

Tibor Rubin VA Medical Center
5901 E. Seventh St.
Long Beach, CA 90288

Radioactive Waste Summary for Quote
June 25, 2018

1. Dry, active waste in metal 55-gallon drums. Estimated at 100 pounds total per drum. Exact weight to be determined. Please provide estimate on a per pound basis considering activities provided.

No.	Radioisotope	Activity (μ Ci)
1	H-3	55
2	H-3	125
	C-14	10
3	H-3	95
4	H-3	30,153
	C-14	102
5	H-3	105
6	H-3	106
7	H-3	158
	C-14	1
8	H-3	235
9	H-3	398
10	H-3	360
11	H-3	500
12	H-3	507
13	H-3	540
14	H-3	190
	C-14	15
15	H-3	1380
	C-14	30
16	H-3	205
17	H-3	132.5
	C-14	110

2. Sealed Sources

			Current activity					
	Isotope	Date	(mCi)	Model	Serial	Manufacturer	Size and weight	
1	Co-57	25-Jun-18	0.030	MED3709	1585-056	Eckert and Ziegler	Flood Source 26"x18"x.5" (6lbs.)	
2	Co-57	25-Jun-18	0.178	BM-01-15	BM011512231202	Radqual	Flood Source 26"x18"x.5" (6lbs.)	
3	Co-57	25-Jun-18	0.003	M4-425	L3-356	Eckert and Ziegler	1"x.5"	
4	Ge-68	25-Jun-18	0.000396	5220259	II-901	Eckert and Ziegler	8"x.25"	
5	Gd-153	25-Jun-18	0.060	HEGL-0133	K5-695	Eckert and Ziegler	16"x.25"	
6	Co-57	25-Jun-18	0.005	BM01-15	BM011509280101	Radqual	Flood Source 26"x18"x.5" (6lbs.)	
7	Co-57	25-Jun-18	0.026	BM01-15	BM011511208204	Radqual	Flood Source 26"x18"x.5" (6lbs.)	
8	Ge-68	25-Jun-18	0.00000000		RR-466	Isotope Products Labs	4"x.25"	
9	Gd-153	25-Jun-18	0.000001	Med 3601	9013	N. American Scientific	26"x3"x1.5" (15lbs.)	
10	Gd-153	25-Jun-18	0.000001	Med 3601	1960	N. American Scientific	26"x3"x1.5" (15lbs.)	
11	Co-57	25-Jun-18	0.002		BM06057E09344112	Radqual	2"x1" dose calibrator source	
12	Cs-137	25-Jun-18	0.069		S8117029-03	Capintec	2"x1" dose calibrator source	
13	Ge-68	25-Jun-18	0.00003	5308767	1524-24	Eckert and Ziegler	18"x18"x3" (3lbs.)	
14	Ra-226		0.002		06-06-16-A	button sized metal source	button sized metal source	
15	Ra-226		0.0017		06-06-16-B	button sized metal source	button sized metal source	
16	Ra-226		0.0001		2015-RAM-Ra-226-01		2"x1" rod	
17	Ra-226		0.006			metal box 4 x 2 inches	metal box 4 x 2 inches	
18	Ra-226		0.003			6 inch long x 1 inch cylinder	4"x4" shielding "internally contaminated" (22lbs w/ shielding)	
19	Cs-137	25-Jun-18	0.02261		LSC source	Beckman	BB sized	
20	Cs-137	25-Jun-18	0.00516	3060	4535RD	4"diameter x 2.5" high	4"x2.5" cylinder	
21	Co-57	25-Jun-18	0.00855	PHI0124	N5-338	Eckert and Ziegler	3.5"x1.5"	
22	Sr-90		120,000CPM				0.5"x0.5"	
23	Cs-137			251194		Picker Nuclear	2"x.25"	
24	Cs-137		0.03		Six LSC Sources		size of a bb	

3. Uranyl Acetate/Nitrate

Uranyl acetate

Bottle	Mass (g)
1	115
2	69.1
3	80.6
4	53.6
5	84.5
6	40.7
Total	443.5

Uranyl nitrate

Bottle	Mass (g)
1	82.8
2	90.4
3	18.1
Total	191.3

The mass includes the mass of the container and the uranyl acetate/nitrate itself.