9-30-09

United States Nuclear Regulatory Commission Region III, Materials Licensing Section 2443 Warrenville Rd, Suite 210 Lisle, 1L 60532-4352

Fax # 630-515-1078

From: Dawn Edwards, M.P.C. Dr. Kelen

Re: Termination and closeout of license number 21-32560-01, George J. Kelen, M.D., PLLC

# pages \_ 8

Questions: please call 6/6-8/8-8740

T WYSE				
NRC FORM 314 U.S. NUCLEAR REGULATORY COMMISSION (4-2008)	APPROVED BY OMB: NO. 3150-0028	EXPIRES: 08/31/2010		
70 CFR 30.38()(1); 40.42()(1); 70.38()(1); and 72.54(k)(5)(1);	Estimated burden per response to comply with the This submittal is used by NRC as part of the	this mandatary collection request: 30 minutes.		
10.00(X I), BIN 12.04(XXX IX I)	released for unrestricted use. Send comments r	egarding burden estimate to the Records and		
CERTIFICATE OF DISPOSITION OF MATERIALS	FOIA/Privacy Services Branch (T-6 762), U.S. I DC 20555-0001, or by internet e-mail to infoculte	classing and a the Deck Officer, Office of		
OPENTION OF BIOS CONTION OF MATERIALS	Information and Regulatory Affairs, NEOB-102	02, (3150-0028), Office of Management and		
	Budget, Washington, DC 20508, if a means use display a currently valid OMB control number,			
76.00	person is not required to respond to, the informati	on collection.		
LICENSEE NAME AND ADDRESS	LICENSE NUMBER	DOCKET NUMBER		
George J. Kelen, M.D., PLLC	21-32560-01			
300 S. Rath Ave., Suite 102	LICENSE EXPIRATION DATE			
Ludington, MI 49431	04/30/2015			
This license has expired.  A. LICENSE STATUS (Check the	e appropriate box) e terminate it.			
B. DISPOSAL OF RADIOACT	IVE MATERIAL			
(Check the appropriate boxes and complete as necessary. If additional space is no	•			
The licensee, or any individual executing this certificate on behalf of the license				
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 radioact under this license number cited above have been disposed of in the	ive materials procured and/or por following manner.	seassed by the licensee		
2. Transfer of radioactive materials to the licensee listed below:				
21-26543-01				
b. Disposal of radioactive materials:				
1. Directly by the licensee:				
C 2 Bulliannaad dlawaad allan				
2. By licensed disposal site:				
		į		
3. By weste contractor:				
c. All radioactive materials have been removed such that any remain	ning residual radioactivity is within	n the limits of 10 CFR		
Part 20, Subpart E, and is ALARA.	-			
C. SURVEYS PERFORMED AT	ND REPORTED			
1. A radiation survey was conducted by the licensee. The survey confirm	ńs;			
a. the absence of licensed radioactive materials		1		
b. that any remaining residual radioactivity is within the limits of 10 CFR 20, Subpart E, and is ALARA.				
I — <sup></sup> '				
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:				
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.				
— Lucad				
The person to be contacted regarding the information provided on this form:				
MANUTEORCE KELEN TITLE MIN MANUTEORIES PROGRAMMENT TO THE MINING THE MANUTE CONTESPONDENCE REGISTRING THIS INCENSE TO:	231843 2861 9K	elen@charler.net		
1846h M MOSEM FORMINGON MI JONS IN				
C. CERTIFYING OFFICIAL I CERTIFY UNDER PENALTY OF PERJURY, THAT, THE FOREGOING IS TRUE AND CORRECT				
PRINTED NAME AND TITLE	OVEROWA IS INCH WAS COLUMN	DATE		
(FORITE I KELEN) Egyl		9.20.09.		
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 of representation.				

September 30, 2009

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

Re: Termination of License number 21-32560-01

Please terminate our NRC license. We no longer wish to use radioactive materials.

The following attachments are enclosed:

Form 314
Closeout survey
Most recent leak test of sealed sources
Record of receipt of sealed sources at West Michigan Heart, P.C.

Thank you for you cooperation with this matter. If you have any questions or require additional information please contact me.

Sincerely,

George J. Kelen, MD

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## **Close-out Survey**

George J. Kelen, M.D., PLLC 300 S. Rath Ave, Suite 102 Ludington, MI 49431

Date Performed: <u>9-30-09</u>

Performed By: Dawn Edwards, Medical Physics Consultants, Inc.

Wipe tests were analyzed with a Capintec Caprac Well Counter. The efficiency factor is 1.32 dpm/cpm and the MDA is 103 dpm. The action level for wipe tests was 1000 dpm/100 cm<sup>2</sup>.

Surveys were performed using a <u>Ludlum 14C</u> survey meter, serial number <u>20310</u>7 with a side window probe. Range used was 0-0.2 mR/hr. The meter was last callbrated on 1/210/09. The action level for exposure rate surveys was 0.1 mR/hr.

## Visual Check

The area was checked to ensure no radioactive materials were in any of the rooms. Radioactive materials were never stored in the cardiac stress or camera rooms. Radioactive materials were always returned to the hot lab after use. All radiopharmaceuticals and sealed sources were stored in the hot lab. Only Tc-99m radiopharmaceuticals with a half-life of 6 hours were used. The last use of radiopharmaceuticals was on 8-18-09. All radioactive waste was decayed in storage prior to the closeout survey. Sealed sources were transferred to West Michigan Heart, P.C. 2900 Bradford, Grand Rapids, MI 49525 (NRC license number 21-26543-01). There is no history of leaking sources and a copy of the most recent sealed source leak test is enclosed.

## Radiation Level Survey

No area within the office demonstrated radiation levels in excess of the background reading of O. OI mR/hr.

### Removable Contamination

1 minute counts

Background 0 dpm

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# Area Results in dpm

Diagrams of the survey areas are enclosed.

Area	Result
1	<i>Q</i> dpm
2	18 dpm
3	4 dpm
4	O dpm
5	() dpm
2 3 4 5 6 7	Ø dpm
7	
8 9	23 dpm
9	2 dom
10	Ø dpm
11	O dpm
12	O dpm
13	O dpm
14	🖒 dpm
15	15 dpm
16	O dpm O dpm
17	O dpm
18	<b>⊘</b> dpm
19	O dpm
20	dpm
21	12_dpm
22	14 dpm
23	🧷 dpm
24	/2 dpm
25	O dpm

Maximum removable contamination: 23 dpm

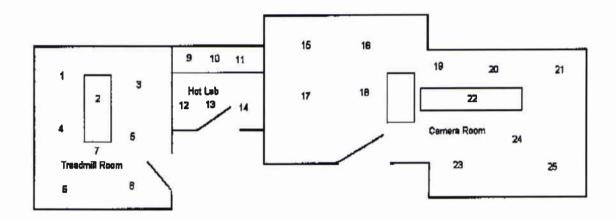
## Conclusion

No removable contamination is present.

George J. Kelen, M.D., PLLC September 2009

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# Sealed Source Leak Test

Licensee: George J. Kelen, M.D., PLLC

Date: <u>05/04/09</u>

Performed by: Dawn Edwards

Nuclide	Туре	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	202.6 uCi	06/01/05	Hot Lab		1111955
Current Ac	tivity: 18	35.0uCl				
Ba-133	Vlal	271 uCi	06/01/05	Hot Lab		112 <del>4</del> 1010
Current Ac	tivity: 2	10.4uCl				
Co-57	Flood	10 mCi	06/01/05	Hot Lab	NES-392	1121-094
Current Ac	tivity: 0.	256mCl				

Comment: The sources listed above were leak tested using a dry wipe technique and were found to have less than 0.005 uCl 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

<u>Nuclide</u>	MDA	Background
Cs-137	2.0 x 10 <sup>-4</sup> uCi	145 counts/1 min
Ba-133	8.8 x 10 <sup>-5</sup> uCl	204 counts/1 min
Co-57	1.7 x 10 <sup>-5</sup> uCi	53 counts/1 mln

RE: Dr. Kelen source list Page 1 of 1

#### RE: Dr. Kelen source list

Chris Bopp

Sent: Wednesday, September 30, 2009 4:32 PM

To: Dawn Edwards [dedwards@mpcphysics.com]

Hi Dawn,

As we discussed, I had all of the Dr. Kelen's sources listed below transferred by Cardinal Health to our 2900 Bradford office yesterday, September 29, 2009. They are in our possession and are no longer located at the Lakeshore Cardiology office located at 300 S. Rath, Suite 102, Ludingon, Michigan.

Chris Bopp Nuclear Supervisor West Michigan Heart, PC (616)885-5208

From: Dawn Edwards [dedwards@mpcphysics.com]
Sent: Monday, September 28, 2009 11:01 AM

To: Chris Bopp

Subject: Dr. Kelen source list

Cs-137 vial 202.6 uCi on 6/05/05 – SN 1111955 Ba-133 vial 271 uCi on 6/01/05 – SN 11241010 Cs-137 rod 0.5 uCl on 4/01/05 – SN 11131120 Co-57 flood 10 mCl on 6/1/05 Model NES392 – SN 1121-094 Cs-137 button 1 uCi 5/4/07 SN 1380 on meter Cs-137 button 1 uCi 11/4/07 SN 3333 on meter

Dawn Edwards, M.S.
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