Mercy Hospital St. Louis
Radiation Safety
607 S. New Ballas Road
St. Louis, MO 63141
(314) 251-6657
www.mercy.net

Sara A.Forster
United States Nuclear Regulatory Commission
Materials Licensing Branch
Region III Office
2443 Warrenville Road Suite 210
Lisle, IL 60532

Date: September 25, 2015

Re: Control No. 588177

Ms. Forster,

This letter is in response to a conversation record and our followup phone conversation on September 18 concerning closeout surveys of two of our Licensed locations. My responses are in the same numerical order as the requests in the conversation record.

1. For the 450 N New Ballas address the radionuclides used or stored included Tc-99m, Co-57, Cs-137, Ba-133 sealed sources, and Sr-82, Rb-82 and Sr-85 from Sr-82/Rb-82 generators, and Ge-68 sealed sources.

   For the 3844 Lindbergh Blvd. address the radionuclides included Tc-99m, Co-57 and Cs-137 sealed sources.

2. Last dates of use – 450 N. New Ballas- Sr-82/Rb-82 generator was June, 2011 Tc-99m- May 26, 2015, all sealed sources on the premises until final disposition.

   3844 Lindbergh –February 6, 2015

3. Methods of final disposition- 450 N. New Ballas- Sr-82/Rb-82 generator- returned to vendor in June, 2011. Tc-99m returned to vendor May, 2015 other Tc-99m waste decayed to background and disposed in trash May, 2015. All sealed sources transferred to a vendor license for disposal, May, 2015. Acknowledment of receipt of sources by vendor is included.

Mercy

3. 3844 Lindbergh- Tc-99m returned to vendor February, 2015. Other Tc-99m waste decayed to background and disposed of in trash.

4. Final leak test were provided. No sources ever leaked from any location.

5. Agreed by phone conversation 9/18/15 – re-submittal not necessary

6. Background for each location is provided in attachments for each location.

7.& 8. Agreed by phone conversation on 9/18/15 – re-submittal not necessary.

Also included with this reponse is a closeout survey and attachments to remove another location of use, 101 Progress Parkway, Sullivan, Missouri from this license. The last date of use was June 17, 2015. Only unit doses of Tc-99m were used. Unit doses were returned to the vendor and other waste from Tc-99m were decayed to background and put into trash. Radionuclides used or stored included Tc-99m, Cs-137 and Co-57. Sealed sources were transferred to another Mercy location on this license. All surveys, wipe tests and leak tests are provided in the attachment for this location.

Sincerely,

Robert F. Turco

Robert F. Turco, Ph.D.
Certified Radiological Physicist
Radiation Safety Officer

United States Nuclear Regulatory Commission
Region III
2443 Warrensville Road
Suite 210
Lisle, IL 60532-4352

June 26, 2015

To Whom It May Concern:

This is a request to amend our license by removing two locations of use:

1. 450 Medical Plaza
   450 N. New Ballas Rd., Suite 170 West Wing
   St. Louis, Missouri

2. 3844 South Lindbergh Blvd
   Suite 160
   Sunset Hills, Missouri

We are submitting close out surveys for each of the locations with this letter. All radioactive materials have been removed, all areas surveyed and wipe tested for removable contamination. We would like to have these locations removed from our license as areas of use.

For any questions regarding the above requests please contact me at your convenience 314-251-6844 (Department of radiation therapy) or at 314-307-0664 (cell).

Sincerely,

Robert F. Turco

Robert F. Turco, Ph.D., RSO

450 N. New Ballas Road

29 May 2015 12:19 Nuclear Medicine Treadmill Room 1 Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	162	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

29 May 2015 12:55 Nuclear Medicine Treadmill Room 2 Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	161	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

29 May 2015 13:48 Nuclear Medicine Room 1 Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	168	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

29 May 2015 14:05 Nuclear Medicine Room 2 Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	165	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

29 May 2015 13:25 Nuclear Medicine Hot Lab Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	166	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

18 May 2015 11:01 Nuclear Medicine PET Room Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	168	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy 450 Medical Plaza
450 Medical Plaza, Suite 170
St Louis, Missouri 63141

DATE OF SURVEY: June 3, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.535
Ludlum 14-C + 44-9, S/N 230940, Calibrated: 6/25/2014
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Camera Room 1			
1. Floor (1)	28	52	All areas
2. Floor (2)	7	13	equal or
3. Floor (3)	13	24	less than
4. Floor (4)	1	2	0.02 mR/hr
5. Floor (5)	0	0	at surface
6. Counter	8	15	
7. Counter	0	0	
8. Imaging Equipment	0	0	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy 450 Medical Plaza
450 Medical Plaza, Suite 170
St Louis, Missouri 63141

DATE OF SURVEY: June 3, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.536
Ludlum 14-C + 44-9, S/N 230940, Calibrated: 6/25/2014
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Camera Room 2			
1. Floor (1)	1	2	All areas
2. Floor (2)	13	24	equal or
3. Floor (3)	14	26	less than
4. Floor (4)	27	50	0.02 mR/hr
5. Floor (5)	0	0	at surface
6. Counter	0	0	
7. Counter	23	43	
8. Imaging Equipment	0	0	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy 450 Medical Plaza
450 Medical Plaza, Suite 170
St Louis, Missouri 63141

DATE OF SURVEY: June 3, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.536
Ludlum 14-C + 44-9, S/N 230940, Calibrated: 6/25/2014
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Hot Lab			
1. Hot Lab Floor (1)	3	6	All areas
2. Hot Lab Floor (2)	0	0	equal or
3. Hot Lab Counter	1	2	less than
4. Hot Lab Counter	0	0	0.02 mR/hr
5. Decay/Storage Can	0	0	at surface
6. Waste Can	15	28	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy 450 Medical Plaza
450 Medical Plaza, Suite 170
St Louis, Missouri 63141

DATE OF SURVEY: May 18, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.536
Ludlum 14-C + 44-9, S/N 230940, Calibrated: 6/25/2014
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
PET Room	0	0	
1. PET Table			
2. PET Gantry Bore	7	13	All areas
3. PET Gantry Outside	0	0	equal or
4. PET Floor (1)	0	0	less than
5. PET Floor (2)	0	0	0.02 mR/hr
6. PET Floor (3)	0	0	at surface
7. PET Floor (4)	0	0	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy 450 Medical Plaza
450 Medical Plaza, Suite 170
St Louis, Missouri 63141

DATE OF SURVEY: June 3, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.536
Ludlum 14-C + 44-9, S/N 230940, Calibrated: 6/25/2014
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Treadmill Room 1			
1. Floor (1)	10	19	All areas equal or less than 0.02 mR/hr at surface
2. Floor (2)	0	0	
3. Treadmill	0	0	
4. Table	14	26	
5. Keyboard	0	0	
6. Ultrasound	9	17	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy 450 Medical Plaza
450 Medical Plaza, Suite 170
St Louis, Missouri 63141

DATE OF SURVEY: June 3, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.536
Ludlum 14-C + 44-9, S/N 230940, Calibrated: 6/25/2014
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Treadmill Room 2			
1. Floor (1)	22	41	All areas
2. Floor (2)	24	45	equal or
3. Treadmill	0	0	less than
4. Table	16	30	0.02 mR/hr
5. Keyboard	0	0	at surface

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

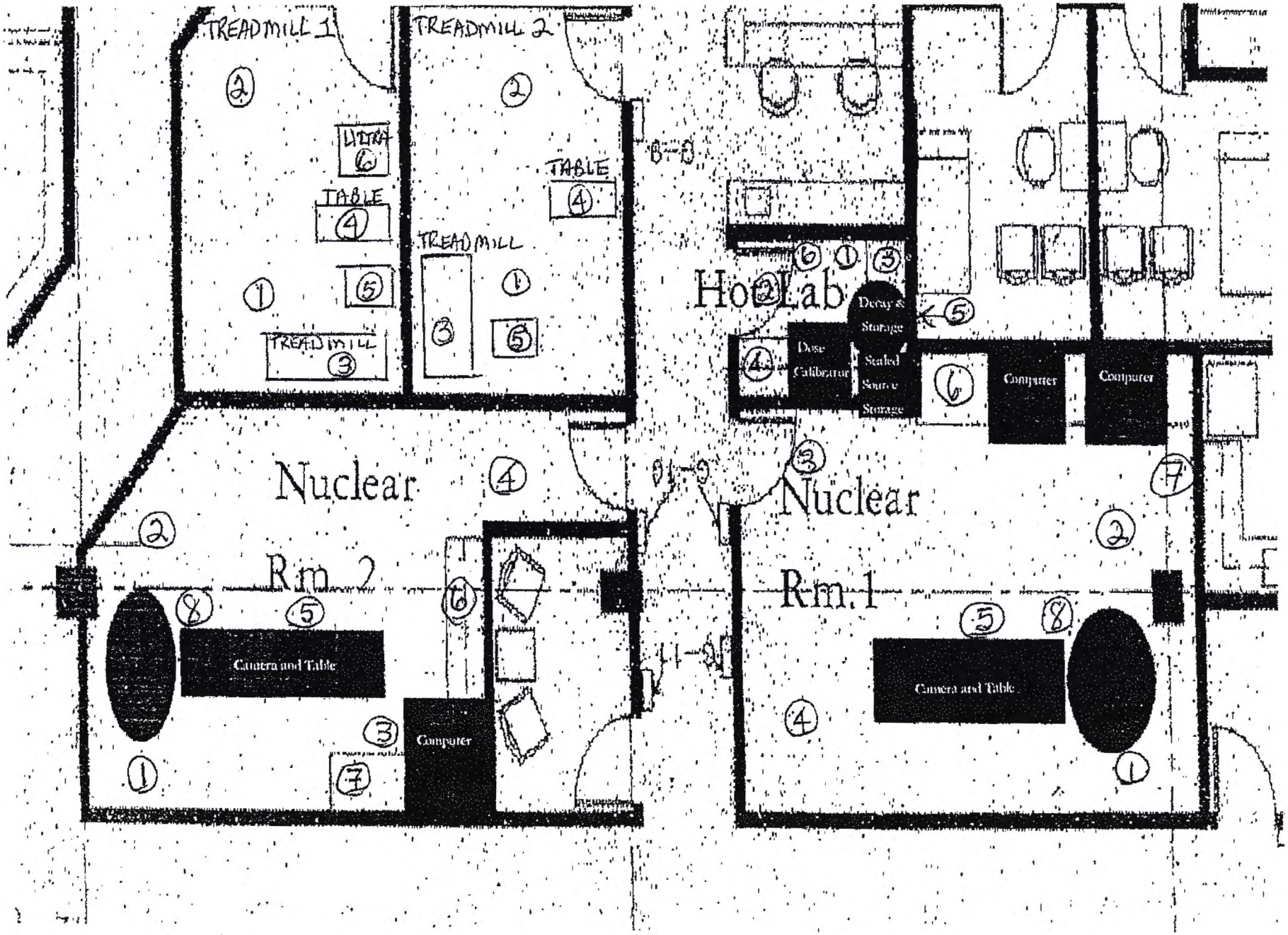
Robert F. Turco

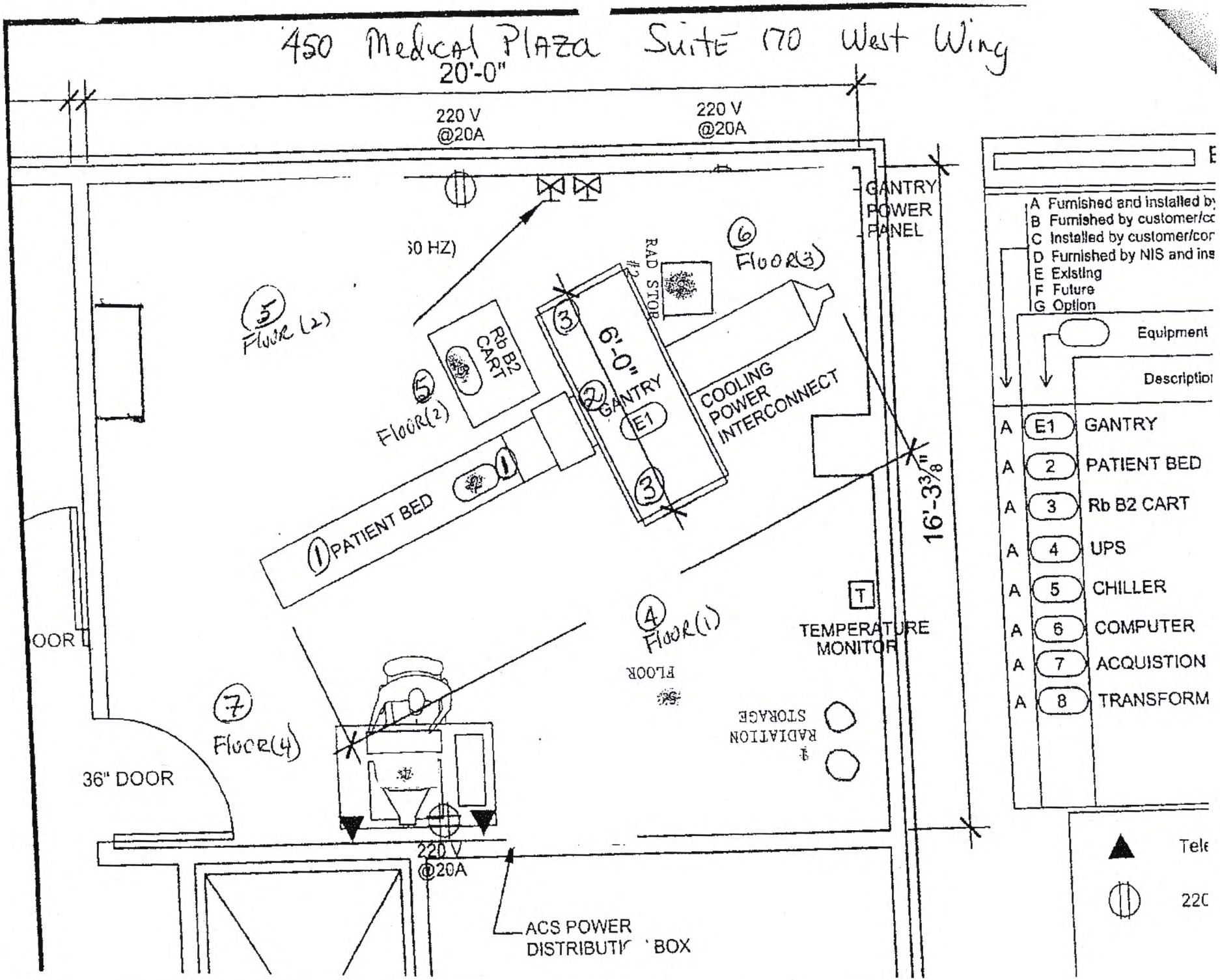
Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

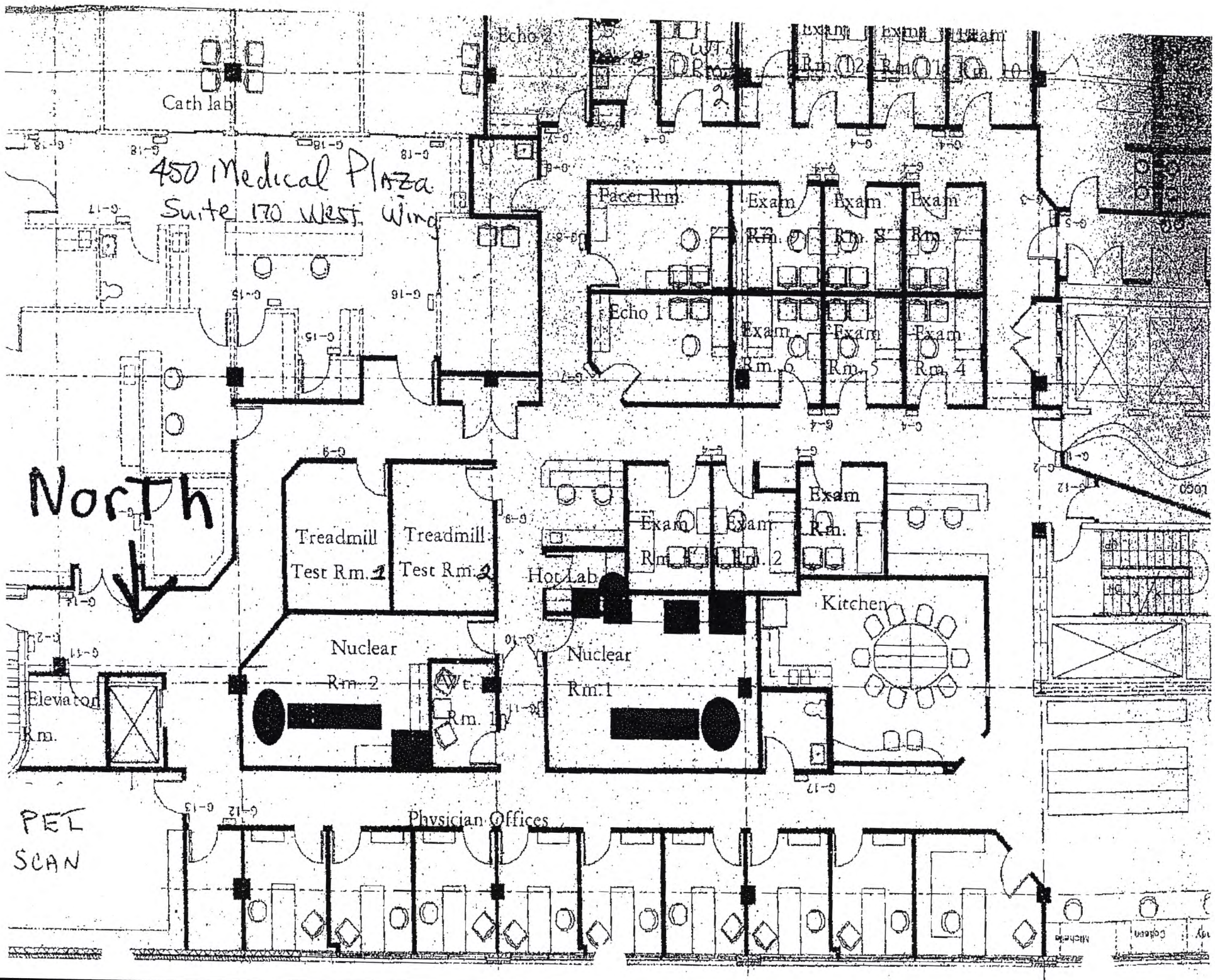
Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

450 Medical Plaza Suite 170 West Wing




450 Medical Plaza Suite 170 West Wing
20'-0"
220 V @20A
220 V @20A
GANTRY POWER PANEL
(60 HZ)
RAD STOR #2
6 Floor(3)
5 Floor(2)
Rb B2 CART
3
6'-0"
2 GANTRY E1
COOLING POWER INTERCONNECT
5 Floor(2)
1 PATIENT BED
16'-3 3/8"
4 Floor(1)
T TEMPERATURE MONITOR
FLOOR
RADIATION STORAGE
DOOR
7 Floor(4)
36" DOOR
220 V @20A
ACS POWER DISTRIBUTION BOX
A Furnished and installed by
B Furnished by customer/co
C Installed by customer/cor
D Furnished by NIS and ins
E Existing
F Future
G Option
Equipment
Description
A E1 GANTRY
A 2 PATIENT BED
A 3 Rb B2 CART
A 4 UPS
A 5 CHILLER
A 6 COMPUTER
A 7 ACQUISTION
A 8 TRANSFORM
Tele
220


Cath lab
450 Medical Plaza
Suite 170 West Wing
Echo 2
Exam Rm. 12
Exam Rm. 11
Exam Rm. 10
Pacer Rm.
Exam Rm. 9
Exam Rm. 8
Exam Rm. 7
Echo 1
Exam Rm. 6
Exam Rm. 5
Exam Rm. 4
North
Treadmill Test Rm. 1
Treadmill Test Rm. 2
Exam Rm. 1
Exam Rm. 2
Exam Rm.
Hot Lab
Kitchen
Nuclear Rm. 2
Nuclear Rm. 1
Elevator Rm.
Physician Offices
PET SCAN

Mercy

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Dupont
Isotope: Cs-137

M/N: NES-356 **S/N:** S356029-013
Activity: 217 µCi **on** 12/5/1994

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

4/2/2015
Date

Date Sample Received: 4/2/2015 **Date Sample Processed:** 4/2/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	25	47	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.527
Standard Cs-137	178,478	338,662	0.1526	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

4/2/2015
Date

Mercy

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Sanders
Isotope: Ge-68

M/N: HEGL 0080 5M **S/N:** H5-110
Activity: 5 mCi on 11/1/2010

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

5/18/2015
Date

Date Sample Received: 5/18/2015

Date Sample Processed: 5/18/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Rod	0	0	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.534
Standard Cs-137	276,198	517,523	0.2331	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

5/18/2015
Date

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Sanders
Isotope: Ge-68

M/N: HEGL 0080 5M **S/N:** H5-111
Activity: 5 mCi on 11/1/2010

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

5/18/2015
Date

Date Sample Received: 5/18/2015

Date Sample Processed: 5/18/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Rod	7	13	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.534
Standard Cs-137	276,198	517,523	0.2331	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

5/18/2015
Date

Mercy

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Sanders
Isotope: Ge-68

M/N: HEGL 0080 5M **S/N:** H5-112
Activity: 5 mCi on 11/1/2010

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

5/18/2015
Date

Date Sample Received: 5/18/2015

Date Sample Processed: 5/18/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Rod	2	4	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.534
Standard Cs-137	276,198	517,523	0.2331	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

5/18/2015
Date

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Sanders
Isotope: Ge-68

M/N: PET 16815 **S/N:** B626
Activity: 5189 µCi on 10/7/2009

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

5/18/2015
Date

Date Sample Received: 5/18/2015

Date Sample Processed: 5/18/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Rod	14	27	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.534
Standard Cs-137	276,198	517,523	0.2331	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

5/18/2015
Date

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Sanders
Isotope: Ge-68

M/N: PET 20 C 1913 S/N: B656
Activity: 3243 µCi on 10/19/2009

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R) — **Individual Performing Test**

5/18/2015 — **Date**

Date Sample Received: 5/18/2015

Date Sample Processed: 5/18/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Cylinder	0	0	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.534
Standard Cs-137	276,198	517,523	0.2331	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

5/18/2015
Date

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF INVENTORY AND LEAK TEST

Facility: 450 Medical Plaza
450 North New Ballas Ste. 170
St. Louis, MO 63141

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

Source Manufacturer: Eckert & Ziegler
Isotope: Ge-68

M/N: EG-0317-3.3M **S/N:** 1911-A07
Activity: 3.097 mCi on 11/1/2010

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

5/18/2015
Date

Date Sample Received: 5/18/2015

Date Sample Processed: 5/18/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Cylinder	15	28	0.000	CPM-Counts per minute
				DPM-Disintegrations per min.
				Efficiency = 0.534
Standard Cs-137	276,198	517,523	0.2331	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before: 10/31/2015

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

5/18/2015
Date

Eckert & Ziegler

Receiving
1800 Facility
1800 N. Keystone St.
Burbank, CA 91504
US

Telephone.....: (661) 309-1010
Fax.....: (661) 257-8303
Giro.....:
Tax exempt number.....: SRAC11-638175
Recipient.....:

Return acknowledgement

Shipped From:
Mercy Heart & Vascular
Robert Turco
ph: 314-307-0664
email: jamie.eisenberg@mercy.net
450 N. New Ballas Road
Saint Louis, MO 63141
United States

Return Number: .....: 268964
RMA number.....: RMA_017967
Date .....: 6/4/2015
Page .....: 1 of 2
Customer account.....: CAWHIT01
Customer reference .....:
Contact .....:
Customer requisition.....:

Dear Valued Customer,
Eckert & Ziegler Isotope Products Laboratories has received your radioactive source(s) and takes responsibility for tracking and storage of the source(s) listed below. If you have any further questions about the source(s), please contact EZIP and reference the return number listed above. Thank you for your business.

Item number	Batch number	Serial number	Quantity returned	Received on	Description
HEGL-0080-5M		H5-110	1.000000	6/3/2015	Line Source
Nuclide Info: Ge-68		5.000000 mCi	Ref. Date: 11/1/2010		
HEGL-0080-5M		H5-111	1.000000	6/3/2015	Line Source
Nuclide Info: Ge-68		5.000000 mCi	Ref. Date: 11/1/2010		
EXCHANGE	B626		1.000000	6/3/2015	Line Source (Sanders Medical)
Nuclide Info: Ge-68		5.000000 mCi	Ref. Date: 10/7/2009		
EG-0317-3.3M		1437-95-1	1.000000	6/3/2015	Phantom
Nuclide Info: Ge-68		3.097000 mCi	Ref. Date: 11/1/2010		
EXCHANGE	B656		1.000000	6/3/2015	Phantom (Sanders Medical)
Nuclide Info: Ge-68		3.240000 mCi	Ref. Date: 10/19/2015		
A3525-2-10M		831-100	1.000000	6/3/2015	SFL24R-057-10M
Nuclide Info: Co-57		10.000000 mCi	Ref. Date: 11/1/2001		
EXCHANGE	B1751		1.000000	6/3/2015	Flood Source (NASI)
Nuclide Info: Co-57		10.000000 mCi	Ref. Date: 2/25/2000		
EXCHANGE	1510-80-39		1.000000	6/3/2015	Rod Source (IPL)
Nuclide Info: Cs-137		0.500000 uCi	Ref. Date: 1/1/2012		
EXCHANGE	S358018-018		1.000000	6/3/2015	Vial Source (Dupont)
Nuclide Info: Ba-133		271.000000 uCi	Ref. Date: 10/26/1994		
EXCHANGE	S206113-043		1.000000	6/3/2015	Vial Source (Dupont)
Nuclide Info: Co-57		5.500000 mCi	Ref. Date: 3/12/1999		

Eckert & Ziegler

Receiving
1800 Facility
1800 N. Keystone St.
Burbank, CA 91504
US

Telephone: (661) 309-1010
Fax: (661) 257-8303
Giro:
Tax exempt number: SRAC11-638175
Recipient:

Return acknowledgement

Shipped From:
Mercy Heart & Vascular
Robert Turco
ph: 314-307-0664
email: jamie.eisenberg@mercy.net
450 N. New Ballas Road
Saint Louis, MO 63141
United States

Return Number: 268964
RMA number: RMA_017967
Date: 6/4/2015
Page: 2 of 2
Customer account: CAWHIT01
Customer reference:
Contact:
Customer requisition:

Dear Valued Customer,
Eckert & Ziegler Isotope Products Laboratories has received your radioactive source(s) and takes responsibility for tracking and storage of the source(s) listed below. If you have any further questions about the source(s), please contact EZIP and reference the return number listed above. Thank you for your business.

Item number	Batch number	Serial number	Quantity returned	Received on	Description
Item number	Batch number	Serial number	Quantity returned	Received on	Description
EXCHANGE	S356029-013 √		1.000000	6/3/2015	Vial Source (Dupont)

Nuclide Info: Cs-137 217.000000 uCi Ref. Date: 12/5/1994

Eckert & Ziegler

Receiving
1800 Facility
1800 N. Keystone St.
Burbank, CA 91504
US

Telephone.....: (661) 309-1010
Fax.....: (661) 257-8303
Giro.....:
Tax exempt number.....: SRAC11-638175
Recipient.....:

Shipped From:
Mercy Heart & Vascular
Jamie Eisenberg/Robert Turco
phone: 314 307 0664
jamie.eisenberg@mercy.net
robert.turco@mercy.net
450 N. New Ballas Ste. 170 West Wing

Return acknowledgement

Return Number: .....: 268964
RMA number.....: RMA_019420
Date .....: 9/25/2015
Page .....: 1 of 1
Customer account.....: CAWHIT01
Customer reference .....:
Contact .....:
Customer requisition.....:

Dear Valued Customer,
Eckert & Ziegler Isotope Products Laboratories has received your radioactive source(s) and takes responsibility for tracking and storage of the source(s) listed below. If you have any further questions about the source(s), please contact EZIP and reference the return number listed above. Thank you for your business.

Item number	Batch number	Serial number	Quantity returned	Received on	Description
HEGL-0080-5M		H5-112	1.000000	6/3/2015	

Nuclide Info: Ge-68 5.000000 mCi Ref. Date: 11/1/2010

450 Medical Plaza
Inventory of Sealed Sources

NRC License #: 24 00794 03

	Radionuclide	Description of Source	Manufacturer and Model #	Serial #	Activity	As of	Location	Exempt/ Storage
1	Cs-137	Vial	Dupont NES-356	S356029-013	217 µCi	12/05/1994	Hot Lab	
2	Cs-137	Rod	Eckert & Ziegler	1510-80-39	0.5 µCi	01/01/2012	Hot Lab	
3	Ba-133	Vial	Dupont NES-358	S358018-018	271 µCi	10/26/1994	Hot Lab	
4	Co-57	Vial	Dupont NES-206	S206113-043	5.5 mCi	03/12/1999	Hot Lab	
5	Co-57	Flood	No. Am. Science MED-37-6	B 1751	10 mCi	02/25/2000	Hot Lab	
6	Co-57	Flood	Syncor SFL24R-057-10M	831-100	10 mCi	11/01/2001	Hot Lab	
7	Ge-68	Cylinder	Sanders PET-20 C 1913	B656	3243 µCi	10/19/2009	PET Room	
8	Ge-68	Rod	Sanders PET-16815	B626	5189 µCi	10/07/2009	PET Room	
9	Ge-68	Cylinder	Eckert & Ziegler EG-0317-3.3M	1911-A07	3.097 mCi	11/01/2010	PET Room	
10	Ge-68	Rod	Eckert & Ziegler HEGL-0080-5M	H5-110	5 mCi	11/01/2010	PET Gantry	
11	Ge-68	Rod	Eckert & Ziegler HEGL-0080-5M	H5-111	5 mCi	11/01/2010	PET Gantry	
12	Ge-68	Rod	Eckert & Ziegler HEGL-0080-5M	H5-112	5 mCi	11/01/2010	PET Gantry	

Performed by:

/Kevin Kretzer/

Kevin Kretzer, RT R
Health Physics Technologist

09/30/2015
Date

Mercy Clinic Sunset Hills

22 May 2015 9:41 Nuclear Medicine Treadmill Room Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	174	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

22 May 2015 11:02 Nuclear Medicine Injection Room Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	177	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

22 May 2015 11:23 Nuclear Medicine Hot Lab Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	158	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

22 May 2015 11:23 Nuclear Medicine Camera Room Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	159	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy Clinic Sunset Hills
3844 South Lindbergh Blvd. Suite 160
Sunset Hills, Missouri 63127

DATE OF SURVEY: May 22, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.534
Ludlum 14-C + 44-9, S/N 240222, Calibrated: 4/16/2015
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Camera Room			
1. Counter	0	0	
2. Sink	1	2	All areas
3. Camera	12	22	equal or
4. Table	8	15	less than
5. Floor under table	12	22	0.02 mR/hr
6. Keyboard	0	0	at surface
7. Floor (6)	7	13	
8. Floor (7)	48	90	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy Clinic Sunset Hills
3844 South Lindbergh Blvd. Suite 160
Sunset Hills, Missouri 63127

DATE OF SURVEY: May 22, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.533
Ludlum 14-C + 44-9, S/N 240222, Calibrated: 4/16/2015
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Hot Lab			
1. L block	0	0	
2. Counter	5	9	All areas
3. Floor (3)	0	0	equal or
4. Floor (4)	12	23	less than
5. Floor (5)	0	0	0.02 mR/hr
6. Waste inside	5	9	at surface
7. Waste outside	0	0	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy Clinic Sunset Hills
3844 South Lindbergh Blvd. Suite 160
Sunset Hills, Missouri 63127

DATE OF SURVEY: May 22, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.533
Ludlum 14-C + 44-9, S/N 240222, Calibrated: 4/16/2015
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Injection Room			
1. Chair	0	0	
2. Counter	0	0	All areas
3. Sink	0	0	equal or
4. Table	0	0	less than
5. Floor	0	0	0.02 mR/hr

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy Clinic Sunset Hills
3844 South Lindbergh Blvd. Suite 160
Sunset Hills, Missouri 63127

DATE OF SURVEY: May 22, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.533
Ludlum 14-C + 44-9, S/N 240222, Calibrated: 4/16/2015
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
Treadmill Room			
1. Counter	0	0	
2. Sink	0	0	
3. Keyboard	0	0	All areas
4. Treadmill	0	0	equal or
5. Table	0	0	less than
6. Floor (6)	0	0	0.02 mR/hr
7. Floor (7)	0	0	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

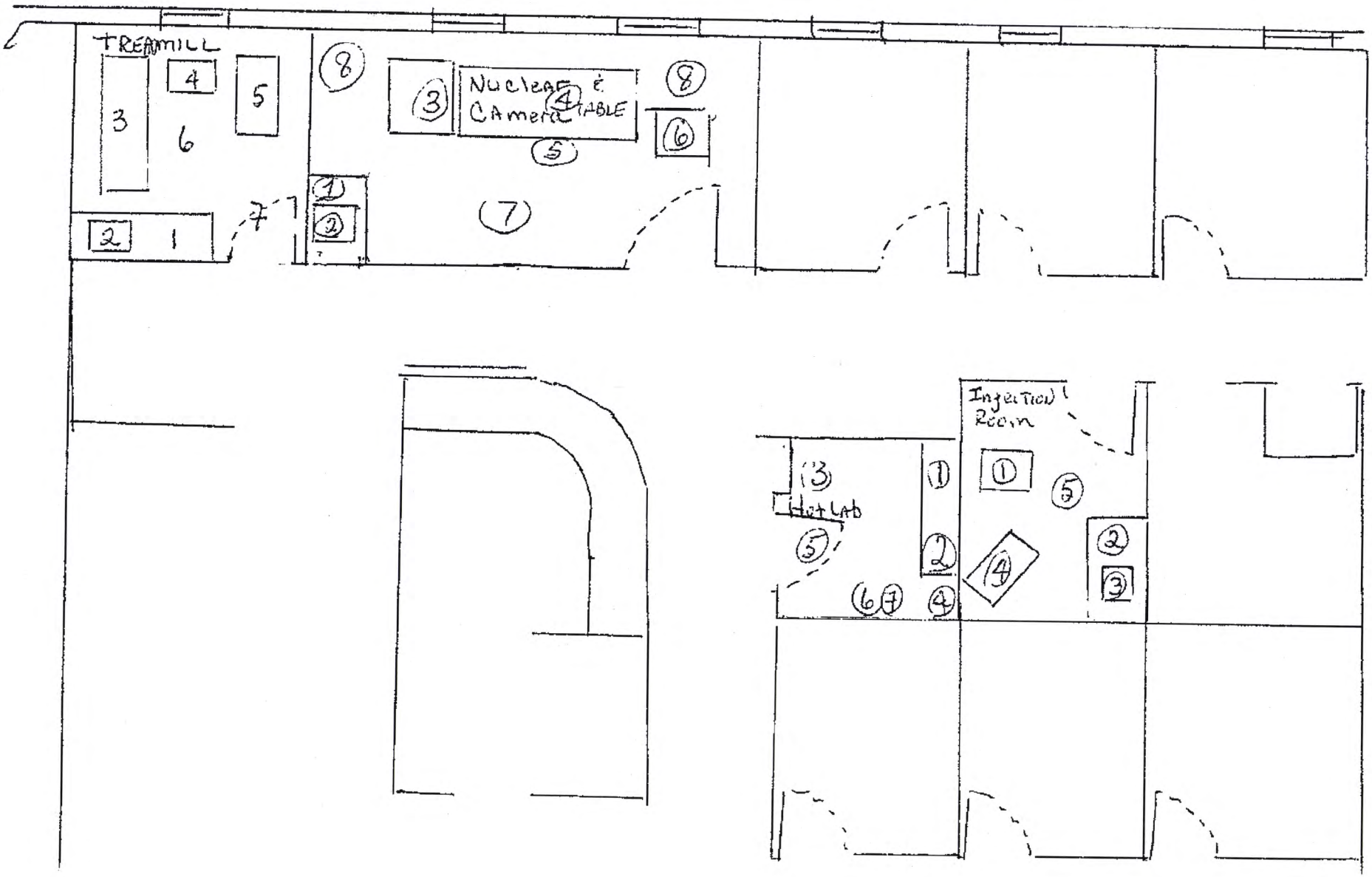
Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

Sunset Hills Location
3844 South Lindbergh Blvd Suite 160
Sunset Hills, Missouri



Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF LEAK TEST AND INVENTORY

Facility: Mercy Clinic Sunset Hills
3844 South Lindbergh Suite 160
St Louis, MO 63127

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

SourceManufacturer: Rad Qual
Isotope: Cs-137

M/N: BM06 S/N: BM06E37-020-8
Activity : .225 mCi on 9/26/2007

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R) — **4/15/2015**
Individual Performing Test — **Date**

Date Sample Received: 4/15/2015 **Date Sample Processed: 4/15/2015**

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	19	36	0.0000	CPM – Counts per min.
				DPM – Disintegrations per min.
				Efficiency = 0.533
Standard Cs-137	276,593	518,598	0.2336	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before 10/31/2015.

Robert F. Turco

Robert F. Turco, Ph.D., DABR — **4/15/2015**
Radiation Safety Officer — **Date**

Mercy

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF LEAK TEST AND INVENTORY

Facility: Mercy Clinic Sunset Hills
3844 South Lindbergh Suite 160
St Louis, MO 63127

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

SourceManufacturer: Rad Qual
Isotope: Co-57

M/N: BM06 **S/N:** BM06E-57-57-19
Activity : 5.58 mCi on 10/5/2007

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

4/15/2015
Date

Date Sample Received: 4/15/2015 **Date Sample Processed:** 4/15/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	12	23	0.0000	CPM – Counts per min.
				DPM – Disintegrations per min.
				Efficiency = 0.533
Standard Cs-137	276,593	518,598	0.2336	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before 10/31/2015.

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

4/15/2015
Date

Mercy

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF LEAK TEST AND INVENTORY

Facility: Mercy Clinic Sunset Hills
3844 South Lindbergh Suite 160
St Louis, MO 63127

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

SourceManufacturer: Eckert and Ziegler
Isotope: Co-57 Flood Source

M/N: PF24R-057-10M S/N: 1601-160
Activity : 10 mCi on 6/1/2012

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R) — **4/15/2015**
Individual Performing Test — **Date**

Date Sample Received: 4/15/2015 **Date Sample Processed: 4/15/2015**

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	36	68	0.0000	CPM – Counts per min.
Shield	36	68	0.0000	DPM – Disintegrations per min.
				Efficiency = 0.533
Standard Cs-137	276,593	518,598	0.2336	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before 10/31/2015.

Robert F. Turco

Robert F. Turco, Ph.D., DABR — **4/15/2015**
Radiation Safety Officer — **Date**

Printed: 5/19/2015 6:08

CARRIER	ROUTE NO	ORIGIN	DATE	BILL NO
GE Healthcare			19-May-15	

CONSIGNOR

Mercy Clinic Sunset Hills
3844 South Lindbergh
Suite 160
St. Louis, MO. 63127
636-239-8335
In case of a transporation emergency, call 800-584-9333

CONSIGNEE NAME AND ADDRESS

Mercy Hospital Washington
38 Nuclear Medicine
901 East 5th Street

Washington, MO 65804

PROPER SHIPPING NAME/CLASSIFICATION

X UN-2915, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7

NO. OF PIECES	HM	RADIONUCLIDE	CHEMICAL FORM -- PHYSICAL STATE	ACTIVITY	LABEL CATEGORY	TRANS INDE
2	DOT 7A	Co-57	Cobalt / Solid	0.0513 mCi	RADIOACTIVE WHITE I	
1	TYPE A	Cs-137	Cesium / Solid	0.1890 mCi	RADIOACTIVE YELLOW II	0.
-		-	-	- -		
-		-	-	- -		
-		-	-	- -		
				8.8918 MBq		
				0.2403 mCi		

"I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by road according to the applicable international and national government regulations."

BKG 200 cpm

Instrument Used: Scaler DOT with an action level of 1957 CPM which is equivalent to 2200 dpm/100cm^2

WIPE 0 cpm

SHIPPER'S SIGNATURE Robert F. Turco

INFORMED BY	VERIFIED BY	COURIER SIGNATURE	CONSIGNEE SIGNATURE
DATE 19-May-15	TIME 11:00	DATE 19-May-15 TIME 11:30	DATE TIME

9905321

GE Healthcare			19-May-15

CONSIGNOR
Mercy Clinic Sunset Hills
3844 South Lindbergh
Suite 160
St. Louis, MO, 63127
636-239-8335
In case of a transporation emergency, call 800-584-9333

CONSIGNEE NAME AND ADDRESS
Mercy Hospital Washington
38 **Nuclear Medicine**
901 East 5th Street

Washington, MO 65804

PROPER SHIPPING NAME/CLASSIFICATION
X UN-2915, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7

1 corrugated package

NO. OF PIECES	HM	RADIONUCLIDE	CHEMICAL FORM – PHYSICAL STATE	ACTIVITY	LABEL CATEGORY	TRANS INDE
1	DOT 7A TYPE A	Co-57	Cobalt / Solid	0.6250 mCi	RADIOACTIVE WHITE I	NA
-	-	-	-	- -	RADIOACTIVE YELLOW II	
-	-	-	-	- -		
-	-	-	-	- -		
-	-	-	-	- -		
				23.1250 MBq		
				0.6250 mCi		

"I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packed, marked, and labelled, and are in all respects in proper condition for transport by road according to the applicable international and national government regulations."

BKG 200 cpm
WIPE 0 cpm

Instrument Used Scaler DOT with an action level of 1967 CPM which is equivalent to 2200 dpm/100cm^2

SHIPPER'S SIGNATURE Robert F. Turco

PERFORMED BY / VERIFIED BY		COURIER SIGNATURE		CONSIGNEE SIGNATURE	
MOTAYLOR					
DATE	TIME	DATE	TIME	DATE	TIME
19-May-15	11:00	19-May-15	11:30		

990532L

Mercy Clinic - Sunset Hills
Inventory of Sealed Sources

NRC License #: 24 00794 03

	Radionuclide	Description of Source	Manufacturer and Model #	Serial #	Activity	As of	Location	Exempt/ Storage
1	Cs-137	Rod	RadQual BMO8	BM0837-26-11	139.6 nCi	09/11/2007	Hot Lab	
2	Cs-137	Vial	RadQual BM06	BM06E37-020-8	225 µCi	09/26/2007	Hot Lab	
3	Cs-137	Disk	Spectrum Techniques	1127	1 µCi	03/01/2007	Hot Lab	
4	Co-57	Flood	Isotope Products PF24R-057-10M	1739-037	10 mCi	06/01/2014	Hot Lab	
5	Co-57	Vial	RadQual BM06	BM06E-57-57-19	5.58 mCi	10/05/2007	Hot Lab	

Performed by:

/Kevin Kretzer/

Kevin Kretzer, RT R
Health Physics Technologist

09/30/2015
Date

United States Nuclear Regulatory Commission
Region III
2443 Warrensville Road
Suite 210
Lisle, IL 60532-4352

June 25, 2015

RE. Control Number 586519

To Whom It May Concern:

As follow up to our request for amendment dated April 6, 2015 we are submitting a closeout survey of the areas of use located at 101 Progress Parkway, Sullivan, Missouri. All radioactive materials have been removed, all areas surveyed and wipe tested for removable contamination. We would like to have this location removed from our license as a location of use.

For any questions regarding the above requests please contact me at your convenience 314-251-6844 (Department of radiation therapy) or at 314-307-0664 (cell).

Sincerely,

Robert F. Turco

Robert F. Turco, Ph.D., RSO

Mercy Clinic Sullivan

22 June 2015 11:47 Nuclear Medicine Treadmill/Hot Lab Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	189	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

22 June 2015 12:20 Nuclear Medicine Camera Room Semi-annual Leak

Window A

Nuclide:	MAN	20-2000 keV
Bkg:	154	
Sigma:	0.00	
LCR:	0	
Half life(hours):	0.00	
Multiplier:	1.0000	
%CV Flag limit:	0.00	

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy Clinic Sullivan
101 Progress Parkway
Sullivan, Missouri 63080

DATE OF SURVEY: June 22, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.532
Ludlum 14-C + 44-9, S/N 247176, Calibrated: 3/23/2015
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Net Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
1. Treadmill	0	0	
2. Console	0	0	All areas
3. Hot Lab Counter	0	0	equal or
4. Table	0	0	less than
5. Injection Chair	0	0	0.02 mR/hr
6. Floor (1)	0	0	at surface
7. Floor (2)	0	0	

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

CLOSE-OUT SURVEY SUMMARY

FACILITY: Mercy Clinic Sullivan
101 Progress Parkway
Sullivan, Missouri 63080

DATE OF SURVEY: June 22, 2015

INSTRUMENTATION: Packard Cobra Well Counter, Efficiency 0.532
Ludlum 14-C + 44-9, S/N 247176, Calibrated: 3/23/2015
Victoreen 451B, S/N 1405, Calibrated: 3/25/2015

PURPOSE: The following equipment and areas were surveyed for ambient exposure rates as well as removable contamination.

MEASUREMENTS: The following items and areas were surveyed for ambient exposure rates and removable contamination prior to room closure:

Location (see Map)	Net Cpm/100 cm^2	Net Dpm/100 cm^2	mR/hr
1. Camera	0	0	All areas
2. Table	13	24	equal or
3. Console	0	0	less than
4. Floor (1)	27	51	0.02 mR/hr
			at surface

*Minimum Detectable Activity = 125 DPM

CONCLUSION: All items and areas surveyed for removable contamination and ambient radiation exposure levels were determined to be below the unrestricted area trigger levels established for this facility (i.e. 2000 dpm's and 0.1 mR/hr).

Performed by:

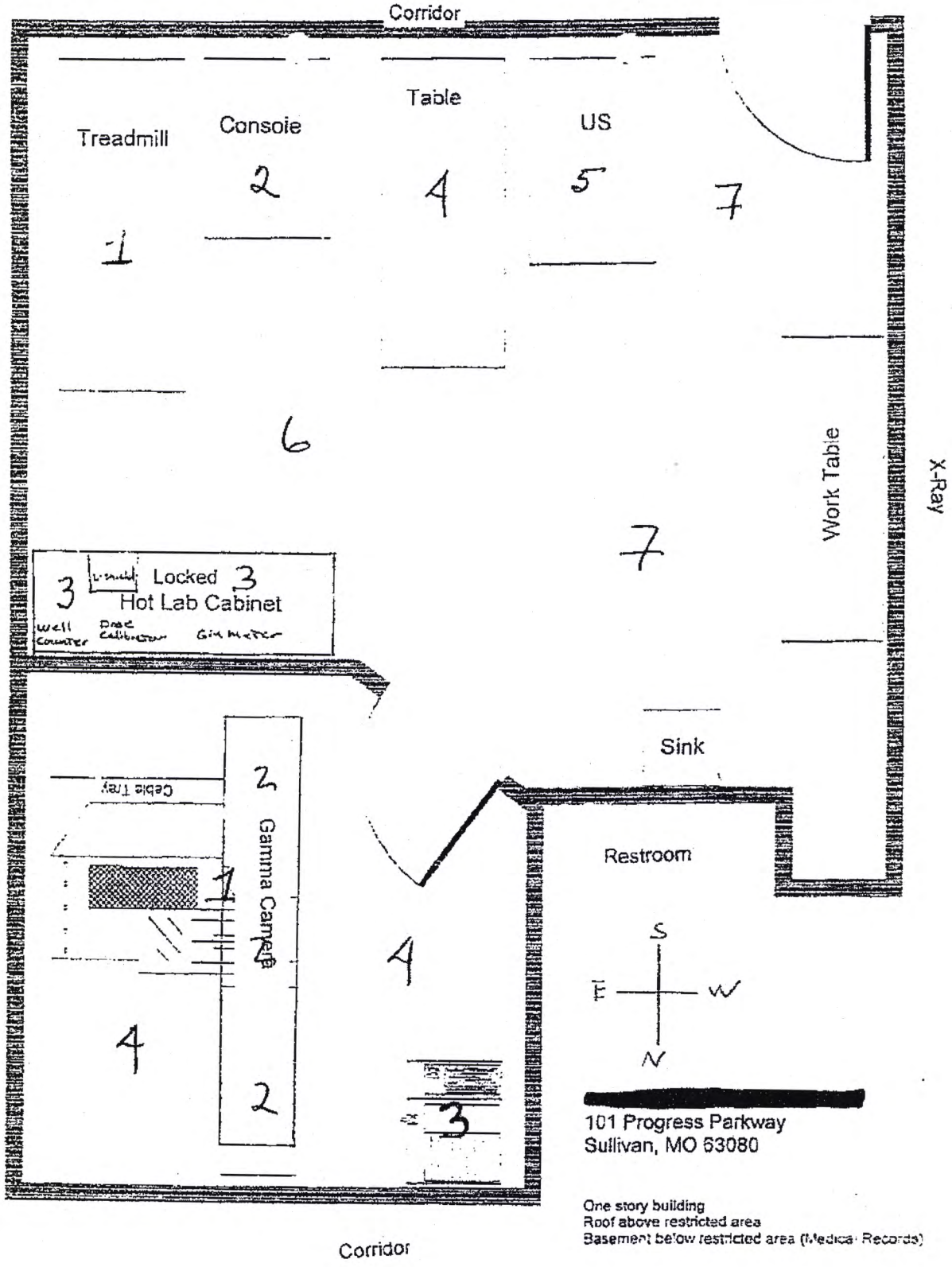
Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

Kevin Kretzer

Kevin G. Kretzer, R.T., R
Health Physics Technologist

Facility Diagram



All radioactive material is stored in shielded containers to keep radiation exposures within Part 20 regulations and ALARA.

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF LEAK TEST AND INVENTORY

Facility: Mercy Clinic Sullivan
101 Progress Parkway
Sullivan, MO 63080

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

SourceManufacturer: Rad Qual
Isotope: Cs-137

M/N: BM06 **S/N:** BM06S-37-6-10
Activity : .223 mCi **on** 12/13/2007

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R) — 6/22/2015
Individual Performing Test — Date

Date Sample Received: 6/22/2015 **Date Sample Processed:** 6/22/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	3	6	0.0000	CPM – Counts per min.
				DPM – Disintegrations per min.
				Efficiency = 0.532
Standard Cs-137	274,607	516,385	0.2326	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before 10/31/2015.

Robert F. Turco

Robert F. Turco, Ph.D., DABR — 6/22/2015
Radiation Safety Officer — Date

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd
St. Louis, MO 63141
mercy.net

CERTIFICATE OF LEAK TEST AND INVENTORY

Facility: Mercy Clinic Sullivan
101 Progress Parkway
Sullivan, MO 63080

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

SourceManufacturer: Isotope Products
Isotope: Co-57

M/N: RV-057-5M **S/N:** 1258-55-11
Activity : 5.161 mCi on 3/16/2011

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

6/22/2015
Date

Date Sample Received: 6/22/2015 **Date Sample Processed:** 6/22/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	0	0	0.0000	CPM – Counts per min.
				DPM – Disintegrations per min.
				Efficiency = 0.532
Standard Cs-137	274,607	516,385	0.2326	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before 10/31/2015.

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

6/22/2015
Date

Mercy Hospital
Radiation Safety
607 S. New Ballas Rd.
St. Louis, MO 63141
mercy.net

CERTIFICATE OF LEAK TEST AND INVENTORY

Facility: Mercy Clinic Sullivan
101 Progress Parkway
Sullivan, MO 63080

NRC License No: 24-00794-03

Expiration Date: 9/30/2022

SourceManufacturer: Rad Qual
Isotope: Co-57 Flood source

M/N: BM07-10 **S/N:** BM071013042108
Activity : 10 mCi on 3/13/2013

This test was performed in accordance with NRC License instructions.

Kevin Kretzer, RT (R)
Individual Performing Test

6/22/2015
Date

Date Sample Received: 6/22/2015

Date Sample Processed: 6/22/2015

TEST DATA

Sample	CPM (net)	DPM	Activity (Microcuries)	
Source	10	19	0.0000	CPM – Counts per min.
Sheet	10	19	0.0000	DPM – Disintegrations per min.
				Efficiency = 0.532
Standard Cs-137	274,607	516,385	0.2326	

CONCLUSION:
Results of this test indicate the presence of less than 0.005 microcuries of removable contamination and meet presently accepted standards of radiation safety. In accordance with prevailing regulations, this source should be leak tested on or before 10/31/2015.

Robert F. Turco

Robert F. Turco, Ph.D., DABR
Radiation Safety Officer

6/22/2015
Date

Printed: 6/24/2015 13:44

CARRIER	ROUTE NO	ORIGIN	DATE	BILL NO
GE Healthcare			25-Jun-15	

CONSIGNOR
Mercy Clinic Sullivan
101 Progress Parkway
0
Sullivan, MO 63080
636-239-8335
In case of a transporation emergency, call 800-584-9333

CONSIGNEE NAME AND ADDRESS
Mercy Hospital Washington
38 Nuclear Medicine
901 East 5th Street

Washington, MO 63017

Arrived
6-25-15
@ 1500

PROPER SHIPPING NAME/CLASSIFICATION

X UN-2915, RADIOACTIVE MATERIAL, TYPE A PACKAGE, 7

NO. OF PIECES	HM	RADIONUCLIDE	CHEMICAL FORM — PHYSICAL STATE	ACTIVITY	LABEL CATEGORY	TRANS INDEX
2	DOT 7A	Cs-137	Cesium / Solid	0.2250 mCi	RADIOACTIVE WHITE I	
2	TYPE A	Co-57	Cobalt / Solid	0.1000 mCi	RADIOACTIVE YELLOW II	
-		-	-	- -		N/A
-		-	-	- -		
-		-	-	- -		
				12.0250 MBq		
				0.3250 mCi		

"I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name and are classified, packed, marked, and labelled, and are in all respects in proper condition for transport by road according to the applicable international and national government regulations."

BKG 220 cpm

WIPE 4 cpm

Instrument Used Scaler DOT with an action level of 1967 CPM which is equivalent to 3200 dpm/100cm^2

SHIPPER'S SIGNATURE Robert F Turco, Ph D , DA

PERFORMED BY	VERIFIED BY	COURIER SIGNATURE	CONSIGNEE SIGNATURE
DATE 25-Jun-15	TIME 1402	DATE 25-Jun-15 TIME	DATE TIME

PRODUCT

Mercy Clinic - Sullivan
Inventory of Sealed Sources

NRC License #: 24 00794 03

	Radionuclide	Description of Source	Manufacturer and Model #	Serial #	Activity	As of	Location	Exempt/ Storage
1	Cs-137	Rod	RadQual BMO8	BM0837-28-9	130.8 nCi	01/31/2008	Hot Lab	
2	Cs-137		RadQual BM06	BM06S-37-6-10	223 µCi	12/13/2007	Hot Lab	
3	Cs-137	Disk	Spectrum Techniques	2635	1 µCi	10/01/2007	Hot Lab	
4	Co-57	Flood	RadQual BM07-10	BM071013042108	10 mCi	03/13/2013	Hot Lab	
5	Co-57	Vial	Isotope Products RV-057-5M	1258-55-11	5.161 mCi	01/01/2008	Hot Lab	

Performed by:

Kevin Kretzer, RT R
Health Physics Technologist

09/30/2015
Date

Forster, Sara

From: Turco, Robert <Robert.Turco@Mercy.Net>
Sent: Monday, September 28, 2015 2:56 PM
To: Forster, Sara
Subject: [External_Sender] reponse to conversation record control number 588177
Attachments: Closeout Response Ballas Sunset Sep 2015.pdf; 450 Medical Plaza.zip; Sunset Hills.zip; Sullivan.zip

Sara,

Attached please find a response letter and supporting documents which will hopefully complete our request to close out a few locations on Mercy License No. 24-00794-03. If you have any questions please contact me at this e-mail or at 314-307-0664.

Thank you ,
Robert F. Turco

This electronic mail and any attached documents are intended solely for the named addressee(s) and contain confidential information. If you are not an addressee, or responsible for delivering this email to an addressee, you have received this email in error and are notified that reading, copying, or disclosing this email is prohibited. If you received this email in error, immediately reply to the sender and delete the message completely from your computer system.