

# Fax

**To:** Jose Macatangay

**From:** Erin Bell

**Fax:** 630-829-9782

**Pages:** 5 incl cover

**Phone:**

**Date:** 10/13/2009

**Re:**

**CC:**

**Urgent**     **For Review**     **Please Comment**     **Please Reply**     **Please Recycle**

● **Comments:**

Enclosed is the information requested for Clarian Arnett Hospital, Control # 318361, per our phone conversation today, October 13, 2009.



October 13, 2009

Jose Macatangay  
NRC Region III  
2443 Warrenville Road  
Lisle, Illinois 60532-4352

License Number: 13-32535-02  
Control Number: 318361

Dear Mr. Macatangay:

Per our phone conversation today, October 13, 2009 a complete leak test is enclosed for **Clarian Arnett Hospital** as of September 30, 2009. The leak test I submitted previously was incomplete. This includes all 28 Gd-153 attenuation sources as well as 4 sources out of the camera ready for shipment/return to the manufacturer. Also included are the other sources required to be leak tested.

Please let me know if you need further information.

Sincerely,

A handwritten signature in black ink that reads "Erin Bell, MHP". The signature is written in a cursive style.

Erin Bell, MHP  
Medical Physics Consultants, Inc.  
(p) 877.321.2207 x 342  
(f) 317.581.1931

2309 Shelby Avenue  
Ann Arbor, MI 48103  
(734) 662-9224 Fax  
(734) 662-3197

 70 E. 91st Street, Suite 106  
Indianapolis, IN 46240  
(317) 581-1931 Fax  
(317) 581-1911

 4806 Mile High Drive  
Salt Lake City, UT 84124  
(801) 272-2952 Office & Fax

 N7375 Crystal Ridge Drive  
Beaver Dam, WI 53916  
(920) 885-9872 Fax  
(920) 885-9870



### Sealed Source Leak Test

Licensee: Clarian Arnett Hospital

Date: 09/30/09

Performed by: Erin Bell

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Co-57	flood	10 mCi	12/01/08	Hot Lab	3709AD010MN	1326-111
		Current Activity: 4.607 mCi				
Cs-137	vial	218 uCi	08/14/08	Hot Lab	BM06137E082241	
		Current Activity: 212.39 uCi				
Ba-133	vial	242.6 uCi	08/01/06	Hot Lab		1194-15-6
		Current Activity: 197.76 uCi				
Cs-137	vial	266.8 uCi	07/01/06	Hot Lab		1145-97-10
		Current Activity: 247.31 uCi				
Co-57	flood	10 mCi	12/01/08	Hot Lab	3709AD010MN	1326-121
		Current Activity: 4.607 mCi				
1 - Gd-153	att src	20 mCi	02/01/09	camera		1355012A5
		Current Activity: 10.03 mCi				
2 - Gd-153	att src	20 mCi	02/01/09	camera		1355012A6
		Current Activity: 10.03 mCi				
3 - Gd-153	att src	20 mCi	02/01/09	camera		1355012A7
		Current Activity: 10.03 mCi				
4 - Gd-153	att src	20 mCi	02/01/09	camera		1355012A8
		Current Activity: 10.03 mCi				
5 - Gd-153	att src	20 mCi	08/01/08	camera		1355077A1
		Current Activity: 5.922 mCi				
6 - Gd-153	att src	20 mCi	08/01/08	camera		1355077A2
		Current Activity: 5.922 mCi				
7 - Gd-153	att src	20 mCi	08/01/08	camera		1355077A3
		Current Activity: 5.922 mCi				
8 - Gd-153	att src	20 mCi	08/01/08	camera		1355077A4
		Current Activity: 5.922 mCi				
9 - Gd-153	att src	20 mCi	08/01/09	camera		1398002A5
		Current Activity: 16.843 mCi				
10 - Gd-153	att src	20 mCi	08/01/09	camera		1398002A6
		Current Activity: 16.843 mCi				
11 - Gd-153	att src	20 mCi	08/01/09	camera		1398002A7
		Current Activity: 16.843 mCi				
12 - Gd-153	att src	20 mCi	08/01/09	camera		1398002A8
		Current Activity: 16.843 mCi				
13 - Gd-153	att src	20 mCi		camera		1200098A12
		Current Activity: mCi				

14.	Gd-153	att src	20 mCi	camera	1240071A8
	Current Activity:		mCi		
15.	Gd-153	att src	20 mCi	camera	1273079A4
	Current Activity:		mCi		
16.	Gd-153	att src	20 mCi	camera	1273079A2
	Current Activity:		mCi		
17.	Gd-153	att src	20 mCi	camera	1240071A6
	Current Activity:		mCi		
18.	Gd-153	att src	20 mCi	camera	1200098A10
	Current Activity:		mCi		
19.	Gd-153	att src	20 mCi	camera	1174090A8
	Current Activity:		mCi		
20.	Gd-153	att src	20 mCi	camera	1174090A7
	Current Activity:		mCi		
21.	Gd-153	att src	20 mCi	camera	1200098A9
	Current Activity:		mCi		
22.	Gd-153	att src	20 mCi	camera	1240071A5
	Current Activity:		mCi		
23.	Gd-153	att src	20 mCi	camera	1273079A3
	Current Activity:		mCi		
24.	Gd-153	att src	20 mCi	camera	1240071A7
	Current Activity:		mCi		
25.	Gd-153	att src	20 mCi	camera	1200098A11
	Current Activity:		mCi		
26.	Gd-153	att src	20 mCi	camera	1174090A6
	Current Activity:		mCi		
27.	Gd-153	att src	20 mCi	camera	1174090A5
	Current Activity:		mCi		
	Gd-153	att src	20 mCi	02/01/06	to be shipped
	Current Activity:		0.435 mCi		
	Gd-153	att src	20 mCi	02/01/06	to be shipped
	Current Activity:		0.435 mCi		
	Gd-153	att src	20 mCi	02/01/06	to be shipped
	Current Activity:		0.435 mCi		
	Gd-153	att src	20 mCi	02/01/06	to be shipped
	Current Activity:		0.435 mCi		
	Gd-153	line src	10 mCi	11/11/08	SPECT-CT un
	Current Activity:		3.965 mCi		
28.	Gd-153	line src	20 mCi	camera	1273079A1
	Current Activity:		mCi		

to be shipped/returned

SPECT/CT -

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: Ludlum 2200 Scaler

<u>Nuclide</u>	<u>MDA</u>	<u>Background</u>
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	$1.7 \times 10^{-5}$ uCi	53 counts/1 min

**RADIATION SAFETY OFFICER:** \_\_\_\_\_