



A Duke LifePoint Hospital

Dec. 12, 2012

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

**Re: Materials License No. 21-05432-04**

This letter is to terminate use of certain areas in the MGH Laboratory for procedures involving radioactive materials (RAM). Specifically, the Procedure Room on the ground level was used to label white cells with

In-111 and more recently Tc-99m. This room contained the appropriate laminar flow hood. The last such procedure was performed last January 2012 and will not be used in the future. White cells are now being labeled by a local Nuclear Pharmacy, Hot Shots, NM. The second area of use was a hood and workbench in the Core Lab where red blood cell volumes were measured. This procedure has not been performed in over a year and will not be performed again.

RAM used for the procedures was not stored in either location but brought to the location by Nuclear Medicine technologists at the time of each procedure. A soon to expire 0.1 microcurie rod source of Co-57 was used in the ground level procedure room to calibrate the gamma counter. This source, which could not be distinguished from background with the Ludlum 3 and pancake probe was disposed of in Nuclear Medicine long term trash.

Attached is the report of the close-out surveys performed by the RSO to document lack of radioactivity in these two areas. This action was approved by the Radiation Safety Committee today.

If you have further questions, please contact me at (906) 225-6967 or fax number (906) 225-7753.

Sincerely,

A handwritten signature in cursive script that reads 'Shan Marlette'.

Shan Marlette, M.S., D.A.B.S.N.M.  
Radiation Safety Officer  
DLP Marquette General Hospital

RECEIVED DEC 18 2012

## Close-out Survey Laboratory

Date: Dec. 6, 2012

Survey Meter: Ludlum 3, S/N 147696, last calibrated April 19, 2012

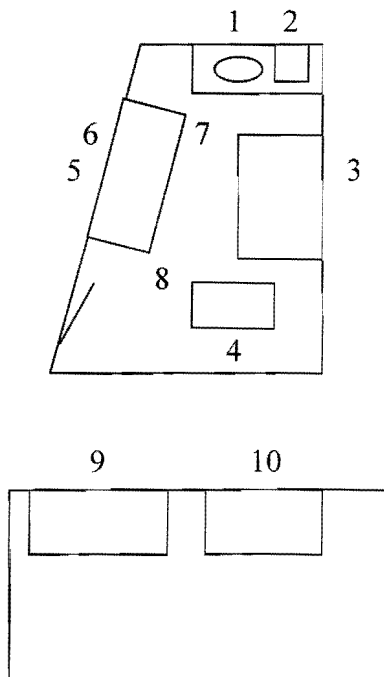
### Procedure Room, ground floor- ambient survey

Room last used 1-13-12

Background = 0 – 0.02 mR/hr

Location	mR/hr
1-Sink, counter	0.01
2-Centrifuge	0.02
3-Hood	0.02
4-Table, equipment	0.02
5-Table	0.02
6-Gamma Counter	0.02
7-Floor	0.02
8-Floor	0.02
9-Benchttop	0.01
10-Hood	0.01

**Core  
Lab**



### Removable Contamination Wipes

Wipes evaluated on Captus 2000, Nuclear Medicine, using open window 40-1000

Cs-137 rod source, nominal 0.5  $\mu$ Ci on 9-1-98

Efficiency = 30.7% calculated 2-13-12

Background = 592, 617 cpm

### Procedure Room

Location	cpm
1 Table	591
2 Gamma Counter	553
3 Gamma Counter	548
4 Storage can	592
5 Sink	583
6 Centrifuge	594
7 Counter	591
8 Hood Lt	580

<b>Location</b>	<b>cpm</b>
9 Hood Rt	616
10 Hood floor	618
11 Equip on table	645
12 Floor A	592
13 Floor B	616
14 Floor C	618
15 Door, light switch	645
16 Lab, table	589
17 Lab, hood	563

**Minimum Detectable Activity = 118 cpm above background**

**Conclusions:**

**Ambient and removable contamination surveys demonstrate absence of radioactivity; therefore rooms may be released for unrestricted use.**

Performed by:



Shan Marlette, M.S., D.A.B.S.N.M.  
Radiation Safety Officer

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12/13/2012

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