



DELAWARE
CARDIOVASCULAR
ASSOCIATES

701 Foulk Road, Suite 1A, Wilmington, DE 19803 • 302-661-7676 • Fax 302-661-1050
Glasgow Medical Center, 2600 Glasgow Avenue, Suite 221, Newark, DE 19702 • 302-834-7676 • Fax 302-834-9202
1102 South DuPont Highway, Suite 1, Dover, DE 19901 • 302-734-7676 • Fax 302-734-7615
415 South Dupont Highway, Milford, DE 19963 • 302-430-7676 • Fax 302-430-7670
33664 Unit 1 Bayview Medical Drive, Lewes, DE 19958 • 302-644-7676 • Fax 302-644-4876
653 Coastal Hwy. South, Taggart Professional Building, Suite 101, Bethany Beach, DE 19930 • 302-537-7676 • Fax 302-537-7652
Corporate Office: 701 Foulk Road, Suite 2A, Wilmington, DE 19803 • 302-661-1661 • Fax 302-661-1001
www.delawarecardiovascular.com

September 5, 2012

U.S. Nuclear Regulatory Commission

Br 1

REC RG1 SEP 11 12 11:07:39

Region 1 DNMS

2100 Renaissance Blvd.

King of Prussia, PA 19406

REF: NRC 07-30420-01

REF:577959

To Whom It May Concern:

Delaware Cardiovascular Associates, Lic # 07-30420-01, wishes to amend its location of use for the Dover, Delaware facility, all licensed activities at 1102 South DuPont Highway has ceased as of 27 Aug 2012. Please find the enclosed closeout survey and calibration documents attesting to the fact that all sources of radioactivity have been removed, and readings are at the general use/ background range.

Please remove the site from our license, as it is no longer used by Delaware Cardiovascular Associates.

There are no other requests to amend or change our materials license at this time. Should you have any questions regarding this request, please feel free to contact me.

Sincerely,

William J. Gunkel Jr. CNMT, RSO

Imaging Director

Delaware Cardiovascular Associates.

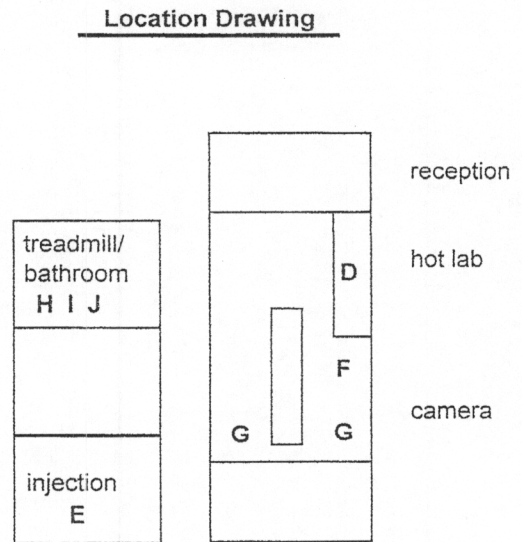
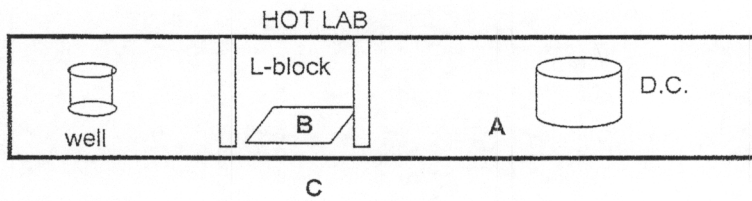
C(302)593-5819 W(302)834-7676

579148

NMSS/RGN1 MATERIALS-002

Area Survey and Wipe Test Log

Location	Type	Action Levels
A. Prep Area	Non-Restricted	0.5 mR/hr 2000dpm
B. L-Block	Non-Restricted	0.5 mR/hr 2000dpm
C. Hot Waste	Non-Restricted	0.5 mR/hr 2000dpm
D. Hot Lab Floor	Non-Restricted	0.5 mR/hr 2000dpm
E. Injection Area	Non-Restricted	0.5 mR/hr 2000dpm
F. Console/Table	Non-Restricted	0.5 mR/hr 2000dpm
G. Camera Floor	Non-Restricted	0.5 mR/hr 2000dpm
H. Treadmill	Non-Restricted	0.5 mR/hr 2000dpm
I. Treadmill Floor	Non-Restricted	0.5 mR/hr 2000dpm
J. Bathroom	Non-Restricted	0.5 mR/hr 2000dpm



Daily Area Survey

Survey Meters: #1 Lud 14C S/N 145368 #2 Lud 14C S/N 144982

Date	Meter	Meter Test	Initials	mR/hr											
				A	B	C	D	E	F	G	H	I	J	BKG	
08/20/12	#1	PASS	MLC	.05	.05	.04	.02	.01	.01	.01	.01	.01	.01	.01	.01
08/21/12	#1	PASS	AAS	.07	.04	.10	.01	.01	.01	.01	.01	.01	.01	.01	.01
MOVING															

Weekly Wipe Test

Date	Instrument	C.F.	Initials	dpm											
				A	B	C	D	E	F	G	H	I	J	BKG	
08/21/12	Well Counter	1.10	AAS	X	X	X	X	X	X	X	X	X	X	X	318

Instrumentation: Ludlum 2200 Ratemeter
 S/N 145792

% efficiency: 90%
 C.F.: 1.10

MDA:
 dpm = cpm x C.F.

Reviewed by: WJG/DR
 Radiation Safety Officer

BIO MED ASSOCIATES, INC.
4 MAIN STREET FLEMINGTON, NEW JERSEY 08822

908-788-9440
FAX 788-6757

August 27 2012

Mr. William Gunkel, Jr.
R.S.O.
Delaware Cardiovascular Associates
121 Becks Wood Drive
Bear, Delaware

**RE: Dover
Close Out Survey, Sealed Source Inventory and Leak Test**

Dear Mr. Gunkel,

Enclosed is the close out survey which was done on August 27, 2012 at the Dover site located at 1102 S. DuPont Highway, Dover Delaware, along with your most recent sealed source inventory and leak test.

No removable radioactive contamination was detected via surface wipe test and general area survey. All areas surveyed with a Ludlum -14C survey meter with model 44N pancake probe. The instrument serial #145368 was calibrated on 5/29/12. Wipe tests were counted using a Ludlum model 2200 well counter. Counting efficiency was verified to be approximately 80% (78%) measured on August 27, 2012 for Co-57 and 27% efficiency for Cs-137.

All radioactive calibration sources were removed and transported to your 1113 South State Street office in Dover. If any additional information is needed please feel free to contact me.

Sincerely,



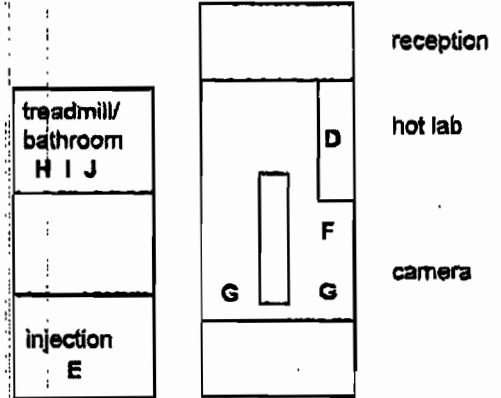
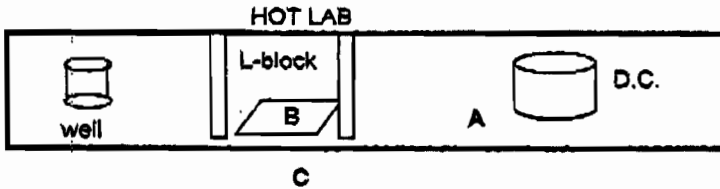
Robert J. Ziegler, Jr., M.S.
Medical Physicist

Delaware Cardiovascular Associates
 Department of Nuclear Medicine
 1102 South DuPont Highway Dover, Delaware 19901

Area Survey and Wipe Test Log

Location	Type	Action Levels
A. Prep Area	Non-Restricted	0.5 mR/hr 2000dpm
B. L-Block	Non-Restricted	0.5 mR/hr 2000dpm
C. Hot Waste	Non-Restricted	0.5 mR/hr 2000dpm
D. Hot Lab Floor	Non-Restricted	0.5 mR/hr 2000dpm
E. Injection Area	Non-Restricted	0.5 mR/hr 2000dpm
F. Console/Table	Non-Restricted	0.5 mR/hr 2000dpm
G. Camera Floor	Non-Restricted	0.5 mR/hr 2000dpm
H. Treadmill	Non-Restricted	0.5 mR/hr 2000dpm
I. Treadmill Floor	Non-Restricted	0.5 mR/hr 2000dpm
J. Bathroom	Non-Restricted	0.5 mR/hr 2000dpm

Location Drawing



Daily Area Survey

Survey Meters: #1 Lud 14C S/N 145368 #2 Lud 14C S/N 144982

Date	Meter	Meter Test	Initials	mR/hr												
				A	B	C	D	E	F	G	H	I	J	BKG		
8/27/12	#1 145368	OK	R-Z	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Weekly Wipe Test

Date	Instrument	C.F.	Initials	dpm											
				A	B	C	D	E	F	G	H	I	J	BKG	
8/27/12	Ludlum	78%	RT	-6	2	0	-3	1	-11	0	-3	-2	2	295	

Instrumentation: Ludlum 2200 Ratemeter
 S/N 145792

% efficiency: 25%
 C.F.: 1.22

MDA:
 dpm = cpm x C.F.

Reviewed by: [Signature]
 Radiation Safety Officer

Performed by: [Signature]
 Robert J. Ziegler Jr. MS
 Medical Physicist

ADDITIONAL AREA SURVEY AND WIPE TESTS FOR 1102 SOUTH DUPONT HIGHWAY DOVER DELAWARE:

- 1. HALLWAY: 0.02 mr/hr. -5 dpm.**
- 2. PATIENT WAITING: 0.02 mr/hr -7 dpm**
- 3. AREAS BORDERING CAMERA ROOM: 0.02 mr/hr -16 dpm**

BIO-MED ASSOCIATES, INC.

4 Main Street - Flemington, NJ 08822
 (908) 788-9440, fax (908) 788-6757
 www.biomedphysics.com

SEALED SOURCE LEAK TEST

Facility: DELAWARE CARDIOVASCULAR-DOVER
1113 S. STATE STREET- SUITE-100
DOVER, DE.

Date: 8/27/2012

Background (cpm) 295

Leak Test Data

Isotope	Source	Model	SN	Cal Date	Cal	Rate	Time	Count
Cs-137	Reference Source	RV 137-200u	594510	12/1/97	0.2032	299	4.00	6.62E-06
Co-57	Reference Source	BM06	8234101	8/26/08	5.34	299	-6.00	-9.93E-06
Co-57	Camera source	BM0210	10306101	12/4/10	10	280	-15.00	-2.48E-05
							0.00	0.00E+00

Sealed Source Standard Info*

Isotope	Model	SN	Cal Date	Cal	Rate	Time	Count
Cs-137	MED3400		4/1/2002	0.101	10960	0.08	6.05E+05

* Previously determined efficiencies may be used

Instrument Used: LUDLUM
 Model No.: 2200
 Serial No.: 145786

Comments

NO LEAKAGE

(P)

ROBERT ZIEGLER
 Performed by (Print)

WJ2301 RSC/NMT
 Reviewed by

BIO MED ASSOCIATES, INC.

4 Main Street • Flemington, NJ 08822
 (908) 788-9440 fax (908) 788-6757
 www.biomedphysics.com

Facility: Delaware Cardiovascular Dove
1113 S. State Street
Dover DE.

Instrument Well Counter
 Mfg. Ludlum
 Model 2200
 Detector Nal Well

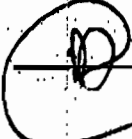
Date 8/27/2012
 Co-57 T1/2 (days) 270.9
 Cs-137 T1/2 (days) 10950

	x _i (cpm)	(x _i - Avg) ²
Background	295	
Counts	47832	4020
	48264	135868
	48011	13363
	47999	10733
	47962	4436
	48085	35948
	47784	12410
	47782	12860
	47678	47263
	47557	114515
	Avg	47895.40
Sum		391412
Std Dev	208.54	
Chi-Square		8.17

Source Check Range

-20%	20%
38318.32	57474.48

	Count Rate (cpm)	Net Count Rate (cpm)	Source Activity (uCi)	Calibration Date	Current Activity (dpm)	Efficiency (cpm/dpm)	MDA (dpm)
Cobalt 57	1127	832	0.020	9/1/2008	1070	0.78	103
Cs-137	47895.40	47600.40	0.101	4/1/2002	176271	0.27	3788

 **ROBERT ZIEGLER**
 Performed by (Print)

 **W. R. S. Coyle**
 Reviewed by

This is to acknowledge the receipt of your letter application dated

9-05-12, and to inform you that the initial processing which includes an administrative review has been performed.

Amend: 07-30420-01
There were no administrative omissions. Your application was assigned to a technical reviewer. Please note that the technical review may identify additional omissions or require additional information.

Please provide to this office within 30 days of your receipt of this card

A copy of your action has been forwarded to our License Fee & Accounts Receivable Branch, who will contact you separately if there is a fee issue involved.

Your action has been assigned **Mail Control Number** 579148.
When calling to inquire about this action, please refer to this control number.
You may call us on (610) 337-5398, or 337-5260.

NRC FORM 532 (RI)
(6-96)

Sincerely,
Licensing Assistance Team Leader