



Cardiovascular Associates of Puerto Rico

CARDIOVASCULAR CONSULTANTS

Mr. Shawn W. Seeley Health Physicist U.S. Nuclear Regulatory Commission 2100 Renaissance Boulevard Suite 100 King of Prussia, Pennsylvania 19406-2713 Humberto O. Quintana-Irazola, M.D., F.A.C.C. Iván J. Lladó-González, M.D., F.A.C.C. Rúben Díaz-Vázquez, M.D. René E. Pérez-Ríos, M.D.

Re: License No. 52-25033-01

03030966

Dear Mr. Seeley:

We hereby wish to provide official confirmation from Cardiovascular Associates of Puerto Rico that we received the radioactive sources from Cayey Nuclear Medicine Laboratory (License No 52-30841-01), sources they had in use, plus the sources they had in storage (outs of use).

Enclosed please fin the last leak data for the sources that were transferred which were in use.

Please let us know if you require any additional information.

Yours truly.

Humberto O./Quintana Irazola, MD

metarne MV

Rene E. Perez Rios, MD

MINUSTROM MATERIALO-002

RE: Transfer of Sealed Sources Documentation

Seeley, Shawn < Shawn. Seeley@nrc.gov>

Wed 3/15/2017 11:24 AM

Ic.Maria Palacios <margiepalacios@hotmail.com>;

Just wondering if you received this and when the information will be submitted. Thanks. Shawn

From: Seeley, Shawn

Sent: Monday, March 06, 2017 12:41 PM

To: 'Maria Palacios' <margiepalacios@hotmail.com> **Subject:** Transfer of Sealed Sources Documentation

Margie,

I am working on the termination for Nuclear Medicine Inc. In order to terminate the license, please send me official confirmation from Cardiovascular Associates of Puerto Rico (License No. 52-25033-01) that they received the sources. Please have that letter signed by their management. In addition, please send me the last leak test data for the sealed sources that were transferred.

Let me know if you have any questions. Thank you.

Shawn

Shawn W. Seeley, Health Physicist USNRC 2100 Renaissance Boulevard, Suite 100 King of Prussia, PA 19406-2713 610-337-5102 (o); 610-337-5269 (f) Shawn.seeley@nrc.gov

Date: October 25/2016		
Sealed Source Description:	Instrument U	sed:
Radionuclide: Model No.: Serial No.: $1014-98-6$	Counter Mod	luxe Wipe Test lel 05-578 <u>version Factors</u> :
	Isotope Co-57 Cs-137 Co-60 Ba-133	Conv. Factor 1.2 0.087 0.16 0.83
	Threshold va	lue: 0.005μCi = 11.1kdpm
Procedure:		
 Wipe all external surfaces of the water moistened filter paper procorresponding glassine envelope. Set the ACTIVITY to OnCi, just as for Divide the desired THRESHOLD visotope, and set the resulting prothreshold key and entering the value to complete the entry. The threshold the wipe, in its glassing envelope. A PASS means that the count is leavalue, which must be multiplied value for the wipe. 	ovided with the count or Tc-99 m contamination alue (11.1kdpm) by the coduct value as the TH lue by using the CHANG reshold light will go out relope, in the usual man	ing instrument; place it in the in. The CONVERSION FACTOR for the IRESHOLD value by pressing the GE DIGIT keys. Press the ACTIVITY t. The property of the instruction of the instructi
RESULT: PASS (< 0.005)	UCi of removable co	ntamination)
		//////////////////////////////////////

Date: October 25, 2016		
Sealed Source Description:	Instrument L	Jsed:
Radionuclide:	Victoreen Deluxe Wipe Test Counter Model 05-578 <u>Isotope Conversion Factors</u> :	
	Isotope Co-57 Cs-137 Co-60 Ba-133	Conv. Factor 1.2 0.087 0.16 0.83

Threshold value: $0.005\mu\text{Ci} = 11.1\text{kdpm}$

Procedure:

- 1. Wipe all external surfaces of the source, including the source seal area, with a piece of water moistened filter paper provided with the counting instrument; place it in the corresponding glassine envelope.
- 2. Set the ACTIVITY to OnCi, just as for Tc-99 m contamination.
- 3. Divide the desired THRESHOLD value (11.1kdpm) by the CONVERSION FACTOR for the isotope, and set the resulting product value as the THRESHOLD value by pressing the threshold key and entering the value by using the CHANGE DIGIT keys. Press the ACTIVITY key to complete the entry. The threshold light will go out.
 - 4. Count the wipe, in its glassing envelope, in the usual manner.
 - 5. A PASS means that the count is less than the THRESHOLD value. A FAIL displays a kdpm value, which must be multiplied by the CONVERSION FACTOR to get the actual kdpm value for the wipe.

RESULT:	PASS (<0.005 µli of removable contamination)
	MMHalarias

Date: <u>Ou</u>	tober 25,2016		
Sealed Source D	escription:	Instrument L	J <u>sed</u> :
Radionuclide: Model No.: Serial No.:	Co ⁵⁷ RV-057-10M 1756-16-2	Victoreen Deluxe Wipe Test Counter Model 05-578 Isotope Conversion Factors:	
		Isotope	Conv. Factor
		Co-57	1.2
	•	Cs-137	0.087
		Co-60	0.16
		Ba-133	0.83

Threshold value: $0.005\mu\text{Ci} = 11.1\text{kdpm}$

Procedure:

- 1. Wipe all external surfaces of the source, including the source seal area, with a piece of water moistened filter paper provided with the counting instrument; place it in the corresponding glassine envelope.
- 2. Set the ACTIVITY to OnCi, just as for Tc-99 m contamination.
- 3. Divide the desired THRESHOLD value (11.1kdpm) by the CONVERSION FACTOR for the isotope, and set the resulting product value as the THRESHOLD value by pressing the threshold key and entering the value by using the CHANGE DIGIT keys. Press the ACTIVITY key to complete the entry. The threshold light will go out.
 - 4. Count the wipe, in its glassing envelope, in the usual manner.
 - 5. A PASS means that the count is less than the THRESHOLD value. A FAIL displays a kdpm value, which must be multiplied by the CONVERSION FACTOR to get the actual kdpm value for the wipe.

RESULT:	PASS (< 0.605 µCi of removable contamination)		
		MMW alocies	_

Date:	October 25, 2016		
Sealed Sour	ce Description:	Instrument Use	<u>.d</u> :
Radionuclide: (137) Model No.: CAL 2602 Serial No.: 32816 – 32865		Victoreen Delux Counter Model Isotope Conver	05-578
		Isotope Co-57 Cs-137 Co-60 Ba-133	Conv. Factor 1.2 0.087 0.16 0.83
		Threshold value	e: 0.005µCi = 11.1kdpm
<u>Procedure</u> :			
water correspond of thresh key to 4. Count 5. A PASS value,	all external surfaces of the source moistened filter paper provided conding glassine envelope. ACTIVITY to OnCi, just as for Tc-99 the desired THRESHOLD value (e, and set the resulting product old key and entering the value by complete the entry. The threshold the wipe, in its glassing envelope, is means that the count is less that which must be multiplied by the for the wipe.	with the counting m contamination. 11.1kdpm) by the value as the THRE using the CHANGE d light will go out. In the usual manner the THRESHOLD was a sound the threat threa	CONVERSION FACTOR for the SHOLD value by pressing the DIGIT keys. Press the ACTIVITER. Value. A FAIL displays a kdpm
RESULT:	PASS (<0.005 Mi of	emovable conta	mination)
			MUD.

Date:	Oct 25, 2016		X -
Sealed Sourc	e Description:	Instrument L	Jsed:
Radionuclide:		Counter Mod	eluxe Wipe Test del 05-578 <u>version Factors</u> :
		Isotope Co-57 Cs-137 Co-60 Ba-133	Conv. Factor 1.2 0.087 0.16 0.83
Procedure:		Threshold va	ilue: 0.005μCi = 11.1kdpm
 Wipe al water r corresp Set the Divide isotope threshokey to c Count t A PASS value, v 	noistened filter paper provide onding glassine envelope. ACTIVITY to OnCi, just as for Tc-9 the desired THRESHOLD value, and set the resulting producted key and entering the value becomplete the entry. The threshold wipe, in its glassing envelop means that the count is less the	d with the counger of the counger of the contamination (11.1kdpm) by the counger of the chance of the chance of the counger of the chance of the chance of the counger of t	he CONVERSION FACTOR for the IRESHOLD value by pressing the GE DIGIT keys. Press the ACTIVITY it.
RESULT:	PASS (<0.005 µCi 0	f removable co	intamination)
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