach. The licensee receives PET doses from the licensee's Royal Oak, MI, facility delivered directly to the mobile coach. All waste was held for decay-in-storage.

Continued on Part 2

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(Continued)

At the Troy, MI Ambulatory Care Center, the licensee is authorized to use licensed material authorized in Subitem Nos. 6.A., 6.E., 6.F., and 6.J., limited to materials permitted by 10 CFR 35.65, 10 CFR 35.100, 35.200, and 35.300. The nuclear medicine department was staffed with 20 nuclear medicine technologists (NMTs). The licensee receives unit doses prepared by the licensee from the licensee's Troy, MI, hospital. The licensee performs an average of 15-20 cardiac studies and 10-15 other routine studies each weekday. The licensee also conducts PET studies at this facility Tuesday thru Thursday each week with an average of 10 patients each day using the mobile PET coach. Iodine-123 is administered for uptake studies and averaged none to two administrations per week. The licensee administers iodine-131 in liquid form and dosages are prepared on site by a nuclear pharmacist using a dedicated prep hood and dose calibrator. All patients receiving I-131 administrations greater than 33 millicuries are evaluated for release by calculation by the medical physicist and authorized user. No palliative radiopharmaceuticals are administered at this facility.

Performance Observations

The licensee's available NMTs, medical physicist, and nuclear pharmacist demonstrated/discussed: (1) survey meter use and calibrations; (2) package check-in procedures; (3) unit dosage prep and safe use; (4) wipe test counting; (5) waste handling and disposal; (6) sealed source inventories and leak tests; (7) routine security of licensed material; (8) dose calibrator tests; (9) radiation safety program audits; (10) minor contamination events; (11) HAZMAT refresher training; (12) written directives and 10 CFR 35.75 requirements; (12) bioassays; (13) PET procedures; (14) a 20 millicurie I-131 dosage preparation and administration; (15) iodine-131 air effluent releases; and (16) dosimetry: for 2011, 450mR-DDE, 2200 mR-SDE, and 2012, 370 mR-DDE and 1935 mR-SDE.

The inspector performed independent and confirmatory radiation measurements, which indicated no concerns and results were consistent with licensee survey records and postings.