

March 13, 2009

United States Nuclear Regulatory Commission  
Region III, Materials Licensing Section  
2443 Warrenville Road  
Suite 210  
Lisle, IL 60532  
Mail control 317053

Amendment to Materials License No. 21-16489-01

Dear Madam or Sir:

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

- A close-out survey and wipe test was performed on March 13, 2009 and the data is enclosed for your review.
- A map of the areas noted above keyed to the survey and wipe test data.
- The last date of receipt and use of byproduct material was 03/13/2009.
- The following radionuclides were used that this facility: Ga-67 last use 2003, I-123 last use 5/2008, I-131 last use 3/5/2009, In-111 last use 12/13/2008, Tc-99m last use 3/12/2009, Tl-201 last use 12/2007 & Xe-133 last use 3/7/2009, Pd-133 (Seed implant) last used 3/4/2009, I-125 (Seed implant) last used 10/5/2008, Mo-99 (generator) last used 3/12/2009, Ba-133 (sealed) last use 3/12/2009, Co-57 (sealed) last use 3/12/2009, & Cs-137 (sealed) last use 3/12/2009.
- 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 a new departmental secured lab location, 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.

This facility is exempt from decommissioning due to low volumes and short physical half-lives of materials used.

We did not disposed 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.

Sincerely,



Stephanie Riemer-Matuzak, CEO

RECEIVED MAR 19 2009

Address of Close-out Survey Performed: 1100 E. Michigan Ave., Grayling, MI  
49738

License Number: 21-16489-01

Date Performed: 03/13/2009

Performed By: Craig Norconk, CNMT

Wipe tests analyzed with Ludlum Model 2200 Scaler with a 400 keV window.  
Efficiency for Cobalt-57 is 61%. MDA is 147 dpm.

Survey performed with Ludlum survey meter model 3 with end window probe S/N  
2187067 calibrated on 4/4/2008 with a check source reading of .8 mR/hr. Range  
used was .01 mR/hr.

All sealed radioactive sources were move to new location on 3/11/2009.

#### 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.

Removable Contamination

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

Background: 329, 344 & 350 dpm

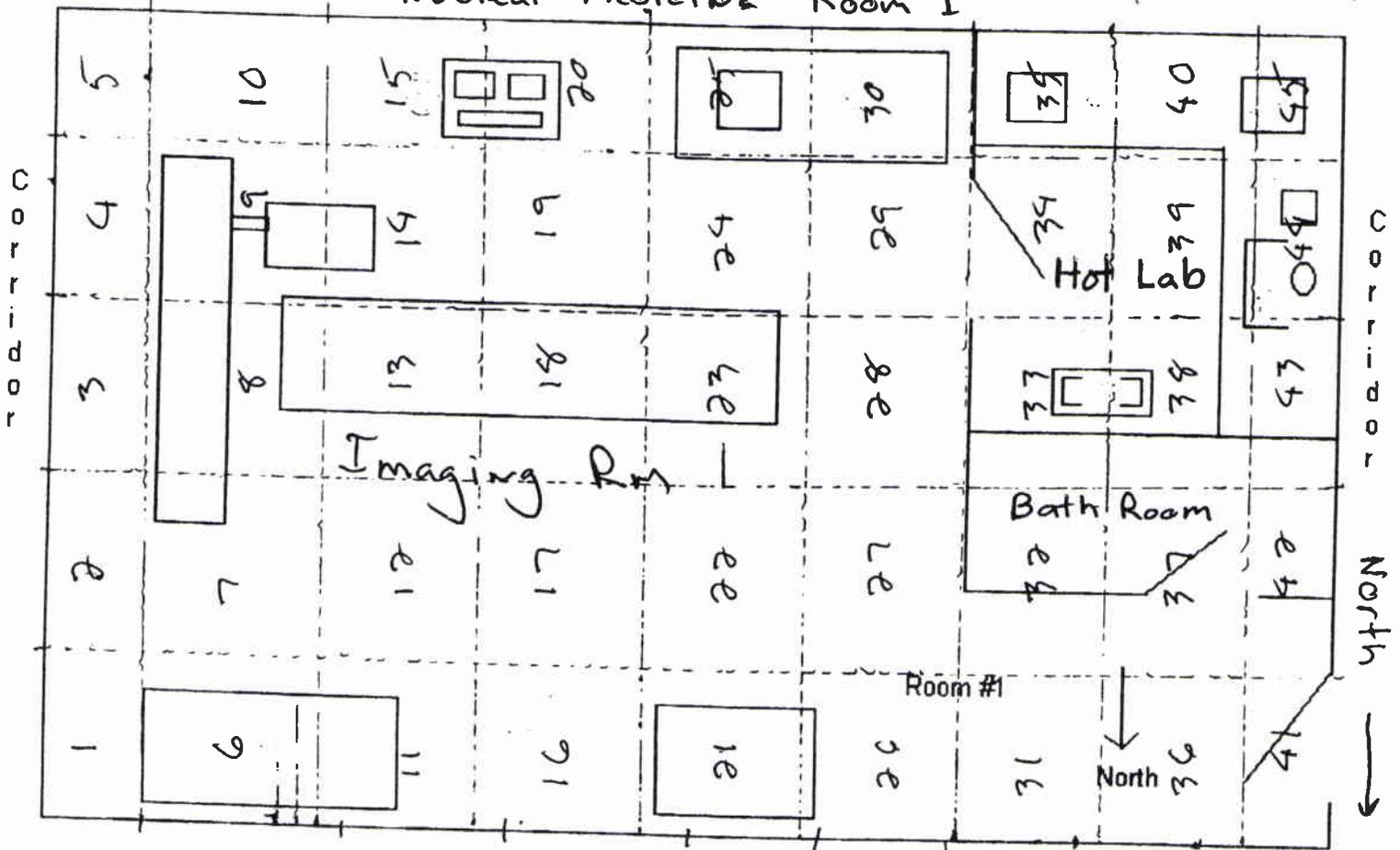
Average: 341 dpm

Nuclear Medicine Room 1,

Please refer to wipe test Map of room for location of wipe tests

Wipe #	cpm	dpm	Wipe #	cpm	dpm
1	303	497	26	196	321
2	217	355	27	202	331
3	208	341	28	192	314
4	177	290	29	207	339
5	211	346	30	212	347
6	244	400	31	209	342
7	193	316	32	175	287
8	186	305	33	204	334
9	240	393	34	205	336
10	191	313	35	199	326
11	189	309	36	198	324
12	192	314	37	194	318
13	188	308	38	218	357
14	218	257	39	187	306
15	188	308	40	223	365
16	196	321	41	197	323
17	206	337	42	217	355
18	197	323	43	203	332
19	208	341	44	210	344
20	214	350	45	215	352
21	193	316			
22	202	331			
23	212	347			
24	166	272			
25	197	323			

Nuclear Medicine Room 1



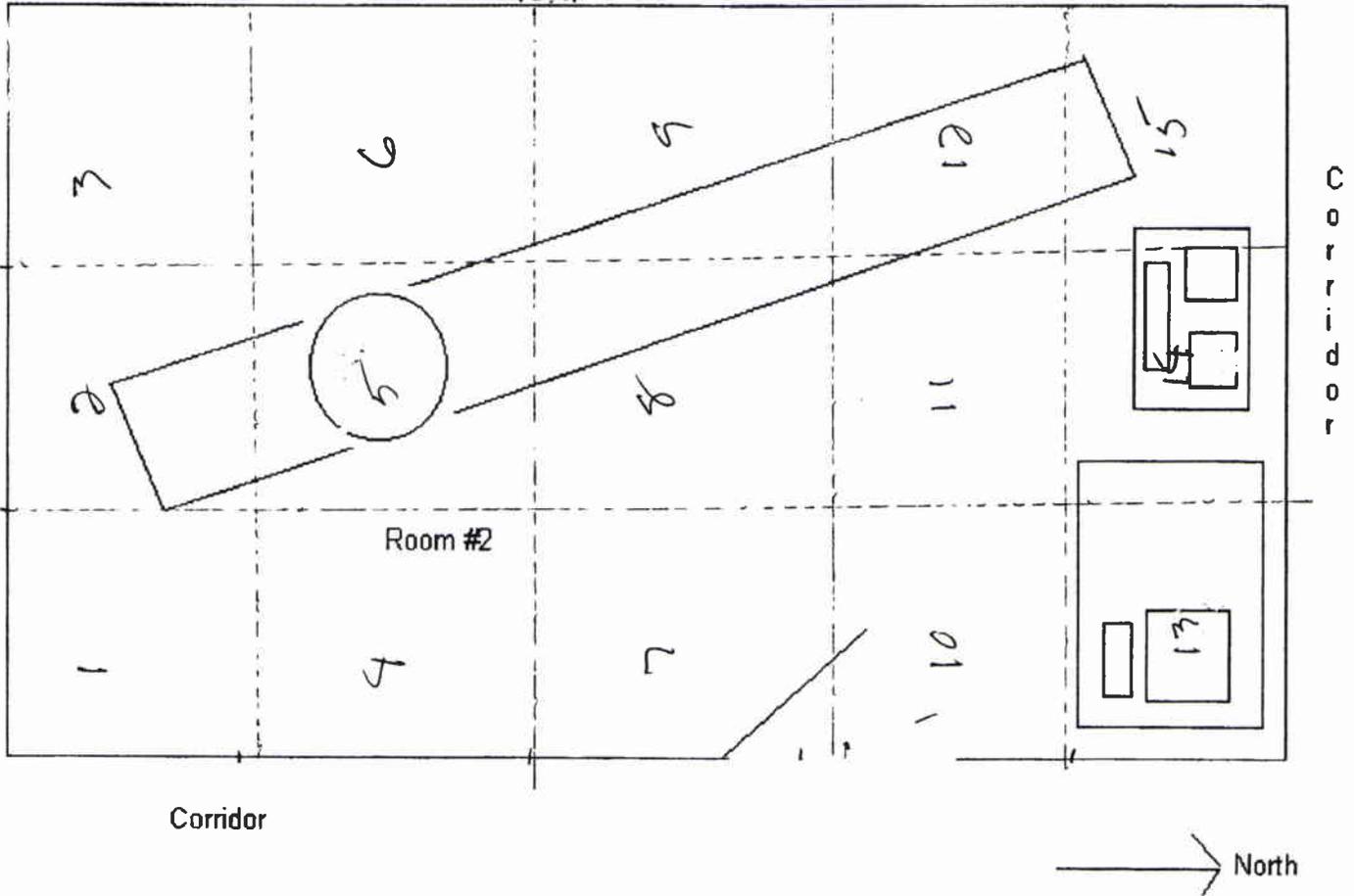
Nuclear Medicine Room 2,  
Please refer to wipe test Map of room for location of wipe test

Wipe #	cpm	dpm
1	206	337
2	200	328
3	195	319
4	211	346
5	205	336
6	205	336
7	210	344
8	213	349
9	212	347
10	207	339
11	182	298
12	190	311
13	191	313
14	183	300
15	190	311

Maximum removable contamination:  $303 \text{ cpm}/100 \text{ cm}^2 \times 1.64 \text{ dpm/cpm}$   
 $= 497 \text{ net dpm}/100 \text{ cm}^2$

Parking and Sidewalk

Nuclear Medicine Room 2





**Sealed Source Leak Test**

Licensee: Mercy Health Services North-Grayling

Date: 02/27/09

Performed by: Laura Luna

Nuclide	Type	Calibration Activity	Calibration Date	Location	M/N	S/N
Cs-137	Vial	224 uCi	02/22/79	Hot Lab	NES-356	S3560279B44
Current Activity: 111.92uCi						
Ba-133	Vial	272 uCi	09/29/99	Hot Lab	NES-358	S358026039
Current Activity: 148.1uCi						
Co-57	Flood	10 mCi	10/19/07	Hot Lab	BM01-10	BM01103197
Current Activity: 2.804mCi						

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:** \_\_\_\_\_

### Conclusion

As of 03/13/2009 all radioactive materials were removed from the site and no removable contamination was present.

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Region III, Materials Licensing Section  
2443 Warrenville Road, Suite 210  
Lisle, IL 60532

Mail Control 317053

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MERCY HOSPITAL  
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GRAYLING, MI 49738



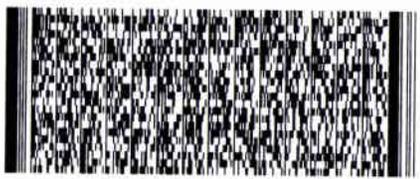
Ship Date: 17MAR09  
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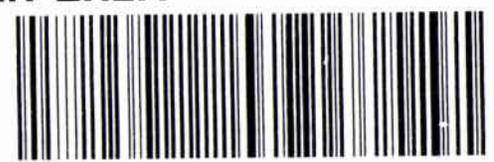


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