



**Cardiovascular Associates, P.C.**



Nuclear Cardiology  
Accredited Nuclear  
Cardiology Laboratory



ICAEL  
Accredited Echocardiography  
Laboratory



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June 26, 2009

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

Re: Amendment for NRC License #21-15266-01  
Close CVA - Sterling Heights Location

Dear Sir/Madam:

We currently have an amendment request in the possession of the NRC to remove an address of use in West Bloomfield, Michigan.

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 please expedite this request.

**Cardiovascular Associates, P.C.**  
**43184 Dequindre Road, Suite 201**  
**Sterling Heights, MI 48314**

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 Consultant and Radiation Safety Officer, Cari Dzanbazoff, at (734) 662-3197.

Sincerely,

Juan Rojas, M.D.  
Executive Management  
Cardiovascular Associates, P.C.

RECEIVED JUL 06 2009

## Close-out Survey Information

### Close-out Location:

Cardiovascular Associates, P.C.  
43184 Dequindre Road, Suite 201  
Sterling Heights, MI 48314

**Date Performed:** June 23, 2009

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

**Comments:** Hot lab equipment and radioactive sealed sources were properly transferred to the Warren location. Sealed source leak test is enclosed.

No radioactivity had been received at the facility since 5/26/09.

### 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: 230200  
Probe Model: Pancake Probe  
Calibration Date: 07/07/2008

Battery check acceptable: YES  
Operational check acceptable: YES  
Constancy check acceptable: YES  
Check source value: 8.0 mR/hr

**Radionuclides Used:**

**Unsealed**

Tc-99m, Tl-201

**Sealed**

Ba-133, Co-57, Cs-137

All sealed sources were properly transferred to the Warren location.

Sealed source leak tests enclosed.

**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.

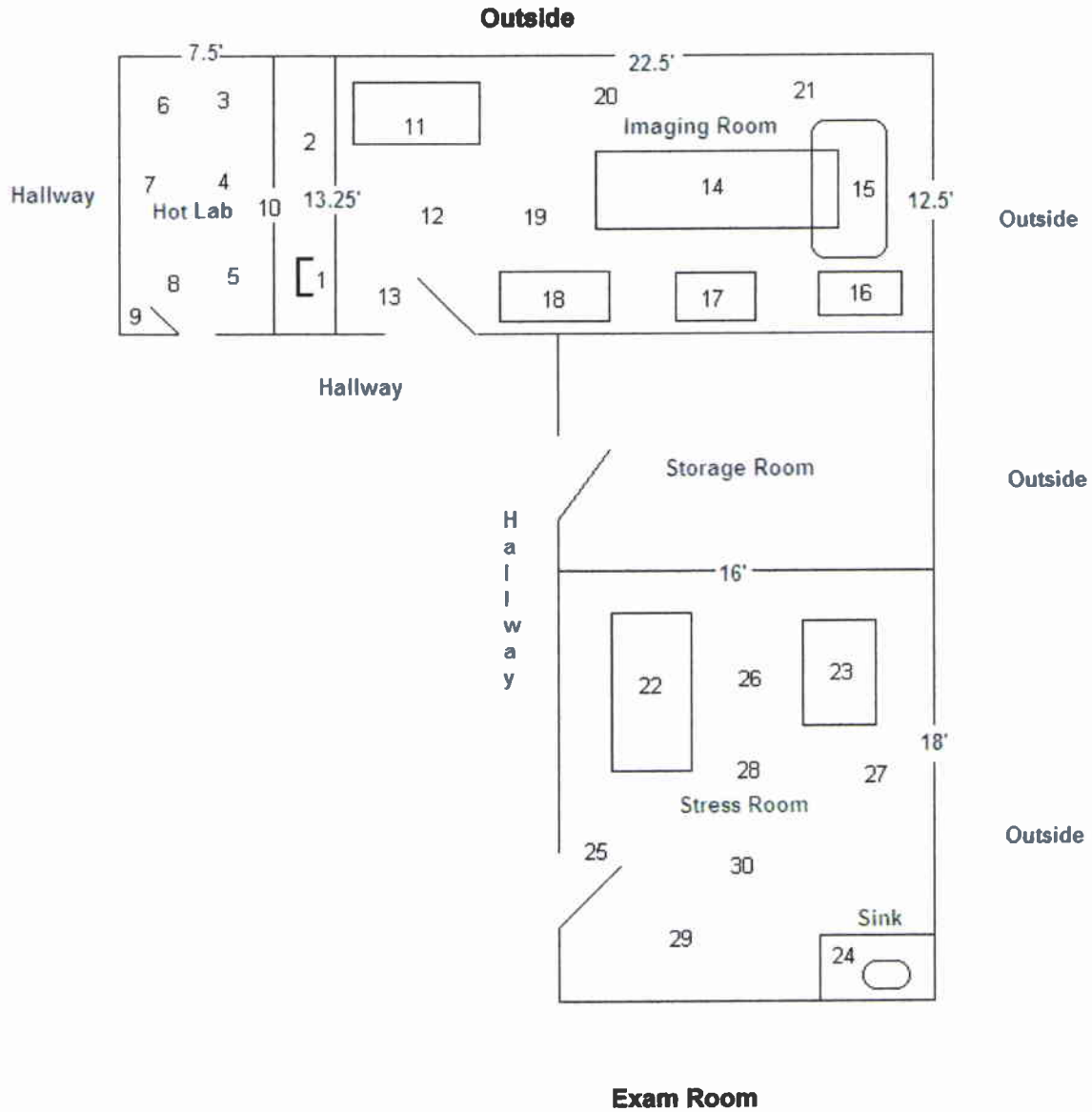
**Sealed Sources:** All sealed sources were properly transferred to the Warren location.

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

# CLOSEOUT DIAGRAM

**Cardiovascular Associates, P.C.**  
**43184 Dequindre Road, Suite 201**  
**Sterling Heights, MI 48314**

NORTH ↑



**This is a single level facility. There are no specific room numbers for the areas indicated.**



**Medical Physics Consultants, Inc****Sealed Source Leak Test**Licensee: Cardiovascular Associates, P.C. Sterling HeightsDate: 03/31/09

Performed by:

Aarti Patel

Nuclide	Type	Calibration		Location	M/N	S/N
		Activity	Date			
Cs-137	Vial	202.4 uCi	07/01/05	Hot Lab	IPL	1111-95-17
Current Activity: 185.60uCi						
Ba-133	Vial	266.4 uCi	07/01/05	Hot Lab	IPL	1124-34-3
Current Activity: 209.14uCi						
Co-57	Flood	10 mCi	06/01/05	Hot Lab	NES-392	1121-189
Current Activity: 0.279mCi						

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	$1.7 \times 10^{-6}$ uCi	53 counts/1 min

RADIATION SAFETY OFFICER


  
Sealed Source Leak Test Page 1



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