

HARRISON  
COUNTY  
HOSPITAL

Affiliate of Norton Healthcare

March 5, 2008

U. S. Nuclear Regulatory Commission  
Materials Licensing Section  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532-4352

Dear Sir or Madam:

Harrison County Hospital would like to amend its Byproduct Materials License, Number 13-23555-01, to add delete 245 Atwood Street, Corydon, Indiana, 47112 as an address of use. Enclosed is a close-out survey documenting that all radioactive materials have been removed from the address of use.

In addition, we request that Craig S. Kamen, M.D. be listed as an Authorized User on the license for materials licensed under 10 C.F.R. 35.100, 35.200, and 35.300. Dr. Kamen is currently listed as an Authorized User on the Floyd Memorial Hospital U.S.N.R.C. Materials License, number 13-12371-01.

Finally, we request that Authorized Users David Cannon, M.D. and William Johnson, M.D. be removed from the license. Drs. Cannon and Johnson are no longer practicing at this facility.

If there are any questions concerning this license amendment, please contact our nuclear medicine physicist, Mr. Patrick J. Byrne, D.A.B.R., C.H.P. at 877-317-5811.

Sincerely,



Clyde Melton  
Manager, Diagnostic Imaging

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## Close-out survey of 245 Atwood Street, Corydon, Indiana

Performed by: Patrick J. Byrne, D.A.B.R., C.H.P.  
Medical Physics Consultants, Inc.

Radioactive materials usage at this address of use was limited to diagnostic and occasionally therapeutic medical procedures in humans, along with the use of sealed sources for equipment calibration and quality control.

Wipe tests for removable radioactive contamination were taken on 2/22/08 and analyzed in a Ludlum Model 243 (S/N: 145366) Shielded Well Scintillator coupled to a Ludlum Model 2200 (S/N: 138705) Scaler Ratemeter. A window of 50 to 400 keV was used to analyze the wipes. The efficiency of this system for Cobalt-57 is 1.17 dpm/cpm.

The radiation levels survey was performed on 2/22/08 by Patrick Byrne, using a Ludlum Model 14C Geiger-Muller survey meter (S/N: 182928) with an end window probe. The meter was calibrated on 08/09/07. The range used for the radiation level survey was 0.0 to 0.2 mR/hr.

### Visual Inspection

The area was visually inspected to ensure that all radioactive waste had been removed. No radioactive material was located in the area.

### Radiation Level Survey

No area demonstrated radiation levels in excess of the background reading of 0.02 mR/hr.

### Sealed Sources

All sealed sources have been moved to the 1141 Hospital Drive NW address of use. No sealed source had ever been found to be leaking. Enclosed is a copy of the results of the last leak tests performed on the sealed sources prior to the move.

## Removable Contamination Survey Results

Wipe samples were counted in a Ludlum Model 243 Shielded Well Scintillator (S/N: 145366) coupled to a Ludlum Model 2200 Scaler Ratemeter (S/N: 138705). The efficiency of this system for Cobalt-57 is 1.17 dpm/cpm.

Background: 304 counts per minute

Wipe Number	Gross counts per minute	Net counts per minute	Disintegrations per minute
1	315	11	12.87
2	274	0	0
3	283	0	0
4	292	0	0
5	265	0	0
6	296	0	0
7	310	6	7.02
8	259	0	0
9	283	0	0
10	275	0	0
11	292	0	0
12	307	3	3.51
13	279	0	0
14	257	0	0
15	264	0	0
16	321	17	19.89
17	265	0	0
18	273	0	0

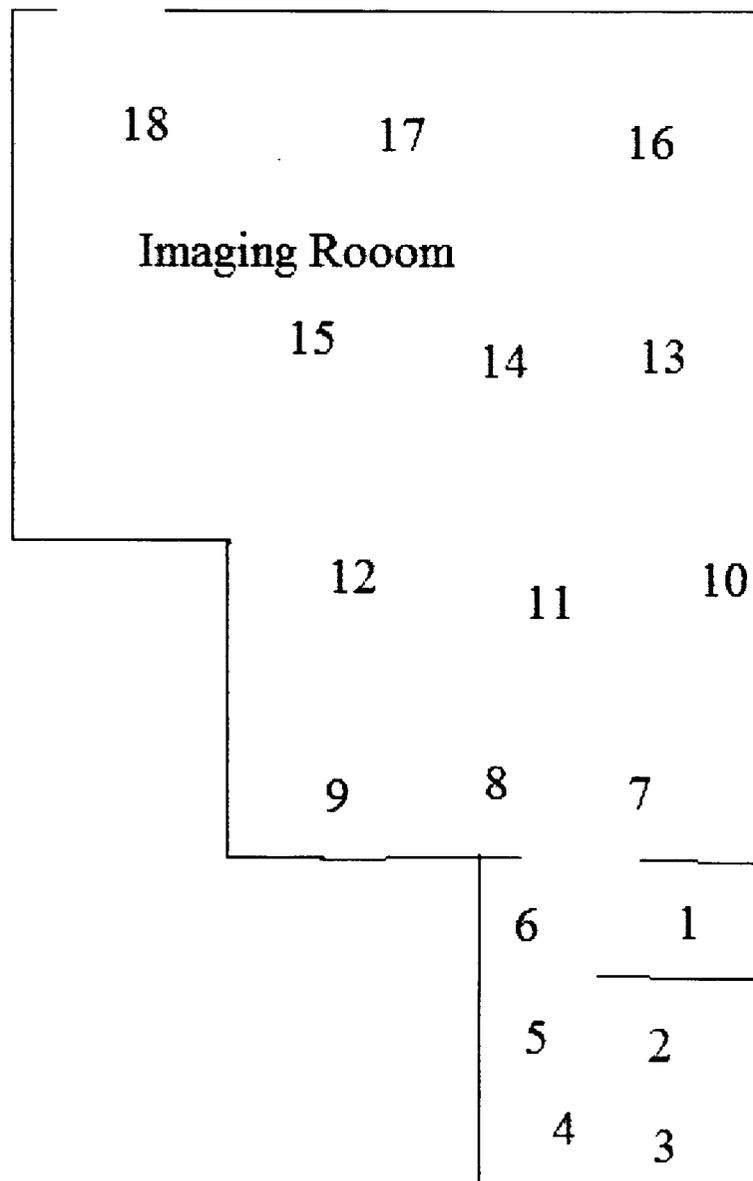
\*Please refer to the attached survey map for wipe locations.

Maximum removable contamination occurred in area 16. Gross count rate = 321 cpm/100cm<sup>2</sup>. Net count rate (gross minus background) = 321 – 304 = 17 cpm/100cm<sup>2</sup>. Net removable disintegrations per minute = 17 cpm/100cm<sup>2</sup> x 1.17 dpm/cpm = 19.89 dpm/100cm<sup>2</sup>.

### Conclusion

As of 2/22/08, all radioactive materials have been removed from the area of use and no removable contamination is present.

245 Atwood Street, Corydon, Indiana



Numbers refer to wipe samples

Hot  
Lab

**Sealed Source Leak Test**

Licensee: Harrison County Hospital

Date: 11/07/07

Performed by: Patrick Byrne

*Patrick Byrne*

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	201 uCi	1/26/1987	Hot Lab	67-356	2575421
Co-57	Flood	10 mCi	7/12/2006	Hot Lab	BM01-10	BM01102328

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

Nuclide	MDA	Background
Cs-137	$2.1 \times 10^{-4}$ uCi	45 cpm
Ba-133	$6.0 \times 10^{-5}$ uCi	264 cpm
Co-57	$4.0 \times 10^{-5}$ uCi	307 cpm

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

*Patrick Byrne*

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