

May 9, 2013

Nuclear Regulatory Commission
Medical Licensing Division, Region III
2443 Warrenville Road
Lisle, IL 60532-4351

Dear Madam/Sir,

Please amend our Radioactive Materials License #24-25816-01 for Truman Medical Center to include the removal of an old waste storage area. The new area was sent in on April 15th and approved by Toye Simmons. The decommissioning results of the old area are enclosed for your review.

The efficiency of the liquid scintillation counter is 98%. The background measurement for the close-out leaks and area surveys are listed on the reports. All counts were taken for one minute.

A radionuclide history as well as wipe/survey maps and test results have all been included for your review. At this time, we ask that you please remove the old waste storage location from our license as an area of use and release the area into public use.

Your attention in this matter is greatly appreciated. Should you have any additional questions, please contact our health physicists, Marcia West or Renee Carlson, at 816-807-8090 or by fax at 816-974-1443.

Sincerely,



Lawrence Ricci, D.O.
Radiation Safety Officer

RECEIVED MAY 17 2013

History of Radionuclides and Instruments

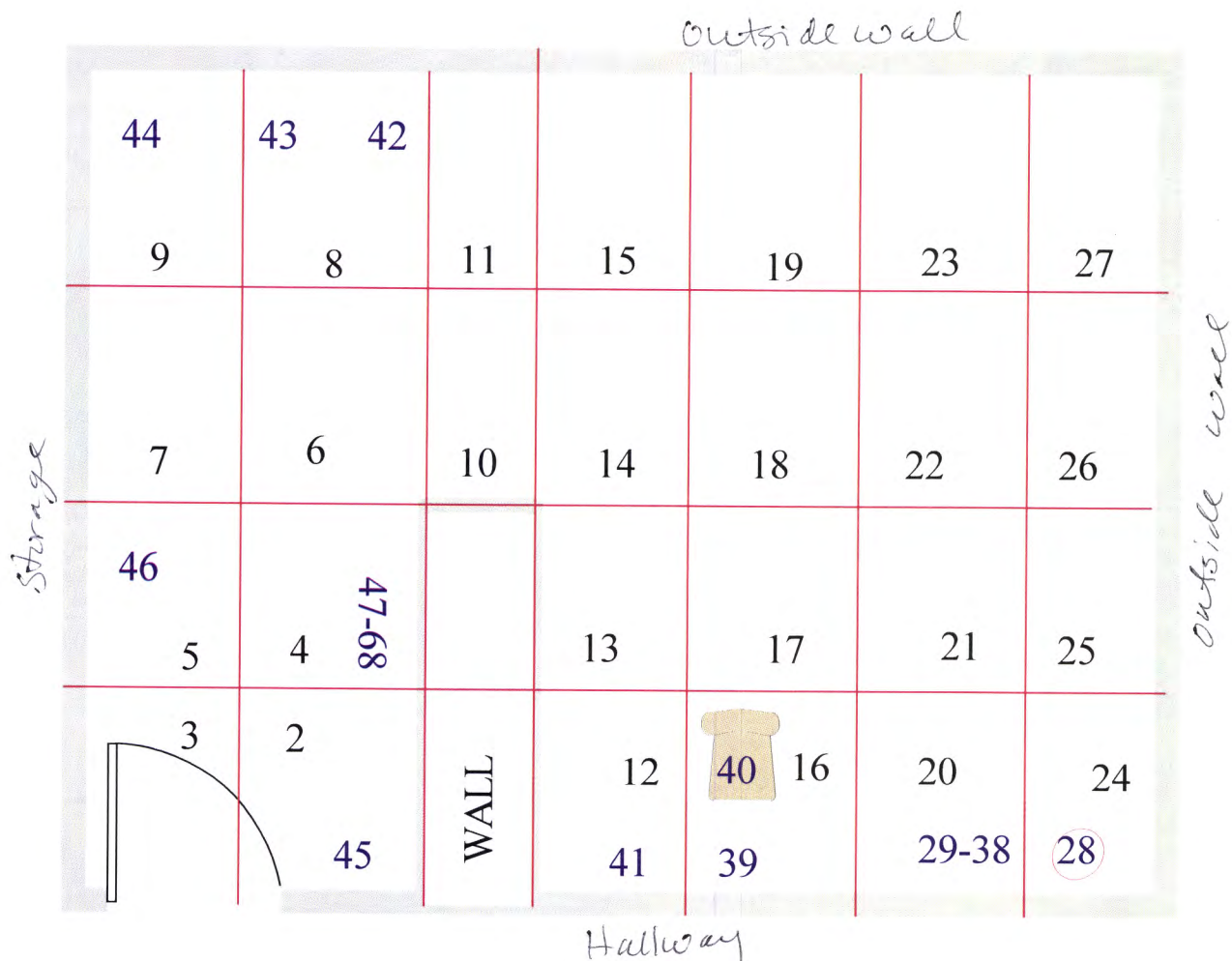
Truman Medical Center
2301 Holmes St
Kansas City, MO 64108

The only items stored in this area were the food/sheet wastes from the I-131 therapy patients, an old dose calibrator with a very old Cs-137 stick source, some liquid gold bottles, two desks and a chair, old empty metal drums and a lot of lead bricks.

Prior to our decommissioning, all waste items were monitored and disposed of properly.

After our decommissioning, the Cs-137 sealed source was moved to the hot lab to be sent away for proper disposal by the manufacturer. All of the other items in the room were left there to be either disposed of or moved to the new storage area (lead bricks).

Close Out Area Survey and Wipe Map



Black Number = Floor Wipe

Blue Number = Object Wipe

Waste Room Decommissioning

Truman Medical Center
2301 Holmes St.
Kansas City, MO 64108

North =



Close-out Area Surveys

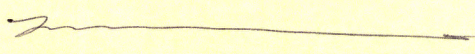
Date: 04-29-2013
Licensee: Truman Medical Center, 2301 Holmes Street, Kansas City, MO 64108
Instrument Model: Ludlum Micro R; Model #19 **Serial Number:** 169637 **Calibration date:** 04-17-2013
Location: Iodine 131 Waste Storage Room

<u>Location</u>		<u>Results</u>
1.	Background	12-13 µR
2.	Floor	12-13 µR
3.	Floor	12-13 µR
4.	Floor	12-13 µR
5.	Floor	12-13 µR
6.	Floor	12-13 µR
7.	Floor	12-13 µR
8.	Floor	12-13 µR
9.	Floor	12-13 µR
10.	Floor	12-13 µR
11.	Floor	12-13 µR
12.	Floor	12-13 µR
13.	Floor	12-13 µR
14.	Floor	12-13 µR
15.	Floor	12-13 µR
16.	Floor	12-13 µR
17.	Floor	12-13 µR
18.	Floor	12-13 µR
19.	Floor	12-13 µR
20.	Floor	12-13 µR
21.	Floor	12-13 µR
22.	Floor	12-13 µR
23.	Floor	12-13 µR
24.	Floor	12-13 µR
25.	Floor	12-13 µR
26.	Floor	12-13 µR
27.	Floor	12-13 µR
28.	Dose Calibrator	12-13 µR
29.	Lead Brick	12-13 µR
30.	Lead Brick	12-13 µR
31.	Lead Brick	12-13 µR
32.	Lead Brick	12-13 µR
33.	Lead Brick	12-13 µR
34.	Lead Brick	12-13 µR
35.	Lead Brick	12-13 µR
36.	Cs-137 Source	12-13 µR
37.	Lead Board	12-13 µR
38.	Table 1	12-13 µR
39.	Table 2	12-13 µR
40.	Chair	12-13 µR
41.	Chemicals	12-13 µR
42.	Drum 5	12-13 µR
43.	Drum 4	12-13 µR
44.	Drum 3	12-13 µR
45.	Drum 2	12-13 µR
46.	Drum 1	12-13 µR
47.	Lead Brick	12-13 µR
48.	Lead Brick	12-13 µR
49.	Lead Brick	12-13 µR
50.	Lead Brick	12-13 µR
51.	Lead Brick	12-13 µR
52.	Lead Brick	12-13 µR
53.	Lead Brick	12-13 µR
54.	Lead Brick	12-13 µR
55.	Lead Brick	12-13 µR
56.	Lead Brick	12-13 µR
57.	Lead Brick	12-13 µR
58.	Lead Brick	12-13 µR

Close-out Area Surveys Continued

59.	Lead Brick	12-13 μ R	64.	Lead Brick	12-13 μ R
60.	Lead Brick	12-13 μ R	65.	Lead Brick	12-13 μ R
61.	Lead Brick	12-13 μ R	66.	Lead Brick	12-13 μ R
62.	Lead Brick	12-13 μ R	67.	Lead Brick	12-13 μ R
63.	Lead Brick	12-13 μ R	68.	Lead Brick	12-13 μ R

Completed By:

 (Marcia West)
For: Cardinal Health Nebraska Registry #50

Results:

The above area surveys were acquired of the assigned areas with a Ludlum Model 19; Micro R meter. None of the areas exceeded the room background reading of 12-13 μ R.

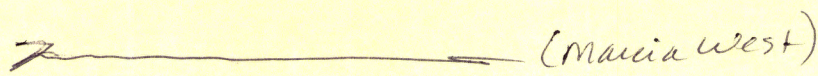
Close-out Wipe Tests

Date: 04-29-2013
Licensee: Truman Medical Center, 2301 Holmes Street, Kansas City, MO 64108
Instrument: Cobra II Auto Gamma
Location: Iodine 131 Waste Storage Room

* <u>Location</u>		<u>Results</u>			
1.	Background	< 200 dpm / 100 cm ²	30.	Lead Brick	< 200 dpm / 100 cm ²
2.	Floor	< 200 dpm / 100 cm ²	31.	Lead Brick	< 200 dpm / 100 cm ²
3.	Floor	< 200 dpm / 100 cm ²	32.	Lead Brick	< 200 dpm / 100 cm ²
4.	Floor	< 200 dpm / 100 cm ²	33.	Lead Brick	< 200 dpm / 100 cm ²
5.	Floor	< 200 dpm / 100 cm ²	34.	Lead Brick	< 200 dpm / 100 cm ²
6.	Floor	< 200 dpm / 100 cm ²	35.	Lead Brick	< 200 dpm / 100 cm ²
7.	Floor	< 200 dpm / 100 cm ²	36.	Cs-137 Source	< 200 dpm / 100 cm ²
8.	Floor	< 200 dpm / 100 cm ²	37.	Lead Board	< 200 dpm / 100 cm ²
9.	Floor	< 200 dpm / 100 cm ²	38.	Table 1	< 200 dpm / 100 cm ²
10.	Floor	< 200 dpm / 100 cm ²	39.	Table 2	< 200 dpm / 100 cm ²
11.	Floor	< 200 dpm / 100 cm ²	40.	Chair	< 200 dpm / 100 cm ²
12.	Floor	< 200 dpm / 100 cm ²	41.	Chemicals	< 200 dpm / 100 cm ²
13.	Floor	< 200 dpm / 100 cm ²	42.	Drum 5	< 200 dpm / 100 cm ²
14.	Floor	< 200 dpm / 100 cm ²	43.	Drum 4	< 200 dpm / 100 cm ²
15.	Floor	< 200 dpm / 100 cm ²	44.	Drum 3	< 200 dpm / 100 cm ²
16.	Floor	< 200 dpm / 100 cm ²	45.	Drum 2	< 200 dpm / 100 cm ²
17.	Floor	< 200 dpm / 100 cm ²	46.	Drum 1	< 200 dpm / 100 cm ²
18.	Floor	< 200 dpm / 100 cm ²	47.	Drum 3	< 200 dpm / 100 cm ²
19.	Floor	< 200 dpm / 100 cm ²	48.	Drum 2	< 200 dpm / 100 cm ²
20.	Floor	< 200 dpm / 100 cm ²	49.	Drum 1	< 200 dpm / 100 cm ²
21.	Floor	< 200 dpm / 100 cm ²	50.	Lead Brick	< 200 dpm / 100 cm ²
22.	Floor	< 200 dpm / 100 cm ²	51.	Lead Brick	< 200 dpm / 100 cm ²
23.	Floor	< 200 dpm / 100 cm ²	52.	Lead Brick	< 200 dpm / 100 cm ²
24.	Floor	< 200 dpm / 100 cm ²	53.	Lead Brick	< 200 dpm / 100 cm ²
25.	Floor	< 200 dpm / 100 cm ²	54.	Lead Brick	< 200 dpm / 100 cm ²
26.	Floor	< 200 dpm / 100 cm ²	55.	Lead Brick	< 200 dpm / 100 cm ²
27.	Floor	< 200 dpm / 100 cm ²	56.	Lead Brick	< 200 dpm / 100 cm ²
28.	Dose Calibrator	< 200 dpm / 100 cm ²	57.	Lead Brick	< 200 dpm / 100 cm ²
29.	Lead Brick	< 200 dpm / 100 cm ²	58.	Lead Brick	< 200 dpm / 100 cm ²

Close-out Wipe Tests Continued

59.	Lead Brick	< 200 dpm / 100 cm ²	64.	Lead Brick	< 200 dpm / 100 cm ²
60.	Lead Brick	< 200 dpm / 100 cm ²	65.	Lead Brick	< 200 dpm / 100 cm ²
61.	Lead Brick	< 200 dpm / 100 cm ²	66.	Lead Brick	< 200 dpm / 100 cm ²
62.	*Lead Brick	< 200 dpm / 100 cm ²	67.	Lead Brick	< 200 dpm / 100 cm ²
63.	Lead Brick	< 200 dpm / 100 cm ²	68.	Lead Brick	< 200 dpm / 100 cm ²

Completed By:  (Marcia West)
 For: Cardinal Health Nebraska Registry #50

Remarks: The above close-out wipe tests were acquired of the assigned areas. The sample areas consisted of a contiguous wipe from a 3' x 3' area or approximately 8361 cm². Please see the attached print-out that lists the cpm and dpm.

29 Apr 2013 09:32

Cardinal Medical & Health Physics

Page #1

Protocol #: 8

DECOMMISSIONING LEAK

User :

TRUMAN MEDICAL CENTER (I-131 WASTE STORAGE ROOM)

Count Time(minutes): 1.00
 Assay Type: CPM
 Background Subtract : IPA Bkg
 Outlier: 5.0 FLAG
 Dilution Operator : *
 %Spillup: 0.00
 %Spilldown: 0.00
 Screening: OFF

	Window A		Window B		Window C
Nuclide:	I-131	260 - 470 keV	Co-57	75 - 165 keV	MAN 15 - 2000 keV
Bkg:	61.9		41.5		307
Sigma:	0.00		0.00		0.00
LCR:	0		0		0
Half Life(hours):	0.00		0.00		
Multiplier:	2.0000				
%CV Flag Limit:	0.00		0.00		

S#	TIME	A:CPM	B:CPM	C:CPM	CCPM	PAT/ID
1	1.00	1	4	8	2	BACKGROUND
2	1.00	0	1	0	0	FLOOR
3	1.00	13	4	18	26	FLOOR
4	1.00	0	4	7	0	FLOOR
5	1.00	0	0	0	0	FLOOR
6	1.00	0	1	0	0	FLOOR
7	1.00	0	5	51	0	FLOOR
8	1.00	0	0	0	0	FLOOR
9	1.00	0	20	0	0	FLOOR
10	1.00	4	3	22	8	FLOOR
11	1.00	7	8	29	14	FLOOR
12	1.00	28	8	54	56	FLOOR
13	1.00	0	0	0	0	FLOOR
14	1.00	0	0	11	0	FLOOR
15	1.00	14	11	38	28	FLOOR
16	1.00	0	4	0	0	FLOOR
17	1.00	0	0	3	0	FLOOR
18	1.00	0	0	0	0	FLOOR
19	1.00	0	1	4	0	FLOOR
20	1.00	18	0	49	36	FLOOR
21	1.00	0	0	0	0	FLOOR
22	1.00	0	0	0	0	FLOOR
23	1.00	0	0	0	0	FLOOR
24	1.00	8	0	45	16	FLOOR
25	1.00	0	7	0	0	FLOOR
26	1.00	2	5	0	4	FLOOR
27	1.00	11	0	0	22	FLOOR
28	1.00	0	10	0	0	DOSE CALIBRATOR
29	1.00	0	5	0	0	LEAD BRICK
30	1.00	9	8	0	18	LEAD BRICK
31	1.00	0	0	0	0	LEAD BRICK
32	1.00	0	1	0	0	LEAD BRICK

S#	TIME	A:CPM	B:CPM	C:CPM	CCPM	FAT/ID
33	1.00	9	2	31	18	LEAD BRICK
34	1.00	8	12	6	16	LEAD BRICK
35	1.00	19	0	17	38	LEAD BRICK
36	1.00	0	8	7	0	CS-137 SOURCE
37	1.00	16	1	50	32	LEAD BOARD
38	1.00	1	4	8	2	TABLE 1
39	1.00	0	0	0	0	TABLE 2
40	1.00	0	5	2	0	CHAIR
41	1.00	0	10	12	0	CHEMICALS
42	1.00	0	4	15	0	DRUM 5
43	1.00	0	9	0	0	DRUM 4
44	1.00	12	3	36	24	DRUM 3
45	1.00	0	0	21	0	DRUM 2
46	1.00	0	0	0	0	DRUM 1
47	1.00	21	13	40	42	DRUM 3
48	1.00	0	0	0	0	DRUM 2
49	1.00	0	0	0	0	DRUM 1
50	1.00	0	6	0	0	LEAD BRICK
51	1.00	5	13	11	10	LEAD BRICK
52	1.00	1	9	0	2	LEAD BRICK
53	1.00	2	7	0	4	LEAD BRICK
54	1.00	0	3	4	0	LEAD BRICK
55	1.00	8	5	0	16	LEAD BRICK
56	1.00	0	0	15	0	LEAD BRICK
57	1.00	1	0	0	2	LEAD BRICK
58	1.00	9	13	13	18	LEAD BRICK
59	1.00	0	0	0	0	LEAD BRICK
60	1.00	0	12	0	0	LEAD BRICK
61	1.00	4	0	14	8	LEAD BRICK
62	1.00	0	11	2	0	LEAD BRICK
63	1.00	0	0	0	0	LEAD BRICK
64	1.00	4	0	8	8	LEAD BRICK
65	1.00	0	3	0	0	LEAD BRICK
66	1.00	6	0	19	12	LEAD BRICK
67	1.00	0	2	0	0	LEAD BRICK
68	1.00	14	0	26	28	LEAD BRICK

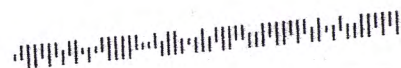
S# TIME CFMA DPM1 MDA at 95% CL:

1	1.00	1	
2	1.00	0	0
3	1.00	12	24
4	1.00	0	0
5	1.00	0	0
6	1.00	0	0
7	1.00	0	0
8	1.00	0	0
9	1.00	0	0
10	1.00	3	0
11	1.00	6	0
12	1.00	27	54
13	1.00	0	0
14	1.00	0	0
15	1.00	13	26
16	1.00	0	0
17	1.00	0	0
18	1.00	0	0
19	1.00	0	0
20	1.00	17	34
21	1.00	0	0
22	1.00	0	0
23	1.00	0	0
24	1.00	7	0
25	1.00	0	0
26	1.00	1	0
27	1.00	10	20
28	1.00	0	0
29	1.00	0	0
30	1.00	8	16
31	1.00	0	0
32	1.00	0	0
33	1.00	8	16
34	1.00	7	0
35	1.00	18	36
36	1.00	0	0
37	1.00	15	30
38	1.00	0	0
39	1.00	0	0
40	1.00	0	0
41	1.00	0	0
42	1.00	0	0
43	1.00	0	0
44	1.00	11	22
45	1.00	0	0
46	1.00	0	0
47	1.00	20	40
48	1.00	0	0
49	1.00	0	0
50	1.00	0	0
51	1.00	4	0
52	1.00	0	0
53	1.00	1	0
54	1.00	0	0
55	1.00	7	0
56	1.00	0	0
57	1.00	0	0
58	1.00	8	16
59	1.00	0	0

7.4 cpm above background.

60	1.00	0	0
61	1.00	3	0
62	1.00	0	0
63	1.00	0	0
64	1.00	3	0
65	1.00	0	0
66	1.00	5	0
67	1.00	0	0
68	1.00	13	26

Cardinal Health
Medical & Health Physics Ser
9668 Marion Ridge
Kansas City, MO 64137



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