

**Advanced
Cardiology** PLLC

Advanced Cardiology, PLLC

1200 E. Michigan, Suite 780

Lansing, MI 48912

Phone: (517) 484-9000

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Paul Zack, M.D., Mohan Madala M.D., Katherine Carlson FNP-C, Tracy Pride PA-C, Stacey Rivet FNP-C

01/17/11

United States Nuclear Regulatory Commission
Region III, Materials Licensing
2443 Warrenville Road, Suite 210
Lisle, IL 60532-4352

**RE: Termination of NRC License No. 21-32569-01
 Advanced Cardiology, PLLC**

Dear Sir/Madam:

The purpose of this letter is to terminate our NRC license. A close-out survey of the nuclear department was performed on January 10, 2011 of 1200 E. Michigan, Suite 780, Lansing, MI and is enclosed for your review.

The last date of receipt and use of radioactive material at this site was December 22, 2010. A current copy of the leak test results for the sealed sources used at our facility is enclosed for your review. Sealed sources were removed from our department for transfer to the location of 401 Greenlawn Avenue, Lansing, MI 48910 listed on NRC license #21-04073-01 prior to performing the close-out survey. As required, NRC Form 314 is enclosed.

Thank you for your cooperation. If you have any questions or require additional information, please contact our physics consultant, Sharon Updike at 734-662-3197.

Respectfully Yours,


Executive Management
Advanced Cardiology, PLLC

RECEIVED JAN 18 2011

Sealed Source Inventory

Licensee: Advanced Cardiology, PLLC

Date: 11/03/10

Performed by: Sharon Updike


Calibration						
Nuclide	Type	Activity	Date	Location	M/N	S/N
Cs-137	Vial	198.2 uCi	02/01/06	Hot Lab		1140-96-10
Current Activity: 177.58 uCi						
Ba-133	Vial	243.1 uCi	02/01/06	Hot Lab		1159-70-1
Current Activity: 178.86 uCi						
Cs-137	Rod	0.5 uCi	01/01/06	Hot Lab		1140-82-37
Current Activity: 0.447 uCi						
Cs-137	Button	1 uCi	08/01/05	Meter		1885
Current Activity: 0.886 uCi						
Cs-137	Button	1 uCi	08/01/05	Meter		2521
Current Activity: 0.886 uCi						
Co-57	Flood	10 mCi	02/01/06	Hot Lab	IPL	1154-049
Current Activity: 0.118 mCi						

SEALED SOURCE AMBIENT EXPOSURE SURVEY

Meter:

Max Reading:

RADIATION SAFETY OFFICER: _____



Sealed Source Leak Test

 Licensee: Advanced Cardiology, PLLC

 Date: 11/03/10

 Performed by: Sharon Updike

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	198.2 uCi	02/01/06	Hot Lab		1140-96-10
Current Activity: 177.58 uCi						
Ba-133	Vial	243.1 uCi	02/01/06	Hot Lab		1159-70-1
Current Activity: 178.86 uCi						
Co-57	Flood	10 mCi	02/01/06	Hot Lab	IPL	1154-049
Current Activity: 0.118 mCi						

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: _____

(4-2008)
10 CFR 30.36(j)(1); 40.42(j)(1);
70.38(j)(1); and 72.54(k)(5)(1)(1)

CERTIFICATE OF DISPOSITION OF MATERIALS

Estimated burden per response to comply with this mandatory collection request: 30 minutes. This submittal is used by NRC as part of the basis for its determination that the facility is released for unrestricted use. Send comments regarding burden estimate to the Records and FOIA/Privacy Services Branch (T-5 F52), U.S. Nuclear Regulatory Commission, Washington, DC 20555-0001, or by internet e-mail to infocollect@nrc.gov, and to the Desk Officer, Office of Information and Regulatory Affairs, NEOB-10202, (3150-0028), Office of Management and Budget, Washington, DC 20503. If a means used to impose an information collection does not display a currently valid OMB control number, the NRC may not conduct or sponsor, and a person is not required to respond to, the information collection.

LICENSEE NAME AND ADDRESS

Advanced Cardiology, PLLC
1200 East Michigan
Lansing, MI 48912

LICENSE NUMBER

21-32569-01

DOCKET NUMBER

LICENSE EXPIRATION DATE

05/31/2020

- ☐ This license has expired. ☒ **A. LICENSE STATUS (Check the appropriate box)**
☒ This license has not yet expired; please terminate it.

B. DISPOSAL OF RADIOACTIVE MATERIAL

(Check the appropriate boxes and complete as necessary. If additional space is needed, provide attachments)

The licensee, or any individual executing this certificate on behalf of the licensee, certifies that:

- ☐ 1. No radioactive materials have ever been procured or possessed by the licensee under this license.
- ☒ 2. All activities authorized by this license have ceased, and all radioactive materials procured and/or possessed by the licensee under this license number cited above have been disposed of in the following manner:
- ☒ a. Transfer of radioactive materials to the licensee listed below:
On January 11, 2011 to Ingham Regional Medical Center, NRC license #21-04073-01 Contact Name: Kim Grove 517-975-6376
- ☐ b. Disposal of radioactive materials:
- ☐ 1. Directly by the licensee:
- ☐ 2. By licensed disposal site:
- ☐ 3. By waste contractor:
- ☒ c. All radioactive materials have been removed such that any remaining residual radioactivity is within the limits of 10 CFR Part 20, Subpart E, and is ALARA.

C. SURVEYS PERFORMED AND REPORTED

- ☒ 1. A radiation survey was conducted by the licensee. The survey confirms:
- ☒ a. the absence of licensed radioactive materials
- ☒ b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.
- ☒ 2. A copy of the radiation survey results:
- ☒ a. is attached; or ☐ b. is not attached (Provide explanation); or ☐ c. was forwarded to NRC on: _____ Date _____
- ☐ 3. A radiation survey is not required as only sealed sources were ever possessed under this license, and
- ☐ a. The results of the latest leak test are attached; and/or ☐ b. No leaking sources have ever been identified.

The person to be contacted regarding the information provided on this form:

NAME	TITLE	TELEPHONE (Include Area Code)	E-MAIL ADDRESS
Paul Zack MD	Medical Director	(517) 347-3000	jlyon91@yahoo

Mail all future correspondence regarding this license to:

ICG 2134 Hampton Place Okemos, MI 48864

C. CERTIFYING OFFICIAL

I CERTIFY UNDER PENALTY OF PERJURY THAT THE FOREGOING IS TRUE AND CORRECT

PRINTED NAME AND TITLE

Paul Zack MD

SIGNATURE

DATE

01/17/2011

WARNING: FALSE STATEMENTS IN THIS CERTIFICATE MAY BE SUBJECT TO CIVIL AND/OR CRIMINAL PENALTIES. NRC REGULATIONS REQUIRE THAT SUBMISSIONS TO THE NRC BE COMPLETE AND ACCURATE IN ALL MATERIAL RESPECT. 18 U.S.C. SECTION 1001 MAKES IT A CRIMINAL OFFENSE TO MAKE A WILLFULLY FALSE STATEMENT OR REPRESENTATION TO ANY DEPARTMENT OR AGENCY OF THE UNITED STATES AS TO ANY MATTER WITHIN ITS JURISDICTION.

Close-out Survey

Date performed: 01/10/11 **Performed by:** Jenny Lyon, CNMT

Comments: Sealed sources and radioactive waste were removed from our department for transfer to the location of 401 Greenlawn Avenue, Lansing, MI 48910 listed on NRC license #21-04073-01 prior to performing the close-out survey. As required, NRC Form 314 is enclosed.

Instruments

Wipe tests analyzed with a Capintec CRC15W
Well Counter s/n: 171535

Radionuclide: Cobalt-57 MDA for Co-57: 145 dpm
Date Efficiency performed: 11/03/10 Conversion factor: 1.15 dpm / cpm

Area survey performed with the following survey meter:

Manufacturer: Ludlum
Type: GM
Model Number: 14C
Serial Number: 223787
Probe Model: 44-7
Annual Calibration Performed: 08/09/10
Battery check acceptable: YES
Operational check acceptable: YES
Current reading: 0.8 mR/hr

Radionuclides Used

Unsealed

Tc99m
TI-201

Sealed

Co-57, Ba-133, Cs-137

Last date of byproduct radiopharmaceutical use: 12/22/10

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

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Sealed Source Leak Testing: No history of leaks from Sealed Sources.

Radiation Level Survey: No area within the department demonstrated radiation levels in excess of 0.03 mR/hr.

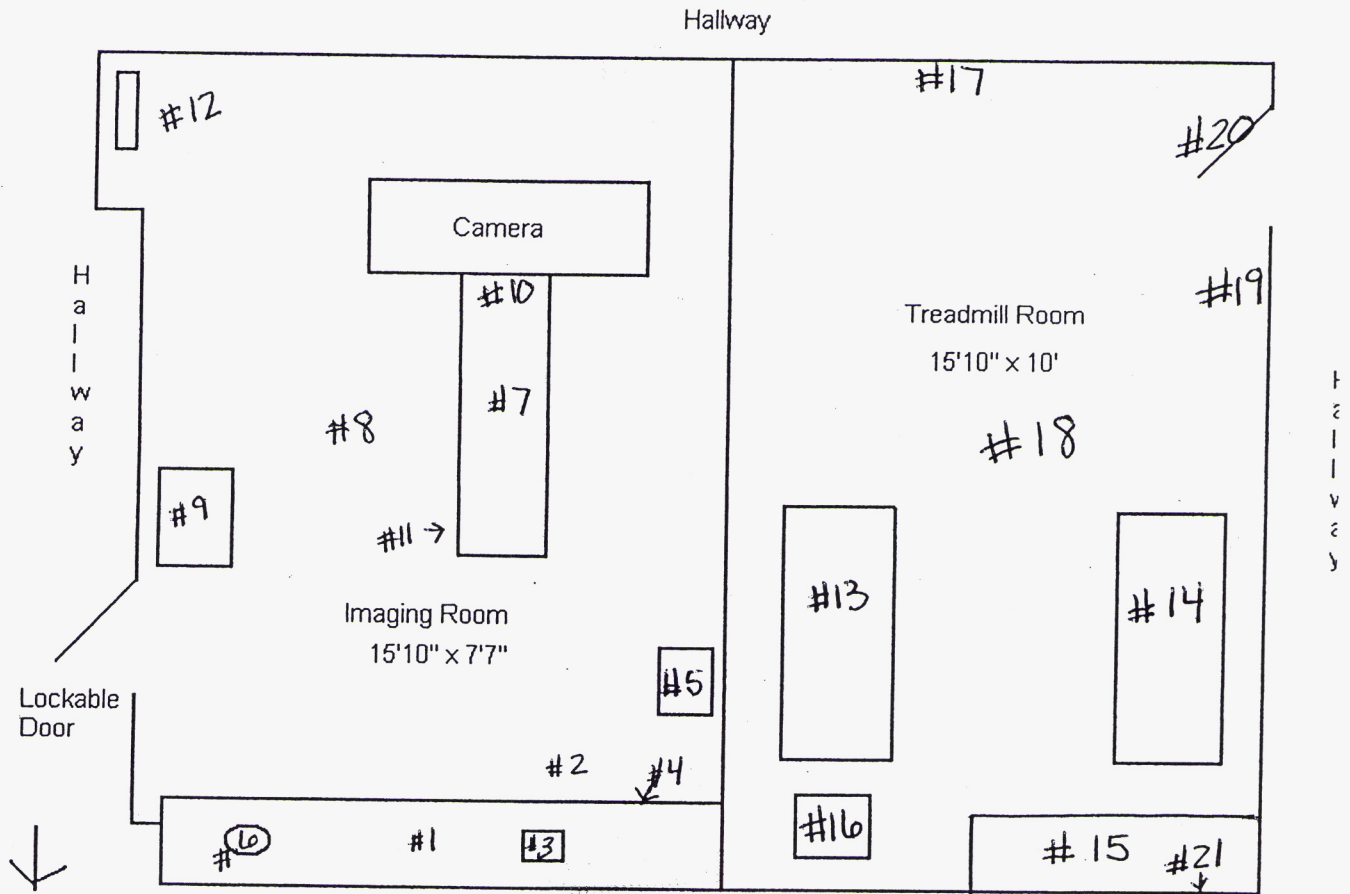
Removable Contamination: No area within the department demonstrated removable contamination in excess of 16.8 dpm's.

Hot Lab, Imaging, and Stress Areas

See Diagram Attachment

Conclusion: No radioactive materials remain in these areas. No removable contamination is present.

Advanced Cardiology, PLLC
 Sparrow Professional Building
 1200 E. Michigan, Suite 780
 Lansing, MI 48912
 License Number 21-32569-01



Hot Lab

1. Counter
2. Floor
3. Lead Shield
4. Dose Cupboard
5. Injection Chair
6. Computer

Imaging Area

7. Camera Table
8. Floor
9. Computer
10. Arm Support
11. EKG Machine
12. Flood Source Dose Holder

Stress Lab

13. Treadmill
14. Patient Bed
15. Counter
16. Computer
17. Sharps Box
18. Floor
19. Walls
20. Door
21. Cupboards

Advanced Cardiology, PLLC

License # 21-32569-01

CLOSEOUT SURVEY RESULTS

Date: 1/10/2011

Performed By: Jenny Lyon

Background mR/h: 0.03

	AREA	net dpm	mR/h
1	Hot Lab	7.00	0.03
2	Hot Lab	4.20	0.03
3	Hot Lab	1.40	0.03
4	Hot Lab	7.00	0.02
5	Hot Lab	5.60	0.03
6	Hot Lab	15.40	0.03
7	Imaging Area	8.40	0.01
8	Imaging Area	9.80	0.03
9	Imaging Area	0 dpm	0.03
10	Imaging Area	12.60	0.02
11	Imaging Area	16.80	0.03
12	Imaging Area	8.40	0.03
13	Stress lab	9.80	0.01
14	Stress lab	5.70	0.03
15	Stress lab	6.20	0.03
16	Stress lab	0 dpm	0.03
17	Stress lab	0 dpm	0.02
18	Stress lab	7.00	0.03
19	Stress lab	1.40	0.03
20	Stress lab	8.40	0.03
21	Stress lab	1.40	0.03

ACTION LEVELS: 2000 dpm**< 0.2 mR/hr****COMMENTS: No evidence of removable contamination.**

From: (517) 334-2285 Origin ID: LANA
 RANDY ISHAM
 INGHAM REGIONAL MEDICAL CENTER
 401 W GREENLAWN
 LANSING, MI 48910



J11101012220225

Ship Date: 17JAN11
 ActWgt: 1.0 LB
 CAD: 1973714/INET3130

Delivery Address Bar Code

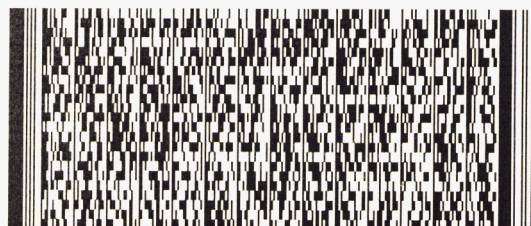


SHIP TO: (111) 111-1111 **BILL SENDER**
MATERIALS LICENSING BRANCH
U.S. NUCLEAR REG. COMMISSION
2443 WARRENVILLE RD STE 210
--- REGION 111
LISLE, IL 60532

Ref #
 Invoice #
 PO #
 Dept #

TUE - 18 JAN A1
PRIORITY OVERNIGHT

TRK# 7966 6210 7188
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