

Full Report

11/01/2011

Item Number: 110110

Last Updated: 02/22/2011

Narrative:

The Cleveland Clinic Foundation reported identifying a leaking small acrylic 9.25 MBq (250 uCi) Co-57 spot source (Eckert & Ziegler model RFQ-948-057-250U, serial #1289-117-2). No visible damage was observed, but 3.59 kBq (0.097 uCi) was recovered from a wash test subsequent to a wipe test. The source was removed from service pending disposal. Radiation surveys of the use area revealed no contamination. The source was properly packaged and placed into safe storage. The source was returned to the manufacturer.

Event Date: 02/03/2011 Date Reported to Agreement State: 02/04/2011
Discovery Date: 02/03/2011 Date Reported to NRC: 02/07/2011

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: OH-02110180013 Name: CLEVELAND CLINIC FOUNDATION
NRC Docket Number: NA City: CLEVELAND
NRC Program Code: NA State: OH Zip Code: 44195
Responsible NRC Region: 3

Site of Event:

Site Name: CLEVELAND State: OH

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART

LKS

Cause: DEFECTIVE OR FAILED PART

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: NA

LKS
IAEA Aggregate Category: NA

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL
LKS
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL

Source of Radiation:

EQP

A/1

Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CO-57
Manufacturer: ECKERT & ZIEGLER Activity: 0.00025 Ci 0.00925 GBq
Model Number: RFQ-948-057-250U IAEA Category: NA
Serial Number: 1289-117-2

LKS

Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CO-57
Manufacturer: ECKERT & ZIEGLER Activity: 0.00025 Ci 0.00925 GBq
Model Number: RFQ-948-057-250U IAEA Category: NA
Serial Number: 1289-117-2 Leak Test Result: 0.09696 uCi 3.58752 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

Keywords:

EQP

REVISED BYPRODUCT MATERIAL DEFINITION

LKS

REVISED BYPRODUCT MATERIAL DEFINITION

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
OH110002	02/22/2011		AGREEMENT STATE EVENT REPORT

Narrative:

Barnesville Hospital reported a leaking 6.75 MBq (182.5 uCi) Cs-137 source (North American Scientific model E-Vial, serial #16705). The source was wiped for removable contamination over its entire surface with absorbent filter paper on 12/23/2010. The wipe was found to be contaminated, with a count rate approximately 20 times background. Additional wipes were taken of the exterior of the source and the interior and exterior of the source container. Those wipes revealed additional contamination. The wipe test of the source revealed 410,433 dpm, or 6.84 kBq (0.185 uCi). The surface wipe test of the interior of the source container revealed 226,808 dpm, or 3.78 kBq (0.102 uCi). Close examination of the source revealed a small puncture near the source's label. The source was placed back into its container, which was then taped shut and placed into a plastic bag. The bag was sealed, labeled, and placed behind lead bricks in the radioactive material storage area of the nuclear medicine department hot laboratory. The hospital returned the source to the manufacturer on 2/7/2011 for proper disposal. A new Cs-137 source will be purchased.

Event Date: 12/23/2010 Date Reported to Agreement State: 12/24/2010
Discovery Date: 12/23/2010 Date Reported to NRC: 12/27/2010

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: OH-02121070000 Name: BARNESVILLE HOSPITAL
NRC Docket Number: NA City: BARNESVILLE
NRC Program Code: NA State: OH Zip Code: 43713
Responsible NRC Region: 3

Site of Event:

Site Name: BARNESVILLE State: OH

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: MECHANICAL IMPACT

LKS

Cause: MECHANICAL IMPACT

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5

LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL
LKS
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL

Source of Radiation:

EQP

Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
Manufacturer: NORTH AMERICAN SCIEN Activity: 0.0001825 Ci 0.0067525 GBq
Model Number: E-VIAL IAEA Category: 5
Serial Number: 16705

LKS

Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
Manufacturer: NORTH AMERICAN SCIEN Activity: 0.0001825 Ci 0.0067525 GBq
Model Number: E-VIAL IAEA Category: 5
Serial Number: 16705 Leak Test Result: 0.185 uCi 6.845 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
OH100029	01/12/2011		AGREEMENT STATE EVENT REPORT
OH100029A	02/22/2011		AGREEMENT STATE EVENT REPORT

Narrative:

Isotope Products Laboratories (IPL) reported that a damaged dose calibration vial (North American Scientific model MED3550, serial #12575), which contained 9.25 MBq (250 uCi) of Cs-137, was returned to them by Radiology Regional Center (RRC). Upon arrival at IPL, the vial was observed to be damaged with an apparent crack. The source was leak tested on 8/20/2010, which revealed approximately 185 Bq (0.005 uCi). The vial was leak tested again on 8/27/2010, which revealed approximately 481 Bq (0.013 uCi). IPL investigated the root cause with the help of RRC. A Health and Human Services Agency inspector visited IPL on 9/7/2010 to perform an onsite investigation. The Florida Department of Health was notified. RRC suspects that the vial was mishandled by their personnel, causing the crack. The source was disposed of as radioactive waste by IPL.

Event Date: 08/27/2010

Date Reported to Agreement State: 08/31/2010

Discovery Date: 08/27/2010

Date Reported to NRC: 09/09/2010

Licensee/Reporting Party Information:

Agreement State Regulated: YS

Reciprocity: NONE

License Number: CA-1509-19

Name: ISOTOPE PRODUCTS LABORATORIES

NRC Docket Number: NA

City: BURBANK

NRC Program Code: NA

State: CA Zip Code: 91504

Responsible NRC Region: 4

Site of Event:

Site Name: BURBANK

State: CA

Additional Involved Party:

License Number: FL-2923-4

Name: RADIOLOGY REGIONAL CENTER

NRC Docket Number: NA

City: LEHIGH ACRES

NRC Program Code: NA

State: FL Zip Code: 33972

Responsible NRC Region: 1

Other Information:

NRC Reportable Event: Y

Abnormal Occurrence: N

Agreement State Reportable Event: Y

Investigation: Y

Atomic Energy Act Material: Y

NMED Record Complete: Y

Consultant Hired: N

Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT

LKS - LEAKING SOURCE

Event Cause:

EQP

Cause: MECHANICAL IMPACT

LKS

Cause: MECHANICAL IMPACT

Event IAEA Aggregate Category:

EQP

IAEA Aggregate Category: 5

LKS

IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:

EQP

1 MATERIAL DISPOSED OF AS WASTE

LKS

1 MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

EQP

Source Number: 1

Source/Radioactive Material:	SEALED SOURCE CALIB/MARKER	Radionuclide:	CS-137	
Manufacturer:	NORTH AMERICAN SCIEN	Activity:	0.00025 Ci	0.00925 GBq
Model Number:	MED3550	IAEA Category:	5	
Serial Number:	12775			

LKS

Source Number: 1

Source/Radioactive Material:	SEALED SOURCE CALIB/MARKER	Radionuclide:	CS-137	
Manufacturer:	NORTH AMERICAN SCIEN	Activity:	0.00025 Ci	0.00925 GBq
Model Number:	MED3550	IAEA Category:	5	
Serial Number:	12775	Leak Test Result:	0.013 uCi	0.481 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
CA-XCA1527	09/27/2010		AGREEMENT STATE EVENT REPORT
- CA-083110	09/27/2010		Same as CA-XCA1527
LTR110104	01/04/2011		AGREEMENT STATE LETTER
FL10-097	02/08/2011		AGREEMENT STATE EVENT REPORT
LTR110516	06/06/2011		AGREEMENT STATE LETTER

Narrative:

The Radiology Regional Center reported a leaking Cs-137 vial source (North American Scientific model MED3550, serial #12574) that contained an activity of 9.22 MBq (249.2 uCi). The leak test revealed a removable activity of 10,656 Bq (0.288 uCi). Previous leak tests revealed no removable contamination. Radiation surveys of hot laboratory surfaces and personnel were negative. The source was taken out of service and returned to the manufacturer.

Event Date: 05/25/2010 Date Reported to Agreement State: 05/25/2010
Discovery Date: 05/25/2010 Date Reported to NRC: 05/26/2010

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: FL-2923-4 Name: RADIOLOGY REGIONAL CENTER
NRC Docket Number: NA City: FORT MYERS
NRC Program Code: NA State: FL Zip Code: 33972
Responsible NRC Region: 1

Site of Event:

Site Name: FORT MYERS State: FL

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: Y
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART

LKS

Cause: DEFECTIVE OR FAILED PART

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL
LKS
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL

Source of Radiation:

EQP
Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
Manufacturer: NORTH AMERICAN SCIEN Activity: 0.0002492 Ci 0.0092204 GBq
Model Number: MED3550 IAEA Category: 5
Serial Number: 12574

LKS

Source Number: 1

Source/Radioactive Material:	SEALED SOURCE CALIB/MARKER	Radionuclide:	CS-137	
Manufacturer:	NORTH AMERICAN SCIEN	Activity:	0.0002492 Ci	0.0092204 GBq
Model Number:	MED3550	IAEA Category:	5	
Serial Number:	12574	Leak Test Result:	0.288 uCi	10.656 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
EN45956	06/01/2010		EVENT NOTIFICATION REPORTED FROM AN AGREEMENT STATE
LTR100909	09/16/2010		AGREEMENT STATE LETTER
FL10-069	02/02/2011		AGREEMENT STATE EVENT REPORT

Narrative:

Cardinal Health reported a leaking calibration source (Lantheus Medical Imaging model NES-356, serial #3600-978A1) that contained 7.81 MBq (211 uCi) of Cs-137 (calibrated on 9/25/1978). The leak test performed on 3/10/2010 revealed 373.15 Bq (0.01 uCi) and was the result of a crack in the lid of the sealed source container. The source was removed from service and the crack was sealed with epoxy. The leak test was repeated and results revealed less than 185 Bq (0.005 uCi). The source will be returned to the manufacturer for disposal.

Event Date: 03/10/2010 Date Reported to Agreement State: 03/15/2010
Discovery Date: 03/10/2010 Date Reported to NRC: 03/30/2010

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: MD-33-198-01 Name: CARDINAL HEALTH
NRC Docket Number: NA City: BELTSVILLE
NRC Program Code: NA State: MD Zip Code: 20705
Responsible NRC Region: 1

Site of Event:

Site Name: BELTSVILLE State: MD

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART

LKS
Cause: DEFECTIVE OR FAILED PART

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL
LKS
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL

Source of Radiation:

EQP
Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
Manufacturer: LANTHEUS MED. IMAG. Activity: 0.000211 Ci 0.007807 GBq
Model Number: NES-356 IAEA Category: 5
Serial Number: 3600-978A1

LKS

Source Number: 1

Source/Radioactive Material:	SEALED SOURCE CALIB/MARKER	Radionuclide:	CS-137	
Manufacturer:	LANTHEUS MED. IMAG.	Activity:	0.000211 Ci	0.007807 GBq
Model Number:	NES-356	IAEA Category:	5	
Serial Number:	3600-978A1	Leak Test Result:	0.010085 uCi	0.373145 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
MD100007	04/12/2010		AGREEMENT STATE EVENT REPORT

Narrative:

Prince George's Hospital Center reported a leaking 185 MBq (5 mCi) Co-57 calibration source (North American Scientific model MED3550, serial #106472). The source was discovered leaking on 8/13/2009 with leak test results of 259 Bq (0.007 uCi). It was taken out of service and relevant areas were checked for contamination. The source was appropriately contained and controlled and placed in decay and storage at the Hospital's facility.

Event Date: 08/13/2009 Date Reported to Agreement State: 08/14/2009
Discovery Date: 08/13/2009 Date Reported to NRC: 03/30/2010

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: MD-33-003-01 Name: PRINCE GEORGE'S HOSPITAL CENTER
NRC Docket Number: NA City: CHEVERLY
NRC Program Code: NA State: MD Zip Code: 20785
Responsible NRC Region: 1

Site of Event:

Site Name: CHEVERLY State: MD

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: N

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART

LKS

Cause: DEFECTIVE OR FAILED PART

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: NA
LKS
IAEA Aggregate Category: NA

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 MATERIAL DISPOSED OF AS WASTE
LKS
1 MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

EQP
Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CO-57
Manufacturer: NORTH AMERICAN SCIEN Activity: 0.005 Ci 0.185 GBq
Model Number: MED3550 IAEA Category: NA
Serial Number: 106472

LKS

Source Number: 1

Source/Radioactive Material:	SEALED SOURCE CALIB/MARKER	Radionuclide:	CO-57	
Manufacturer:	NORTH AMERICAN SCIEN	Activity:	0.005 Ci	0.185 GBq
Model Number:	MED3550	IAEA Category:	NA	
Serial Number:	106472	Leak Test Result:	0.007 uCi	0.259 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

Keywords:

EQP

REVISED BYPRODUCT MATERIAL DEFINITION

LKS

REVISED BYPRODUCT MATERIAL DEFINITION

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
MD100004	04/12/2010		AGREEMENT STATE EVENT REPORT
LTR100615	06/17/2010		AGREEMENT STATE LETTER

Narrative:

Marshalltown Medical & Surgical Center (MMSC) reported a leaking 5.62 MBq (151.8 uCi) Cs-137 vial source (Amersham model RV-137-200U, serial #524-139). The vial source was used to calibrate their dose calibrator. The leakage was identified by a consultant during a six-month leak test. The test revealed 962 Bq (0.026 uCi) of removable radioactive contamination. The source was immediately taken out of service and a radiation survey of the hot laboratory, in particular the dose calibrator, was conducted. The dose calibrator syringe dipper was identified as contaminated and removed from service. The vial source and syringe dipper were sealed in a plastic bag and placed in the waste storage area. MMSC contacted EnergySolutions to dispose of the source. The source was picked up by Bionomics on 6/26/2009 for delivery to EnergySolutions.

Event Date: 05/03/2009 Date Reported to Agreement State: 05/28/2009
Discovery Date: 05/03/2009 Date Reported to NRC: 06/03/2009

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: IA-0053164M1 Name: MARSHALLTOWN MEDICAL & SURGICAL CENTER
NRC Docket Number: NA City: MARSHALLTOWN
NRC Program Code: NA State: IA Zip Code: 50158
Responsible NRC Region: 3

Site of Event:

Site Name: MARSHALLTOWN State: IA

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: Y
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: Y Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART

LKS

Cause: DEFECTIVE OR FAILED PART

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 MATERIAL DISPOSED OF AS WASTE
LKS
1 MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

EQP

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: AMERSHAM Activity: 0.0001518 Ci 0.0056166 GBq
 Model Number: RV-137-200U IAEA Category: 5
 Serial Number: 524-139

LKS

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: AMERSHAM Activity: 0.0001518 Ci 0.0056166 GBq
 Model Number: RV-137-200U IAEA Category: 5
 Serial Number: 524-139 Leak Test Result: 0.026 uCi 0.962 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
IA090001	06/18/2009		AGREEMENT STATE EVENT REPORT
IA090001A	06/18/2009		AGREEMENT STATE EVENT REPORT
LTR090714	07/14/2009		AGREEMENT STATE LETTER
LTR090717	07/20/2009		AGREEMENT STATE LETTER

Narrative:

CAMC Teays Valley Hospital reported that a Cs-137 calibration source (DuPont/NEN model E-Vial, serial #10866-32) was leaking. The source contained an original activity of 7.36 MBq (199 uCi) on 11/1/1983. On the date of the leak test, 11/28/2007, the activity of the source was 4.22 MBq (114 uCi). The source is in storage behind the L-block in the hospital nuclear medicine department. Disposal options are being investigated.

Event Date: 11/28/2007 Date Reported to Agreement State:
Discovery Date: 11/28/2007 Date Reported to NRC: 11/29/2007

Licensee/Reporting Party Information:

Agreement State Regulated: NO Reciprocity: NONE
License Number: 47-23070-01 Name: CAMC TEAYS VALLEY HOSPITAL
NRC Docket Number: 03020237 City: HURRICANE
NRC Program Code: 02120 State: WV Zip Code: 25526
Responsible NRC Region: 1

Site of Event:

Site Name: HURRICANE State: WV

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: N Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART

LKS
Cause: DEFECTIVE OR FAILED PART

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 MATERIAL DISPOSED OF AS WASTE
LKS
1 MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

EQP
Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
Manufacturer: DUPONT MERCK Activity: 0.000114 Ci 0.004218 GBq
Model Number: E-VIAL IAEA Category: 5
Serial Number: 10866-32

LKS

Source Number: 1

Source/Radioactive Material: SEALED SOURCE CALIB/MARKER

Radionuclide: CS-137

Manufacturer: DUPONT MERCK

Activity: 0.000114 Ci 0.004218 GBq

Model Number: E-VIAL

IAEA Category: 5

Serial Number: 10866-32

Leak Test Result: NR uCi NR kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
ML073440575	12/18/2007		OTHER
LTR080414	04/16/2008		NRC LETTER

Narrative:

Saint Thomas Cardiology Consultants reported a leaking North American Scientific Cs-137 calibration source (model MED3550, serial #7945) that contained an activity of 7.51 MBq (203 uCi). The source was discovered leaking during a routine leak test, was immediately taken out of service, and was locked in a shielded safe in the hot laboratory. The radioactive contamination was contained in the source vial with minimal contamination on the dose calibrator dipper and chamber. The dose calibrator chamber and dipper were retired from use and stored pending disposal or decontamination. The manufacturer was contacted and agreed to take back the leaking source and contaminated material. The cause appears to be a sharp burr on the inside of the source's storage pig. The burr wore a hole in the side of the vial in the middle of the active area of the source. The pig had been supplied by North American Scientific along with the source. It was estimated that the source had been used at least 1000 times since it was purchased in 2001.

Event Date: 06/29/2006 Date Reported to Agreement State: 06/30/2006
Discovery Date: 06/29/2006 Date Reported to NRC: 07/07/2006

Licensee/Reporting Party Information:

Agreement State Regulated: YS Reciprocity: NONE
License Number: TN-R-19234 Name: SAINT THOMAS CARDIOLOGY CONSULTANTS
NRC Docket Number: NA City: NASHVILLE
NRC Program Code: NA State: TN Zip Code: 37205
Responsible NRC Region: 1

Site of Event:

Site Name: NASHVILLE State: TN

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: Y Investigation: Y
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: Y Event Closed by Region/State: N

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS
LKS
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL
LKS
1 EQUIPMENT RETURNED TO MANUFACTURER FOR REPAIR OR DISPOSAL

Source of Radiation:

EQP

Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER **Radionuclide:** CS-137
Manufacturer: NORTH AMERICAN SCIEN **Activity:** 0.000203 Ci 0.007511 GBq
Model Number: MED3550 **IAEA Category:** 5
Serial Number: 7945

LKS

Source Number: 1
Source/Radioactive Material: SEALED SOURCE CALIB/MARKER **Radionuclide:** CS-137
Manufacturer: NORTH AMERICAN SCIEN **Activity:** 0.000203 Ci 0.007511 GBq
Model Number: MED3550 **IAEA Category:** 5
Serial Number: 7945 **Leak Test Result:** NR uCi NR kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2) - Equipment is disabled or fails to function as designed.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
TN06088	07/19/2006		AGREEMENT STATE EVENT REPORT
TN06088A	02/21/2008		AGREEMENT STATE EVENT REPORT

Narrative:

The licensee reported the discovery of a leaking medical source. The source is a glass vial wrapped with clear plastic tape. The vial contains Cs-137 in liquid form (serial #RO3-4483-41-3) with an activity of 555 kBq (15 uCi) on 3/1/1969. The leak was discovered by a technician who, when attempting to use the source, noted a small amount of liquid in the bottom of the metal container that holds the vial. Using a swab, the liquid was sampled and the contamination on the swab was found to be 40,927 dpm (682 Bq; 0.0184 uCi). The licensee removed the source from use and placed it in their permanent waste storage facility pending disposal. No spread of contamination occurred.

Event Date: 02/04/2004 Date Reported to Agreement State:
Discovery Date: 02/04/2004 Date Reported to NRC: 02/04/2004

Licensee/Reporting Party Information:

Agreement State Regulated: NO Reciprocity: NONE
License Number: 37-11866-01 Name: LANCASTER GENERAL HOSPITAL
NRC Docket Number: 03003151 City: LANCASTER
NRC Program Code: 02230 State: PA Zip Code: 17603
Responsible NRC Region: 1

Site of Event:

Site Name: LANCASTER State: PA

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: N Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS
LKS
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 MATERIAL DISPOSED OF AS WASTE
LKS
1 MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

EQP

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: NR Activity: 0.000015 Ci 0.000555 GBq
 Model Number: NR IAEA Category: 5
 Serial Number: RO3-4483-43-3

LKS

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: NR Activity: 0.000015 Ci 0.000555 GBq
 Model Number: NR IAEA Category: 5
 Serial Number: RO3-4483-43-3 Leak Test Result: 0.0184 uCi 0.6808 kBq

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2)(ii) - old - (SUPERSEDED) EQUIPMENT IS DISABLED OR FAILS TO FUNCTION AS DESIGNED WHEN THE EQUIPMENT IS REQUIRED TO BE AVAILABLE AND OPERABLE WHEN IT IS DISABLED OR FAILS TO FUNCTION.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
ML040920316	04/12/2004		REGION REPORT
ML040920316	04/12/2004		LICENSEE REPORT
LTR040609	07/07/2004		REGION REPORT

Narrative:

The licensee reported that a dose calibrator reference source was leaking. The source (NEN serial #57009-2) was originally purchased in 1979 and contained a decayed activity of 4.4 MBq (118.9 uCi) of Cs-137. This was the first leak test of this source since it was placed in long-term storage in 1988. The initial leak test was performed with a dry canvas wipe and showed 104 Bq (0.00281 uCi) of removable activity. Two follow-up leak tests with alcohol swaps showed 241 and 552 Bq (0.0065 and 0.015 uCi) of removable activity, respectively. Wipes of the interior of the lead pig used to store the source showed 17 Bq (0.00045 uCi) of removable activity while wipes of the exterior of the pig, the storage cabinet, and the area where the source was leak tested showed no detectable contamination. To prevent recurrence, the licensee will leak test sources in storage at intervals not to exceed 10 years. The source and the lead pig were sealed in plastic bags and returned to storage pending disposal.

Event Date: 11/21/2003 Date Reported to Agreement State:
Discovery Date: 11/21/2003 Date Reported to NRC: 11/24/2003

Licensee/Reporting Party Information:

Agreement State Regulated: NO Reciprocity: NONE
License Number: 53-15737-01 Name: WILCOX MEMORIAL HOSPITAL
NRC Docket Number: 03009666 City: LIHUE
NRC Program Code: 02120 State: HI Zip Code: 96766
Responsible NRC Region: 4

Site of Event:

Site Name: LIHUE State: HI

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: N Investigation: N
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS
LKS
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 MATERIAL DISPOSED OF AS WASTE
2 PROCEDURE MODIFIED
LKS
1 MATERIAL DISPOSED OF AS WASTE
2 PROCEDURE MODIFIED

Source of Radiation:

EQP

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: NEW ENGLAND NUCLEAR Activity: 0.0001189 Ci 0.0043993 GBq
 Model Number: NA IAEA Category: 5
 Serial Number: 57009-2

LKS

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: NEW ENGLAND NUCLEAR Activity: 0.0001189 Ci 0.0043993 GBq
 Model Number: NA IAEA Category: 5
 Serial Number: 57009-2 Leak Test Result: 0.015 uCi 0.555 kBq

Device/Associated Equipment:

EQP

Device Number: 1
 Device Name: CONTAINER, PIG, LEAD Model Number: NA
 Manufacturer: NR Serial Number: NA

LKS

Device Number: 1
 Device Name: CONTAINER, PIG, LEAD Model Number: NA
 Manufacturer: NR Serial Number: NA

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2)(ii) - old - (SUPERSEDED) EQUIPMENT IS DISABLED OR FAILS TO FUNCTION AS DESIGNED WHEN THE EQUIPMENT IS REQUIRED TO BE AVAILABLE AND OPERABLE WHEN IT IS DISABLED OR FAILS TO FUNCTION.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
ML033370998	12/17/2003		LICENSEE REPORT
LTR031124	01/21/2004		LICENSEE REPORT
LTR040205	02/05/2004		NRC LETTER
LTR040131	03/15/2004		REGION REPORT

Narrative:

The licensee reported a leaking source within a Beckman liquid scintillation counter (model LS6000IC, serial #7060302). The source (Beckman model 598860, lot #1415) contained 1.11 MBq (30 uCi) of Cs-137 on 3/20/1990. A low count rate error message on the instrument prompted the initiation of repairs on 10/28/2002, during which the source was discovered to be leaking. The exact amount of leakage was not determined due to ALARA considerations, but field survey instrument readings were consistent with leakage above 1.85 kBq (0.05 uCi). The transfer tube through which the source travels was found to be contaminated and was removed for disposal. Contamination was also found on the exterior of the sample shield assembly, which was decontaminated. Beckman was notified of the incident.

Event Date: 10/28/2002 Date Reported to Agreement State:
Discovery Date: 10/28/2002 Date Reported to NRC: 10/31/2002

Licensee/Reporting Party Information:

Agreement State Regulated: NO Reciprocity: NONE
License Number: 21-04109-16 Name: HENRY FORD HOSPITAL
NRC Docket Number: 03002043 City: DETROIT
NRC Program Code: 02110 State: MI Zip Code: 48202
Responsible NRC Region: 3

Site of Event:

Site Name: DETROIT State: MI

Additional Involved Party:

License Number: NA Name: NA
NRC Docket Number: NA City: NA
NRC Program Code: NA State: NA Zip Code: NA
Responsible NRC Region: NA

Other Information:

NRC Reportable Event: Y Abnormal Occurrence: N
Agreement State Reportable Event: N Investigation: Y
Atomic Energy Act Material: Y NMED Record Complete: Y
Consultant Hired: N Event Closed by Region/State: Y

Event Type:

EQP - EQUIPMENT
LKS - LEAKING SOURCE

Event Cause:

EQP
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS
LKS
Cause: DEFECTIVE OR FAILED PART
Old Cause: DEFECTIVE OR FAILED PARTS

Event IAEA Aggregate Category:

EQP
IAEA Aggregate Category: 5
LKS
IAEA Aggregate Category: 5

Corrective Actions Information:

Action Number: Corrective Action:
EQP
1 MATERIAL DISPOSED OF AS WASTE
LKS
1 MATERIAL DISPOSED OF AS WASTE

Source of Radiation:

EQP

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: BECKMAN INSTRUMENTS Activity: 0.00003 Ci 0.00111 GBq
 Model Number: 598860 IAEA Category: 5
 Serial Number: NR

LKS

Source Number: 1
 Source/Radioactive Material: SEALED SOURCE CALIB/MARKER Radionuclide: CS-137
 Manufacturer: BECKMAN INSTRUMENTS Activity: 0.00003 Ci 0.00111 GBq
 Model Number: 598860 IAEA Category: 5
 Serial Number: NR Leak Test Result: NR uCi NR kBq

Device/Associated Equipment:

EQP

Device Number: 1
 Device Name: LIQUID SCINTILLATION COUNTER Model Number: LS6000IC
 Manufacturer: BECKMAN INSTRUMENTS Serial Number: 7060302

LKS

Device Number: 1
 Device Name: LIQUID SCINTILLATION COUNTER Model Number: LS6000IC
 Manufacturer: BECKMAN INSTRUMENTS Serial Number: 7060302

Reporting Requirements:

EQP

Reporting Requirement: 30.50(b)(2)(ii) - old - (SUPERSEDED) EQUIPMENT IS DISABLED OR FAILS TO FUNCTION AS DESIGNED WHEN THE EQUIPMENT IS REQUIRED TO BE AVAILABLE AND OPERABLE WHEN IT IS DISABLED OR FAILS TO FUNCTION.

LKS

Reporting Requirement: 35.67(e) - Medical source leak test revealed the presence of 185 Bq (0.005 uCi) or more of removable radioactive material.

References:

Reference Number:	Entry Date:	Retraction Date:	Type of Report:
ML023410011	01/15/2003		LICENSEE REPORT
ML043240304	12/06/2004		INSPECTION REPORT