



ST. JOHN'S

ST. JOHN'S HOSPITAL
1235 EAST CHEROKEE STREET ■ SPRINGFIELD, MISSOURI 65804-2263
417-820-2000 ph.

08/15/2008

Materials Licensing
US NRC Region III
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4351

ATTN License reviewer:

This letter is to request the release of an area within our facility to an uncontrolled space. The Cardiology practice has moved into the new location and has vacated the space located in 1900 S National Ave, Suite 1960A, Springfield, MO.

I have provided a copy of the close-out survey for the Nuclear Cardiology suite which includes a small hot lab, injection area, holding area, treadmill area, camera area and 2 work areas. This location was used for Tc-99m and Tl-201 cardiac imaging only.

I have also enclosed a copy of the calibration certificate for the GM survey meter used in this survey as well as copies of the Chi-Square, FWHM, daily constancy, Co-57 efficiency, and Co-137 MDA tests for our Captus 3000 sodium iodide well system for your review.

Please do not hesitate to contact me if you have any questions. I may be reached at (417) 820-7704

Sincerely,

Nick Lannutti, MS
Medical Physicist/RSO
Department of Nuclear Medicine
St. Johns Hospital-Springfield

RECEIVED AUG 22 2008

Decommission (Close-Out) Survey

Facility St Johns Hospital - Springfield
 Address 1235 East Cherokee Street, Springfield, MO. 65804-2263
 License Number- 24-00866-02
 Survey Locations St John's Clinic Cardiology - 1900 S National Ave. Suite 1960A, Springfield, MO

Person Performing the Survey - Nick Lannutti MS; RSO
 Date the Survey was Performed - 08/15/08

Survey Background 0.02 mR/Hr

Wipe Number	Location	Gross cpm	Bkgnd	Net cpm	DPM	Survey
1	Hot Lab Floor	46	42	4	4.8	0.02
2	Hot Lab Counter	41	42	-1	0.0	0.02
3	Hot Lab Sink	48	42	6	7.2	0.02
4	Hot Lab Upper Cabinets	40	42	-2	0.0	0.02
5	Hot Lab Lower Cabinets	31	42	-11	0.0	0.02
6	Injection Area Floor	34	42	-8	0.0	0.02
7	Injection Area Cabinets	32	42	-10	0.0	0.02
8	Holding Area Floor	38	42	-4	0.0	0.02
9	Holding Area Cabinets	42	42	0	0.0	0.02
10	Treadmill Area Floor	43	42	1	1.2	0.02
11	Treadmill Area Cabinets	40	42	-2	0.0	0.02
12	Camera Area Floor	36	42	-6	0.0	0.02
13	Camera Area Cabinets	45	42	3	3.6	0.02
14	Work Area 1 Counter	44	42	2	2.4	0.02
15	Work Area 1 Cabinets	32	42	-10	0.0	0.02
16	Work Area 1 Sink	36	42	-6	0.0	0.02
17	Work Area 2 Counter	36	42	-6	0.0	0.02
18	Work Area 2 Cabinets	38	42	-4	0.0	0.02

Wipe Counter - Captus 3000 SN SNV-397

Chi Square - PASS (8.9)	See Attachment
Constancy Test - PASS (-1.7%)	See Attachment
FWHM - PASS (7.8%)	See Attachment
Efficiency with Co-57 - 83.87%	See Attachment
MDA for C0-57 - 21.62 dpm	See Attachment

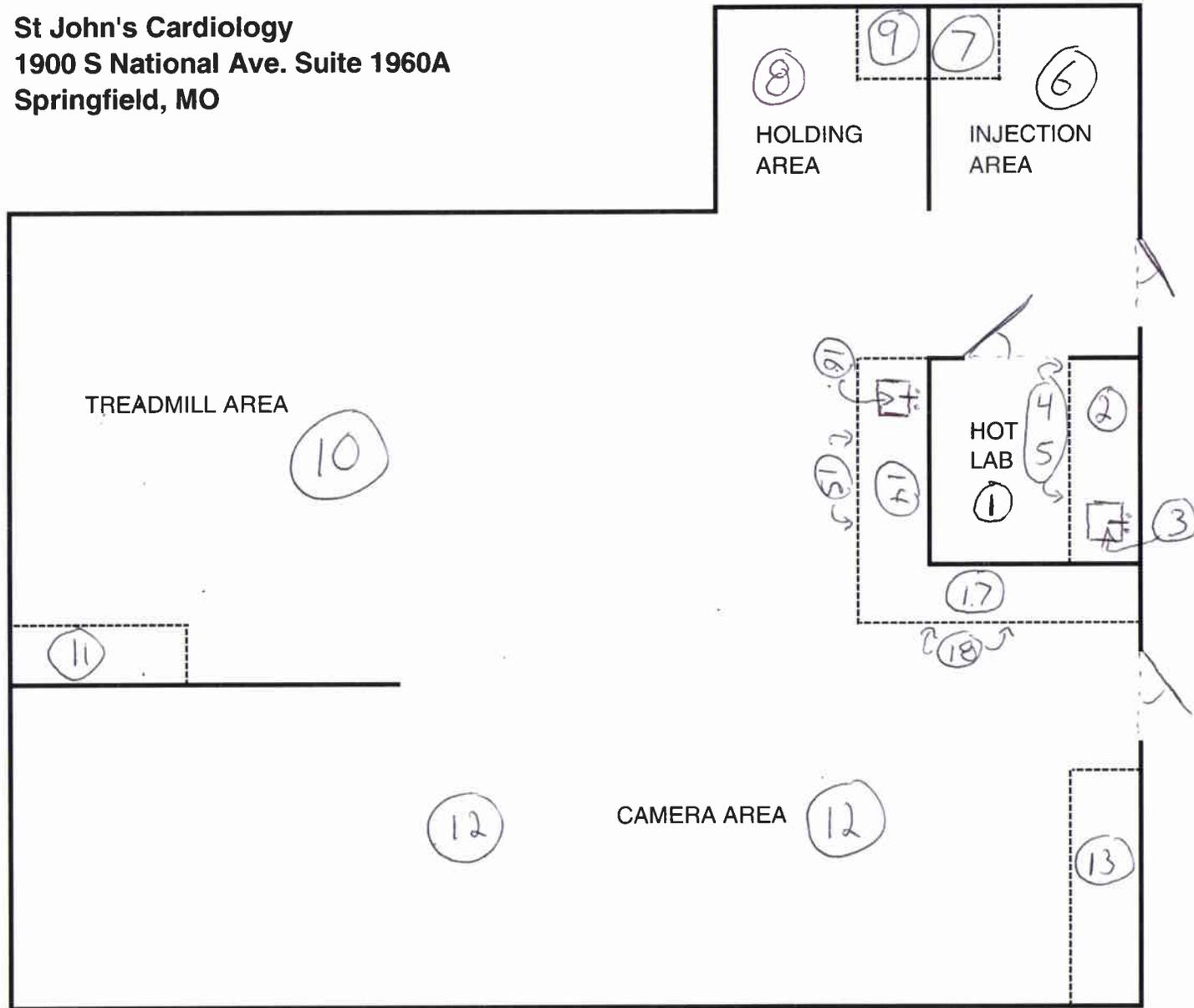
Survey Meter - Ludlum 14C SN 189212
 Probe - Ludlum 44-9 SN PR191245 (Thin Window)

Last Calibration Date - 06/30/08	See Attachment
Battery Check - PASS	
Reference Check Source - 5 mR/Hr	

Physicist / RSO Nick Lannutti

Date 8-15-08

St John's Cardiology
1900 S National Ave. Suite 1960A
Springfield, MO



Auto Calibration for Well

MCA: Capintec

Date / Time: 08/15/2008 11:13

Step 1

Gain: 1.00

Peak Found

Step 2

High Energy Peak Channel: 17.7

Gain: 18.72

Step 3

Low Energy Peak Found

Step 4

High Energy Peak Channel: 324.8

Gain: 18.72

Iteration : 1

Gain Adjust

High Energy Peak Channel: 324.5

Low Energy Peak Channel: 20.0

Gain: 19.37

Zero Offset Adjust

Low Energy Peak Channel: 20.3

High Energy Peak Channel: 330.2

Zero: -0.38%

Iteration : 2

Gain Adjust

High Energy Peak Channel: 326.5

Low Energy Peak Channel: 16.4

Gain: 19.68

Zero Offset Adjust

Low Energy Peak Channel: 16.8

High Energy Peak Channel: 331.2

Zero: -0.40%

Calibration Successful

Cs137

High Energy Peak Channel: 330.9

Low Energy Peak Channel: 16.5

Gain: 19.69

Zero: -0.40%

Auto Calibration for Well

High Voltage: 1000V
Threshold: 0.80%

FWHM

FWHM: 7.8%

Eu152 Linearity Correction

Channel	Energy (keV)	% Difference
16.5	32.9	0.2
21.1	40.8	3.4
64.5	121.8	5.9
175.6	344.3	2.0
330.9	661.7	0.0

Chi-Square Test for Well

08/15/2008 11:12

Test	Counts	Test	Counts
1	8995	6	9153
2	9228	7	9126
3	9220	8	9065
4	8933	9	9184
5	9146	10	9109

Chi-Square = 8.9

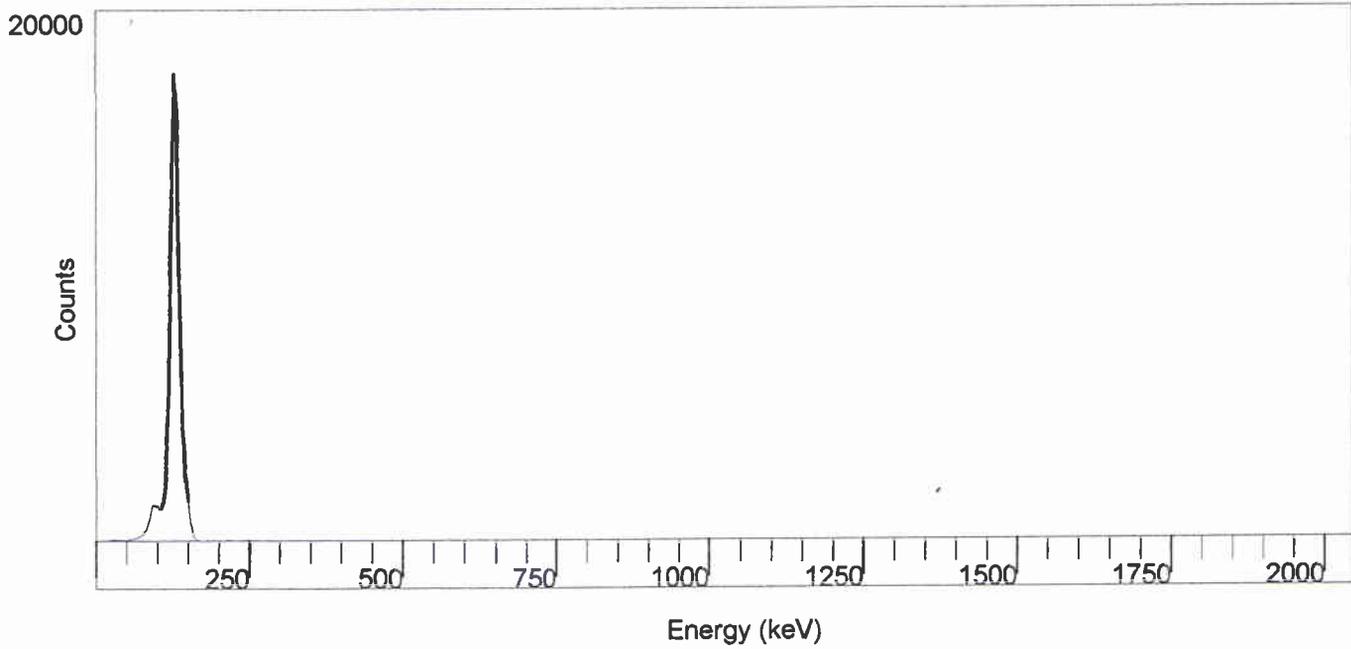
CAPTUS 3000 S/N CNV-397

St. John's Hospital
1235 East Cherokee Street
Springfield, MO 65804

Tests for 08/15/2008

Calibration & Constancy	High Voltage	Gain	Zero Offset (%)	FWHM (%)	Constancy Deviation (%)
Well	1000	19.69	-0.40	7.8	-2.9
Probe					-1.7
Well					
<hr/>					
Chi-Square	Tests	Secs	Chi-Square		
Well	10	30.0	8.9		
<hr/>					
MDA Test	Isotope	Secs	MDA (dpm)		
Well	Cs137	60.0	76.71		
Well	Co57	60.0	21.62		

**Isotope Efficiency Measurement
Co57**



Well

Calibrated Activity: 0.088 μ Ci
Standard: 165.2kcpm
Current Activity: 0.089 μ Ci = 197.0kdpm

Calibrated: 02/01/2008 12:00
Background: 7.000 cpm

Net: 165.2kcpm

Efficiency = 83.87%

MDA Test for Well

08/15/2008 11:05

Isotope: Co57

Minimum Detectable Activity: 21.62dpm

$$MDA = \frac{(f\sqrt{N} + C)}{(Eff * T)}$$

f = Precision Factor

C = Correction Factor

Eff = Efficiency

T = Counting Time

N = Counts = 11

T = Live Time = 60.0sec

f = 4.65

C = 2.71

Eff = 0.839

Survey Meter Calibration Report

Department : Nuclear Medicine
 Manufacturer : Ludlum
 Meter model : 14C
 Meter S/N : 189212
 Type : GM

Instrument checks: Battery check: OK
 Integral check source indicates: 5.0 mR/hr.

Calibration geometry: Chamber perpendicular to radiation beam
 Window: Closed

Dist (cm)	mR/hr Today	Scale: 2000 Rdng	Cor Fac	Scale: 200 Rdng	Cor Fac	Scale: 20 Rdng	Cor Fac	Scale: 2.0 Rdng	Cor Fac
13.6	1600	1650	0.97						
.25 Atn	400	450	0.89						
43.0	160			150	1.07				
.25 Atn	40			45	0.89				
.10 Atn	16					16	1.00		
.1 & .25	4					4.5	0.89		
.1 & .1	1.6							1.5	1.07
All atn	0.4							0.45	0.89

Correction factors: 0.93 0.98 0.94 0.98

Calibration source: Original activity : 140.1 mCi Cs-137 on 09/17/90
 Source model : 77302
 Source S/N : S-724

Name: *Rick Law*

Date: 06/30/08

Nick Cannutti, MS
Radiation Safety Officer
St John's Hospital - Springfield
1235 E Cherokee St
Springfield, MO 65804



0002248833
XXB

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