



Cardiovascular Associates, P.C.



Nuclear Cardiology
Accredited Nuclear
Cardiology Laboratory



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September 4, 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 Warren Location: 27472 Schoenherr, Suite 140

Dear Sir/Madam:

Please amend our NRC license to remove the following location of radioactive use:

**27472 Schoenherr
Suite 140
Warren, MI**

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

If you have any questions or require additional information please contact our Radiation Safety Officer, Cari Dzanbazoff, at (734) 662-3197.

Sincerely,

Juan Rojas, M.D.

Executive Management
Cardiovascular Associates, P.C.

RECEIVED SEP 2 1 2007

Close-out Survey Information

Close-out Location:

Cardiovascular Associates, P.C
27472 Schoenherr
Suite 140
Warren, MI

Date Performed: September 4, 2007

Performed By: Cari Dzanbazoff, Medical Physics Consultants Inc.

Comments: All equipment and sealed sources were properly transferred to the new Warren location.

Instruments:

Wipes for contamination performed with the following well counter:

Manufacturer: Capintec
Model Number: Captus 3000
Serial Number: 900271
Efficiency Factor: 6.6 dpm/cpm

Area survey performed with the following survey meter:

Manufacturer: Ludlum
Type: GM
Model Number: Model 14 C
Serial Number: 152861
Probe Model: End Window
Calibration Date: 11/08/07

Battery check acceptable:	<u>YES</u>
Operational check acceptable:	<u>YES</u>
Constancy check acceptable:	<u>YES</u>
Check source value:	<u>6.0 mR/hr</u>

Radionuclides Used:

Unsealed

Tc-99m, Tl-201

Sealed

Cs-137, Co-57, Ba-133 (leak test 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 88 dpm's.

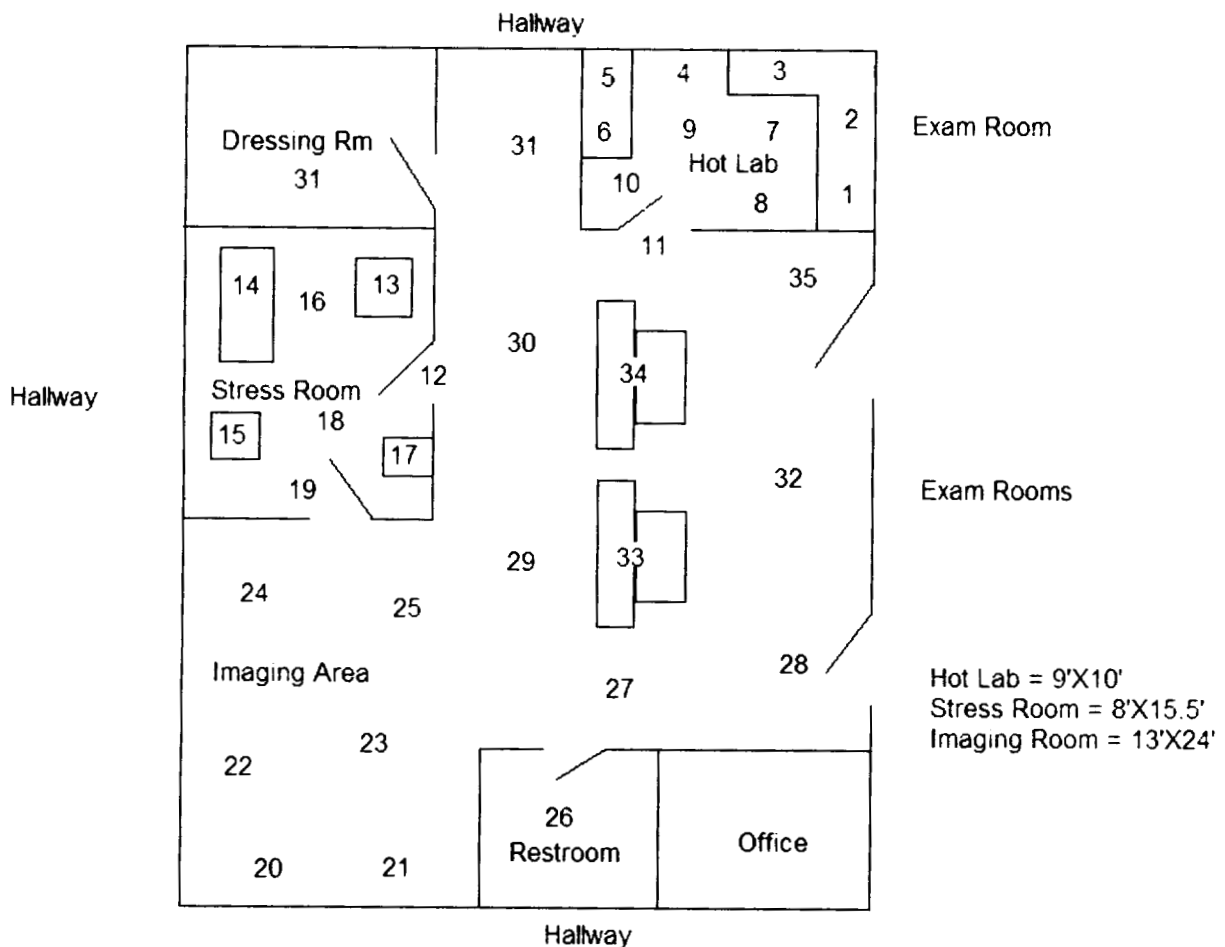
Sealed Sources: All sealed sources were properly transferred to the new Warren location.

Surveys, Wipes, and Diagrams are enclosed for review.

CLOSEOUT DIAGRAM

CARDIOVASCULAR ASSOCIATES, P.C.
27472 Schoenherr
Suite 140
Warren, MI

NORTH ↑



Single Story Location

Survey and Wipe Results Attached
Sealed Source Leak Test Attached

Medical Physics Consultants, Inc.

Sealed Source Leak Test

Licensee: Cardiovascular Associates (Warren)

Date: 07/09/07

Performed by: Aarti Patel

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	226 uCi	06/27/98	Hot Lab	NES-356	356037047
Ba-133	Vial	274 uCi	02/14/00	Hot Lab	NES-358	358027048
Co-57	Flood	10 mCi	08/01/05	Hot Lab	IPL	1127-075

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	2.0×10^{-4} uCi	145 counts/1 min
Ba-133	8.8×10^{-5} uCi	204 counts/1 min
Co-57	1.7×10^{-5} uCi	53 counts/1 min

RADIATION SAFETY OFFICER:

Sealed Source Leak Test Page 1

Medical Physics Consultants, Inc.

Sealed Source Inventory

Licensee: Cardiovascular Associates (Warren)

Date: 07/09/07

Performed by: Aarti Patel

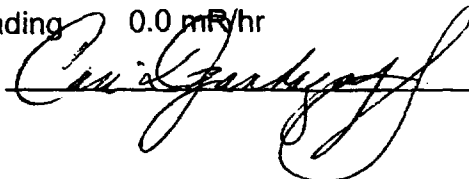
Nuclide	Type	Calibration		Location	M/N	S/N
		Activity	Date			
Cs-137	Vial	226 uCi	06/27/98	Hot Lab	NES-356	356037047
Ba-133	Vial	274 uCi	02/14/00	Hot Lab	NES-358	358027048
Co-57	Flood	10 mCi	08/01/05	Hot Lab	IPL	1127-075
Cs-137	Rod	0.099 uCi	04/15/98	Hot Lab	Dupont	

SEALED SOURCE AMBIENT EXPOSURE SURVEY

Meter:

Max Reading 0.0 mR/hr

RADIATION SAFETY OFFICER:



Cardiovascular Associates - Warren Location

License # 21-15166-01

Date: 09/04/2007

Performed By: Cari Dzanbazoff

Survey Meter: Ludlum 14C
Serial Number: 152861
Calibration Date: 11/08/2006

Well Counter: Capintec
Model: Captus 3000
Serial Number: 900271

		cpm (5 minute count)	net dpm	mR/h
1	package receipt area	489	0	0.02
2	dose drawing area	551	244	0.02
3	well counter area	508	0	0.02
4	waste storage area	503	0	0.02
5	counter top	504	0	0.02
6	sink	506	0	0.02
7	floor	547	218	0.02
8	floor	489	0	0.02
9	floor	492	0	0.02
10	floor	513	0	0.02
11	floor	504	0	0.02
12	floor	538	158	0.02
13	chair	554	264	0.02
14	treadmill	489	0	0.02
15	equipment	526	79	0.02
16	floor	494	0	0.02
17	counter top	556	277	0.02
18	floor	558	290	0.02
19	floor	471	0	0.02
20	floor	471	0	0.02
21	floor	476	0	0.02
22	floor	507	0	0.02
23	floor	471	0	0.02
24	floor	534	132	0.02
25	floor	514	0	0.02
26	floor	552	251	0.02
27	floor	558	290	0.02
28	floor	510	0	0.02
29	floor	509	0	0.02
30	floor	475	0	0.02
31	floor	517	20	0.02
32	floor	513	0	0.02
33	desk	490	0	0.02
34	desk	506	0	0.02
35	floor	543	191	0.02
	background	514		0.02

ACTION LEVELS: 1000 dpm/100 cm sq

Efficiency Factor = 6.6 dpm/cpm
 Full Spectrum

COMMENTS: No evidence of removable contamination.

CARD



SOUTHFIELD, MI 48034



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