

INSPECTION RECORD

Region III Inspection Report No. 12-001

License No. 24-32517-01

Docket No. 030-36583

Licensee (Name and Address):

The University of Kansas Cancer Center (South)

1000 East 101st Terrace

Kansas City, Missouri

Location (Authorized Sites) Being Inspected

Above,

KUCC (North), 8700 N. Green Hills Rd., Kansas City, Missouri

Licensee Contact: Debabrata Bhaduri, Ph.D., RSO

Telephone No. 816-350-5820

Priority: 2

Program Code: 02230

Date of Last Inspection: July 1-19, 2010 Date of This Inspection: May 24 – June 14, 2012

Type of Inspection: ☐ Initial

() Announced

(X) Unannounced

(X) Routine

() Special

Next Inspection Date: May 2014

(X) Normal () Reduced

Justification for reducing the routine inspection interval: N/A

Summary of Findings and Actions:

- () No violations cited, clear U.S. Nuclear Regulatory Commission (NRC) Form 591 or regional letter issued
- () Non-cited violations (NCVs)
- () Violation(s), Form 591 issued
- (X) Violation(s), regional letter issued
- () Followup on previous violations

Inspector(s) Geoffrey M. Warren

(Name(s))

Date 7/2/12

By Vm

(Signature(s))

Approved Hironori Peterson

(Name)

Date 7/2/12

(Name)

(Signature)

(Signature)

PART I-LICENSE, INSPECTION, INCIDENT/EVENT, AND ENFORCEMENT HISTORY

1. AMENDMENTS AND PROGRAM CHANGES:

<u>AMENDMENT #</u>	<u>DATE</u>	<u>SUBJECT</u>
16	1/12	Add authorized users (AUs), authorized medical physicists (AMPs)
15	11/11	Remove AUs, AMPs
14	4/11	Change of ownership and name
13	1/11	Add and remove AMPs
12	9/10	Change RSO, remove AU, remove and add AMPs

The licensee has an action in house with the NRC to name a new RSO, Stephen Howard, M.S.

2. INSPECTION AND ENFORCEMENT HISTORY:

No violations were cited as a result of the last two inspections conducted in May 2008 and July 2010.

3. INCIDENT/EVENT HISTORY:

None

PART II - INSPECTION DOCUMENTATION

1. ORGANIZATION AND SCOPE OF PROGRAM:

The licensee operated multiple outpatient facilities for the treatment of cancer in the Kansas City metropolitan area, including three facilities that were licensed by the NRC in Kansas City and Lee's Summit, Missouri. Physicists and dosimetrists rotated between facilities as needed, including facilities licensed by the State of Kansas.

The North facility (8700 N. Green Hills Road, Kansas City) was staffed with one oncologist, one physicist, and one dosimetrist who were involved with licensed activities. These individuals performed approximately twenty fractions monthly using a high dose rate remote afterloader (HDR) unit, as well as ten radiopharmaceutical therapies using iodine-131 (I-131). In addition, at this facility, the licensee performed approximately 100 diagnostic PET imaging procedures monthly using fluorine-18 (F-18) FDG unit doses.

At the South facility (1000 E. 101st Terrace, Kansas City), the licensee had previously performed I-131 therapy procedures, but had performed none since April 16, 2009. The licensee had maintained the dose calibrator and survey meter checks so that the facility could be reactivated with minimal effort.

According to licensee staff, personnel at the East facility (4881 NE Goodview Circle, Lee's Summit) performed therapy procedures using a HDR unit and radiopharmaceuticals, and diagnostic imaging using PET isotopes.

2. SCOPE OF INSPECTION:

Inspection Procedure(s) Used: 87131, 87132

Focus Areas Evaluated: 03.01 – 03.08; 03.01 – 03.08

The inspector observed a diagnostic administration of F-18 FDG, including dose preparation and disposal, and the briefing of a patient receiving I-131 therapy. Licensee personnel demonstrated daily HDR QC, package receipt surveys, well counter and survey meter QC, dose calibrator constancy, and daily and weekly contamination surveys; and described HDR planning and administration, administration of I-131 therapies, and other procedures. The inspector noted no concerns with these activities. The inspector reviewed written directives for HDR and radiopharmaceutical therapies, and identified no issues. Interviews with licensee personnel indicated adequate knowledge of radiation safety concepts and procedures. Review of dosimetry records indicated no exposures of regulatory concern. The inspector performed independent and confirmatory radiation measurements which indicated results consistent with licensee survey records and postings.

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

The inspector performed independent and confirmatory radiation measurements which indicated results consistent with licensee survey records and postings, using a Ludlum 2403, calibrated 3/7/11. Surveys at the South facility indicated no evidence of residual radioactive material except for sealed sources in secured storage.

4. VIOLATIONS, NCVs, AND OTHER SAFETY ISSUES:

Title 10 of the Code of Federal Regulations (10 CFR) Part 30.36(d)(4) requires that licensees provide notification to the NRC in writing within 60 days after no principal activities have been conducted for a period of 24 months in any separate building or outdoor area that contains residual radioactivity such that the building or outdoor area is unsuitable for release in accordance with NRC requirements. The University of Kansas Cancer Center failed to notify the NRC between June 16, 2011, and May 24, 2012, that no principal activities had been performed at the South facility since April 16, 2009, a period of 24 months. Because the 24 month period ended on April 16, 2011, the licensee was required to notify the NRC no later than June 15, 2011.

The root cause of the violation was that the RSO was unaware of the requirement to notify the NRC in this case. His intent had been to leave the facility ready to treat new patients with minimal effort if an authorized user at the facility wanted to do so. As corrective action, the licensee submitted a letter to the NRC Region III office on June 13, 2012, formally notifying the NRC about the South facility, and requesting that it be placed on standby status in order to reactivate it easily if needed.

5. PERSONNEL CONTACTED:

- #* Debabrata Bhaduri, Ph.D., AMP, RSO
- # Habib Saleh, Ph.D., AMP, Director, Medical Physics
- Stephen Howard, M.S., AMP
- and other licensee staff

Use the following identification symbols:

Individual(s) present at preliminary exit meeting on May 25, 2012

* Individual(s) present at telephonic exit meeting on June 14, 2012