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Diplomates, American Board of Cardiovascular Disease

December 28, 2007

UNITED STATES NUCLEAR REGULATORY COMMISSION  
Region III, Materials Licensing Section  
2443 Warrenville Road  
Suite 210  
Lisle, IL 60532-4352

Re: Amendment for NRC License  
Close out of Shelby Twp. Location: 8180 26 Mile Road, Suite 101

Dear Sir/Madam:

We currently have an amendment request in the possession of the NRC to change our licensee mailing address and to add a location of radioactive material use.

In addition to the amendment request in process, please amend our NRC license to remove the following location of radioactive use. Due to patient care issues, we ask that you expedite this request.

**8180 26 Mile Road  
Suite 101  
Shelby Twp. MI 48316**

The results of the close-out are enclosed for your review.

If you have any questions or require additional information please contact our Medical Physics Consultants, Cari Dzanbazoff, at (734) 662-3197.

Sincerely,

Armando C. Madrazo, M.D.  
Executive Management  
Cardiovascular Consultants, P.C.

RECEIVED JAN 10 2008

## Close-out Survey Information

### Close-out Location:

Cardiovascular Consultants, P.C.  
8180 26 Mile Road  
Suite 101  
Shelby Twp, MI 48316

**Date Performed:** December 20, 2007

**Performed By:** Cari Dzanbazoff, Medical Physics Consultants Inc.

**Comments:** All equipment and sealed sources were properly transferred to the Schoenherr location. Transfer documents are enclosed.

### Instruments:

Wipes for contamination performed with the following well counter:

Manufacturer: Capintec  
Model Number: Captus 3000  
Serial Number: 900271  
Efficiency Factor: 2.5 dpm/cpm

Area survey performed with the following survey meter:

Manufacturer: Ludlum  
Type: GM  
Model Number: Model 14 C  
Serial Number: 186676  
Probe Model: End Window  
Calibration Date: 02/13/07

Battery check acceptable:	<u>YES</u>
Operational check acceptable:	<u>YES</u>
Constancy check acceptable:	<u>YES</u>
Check source value:	<u>0.5 mR/hr</u>

### Radionuclides Used:

**Unsealed**  
Tc-99m, Tl-201

**Sealed**  
Cs-137, Co-57, Ba-133 (leak tests attached)

**Visual Check:** The area was checked to ensure that all radioactive waste had been removed. No evidence of radioactive material was noted.

**Radiation Level Survey:** No area within the lab demonstrated radiation levels in excess of the background reading of 0.02 mR/hr.

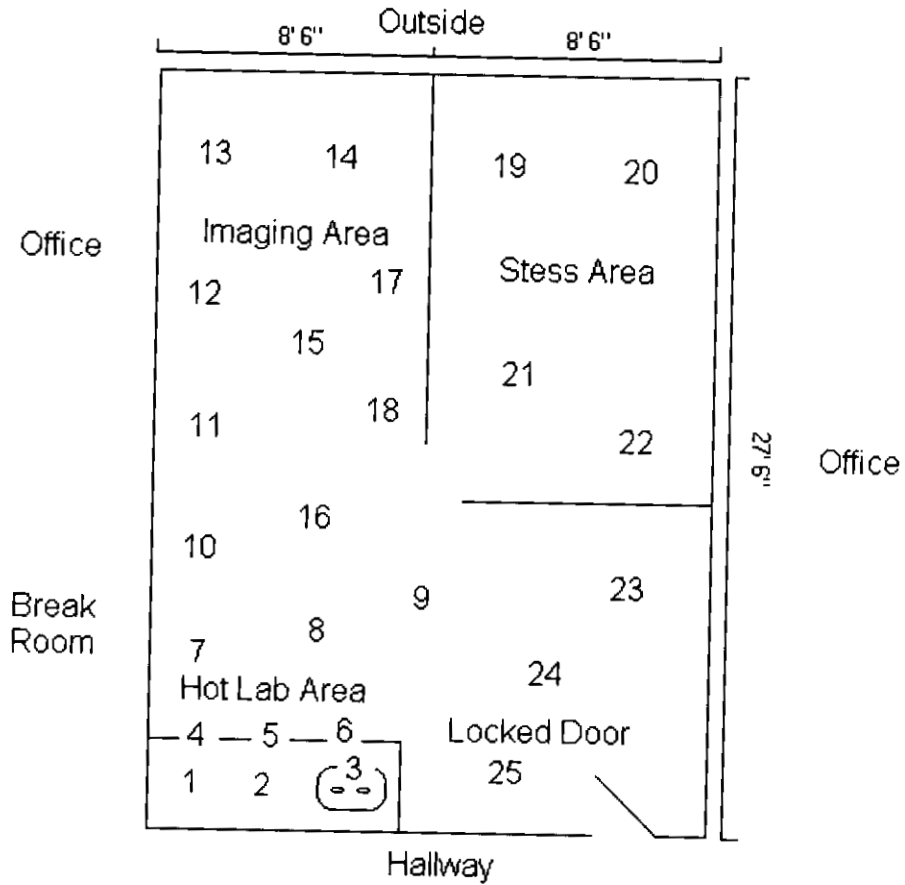
**Removable Contamination:** No area within the lab demonstrated removable contamination in excess of established trigger levels.

**Sealed Sources:** All sealed sources were properly transferred to the Schoenherr location.

**Surveys, Wipes, and Diagrams are enclosed for review.**

# CLOSEOUT DIAGRAM

**CARDIOVASCULAR CONSULTANTS, P.C.**  
**8180 26 MILE ROAD**  
**SUITE 101**  
**SHELBY TWP, MI 48316**



**Single Story Location**

**Survey and Wipe Results Attached**  
**Sealed Source Leak Test Attached**



**Sealed Source Inventory**

Licensee: Cardiovascular Consultants (Shelby Twp)

Date: 10/31/07

Performed by: Cari Dzanbazoff

Nuclide	Type	Calibration		Location	M/N	S/N
		Activity	Date			
Cs-137	Vial	206.1 uCi	10/01/02	Hot Lab	IPL	934-57-24
		Current Activity: 183.3 uCi				
Cs-137	Rod	0.5 uCi	08/01/02	Hot Lab	IPL	854-47-1
		Current Activity: 0.443 uCi				
Ba-133	Vial	266.9 uCi	11/01/02	Hot Lab	IPL	956-10-10
		Current Activity: 192.1 uCi				
Co-57	Flood	10 mCi	06/01/06	Img Rm	NES849610M	1185-058
		Current Activity: 2.675 mCi				

SEALED SOURCE AMBIENT EXPOSURE SURVEY

Meter: LUDLUM GM

Max Reading 0.04 mR/hr

RADIATION SAFETY OFFICER: \_\_\_\_\_

**Sealed Source Leak Test**

Licensee: Cardiovascular Consultants (Shelby Twp)

Date: 10/31/07

Performed by: Cari Dzanbazoff

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	206.1 uCi	10/01/02	Hot Lab	IPL	934-57-24
Ba-133	Vial	266.9 uCi	11/01/02	Hot Lab	IPL	958-10-10
Co-57	Flood	10 mCi	06/01/06	Img Rm	NES849610M	1185-058

Comment: The sources listed above were leak tested using a dry wipe technique and were found to have less than 0.005 uCi removable activity. The following Minimum Detectable Activities are based upon a background at the indicated value. Background was at or below these levels when the above tests were completed.

Well Counter: Captus 3000

Nuclide	MDA	Background
Cs-137	$2.0 \times 10^{-4}$ uCi	145 counts/1 min
Ba-133	$8.8 \times 10^{-5}$ uCi	204 counts/1 min
Co-57	$1.7 \times 10^{-5}$ uCi	53 counts/1 min

RADIATION SAFETY OFFICER:

  
Sealed Source Leak Test Page 1

**PACKING LIST  
TRANSFER SHIPMENT OF SEALED SOURCE(S)**

**FROM: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
8180 26 Mile Road  
Shelby Twp., MI 48316**

**To: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
37771 Schoenherr  
Sterling Heights, MI 48312**

*Co-57 Flood Source*

Activity of source at shipment: 239 mCi

Manufacturer of source: New England Nuclear

Model number: 849610M

Serial number(s): 1185-058

Label activity shown on source: 10 mCi

Date shown on source: 6/1/06

Date last leak tested: 10-31-07

Method of leak test: wipe test Other: (check one, if other  
Is checked please explain on the other side of this page.)

Result less than 5mCi? YES

Certified by:

<u>CHIEF TECH</u>	<u>Linda Scott</u>	<u>LINDA SCOTT</u>
(Title)	(Signature)	(Print Name)

Daytime Phone# : 586-292-8247 Date: 12-12-07



**PACKING LIST  
TRANSFER SHIPMENT OF SEALED SOURCE(S)**

**FROM: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
8180 26 Mile Road  
Shelby Twp., MI 48316**

**To: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
37771 Schoenherr  
Sterling Heights, MI 48312**

*B8-133 Dose Calibrator - Vial*

Activity of source at shipment: 0.19057 mCi

Manufacturer of source: LPL

Model number: Evig

Serial number(s): 956-10-10

Label activity shown on source: 0.2669 mCi

Date shown on source: 11/1/02

Date last leak tested: 10-31-07

Method of leak test: wipe test Other: (check one, if other  
Is checked please explain on the other side of this page.)

Result less than 5mCi? YES

Certified by:

CHIEF TECH Linda Scott LINDA SCOTT  
(Title) (Signature) (Print Name)

Daytime Phone#: 586-292-8247 Date: 12-12-07

**PACKING LIST  
TRANSFER SHIPMENT OF SEALED SOURCE(S)**

**FROM: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
8180 26 Mile Road  
Shelby Twp., MI 48316**

**To: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
37771 Schoenherr  
Sterling Heights, MI 48312**

*CS-137 Pac. Calibrator Vial*

Activity of source at shipment: 0,18279 mCi

Manufacturer of source: IPL

Model number: E vial

Serial number(s): 934-57-24

Label activity shown on source: 0.2061 mCi

Date shown on source: 10/1/02

Date last leak tested: 10-31-07

Method of leak test: wipe test Other: (check one, if other  
Is checked please explain on the other side of this page.)

Result less than 5mCi? YES

Certified by:

<u>CHIEF TECH</u>	<u>Linda Scott</u>	<u>LINDA SCOTT</u>
(Title)	(Signature)	(Print Name)

Daytime Phone#: 586-292-8247 Date: 12-12-07

**PACKING LIST  
TRANSFER SHIPMENT OF SEALED SOURCE(S)**

**FROM: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
8180 26 Mile Road  
Shelby Twp., MI 48316**

**To: Cardiovascular Consultants, P.C.  
Attn: Nuclear Medicine Dept.  
37771 Schoenherr  
Sterling Heights, MI 48312**

<i>CS-137 Rod Source</i>		
Activity of source at shipment:	<u>0.441 uCi</u> mCi	
Manufacturer of source:	<u>IPL</u>	
Model number:	<u>Rod</u>	
Serial number(s):	<u>854-47-1</u>	
Label activity shown on source:	<u>0.5 uCi</u> mCi	
Date shown on source:	<u>8/1/02</u>	
Date last leak tested:	<u>10-3-07</u>	
Method of leak test:	<input checked="" type="checkbox"/> <u>wipe test</u> Other: (check one, if other Is checked please explain on the other side of this page.)	
Result less than 5mCi?	<u>YES</u>	
Certified by:		
<u>CHIEF TECH</u> (Title)	<u>Linda Scott</u> (Signature)	<u>LINDA SCOTT</u> (Print Name)
Daytime Phone# : <u>586-292-8247</u>	Date: <u>12-12-07</u>	

CARDIOVASCULAR  
CONSULTANTS P.C.

37771 Schoenherr Rd., Ste 103  
Sterling Heights, MI 48312

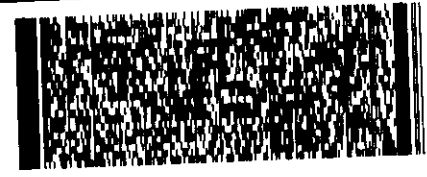
UNITED STATES NUCLEAR REGULATORY COMMISSION  
REGION III, MATERIALS LICENSING SECTION  
2443 WARRENVILLE ROAD  
SUITE 210  
LISLE, IL 60532-4352

From  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



Sender's Name LINDA SOOTT Phone (586) 274-2450  
Company CARDIOVASCULAR CONSULTANTS  
Address 37771 SCHOGENHERR  
Address SUITE #101  
City STERLING HEIGHTS State MI ZIP 48312  
To Recipient's Name NRC Phone 800,522-3025  
Company REGION III MATERIALS LICENSING SECTION  
Address 2443 WARRENVILLE ROAD  
Address SUITE 210  
City LISLE State IL ZIP 60532-4852

From: \_\_\_\_\_  
Ship Date: 09JAN08  
ActWt: 0.35 LB  
System#: 9612/POSB.40K  
Account: S \*\*\*\*\*  
Part #: 15627-438  
(586)274-2450  
TO NRC REGION 3  
Materials Licening Section  
2443 WARRENVILLE ROAD  
SUITE 210  
LISLE, IL 60532 (US)  
Ref: \_\_\_\_\_  
Inv: \_\_\_\_\_  
PO: \_\_\_\_\_ Dept: \_\_\_\_\_



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