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Mary Zook, RN

**Cardiovascular  
Consultants**  
of Southern Delaware



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REC PG 1 02 13 18 AM 06:55

February 5, 2018

U. S. Nuclear Regulatory Commission  
Region I  
2100 Renaissance Blvd, Suite 100  
King of Prussia, PA 19406-2713

Re: License No. 07-27897-01 – Cardiovascular Consultants of Southern Delaware, LLC.

To Whom It May Concern,

We, Cardiovascular Consultants of Southern Delaware LLC, License Number 07-27897-01, wish to amend our radioactive materials license to reflect the following:

- We would like to discontinue services at 35141 Atlantic Avenue #3, Millville, Delaware.
- All sealed radioactive sources have been removed from the location and are currently maintained at 16704 Kings Highway, Lewes, Delaware 19958.
- All day to day nuclear cardiology services have ceased at the location 35141 Atlantic Avenue #3, Millville, Delaware.
- We would like to designate the nuclear cardiology camera room, stress room and hot lab at 35141 Atlantic Avenue #3, Millville, Delaware as unrestricted for general use.
- Please see the attached results of the survey and wipe tests.
- Operations at 16704 Kings Highway, Lewes, De. 19958 remain active as currently licensed.
- Please see the attached calibration certificate for the survey meter used in close-out surveys.
- Please see attached sealed source leak test of the sources transported from 35141 Atlantic Avenue.

If you have any questions regarding this amendment, please contact our health physics consultant, Adam M. Henry at 1.866.755.2756 x703.

Regards,

Barry S. Denenberg, M.D.  
Radiation Safety Officer

Enclosure: Survey Results, Calibration Report, Leak Test

602405  
NUCLEAR MATERIALS-002

**Lewes Office:**

16704 Kings Highway  
Lewes, DE 19958-4929

302-645-1233 phone  
302-645-1228 fax

**Millville Office:**

35141 Atlantic Avenue, Unit 3  
Millville, DE 19970-6954

302-541-8138 phone  
302-541-8425 fax

[www.cvcde.com](http://www.cvcde.com)

**Cardiovascular Consultants of Souther Delaware, LLC**  
**35141 Atlantic Avenue #3**  
**Millville, Delaware**  
CLOSE-OUT AREA SURVEY

**LICENSE NUMBER:** 07-27897-01

**Date:** 1/30/2018

**SURVEY METER:**

Ludlum 14 C
SN: 164891
Calibration Date: 4/17/2017

**Battery Check:**

ok
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**Check Measurement:**

2.0
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 mR/hr  
**Expected Check Measurement:**

2.0
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 mR/hr  
**Background Measure:**

0.02
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 mR/hr


*Surveys performed at a distance of 1-2 inches off of surface*

	<b>Measurement</b> <b>mR/hr</b>
<b>Nuclear Imaging Lab</b>	
Floor - Camera Area	0.02
Floor - Inside Doorway	0.02
Light Switches (all)	0.02
Telephone Handles	0.02
Counter Surfaces	0.02
Drawers (inside/out)	0.02
Camera Table	0.02

<b>Stress Room</b>	
Door Handles (all) (in & out)	0.02
Light Switches (all)	0.02
Telephone Handle	0.02
Injection Chair	0.02
Treadmill	0.02
Floor - Near Treadmill	0.02
Floor - Outside Hotlab	0.02

<b>Hot Lab</b>	
Counter Surfaces	0.02
Floor	0.02
Glass Cabinet Surface	0.02
Glass Cabinet Inside	0.02
Sink (including handles)	0.02
Light Switch	0.02
Door Handles	0.02

Survey Performed By: Kim Robles  
 Nuclear Medicine Technologist

Reviewed By:   
 Radiation Safety Officer

**Cardiovascular Consultants of Souther Delaware, LLC**  
**35141 Atlantic Avenue #3**  
**Millville, Delaware**

CLOSE-OUT AREA WIPE

**LICENSE NUMBER:** 07-27897-01

**Date:** 1/30/2018

**INSTRUMENT USED:**

**WELL:** Ludlum 2200

**WELL EFFICIENCY (<sup>137</sup>Cs):** 35.5%

**SN:** 128309

**BACKGROUND:** 531 CPM

**SETTING:** WIPE

*Wipe area - a minimum of 100 cm<sup>2</sup> (light switches door handles, entire surface)*

<u>WIPE LOCATION</u>	<u>COUNT TIME</u> (Sec)	<u>RESULTS</u> (CPM)	<u>RESULTS</u> (NET CPM)	<u>RESULTS</u> (DPM)
<b>Nuclear Imaging Lab</b>				
Floor - Camera Area	60	506	-25	-70
Floor - Inside Doorway	60	509	-22	-62
Light Switches (all)	60	521	-10	-28
Telephone Handles	60	523	-8	-23
Counter Surfaces	60	503	-28	-79
Drawers (inside/out)	60	508	-23	-65
Camera Table	60	499	-32	-90
<b>Stress Room</b>				
Door Handles (all) (in & out)	60	527	-4	-11
Light Switches (all)	60	523	-8	-23
Telephone Handle	60	506	-25	-70
Injection Chair	60	529	-2	-6
Treadmill	60	532	1	3
Floor - Near Treadmill	60	528	-3	-8
Floor - Outside Hotlab	60	519	-12	-34
<b>Hot Lab</b>				
Counter Surfaces	60	518	-13	-37
Floor	60	527	-4	-11
Glass Cabinet Surface	60	503	-28	-79
Glass Cabinet Inside	60	507	-24	-68
Sink (including handles)	60	511	-20	-56
Light Switch	60	517	-14	-39
Door Handles	60	513	-18	-51

Performed By:

Kim Robles

Nuclear Medicine Technologist

Reviewed By:

Radiation Safety Officer

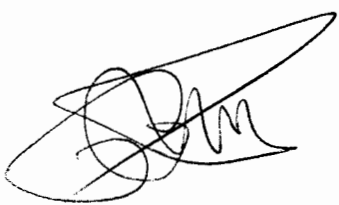
**Test Date & Time** : 02-06-2018 12:37  
**Instrument Model** : 2200  
**Serial #** : PR168747  
**Background** : 526.00 CPM  
**Instrum. Uniq#** : 4  
**Comment** :

**Technologist** : KIM ROBLES  
**Manufacturer** : Ludlum  
**Instrum Eff..** : 35.50 %  
**Trigger Level** : 0.005 uCi

#	Chemical Name	Model #	Serial #	Cal. Date	Predicted Act.	Wipe Result	Chemical Eff.	Corr. Factor	Removed Act	In Use
1	Co - 57	SRV-057-5M	14896-36-8	12-01-2017	4.6091 mCi	553 CPM	0.00	1.00	0.000034 uCi	Y
2	Cs - 137	BM06-37	BM0637-011-30	04-29-2005	153.5678 uCi	547 CPM	0.00	1.00	0.000027 uCi	N
3	Co - 57		1618-68-9	09-01-2013	0.0940 mCi	536 CPM	0.00	1.00	0.000013 uCi	N
4	Cs - 137		S139S037	01-13-2000	0.0726 uCi	539 CPM	0.00	1.00	0.000016 uCi	Y
5	Cs - 137		S356042-50	01-21-2000	135.3828 uCi	544 CPM	0.00	1.00	0.000023 uCi	Y
6	Co - 57	SFL24R-057-10M	1899-119	09-01-2016	2.6210 mCi	528 CPM	0.00	1.00	0.000003 uCi	Y
7	Co - 57	SFL18C05710M	1281-179	02-01-2008	0.0009 mCi	542 CPM	0.00	1.00	0.000020 uCi	N
8	Cs - 137		bm0837-010-5	07-06-2005	83.8513 nCi	535 CPM	0.00	1.00	0.000011 uCi	N

**This Report indicates that all above sealed sources have PASSED a Leak Test.**  
**Removed Activity for sources was below the 0.005 uCi NRC/STATE Trigger Limit**

Technologist Signature : Kim Robles



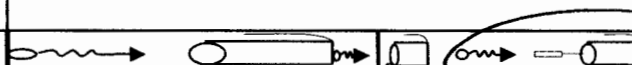
**Certificate of Calibration**

# A.M. Calibration Services

9600 Medical Center Drive  
 Rockville Md 20850  
 Phone:301-379-6013

[amcalibrationservices@gmail.com](mailto:amcalibrationservices@gmail.com)

<b>Meter Owner:</b>	<u>Cardiovascular Consultants</u>	<b>Manufacturer:</b>	<b>Ludlum</b>
<b>Calibration Date:</b>	4/17/2017	<b>Model Number:</b>	14-C
<b>Calibration Due Date:</b>	4/17/2018	<b>Serial Number:</b>	164891

<b>Location</b>	
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**AM Calibration Radioactive Material License: MD-31-206-01**

Inspection Item	
Batteries Changed	no
Internal Adjustment	no

**Instrument Calibration Information**

**Probe:**                      *44-7*                      **168492**                      **w/cap**

Instrument Scale	mR/hr		CF	Scale
	Exposure	True Reading		
x 1000.0	1100	1330	1.209	1.092
x "	340	331	973.000	"
x 100.0	150	147	0.980	1.100
x "	30	36.6	1.220	"
x 10.0	11.8	13.1	1.110	1.055
x "	3.4	3.4	1.000	"
x 1.0	1.5	1.5	1.000	0.962
x "	0.4	0.37	0.925	"
x 0.1	0.14	0.14	1.000	1.000
x "	0.075	0.075	1.000	"
Check Source Reading =			2.0mR/hr	

**This certifies that the instrument above was calibrated with a Cs-137 source, Shepherd Model 28-6 #10258-300mCi. Exposure rate for this source has been verified with instrumentation whose calibration is traceable to NIST standards. Measurements were made with CNMC Company electrometer Model 206 and Capintec Model PM30 (30 cc) cylindrical ionization chamber. And in accordance with ANSI-N323 and as recommended by manufacturer.**

Calibrated By: Andrew J McAleer





ACKNOWLEDGEMENT - RECEIPT OF CORRESPONDENCE

<b>Name and Address of Applicant and/or Licensee</b>  Cardiovascular Consultants of Southern Delaware, LLC ATTN: Kimberly Robles, Cardiac Testing Manager 16704 Kings Highway Lewes, DE 19958	<b>Date</b> February 16, 2018
	<b>License Number(s)</b> 07-27897-01
	<b>Mail Control Number(s)</b> 602405
	<b>Licensing and/or Technical Reviewer or Branch</b> Medical Branch

This is to acknowledge receipt of your:  Letter and/or  Application Dated: 02/05/2018

The initial processing, which included an administrative review, has been performed.  
 Amendment  Termination  New License  Renewal

There were no administrative omissions identified during our initial review.

This is to acknowledge receipt of your application for renewal of the material(s) license identified above. Your application is deemed timely filed, and accordingly, the license will not expire until final action has been taken by this office.

Your application for a new NRC license did not include your taxpayer identification number. Please complete and submit NRC Form 531, Request for Taxpayer Identification Number, located at the following link: <http://www.nrc.gov/reading-rm/doc-collections/forms/nrc531.pdf>  
Follow the instructions on the form for submission.

The following administrative omissions have been identified:

Your application has been assigned the above listed MAIL CONTROL NUMBER. When calling to inquire about this action, please refer to this control number. Your application has been forwarded to a technical reviewer. Please note that the technical review, which is normally completed within 180 days for a renewal application (90 days for all other requests), may identify additional omissions or require additional information. If you have any questions concerning the processing of your application, our contact information is listed below:

Region I  
U. S. Nuclear Regulatory Commission  
Division of Nuclear Materials Safety  
2100 Renaissance Boulevard, Suite 100  
King of Prussia, PA 19406-2713  
(610) 337-5260, (610) 337-5313,  
(610) 337-5398, or (610) 337-5239