

July 14, 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 030-34325/11-14(DNMS) – JOHN D. DINGELL VA  
MEDICAL CENTER, DETROIT, MICHIGAN

Dear Mr. Williams:

On June 2, 2011, U. S. Nuclear Regulatory Commission (NRC) inspectors conducted a routine inspection at the John D. Dingell VA Medical Center, located in Detroit, Michigan, with continued in-office review through June 23, 2011. The purpose of the in-office review was to evaluate the permittee's reconciliation of discrepancies discovered in inventory records. The preliminary inspection results were discussed with Ms. Pamela Reeves, Medical Center Director, and selected members of her staff on June 2, 2011. A final exit meeting was held with Mr. Leonard Palmeri, Administrative Officer to the Associate Director, via telephone conference on June 23, 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>.

G. Williams

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

Sincerely,

*/RA/*

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

Docket No. 030-34325  
License No. 03-23853-01VA  
Permit No. 21-04234-01

Enclosure:  
Inspection Report No. 030-34325/11-14(DNMS)

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DATE	07/13/2011		07/13/2011		07/14 /2011	

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INSPECTION RECORD

Region III Inspection Report No. 030-34325/11-14(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;  
John D. Dingell VA Medical Center  
4646 John R. Street  
Detroit, Michigan 48201

Permit No. 21-04234-01

Licensee: Contact: Rayma L. Bilicki, M.S., RSO  
Priority: 3 Program Code: 02120/3620

Telephone No. 313-576-3595

Date of Last Inspection: January 29, 2003

Date of This Inspection: June 2, 2011,  
with continued in office review through  
June 23, 2011.

Type of Inspection: ( ) Initial ( ) Announced (X) Unannounced  
( ) 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
- ( ) Follow-up on previous violations

Inspector(s): Kevin G. Null/Frank P. Tran

Inspector:     /RA/      
Frank P. Tran, Health Physicist

Date: 07/13/2011

Inspector:     /RA/      
Kevin G. Null, Senior Health Physicist

Date: 07/13 /2011

Approved:     /RA/      
Patricia J. Pelke, Chief  
Materials Licensing Branch

Date: 07/13 /2011

Enclosure

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

### 1. AMENDMENTS AND PROGRAM CHANGES:

NA - The John D. Dingell VA Medical Center is a permittee of the Department of Veterans Affairs (DVA) Master Materials License (MML).

### 2. INSPECTION AND ENFORCEMENT HISTORY:

During the previous National Health Physics Program (NHPP) inspection on February 23, 2011, no violations were identified.

The last U.S. Nuclear Regulatory Commission (NRC) routine inspection at the site was on January 29, 2003. No violations of NRC requirements were identified.

### 3. INCIDENT/EVENT HISTORY:

No events have been reported since the last NRC inspection on January 29, 2003. No open Nuclear Materials Event Database (NMED) items were pending for this permittee.

## **PART II - INSPECTION DOCUMENTATION**

### 1. ORGANIZATION AND SCOPE OF PROGRAM:

Pamela Reeves, M.D., Director  
Brent Thelen, Ph.D., Associate Director  
Leonard Palmeri, Administrative Office to the Associate Director  
Rayma Bilicki, M.S., Radiation Safety Officer (RSO)

The John D. Dingell VA Medical Center (permittee) was authorized by the DVA MML No. 03-23853-01VA (Licensee) to possess a limited scope medical permit (permit No. 21-04234-01). The facility is a 510 bed hospital that is authorized on their permit for medical diagnostic and radiopharmaceutical therapy, and 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. Mr. Tom Huston, Program Manager from the NHPP, accompanied the NRC inspectors during this inspection. According to the licensee staff that were interviewed, since the last NRC inspection there have been no fires, explosions, medical events or fatalities involving radioactive materials, or over exposures to radiation. The inspectors did not identify anything contrary to the above statements made by licensee staff.

#### **Nuclear Medicine Program**

At the time of this inspection, the permittee had three full-time certified nuclear medicine technologists (NMTs) including a Chief NMT and eight to ten authorized user physicians that work in the nuclear medicine department. The nuclear medicine department uses three imaging rooms and one hot lab to conduct nuclear medicine procedures. The permittee conducts approximately eight to ten diagnostic procedures per day, with about 50 to 60 percent of the annual workload consisting of diagnostic cardiac scans. The permittee uses unit doses only that are delivered from local nuclear pharmacies on a

daily basis. Annually, the permittee performed 10-15 radiopharmaceutical studies using iodine-131 for hyperthyroid treatments, whole body scans, and thyroid cancer treatments. The inspectors reviewed a representative sample of written directives that were prepared for radiopharmaceutical studies for calendar year (CY) periods 2008 through June 2009. The inspectors concluded that the written directives met the requirements in 10 CFR 35.40.

The inspectors reviewed dosimetry records for CY periods 2009 through 2010. The highest whole body exposure for CY 2009 was 336 millirem (mrem), and for CY 2010 was 240 mrem. The highest extremity exposure for CY 2009 was 2,543 mrem, and CY 2010 was 1,548 mrem. No overexposures to radiation were identified.

The inspectors interviewed three nuclear medicine technologists and the 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 and nuclear medicine staff had a good understanding of the definition of a medical event and who to report a medical event to. No medical events were identified.

### **Research Activities**

The permittee authorized nine to ten researchers to perform research activities as defined in 10 CFR 30.4. Currently, two researchers are active users. Radionuclides are used for in vitro research studies, and primarily included microcurie quantities of hydrogen-3.

The NRC inspectors conducted independent radiation surveys in and around selected research laboratories and did not identify any contamination or unexpected radiation levels. The radiation safety staff performs monthly and quarterly wipe tests of the research labs for removable contamination. No significant contamination has been identified for the CY periods 2009 through 2010.

## 2. **SCOPE OF INSPECTION:**

Record review: The inspectors reviewed a representative sample of nuclear medicine written directives, incoming package surveys, daily/weekly radiation surveys and dose calibrator records. The inspectors also reviewed a representative sample of training records for the CY periods 2009 through April 2011. During the inspection, the inspectors observed nuclear medicine technologists perform constancy tests on the dose calibrators, draw a Tc-99m dose for a stress test, and conduct area surveys in restricted areas. The inspectors observed that the technologists wore adequate protective clothing (gloves, lab coat, whole body and ring badges). These activities were performed in a manner consistent with NRC guidance and in accordance with NRC regulations.

Inspection Procedure(s) Used: 87126, 87131

Focus Areas Evaluated: Manual Chapter 2800, Chapter 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 CY periods 2009 through April 2011, and discussed the following areas with the nuclear medicine technologists: package surveys, daily/weekly radiation surveys, disposal of radioactive materials and dose calibrator verifications. The inspectors observed a nuclear medicine technologist perform a constancy test on the dose calibrator with the same sealed sources and in the same manner in which it was performed earlier that morning. The constancy test results were within the acceptance criteria in comparison with the permittee's data records.

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.

The inspectors also conducted independent radiation surveys of selected active research laboratories. The NRC inspectors did not identify any unusual or unexpected radiation levels in or around the research laboratories. In addition, the inspectors toured the waste storage area and performed independent surveys of the area. No unusual radiation levels were found. 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:**

- #\*Pamela Reeves, M.D., Director
- #\*Brent A. Thelen, Ph.D., Associate Director
- #\*Rayma Bilicki, M.S., Radiation Safety Officer
- #\*Leonard Palmeri, Assistant Officer to Associate Director
- #\*Thomas Huston, Ph.D., Program Manager, National Health Physics Program
  - \*Tim Hadden, Research Safety Coordinator
  - \*Jeff Edge, Safety Manager

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