



War Memorial Hospital  
500 Osborn Blvd.  
Sault Ste. Marie, MI 49783  
www.warmemorialhospital.org  
t : (906) 635-4460  
f : (906) 635-4467

## CLOSE-OUT SURVEY

DATE : MAY 7, 2009

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

Amendment to Materials License No. 21-20318-01

Dear Madam or Sir:

We wish to provide the following information, in an effort to close-out an address or area of use under our Materials License.

- A close-out survey and wipe test was performed on 05-05-09 and the data is enclosed for your review.
- A map of the area(s) noted above keyed to the survey and wipe test data.
- The last date of receipt and use of byproduct material was 04-30-09 .
- The following radionuclide(s) were used at this facility. Tc 99m, Ga67, Tl201, I131
- All residual byproduct material to include waste was fully decayed in storage and disposed, returned to supplier or transferred to an authorized user.
- All sealed sources were transferred to an authorized user or returned to supplier.
- A current copy of the sealed source leak test results for the sealed sources used at our facility are enclosed for your review.
- There has never been a recordable seal source leak at this facility.  
This facility is exempt from decommissioning due to low volumes and short physical half-lives of materials used.

We did not dispose of radioactive materials by release to sewers or incineration. In addition, there were no spills of any long-lived radioactive material or on-site burials of radioactive materials.

If you have any questions, please contact David C. McDonough RT,RSO at 906-253-1047.

Sincerely,

*Maria Bunker RN VP Clinical Services*  
Executive Management

RECEIVED MAY 11 2009

**Sealed Source Leak Test**

Licensee: Chippewa County War Memorial Hospital

Date: 02/17/09

Performed by:

Kevin Miller

Nuclide	Type	Calibration	Calibration	Location	M/N	S/N
		Activity	Date			
Cs-137	Vial	199.4 uCi	02/01/04	Hot Lab	RV137-200U	1014-92-8
		Current Activity: 177.4 uCi				
Ba-133	Vial	254 uCi	07/30/86	Hot Lab	ICN	237620C
		Current Activity: 59.21 uCi				
Co-57	Flood	10 mCi	01/01/08	Hot Lab	NES 8400	1256-177
		Current Activity: 3.477 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	$2.0 \times 10^{-4}$ 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:** David C. McDonough RT, RSO



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## CLOSE-OUT SURVEY

Address of Close-out Survey Performed: War Memorial Hospital Old Nuclear  
Medicine Department

License Number: 21-20318-01

Date Performed: May 5, 2009

Performed By: David McDonough RT, RSO

Wipe tests analyzed with Captus 2000 Well with an Auto keV window. Efficiency for Cobalt-57 is 1.31 dpm/cpm. MDA is 32.0 dpm.

Survey performed with Biodex survey meter model 14c with end window probe S/N 172442 calibrated on November 20, 2008, with a check source reading of 10.0 mR/hr. Range used was 0.1 mR/hr.

All sealed radioactive sources were relocated to the new department.

### Visual Check

The area was checked to ensure that all radioactive waste had been removed. No radioactive material was located.

### Radiation Level Survey

No area within the department demonstrated radiation levels in excess of the background reading of 0.03 mR/hr.



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## CLOSE-OUT SURVEY

### Removable Contamination

1 minute counts of a wipe sample covering at least a 100 square centimeter area

Background: 10.4, 13.1, 9.8      Average: 11.1 dmp

<u>Area</u>	<u>Result</u>		<u>Area</u>	<u>Result</u>
1	95.3	dpm	22	dpm
2	38.4		23	
3	53.8		24	
4	29.2		25	
5	0.00		26	
6	69.2		27	
7	0.00		28	
8	41.5		29	
9	63.0		30	
10	24.6		31	
11	63.8		32	
12	110.7		33	
13	83.0		34	
14	44.6		35	
15	0.00		36	
16	43.0		37	
17	87.6		38	
18	0.00		39	
19	0.00		40	
20			41	
21			42	

Maximum removable contamination: \_\_\_\_\_ cpm/100 cm<sup>2</sup> x \_\_\_\_\_ dpm/cpm  
= 110.7 net dpm/100 cm<sup>2</sup>

### Conclusion

As of April 30, 2009 all radioactive materials were removed from the site and no removable contamination was present



WAR MEMORIAL Hosp.  
500 OSBORN  
SAULT STE. MARIE, MI.  
49783

**FROM:**  
WAR MEMORIAL HOSPITAL  
(906) 635-7861  
500 OSBORN BLVD.  
SAULT SAINTE MARIE MI 49783

LTR 1 OF 1 ATNO ONIPIHS 510 NO1 103



**IL 603 9-03**



**SHIP TO:**  
COMMISSION REGION OFC. OF METERIAL  
UNITED STATES NUCLEAR REGULATORY  
2443 WARRENVILLE RD. SUITE 210  
**LISLE IL 60532**

**UPS NEXT DAY AIR**

TRACKING #: 1Z 464 563 01 4110 3186

**1**



Dept No.: #7240 -RADIOLOGY

BILLING: P/P

WS 11.0 15 HP LaserJet 5 90.0A 04/2009

UNITED STATES NUCLEAR REGULATORY  
2443 WARRENVILLE RD  
SUITE 210  
LISLE IL 60532-3673  
P-YELLOW S: 4BB  
**0407 - 1012**  
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