



**UNITED STATES
NUCLEAR REGULATORY COMMISSION**

REGION I
2100 RENAISSANCE BLVD., SUITE 100
KING OF PRUSSIA, PA 19406-2713

July 8, 2015

Docket Nos. 03011063
03001321

License Nos. 08-00386-19
08-03075-07

EA-15-078
EA-15-053

Wayne A. I. Frederick, M.D., MBA
President
Howard University
2041 Georgia Avenue, N.W.
Washington, D.C. 20060

SUBJECT: NRC INSPECTION REPORT NOS. 03011063/2013001 AND 03001321/2013003
and NRC OFFICE OF INVESTIGATIONS (OI) CASE NO. 1-2014-002, HOWARD
UNIVERSITY AND HOWARD UNIVERSITY HOSPITAL, WASHINGTON,
DISTRICT OF COLUMBIA

Dear Dr. Frederick:

This letter provides you the results of two inspections by the U.S. Nuclear Regulatory Commission (NRC) that were recently completed at two Howard University facilities (Howard University and Howard University Hospital).

On April 29-30, June 25 and September 18, 2013, Thomas Thompson and John Miller of this office conducted a routine inspection at Howard University of activities authorized by NRC License No. 08-00386-19. The inspection was an examination of your activities as they relate to radiation safety and to compliance with the Commission's regulations and the license conditions. The inspection consisted of observations by the inspector, interviews with selected personnel, and a selective examination of representative records. The inspectors identified that the former Radiation Safety Officer (RSO) at Howard University, did not notify NRC of a radioactive material spill that occurred in 2008. Further, the Region I Field Office, NRC Office of Investigations (OI), initiated an investigation (Case No. 1-2014-002) on October 24, 2013, to determine whether the former RSO deliberately did not notify the NRC within 24 hours of the spill, including whether there were other deliberate acts by Howard University employees associated with the spill.

Based on the testimonial and documentary evidence obtained during the OI investigation, the NRC concluded that there were no willful acts by Howard University employees associated with any aspects of the spill that occurred in 2008. However, based on the results of the investigation and inspection, the NRC identified two apparent violations of NRC requirements, one of which is being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The current Enforcement Policy is included on the NRC's Web site at <http://www.nrc.gov/about-nrc/regulatory/enforcement/enforce-pol.html>.

The apparent violation being considered for escalated enforcement involves the failure aforementioned failure to notify the NRC, in accordance with 10 CFR 30.50(b), of a spill of radioactive material that required the closure of facilities. We noted that when your staff was informed of this apparent violation, corrective actions were taken to comply with NRC requirements. Specifically, your staff formally notified the NRC of the spill and the current RSO provided training to appropriate staff on all NRC reporting requirements. The apparent violation not being considered for escalated enforcement involves Howard University's unauthorized possession, in 2008, of the cesium-137 that was involved in the spill. This is an apparent violation of 10 CFR 30.3(a). The inspectors determined that when the cesium-137 was identified by the former RSO, he promptly made arrangement for its proper disposal. These apparent violations, and the results of the NRC inspection, are described in detail in Inspection Report No. 03011063/2013001, included as Enclosure 1 to this letter.

On October 31, 2013, Robert Gallagher of this office performed a special inspection, initiated in response to the NRC's receipt of a report, filed by your current RSO, on September 3, 2013. The report detailed the temporary loss of control of a package containing a 10.44 curie sealed source of iridium-192 that had been delivered, without warning to the RSO's staff, and there was no one present to secure the source.

Based on the results of this inspection, two apparent violations were identified, both of which are being considered for escalated enforcement action in accordance with the NRC Enforcement Policy. The apparent violations involve the failure to control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage as required by 10 CFR 20.1802 and the failure to secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas as required by 10 CFR 20.1801. We noted that when your radiation safety office staff were notified about the delivery of the package containing the iridium-192 source, they immediately secured the package, trained appropriate staff in the proper procedures for receiving and securing radioactive material packages, and established a written policy for the vendor requiring that no packages containing radioactive material be delivered except Monday through Friday (no holidays) and between the hours of 9:00 a.m. and 5:00 p.m., when there would be someone present to accept the package. The details of these two apparent violations and the results of this inspection are described in Inspection Report No. 03001321/2013003, included as Enclosure 2 to this letter.

The circumstances surrounding these apparent violations, the significance of the issues, and the need for lasting and effective corrective actions were discussed with Alice Mahan, Satya R. Bose, Ph.D. and Marsha Culler of your staff on May 11, 2015, during the exit meeting via telephone. As a result, it may not be necessary to conduct a pre-decisional enforcement conference (PEC) in order to enable the NRC to make an enforcement decision. In addition, since your facility has not been the subject of an escalated enforcement action within the last two inspections, and based on our understanding of your corrective actions, a civil penalty may not be warranted in accordance with Section 2.3.4 of the Enforcement Policy.

Before the NRC makes its enforcement decision, we are providing you an opportunity to: (1) request a PEC, (2) respond to the apparent violations in writing, or (3) accept the violations as characterized in the letter and its enclosures (in which case the NRC will proceed with its enforcement decision). Please contact James Dwyer at (610) 337-5309 **within 10 days** of the date of this letter to notify NRC whether you are interested in attending a PEC, providing a written response, or accepting the violations.

If you choose to request a PEC, the meeting should be held in our office in King of Prussia, PA within 30 days of the date of this letter. The PEC will afford you the opportunity to provide your perspective on the apparent violations and any other information you believe the NRC should take into consideration before making an enforcement decision. The topics discussed during the conference may include the following: information to determine whether the violations have occurred, information to determine the significance of the violations, information related to the identification of the violations, and information related to any corrective actions taken or planned to be taken. The guidance in the enclosed excerpt from NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action," may be helpful. If a PEC is held, it will be open for public observation and the NRC will issue a press release to announce the conference time and date.

If you choose, instead, to provide this information in a written response, it should be sent to the NRC within 30 days of the date of this letter. Your response may reference or include previously docketed correspondence. It should be clearly marked as a "Response to Apparent Violations in NRC Inspection Report 03011063/2013001; EA 2015-078," or as a "Response to Apparent Violations in NRC Inspection Report 03001321/2013003; EA 2015-053," and sent to the U.S. Nuclear Regulatory Commission, ATTN: Document Control Desk, Washington, DC 20555-0001 with a copy to the Regional Administrator, Region I, 2100 Renaissance Boulevard, King of Prussia, PA 19406.

In addition, please be advised that the number and characterization of apparent violations described in the enclosed inspection reports may change as a result of further NRC review. You will be advised by separate correspondence of the results of our deliberations on this matter.

Current NRC regulations and guidance are included on the NRC's website at www.nrc.gov; select **Nuclear Materials; Med, Ind, & Academic Uses**; then **Regulations, Guidance and Communications**; then **Enforcement Policy** (under "**Related Information**"). You may also obtain these documents by contacting the Government Printing Office (GPO) toll-free at 1-866-512-1800. The GPO is open from 8:00 a.m. to 5:30 p.m. EST, Monday through Friday (except Federal holidays). To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be placed in the NRC's Public Document Room without redaction.

In accordance with 10 CFR 2.390 of the NRC's "Rules of Practice," a copy of this letter, its enclosures, and your response, if you choose to provide one, will be made available electronically for public inspection in the NRC Public Document Room or from the NRC document system (ADAMS), accessible from the NRC website at <http://www.nrc.gov/reading-rm/adams.html>. To the extent possible, your response should not include any personal privacy, proprietary, or safeguards information so that it can be made available to the Public without redaction.

Please note that final NRC investigation documents, such as the OI report described above, may be made available to the public under the Freedom of Information Act (FOIA) subject to redaction of information appropriate under FOIA. Requests under the FOIA should be made in accordance with 10 CFR 9.23, Requests for Records, a copy of which is enclosed for your information

If you have any questions on this matter, please contact Mr. James Dwyer of my staff at (610) 337-5309.

Sincerely,

/RA J. Nick for/

Daniel S. Collins, Director
Division of Nuclear Materials Safety

Enclosures:

1. Inspection Report No. 03011063/2013001
2. Inspection Report No. 03001321/2013003
3. NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action"
4. 10 CFR 9.23, Requests for Records

cc w/Enclosures: Satya R. Bose, Ph.D., Radiation Safety Officer
District of Columbia

If you have any questions on this matter, please contact Mr. James Dwyer of my staff at (610) 337-5309.

Sincerely,

/RA J. Nick for/

Daniel S. Collins, Director
Division of Nuclear Materials Safety

Enclosures:

1. Inspection Report No. 03011063/2013001
2. Inspection Report No. 03001321/2013003
3. NRC Information Notice 96-28, "Suggested Guidance Relating to Development and Implementation of Corrective Action"
4. 10 CFR 9.23, Requests for Records

cc w/Enclosures: Satya R. Bose, Ph.D., Radiation Safety Officer
District of Columbia

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NAME	Gallagher/rig	Bickett/bb	Dwyer/jpd	Collins/jln f/	
DATE	06/15/15	06/30/15	06/16/15	07/08/15	

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U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

EA No. EA-15-078

Inspection No. 03011063/2013001

Docket No. 03011063

License No. 08-00386-19

Licensee: Howard University

Address: 6th & Bryant Streets, NW
Washington, DC 20059

Inspection Dates: April 29-30, June 25, and Sept. 18, 2013

Exit Meeting: May 11, 2015

Inspectors:

/RA J. Dwyer for/

06/16/15

John J. Miller
Health Physicist
Commercial, Industrial, R&D and
Academic Branch, DNMS

date

/RA/

06/17/15

Robert L. Gallagher
Health Physicist
Medical Branch, DNMS

date

/RA/

06/16/15

Approved by:

James P. Dwyer, Chief
Medical Branch, DNMS

date

EXECUTIVE SUMMARY

Howard University
NRC Inspection Report No. 03011063/2013001

A routine unannounced inspection was conducted at the Howard University (HU) on April 29-30, June 25, and September 18, 2013.

On May 11, 2015, an Exit Meeting was conducted with the individuals identified in the Attachment to this report. Based on the results of this inspection, the inspectors identified two apparent violations.

During February or March, 2008, HU had an unplanned contamination event in which it restricted access to Room 4104 of the Adams Building and continued to restrict access until the room was decontaminated several months later, a period longer than 24 hours. The licensee did not report the contamination event to the NRC as required by 10 CFR 30.50(b).

During an unknown period through June 2009, HU possessed byproduct material that was not authorized by a specific or general license. Specifically, Condition 6, 7 and 8 of License No. 08-00386-19 did not authorize possession of cesium-137, in liquid form, or in millicurie quantities. Possession of this material without a license is an apparent violation of 10 CFR 30.3(a) which requires that no person transfer, receive, acquire, own, possess, or use byproduct material except as authorized by a specific or general license issued in accordance with the regulations in that chapter. The inspectors noted that the licensee identified the material as legacy material from a physics professor that was stored in the vault and forgotten. When the former RSO identified the material, arrangements were made for its disposal and it was disposed of in 2009.

REPORT DETAILS

1. Organization and Scope of the Program

a. Inspection Scope

A routine unannounced inspection was conducted of the broad scope academic research license at the Howard University (HU) on April 29-30, 2013. The inspection continued on June 25 and September 18, 2013, to follow up on a previously unreported contamination event that occurred in early 2008. The inspection consisted of a review of the licensee's written reports, documents and procedures, interviews with licensee staff, and observations of day-to-day operations at the licensee's facilities. The inspection was performed in accordance with NRC Inspection Procedure 87126. The following focus areas were reviewed: security and control of licensed material; shielding of licensed material; comprehensive safety measures; radiation dosimetry program; radiation instrumentation and surveys; radiation safety training and practices; and management oversight.

b. Observations and Findings

HU has two NRC licenses: a broad scope academic license issued to HU (License No. 08-00386-19); and a limited scope medical/high dose rate remote afterloader brachytherapy license issued to the Howard University Hospital (HUH) (License No. 08-03075-07). The HU President established the Howard University Radiation Safety Committee (HURSC) for use by HU and HUH. A representative of HU/HUH management is a member of the HURSC. The HURSC meets at least quarterly. The licensee's Radiation Safety Officer (RSO) is a member of the HURSC. The RSO is supported by two Radiation Safety Technicians and a Program Coordinator. The RSO and his staff oversee activities conducted under the HU academic research broad scope license and the HUH limited scope medical/high dose rate remote afterloader brachytherapy license.

The broad scope academic research licensed program has only 5 authorized users (AU). One AU uses millicurie quantities of phosphorus-32, one uses less than millicurie quantities of a non-volatile form of iodine-125, and the remaining 3 AUs use only tritium. No bioassays are warranted to assess internal exposures.

c. Conclusions

No safety concerns or violations were identified.

2. Material Receipt, Use, Transfer, and Control

a. Inspection Scope

The inspectors toured facilities, interviewed staff, observed the conduct of licensed activities, made independent measurements of radiological conditions and reviewed records.

b. Observations and Findings

The inspectors visited four research laboratories and all were either locked with a key or occupied and the radioactive material was under the control and surveillance of the scientific staff. Overall, the scientists were found to be exercising good practices for radiation safety and ALARA. Laboratory doors, freezers, and refrigerators were posted with the appropriate warning labels. Current copies of the NRC Form 3 were prominently displayed in the lab areas. Radioactive use areas on benchtops were clearly demarcated and absorbent paper was consistently used in an effort to prevent the spread of contamination. The laboratories were equipped with survey meters that were appropriate for the use, functional and calibrated. The inspectors observed a scientist using phosphorus-32 demonstrate appropriate radiological safety practices and use of the appropriate radiation safety equipment such as an extremity badge, lab coats and gloves, acrylic shielding and absorbent paper. Radioactive waste was stored in acrylic bins. Scientists interviewed in the labs were knowledgeable regarding their use of radioactive material. They exhibited awareness regarding personnel protective clothing, emergency procedures, refraining from sewer disposal of radioactive material, and surveying their work area after completing an assay.

During the inspection on April 29-30, 2013, the inspectors identified that there had been a contamination event in Room 4104 of the Adams Building, an area covered under the HU license. Interviews of licensee staff identified that the source of the contamination was a glass vial that contained "millicuries of cesium-137 (Cs-137)" in liquid form. The glass vial had been stored in a concrete vault. Licensee staff informed the inspectors that in February or March of 2008, while preparing to ship the radioactive material in Room 4104 for disposal, the vials were removed from the storage vault and the exterior surface of each vial was tested for contamination. One sample reportedly tested positive for contamination. Further investigation revealed that the storage vault and the floor of the room were contaminated. The inspectors learned that the RSO at that time, restricted access to Room 4104 due to the contamination and did not allow unrestricted access to the area until sometime in the summer of 2008 following decontamination of the area.

10 CFR 30.50(b) requires that the licensee notify the NRC within 24 hours after the discovery of an unplanned contamination event that:

1. Required the access to the contaminated area, by workers or the public, to be restricted for more than 24 hours by imposing additional radiological controls or by prohibiting entry into the area;
2. Involves a quantity of material greater than five times the lowest annual limit of intake specified in Appendix B of 10 CFR Part 20, which is 100 microcuries for cesium-137; and
3. Access into the area, Room 4104 of the Adams Building, was restricted for a reason other than to allow isotopes with a half-life less than 24 hours to decay prior to decontamination.

The inspectors determined that HU did not notify the NRC of the contamination in Room 4104 of the Adams Building as required. This is an apparent violation of 10 CFR 30.50(b).

When notified of this apparent violation during the inspection, the former RSO stated that he was not aware of the reporting requirements in Part 30. When notified of this apparent violation during a telephone call on May 7, the current RSO made an immediate notification. The inspectors determined that the current RSO also trained appropriate staff on all NRC reporting requirements.

Condition 6, 7 and 8 of License No. 08-00386-19 did not authorize possession of Cs-137, in liquid form, or in millicurie quantities. Possession of this material without a license is an apparent violation of 10 CFR 30.3(a) which requires that no person transfer, receive, acquire, own, possess, or use byproduct material except as authorized by a specific or general license issued in accordance with the regulations in that chapter. The inspectors noted that the licensee identified the material as legacy material from a physics professor that was stored in the vault and forgotten. When the former RSO identified the material, arrangements were made for its disposal and it was disposed of in 2009.

c. Conclusions

Apparent violations of 10 CFR 30.50(b) and 10 CFR 30.3(a) were identified.

3. Exit Meeting

The inspectors summarized the preliminary results of the site inspection prior to leaving the site. On May 11, 2015, the inspector presented the final results of the inspection by telephone.

ATTACHMENT: SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Satya R. Bose, Ph.D., RSO #*^

Deloris Outlaw, Hospital Administrator

Alice Mahan, Executive Officer *^

S. Tyrone Barnsdale, Special Projects Mngr., Office of the Provost; Vice Chair, RSC *

Erica Russell, Program Coordinator, Radiation Safety Office *

Marsha Culler, Program Coordinator, Radiation Safety Office ^

Oluminde Owoade, Radiation Safety Technician #

Shawn Reika, Medical Services

#Present at entrance meeting

*present at preliminary exit meeting

^Present during telephone exit meeting

U.S. NUCLEAR REGULATORY COMMISSION
REGION I

INSPECTION REPORT

EA No.	EA-15-053	
Inspection No.	03001321/2013003	
Docket No.	03001321	
License No.	08-03075-07	
Licensee:	Howard University Hospital	
Address:	2041 Georgia Avenue, NW Washington, DC 20060	
Inspection Date:	October 31, 2013	
Exit Meeting:	May 11, 2015	
Inspector:	<u>/RA/</u> Robert Gallagher, Health Physicist Medical Branch, DNMS	<u>06/17/15</u> Date
Approved By:	<u>/RA/</u> James P. Dwyer, Chief Medical Branch, DNMS	<u>06/16/15</u> Date

EXECUTIVE SUMMARY

Howard University Hospital
NRC Inspection Report No. 03001321/2013003

On October 31, 2013, a special inspection of Howard University Hospital (HUH) was conducted, following the licensee's September 3, 2013 report of the temporary loss of control of a 10.44 curie iridium-192 source. On May 11, 2015, an Exit Meeting was conducted with individuals identified in the attachment to this report.

Based on the results of this inspection, the inspector identified that:

10 CFR 20.1802 requires the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. Contrary to this requirement, on August 31, 2013, the 10.44 curie Ir-192 source was unsecured and not under constant surveillance on the HU/HUH loading dock, an unrestricted area, for approximately 4.5 hours. This is an apparent violation of 10 CFR 20.1802.

10 CFR 20.1801 requires that the licensee secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. Contrary to this requirement, on August 31 through September 3, 2013, the 10.44 curie Ir-192 source was not secured from unauthorized removal or access while stored in the locked Central Supply Department, a controlled or unrestricted area.

REPORT DETAILS

1. Organization and Scope of the Program

a. Inspection Scope

A special announced inspection was conducted of the limited scope medical/high dose rate remote afterloader license at Howard University Hospital (HUH) on October 31, 2013, to follow up on the licensee's report of the temporary loss of control of a 10.44 curie iridium-192 (Ir-192) sealed source. The special inspection was performed in accordance with NRC Inspection Procedure 87103 and consisted of interviews of individuals involved in the event, a tour of facilities and a review of licensee documents and records.

b. Observations and Findings

Howard University (HU) has two NRC licenses: a broad scope academic license issued to HU (License No. 08-00386-19); and a limited scope medical/high dose rate remote afterloader brachytherapy license issued to the HUH (License No. 08-03075-07). Radiation safety oversight of both licenses is provided by the Howard University Radiation Safety Committee (HURSC), the Radiation Safety Officer (RSO) and the RSO's staff.

The HUH license authorizes the use of materials under 10 CFR 35.100, 35.200, 35.300, 35.400, and 35.600; *in vitro* studies permitted by 10 CFR 31.11; and possession of a strontium-90 sealed source. No human research involving radioactive materials is performed. The Radiation Oncology Department is staffed by two authorized users and one authorized medical physicist (AMP). The AMP is also the RSO. All therapy procedures are performed in the Radiation Oncology Department. Therapeutic procedures performed include treatment of thyroid disorders and thyroid cancer using iodine-131, palliative treatment of bone metastases with samarium-153, prostate brachytherapy using iodine-125 sealed sources, and high dose rate (HDR) remote afterloader brachytherapy using an Ir-192 sealed source.

c. Conclusions

No safety concerns or violations were identified.

2. Material Receipt, Use, Transfer and Control

a. Inspection Scope

On October 31, 2013, the inspector performed a special inspection following the licensee's report of the temporary loss of control of a 10.44 curie Ir-192 source.

The inspector toured the license's facilities and interviewed individuals involved in the event. The inspector observed, reviewed and discussed a range of activities including: material control and security; posting/labeling; shielding; survey meter use; HDR source receipt/return procedures; and radiation safety training and practices. The inspector reviewed documentation related to the receipt of the Ir-192 source on August 31, 2013, and documents related to the response made by the RSO later that same day.

b. Observations and Findings

The RSO stated that the Ir-192 source used in the HDR unit was due for replacement and he was concerned that the Ir-192 source would be delivered on Monday, September 2, the Labor Day holiday, when no one authorized to receive the source would be present at the hospital. The RSO said that he contacted the Ir-192 source provider on Friday, August 30, and was assured the source would not be delivered until Tuesday, September 3. The Ir-192 source provider confirmed this statement in an email to the RSO on Friday, August 30.

The package containing 10.44 curies of Ir-192 was delivered to the loading dock shared by HU and HUH by Federal Express (FedEx) at 10:08AM on Saturday, August 31, 2013. The inspector noted that the licensee had installed an alarming radiation monitor on the loading dock several years ago to alert loading dock staff when a package containing radioactive material was delivered. A worker from the Central Supply Department (CSD) (Worker 1), which is located next to the loading dock, reported she was on duty at the time of the package delivery. Worker 1 said she heard the alarm and went to investigate but was unaware of the purpose or cause of the alarm or what her responsibilities were involving the alarm. Worker 1 returned to the CSD. The inspector learned that shortly after the alarm began to sound, an Officer from the Department of Protective Services (DPS) investigated. The Officer confirmed that the radiation alarm was sounding and contacted the RSO by telephone. Later that morning, the DPS again contacted the RSO because the RSO had not responded to the initial call. At approximately 2:30PM, a second worker from the CSD (Worker 2) just started her shift in the CSD and heard the alarm. Worker 2 moved packages, including the package containing the Ir-192 source, into the locked CSD area. The alarm stopped. The inspector noted that while the CSD area was locked, access to the CSD area and the package containing the Ir-192 source by other CSD workers was possible.

The RSO arrived at the loading dock at approximately 4:30-5:00 PM on Saturday, August 31. By this time the package had been moved into the locked CSD area and the alarm had stopped sounding. Using a survey meter, the RSO conducted a search for the source of the alarm but was not able to locate it. The RSO informed the inspector that he suspected the source of the alarm was a load of hot trash placed in the dumpster which set off the alarm. Based on this assumption, the RSO monitored the dumpster for radioactive material, did not find any hot trash, and did not investigate further.

At approximately 9:30 AM on Tuesday, September 3, the Radiation Safety Office was notified that a radioactive material package had been delivered. The RSO immediately went with a Radiation Safety Technician and retrieved the package. The RSO and the Radiation Safety Technician noted that the package had been delivered at 10:08AM on Saturday, August 31. The RSO and Radiation Safety Technician performed radiological surveys, determined that the package was not damaged, and transported the package to the HUH Cancer Center where it was secured.

On September 3, the RSO contacted the NRC Region I Office by telephone to inform the NRC of the temporary loss of control of an Ir-192 source.

10 CFR 20.1802 requires the licensee control and maintain constant surveillance of licensed material that is in a controlled or unrestricted area and that is not in storage. Contrary to this requirement, on August 31, 2013, the 10.44 curie Ir-192 source was unsecured and not under constant surveillance on the HU/HUH loading dock, an unrestricted area, for approximately 4.5 hours. This is an apparent violation of 10 CFR 20.1802.

10 CFR 20.1801 requires that the licensee secure from unauthorized removal or access licensed materials that are stored in controlled or unrestricted areas. Contrary to this requirement, on August 31 through September 3, 2013, the 10.44 curie Ir-192 source was not secured from unauthorized removal or access while stored in the locked CSD Room, a controlled or unrestricted area. This is an apparent violation of 10 CFR 20.1801.

The inspector interviewed Worker 1 and learned that she did not know what to do in response to the alarm because she had never been trained. The inspector determined that, in accordance with 10 CFR 19.12(a), the limited scope medical/HDR license (License No. 08-03075-07) only contained a licensee commitment to train workers expected to receive radiation exposures in excess of 100 millirem per year. The inspector concluded that this commitment did not apply to the CSD workers because they would not normally be expected to receive this level of radiation exposure. Therefore, failure to provide training to the CSD in the procedures for responding to the radiation alarm or her responsibilities to promptly report the alarm is not a violation of current license requirements.

In response to the temporary loss of control of licensed material the licensee: 1) the RSO immediately retrieved the package, determined that the package was not damaged, and secured it in a proper location; 2) trained all personnel involved in the proper procedures in radioactive material package receipt and security; and 3) established a policy, in writing, that the vendor (MDS Nordion) only deliver shipments of HDR sources for receipt during normal business hours between 9:00 AM and 5:00 PM, Monday through Friday (no holidays). The inspector reviewed the licensee's corrective action plan and found it to be reasonable.

c. Conclusions

Apparent violations of 10 CFR 20.1802 and 20.1801 were identified.

3. Exit Meeting

The inspector summarized the preliminary results of the site inspection prior to leaving the site. On May 11, 2015, the inspector presented the final results of the inspection by telephone.

ATTACHMENT: SUPPLEMENTAL INFORMATION

PARTIAL LIST OF PERSONS CONTACTED

Licensee

Satya R. Bose, Ph.D., RSO #*^

Deloris Outlaw, Hospital Administrator

Alice Mahan, Executive Officer *^

Marsha Culler, Program Coordinator ^

S. Tyrone Barnsdale, Special Projects Mngr., Office of the Provost; Vice Chair, RSC *

Erica Russell, Program Coordinator, Radiation Safety Office *

Oluminde Owoade, Radiation Safety Technician #

Vivian Brady, Stock Technician, Central Supply Department

Isaac Beatty, Supervisor, Protective Service Department

Marvin Cooper, Director, Protective Service Department

Vance Adams, Director, Materials Management

Shawn Reika, Medical Services

Varian Medical Systems, Inc.

Michael Haskell, Brachytherapy Field Service Manager – Eastern Region

NRC Staff

Robert Gallagher, Health Physicist #*^

James P. Dwyer, Chief, Medical Branch^

#Present at entrance meeting

*present at preliminary exit meeting

^Present during telephone exit meeting