February 15, 2011

Mr. Gary Williams, Director
National Health Physics Program (115 HP/NLR)
Department of Veterans Affairs
Veterans Health Administration
2200 Fort Roots Drive
North Little Rock, AR 72114

SUBJECT: NRC INSPECTION REPORT 030-34325/11-01(DNMS) ─ HARRY S. TRUMAN MEMORIAL VETERANS HOSPITAL, COLUMBIA, MISSOURI

Dear Mr. Williams:

On January 25, 2011, the U. S. Nuclear Regulatory Commission (NRC) inspectors conducted a routine inspection at the Harry S. Truman Memorial Veterans Affairs Hospital, located in Columbia, Missouri. The inspection results were discussed with you and Mr. Marc Magill, Acting Director of the Medical Center and selected members of his staff at the exit meeting on January 25, 2011. The enclosed report presents the results of this inspection.

This inspection was an examination of activities conducted under your license as they relate to radiation safety and to compliance with the Commission's rules and regulations and with the conditions of your license. Within these areas, the inspection consisted of selective examinations of procedures and representative records, interviews with personnel, independent measurements, and observation of activities in progress. Within the scope of this inspection no violations of NRC requirements were identified.

In accordance with Title 10 of the Code of Federal Regulations (CFR) 2.390 of the NRC's "Rules of Practice," a copy of this letter will be available electronically for public inspection in the NRC Public Document Room or from the NRC's Agencywide Documents Access and Management System (ADAMS), accessible from the NRC Web site at http://www.nrc.gov/reading-rm/adams.html.

Should you have any questions concerning this inspection, please contact Kevin Null of my staff at (630) 829-9854.

Sincerely,

/RA/ by Darrel G. Wiedeman Acting
For/

Patricia J. Pelke, Chief
Materials Licensing Branch
Division of Nuclear Materials Safety

Docket No. 030-34325
License No. 03-23853-01VA
Permit No. 24-15235-03

Enclosure:
Inspection Report No. 030-34325/11-01(DNMS)

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OFFICIAL RECORD
INSPECTION RECORD

Region III Inspection Report No. 030-34325/11-01(DNMS)

License No. 03-23853-01VA
Docket No. 030-34325

Licensee (Name and Address):
National Health Physics Program (115HP/NLR)
Department of Veterans Affairs
Veterans Health Administration
2200 Fort Roots Drive
North Little Rock, AR 72114

Location (Authorized Site) Being Inspected:
Harry S. Truman Memorial Veterans Hospital
800 Hospital Drive
Columbia, Missouri 65201-5297

Permit No. 24-15235-03

Licensee Contact: Richard E. Poelling, RSO
Telephone No. 573-814-6000
Priority: 2
Program Code: 02110/3610/3510

Date of Last Inspection: August 26, 2008 Date of This Inspection: January 25, 2011

Type of Inspection: ( ) Initial ( ) Announced (X) Unannounced
(X) Routine ( ) Special

Next Inspection Date: N/A (X) Normal ( ) Reduced
Justification for reducing the routine inspection interval:

Summary of Findings and Actions:

(X) 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
( ) Violation(s), regional letter issued
( ) Followup on previous violations

Inspector(s): Kevin G. Null

/RA/ by Darrel G. Wiedeman for ***02/15/2011***
Date

Frank Tran
/RA/ ***02/14/2011***
Date

Approved: Patricia J. Pelke
/RA/ by Darrel G. Wiedeman for ***02/15/2011***
Date

Enclosure

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

1. AMENDMENTS AND PROGRAM CHANGES:

N/A - The Harry S. Truman Memorial Veterans Hospital is a permittee of the Department of Veterans Affairs (DVA) Master Materials License (MML).

2. INSPECTION AND ENFORCEMENT HISTORY:

The U.S. Nuclear Regulatory Commission (NRC) conducted a routine inspection on August 26, 2008, and no violations were identified.

3. INCIDENT/EVENT HISTORY:

No events have been reported since the last NRC inspection that was conducted on August 26, 2008.

PART II - INSPECTION DOCUMENTATION

1. ORGANIZATION AND SCOPE OF PROGRAM:

Marc Magill, Acting Director
Richard E. Poelling, Radiation Safety Officer
Gary Williams, Director, National Health Physics Program

The Harry S. Truman Memorial Veterans Hospital, Columbia, Missouri (permittee) was authorized by the VA Master Material License No. 03-23853-01VA (licensee) to possess a broad scope medical permit (Permit No. 24-15235-03). The facility is a 170 bed hospital authorized for medical diagnosis, therapy and research in humans. The permittee is also authorized for research and development as defined in Title 10 of the Code of Federal Regulations (CFR) 30.4, including animal studies, instrument calibration, student instruction, and in vitro studies. The permittee is also authorized for a self-contained, self-shielded irradiator. Staff from the VA National Health Physics Program (NHPP) accompanied the NRC inspectors. According to the licensee staff that was interviewed, there have been no fires, explosions, medical events or fatalities involving radioactive materials, lost/stolen radioactive materials or over exposures to radiation since the last NRC inspection. The inspectors did not identify anything contrary to the above statements made by the licensee staff.

Nuclear Medicine Program

At the time of this inspection, the permittee had three full-time nuclear medicine technologists that work in the nuclear medicine department. The permittee conducts approximately 10 - 15 diagnostic procedures per day, of which 80 – 90 percent are diagnostic outpatient cardiac studies. The permittee also administers iodine-131 for diagnostic (whole body scans) and therapeutic (hyperthyroid and thyroid cancer treatments) studies requiring a written directive 15 – 20 times per year, in accordance with 10 CFR Part 35. Iodine-131 prescriptions range between 5 – 150 millicuries. Iodine-131 is administered in capsule form.

The inspectors reviewed a representative sample of radiopharmaceutical written directives for the period 2009-2010. The inspectors concluded that the written directives met the requirements in 10 CFR 35.40. In addition, the inspectors reviewed dosimetry records for the period 2009-2010. The highest whole body exposure for calendar year (CY) 2009 was 129 mrem, and 2010 was 150 mrem. The highest extremity exposure for CY 2009 was 1910 mrem, and 2010 was 290 mrem. No new medical events or over exposures to radiation were identified.

The NRC inspectors interviewed an authorized user physician, two nuclear medicine technologists, a nuclear medicine technology student, and the Radiation Safety Officer (RSO) regarding their understanding of the definition of a medical event, who to report the medical event to, and how they determine if a medical event occurred. The RSO, authorized user physician, nuclear medicine technologists, and nuclear medicine technology student had a satisfactory understanding of the definition of a medical event and reporting requirements.

Brachytherapy Program

The permittee has not performed sealed source brachytherapy treatments since the last inspection. Patients at the Columbia VA Medical Center that require sealed source therapy are referred to the University of Missouri, who are authorized to perform this treatment under a specific NRC license.

Research Activities

The permittee's Radiation Safety Committee, which meets on a monthly basis, authorized twelve principle investigator researchers to perform research activities with microcurie quantities of carbon-14, iodine-125, hydrogen-3 for in vitro studies, and fluorine-18 and technetium-99m in small animal studies. Currently, the permittee does not use high energy beta or alpha emitter radioactive materials. The NRC inspectors conducted independent radiation surveys in and around selected research facilities/laboratories and did not identify any contamination or unusual/unexpected radiation levels. The radiation safety staff conducts routine audits of restricted and unrestricted areas which includes surveys for radiation levels and removable contamination. No significant contamination or unusual radiation levels have been identified since the last NRC inspection.

2. SCOPE OF INSPECTION:

Record review: The inspectors reviewed a representative sample of nuclear medicine written directives, incoming package survey records, daily/weekly radiation surveys and dose calibrator records. The inspectors also verified that the data in the National Source Tracking System (NSTS) was accurate.

Inspection Procedure(s) Used: 87126, 87131, 87134

Focus Areas Evaluated: Inspection Manual Chapter 2800, Section 05.01b.1. (a) through (h)

During the inspection of the nuclear medicine program, the inspectors reviewed a representative sample of radiation survey records for the period 2009-2010 and discussed the following areas with the nuclear medicine technologists: package surveys, daily/weekly radiation surveys, disposal of radioactive materials and dose calibrator verifications. During the inspection, the inspectors observed a nuclear medicine technologist perform a linearity test on the dose calibrator, and another technologist perform a package check-in and survey. Both tests were performed in a manner consistent with NRC guidance and in accordance with NRC regulations.

Additionally, the inspectors reviewed the Radiation Safety Committee meeting minutes for the year of 2010 and confirmed that the permittee adequately tracked its radiation safety issues/concerns and effectively responded to those issues/concerns. The inspectors also reviewed the sealed source inventory and leak test records for the calendar year of 2010. The sealed source quantities were consistent with the permittee's license conditions. The highest leak test survey result was 9.2E-6 microcurie. The leak tests for the permittee's sealed sources were well below 0.005 microcurie and were within the NRC requirements.

3. INDEPENDENT AND CONFIRMATORY MEASUREMENTS:

The inspectors conducted independent radiation surveys with a Canberra Model MRAD 213, Serial No.13000313, calibrated on November 3, 2010. Surveys in and around the nuclear medicine department and hot lab were consistent with the permittee's survey results. Surveys in unrestricted areas were at background levels (0.02- 0.05 mR/hour). Survey results in restricted areas were also at background levels. No unusual or unexpected radiation levels were identified.

The inspectors also conducted independent radiation surveys in a research laboratory where animal studies were conducted using fluorine-18, and a laboratory where microcurie quantities of iodine-125 labeling studies were performed. The NRC inspectors did not identify any unusual or unexpected radiation levels in or around the research facilities. The NRC inspectors concluded that no worker or member of the public received a dose of radiation in excess of the limits specified in 10 CFR 20.1201 or 20.1301.

VIOLATIONS, NON-CITED VIOLATIONS, AND OTHER SAFETY ISSUES:

No violations of NRC requirements were identified.

4. PERSONNEL CONTACTED:

Thomas Dresser, Director, Nuclear Medicine
* L. Stephen Gaither, Public Affairs Officer
* Brenda Hayes, Performance Improvement (Acting Manager)
#* Timothy Hoffman, Ph.D., Chair, Radiation Safety Committee, Authorized User
* Marc Magill, Acting Director
#* Richard Poelling, Radiation Safety Officer
#* Radhibe Poreddy, Administration Fellow
Wade Port, Acting Assistant Chief of Staff
#* Karen Smear, Research Compliance Officer
#* John Whited, M.D., MHS, Acting Chief of Staff Research
#* Mary Wideman, ADIR/PS (Nurse Executive)
#* Gary Williams, Director, National Health Physics Program

Use the following identification symbols:
Individual(s) present at entrance meeting
* Individual(s) present at exit meeting