

March 23, 2005

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

Dear Sir or Madam:

Blackford Community Hospital would like to terminate its Byproduct Materials License, Number 13-20449-01. As of January 19, 2005, we are no longer engaged in activities involving byproduct materials. Enclosed is a close-out performed on our nuclear medicine department.

If there are any questions concerning this license termination, please contact our nuclear medicine consultant, Patrick Byrne, M. Eng. at 877-317-5811.

Sincerely,

Steven West, CEO

Close-out Survey of Blackford County Hospital (13-20449-01)

Performed by: Patrick J. Byrne, M.Eng. Medical Physics Consultants, Inc.

> James Garrett, C.N.M.T. Blackford County Hospital

Wipe tests for removable radioactive contamination were taken on 2/2/05 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 2/2/05 by Patrick Byrne, using a Ludlum Model 14C Geiger-Muller survey meter (S/N: 89375) with an end-window probe. The meter was calibrated on 12/05/04. 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 0.03 mR/hr.

#### Sealed Sources

All sealed sources have been disposed of in the low level radioactive waste facility located in Barnwell, South Carolina. No sealed source had ever been found to be leaking.

### **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.

Wipe	Gross counts per	Net counts per	Disintegrations per
Number	minute	minute	minute
1	302	40	46.8
2	297	35	41.0
3	292	30	35.1
4	321	59	69.0
5	299	37	43.3
6	298	36	42.2
7	291	29	33.9
8	268	6	7.0
9	260	0	0.0
10	297	35	41.0
11	275	15	17.6
12	268	6	7.0
13	300	38	44.5
14	299	37	43.3
15	325	63	73.7
16	309	47	55.0
17	288	26	30.4
18	283	21	24.6
19	276	14	16.4
20	315	53	62.0
21	341	79	92.4
22	299	37	43.3
23	315	53	62.0
24	280	18	21.1

Background: 262 counts per minute

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

Maximum removable contamination occurred in area 21. Gross count rate = 341 cpm/100cm<sup>2</sup>. Net count rate (gross minus background) = 341 - 262 = 79 cpm/100cm<sup>2</sup>. Net removable disintegrations per minute = 79 cpm/100cm<sup>2</sup> x 1.17 dpm/cpm = 92.4 dpm/100cm<sup>2</sup>.

#### **Conclusion**

As of 2/2/05, all radioactive materials have been removed from the address of use and no removable contamination is present.



\*Numbers refer to wipe sample locations \*



## Blackford Community Hospital Affiliate of Cardinal Health System 503 E. Van Cleve St. • Hartford City, IN 47348

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