173.435
Table of A1 and A2 values for radionuclides.
The table of A1 and A2 values for radionuclides is as follows:

Symbol of radionuclide	Element and atomic number	A1 (TBq)	A1 (Ci)	A2 (TBq)	A2 (Ci)	Specific Activity (TBq/g)	Specific Activity (Ci/g)
Ac-225	Actinium(89)	0.6	16.2	1x10-2	0.270	2.1x103	5.8x104
Ac-227		40	1080	2x10-5	5.41x10-4	2.7	7.2x101
Ac-228		0.6	16.2	0.4	10.8	8.4x104	2.2x106
Ag-105	Silver(47)	2	54.1	2	54.1	1.1x103	3.0x104
Ag-108m		0.6	16.2	0.6	16.2	9.7x10-1	2.6x101
Ag-110m		0.4	10.8	0.4	10.8	1.8x102	4.7x103
Ag-111		0.6	16.2	0.5	13.5	5.8x103	1.6x105
Al-26	Aluminum(13)	0.4	10.8	0.4	10.8	7.0x10-4	1.9x10-2
Am-241	Americium(95)	2	54.1	2x10-4	5.41x10-3	1.3x10-1	3.4
Am-242m		2	54.1	2x10-4	5.4.1x10-3	3.6x10-1	1.0x101
Am-243		2	54.1	2x10-4	5.41x10-3	7.4x10-3	2.0x10-1
Ar-37	Argon(18)	40	1080	40	1080	3.7x103	9.9x104
Ar-39		20	541	20	541	1.3	3.4x101
Ar-41		0.6	16.2	0.6	16.2	1.5x106	4.2x107
Ar-42		0.2	5.41	0.2	5.41	9.6	2.6x102
As-72	Arsenic(33)	0.2	5.41	0.2	5.41	6.2x104	1.7x106
As-73		40	1080	40	1080	8.2x102	2.2x104
As-74		1	27.0	0.5	13.5	3.7x103	9.9x104
As-76		0.2	5.41	0.2	5.41	5.8x104	1.6x106
As-77		20	541	0.5	13.5	3.9x104	1.0x106
At-211	Astatine(85)	30	811	2	54.1	7.6x104	2.1x106
Au-193	Gold(79)	6	162	6	162	3.4x104	9.2x105
Au-194		1	27.0	1	27.0	1.5x104	4.1x105
Au-195		10	270	10	270	1.4x102	3.7x103
Au-196		2	54.1	2	54.1	4.0x103	1.1x105
Au-198		3	81.1	0.5	13.5	9.0x103	2.4x105
Au-199		10	270	0.9	24.3	7.7x103	2.1x105
Ba-131	Barium(56)	2	54.1	2	54.1	3.1x103	8.4x104
Ba-133m		10	270	0.9	24.3	2.2x104	6.1x105
Ba-133		3	81.1	3	81.1	9.4	2.6x102
Ba-140		0.4	10.8	0.4	10.8	2.7x103	7.3x104
Be-7	Beryllium(4)	20	541	20	541	1.3x104	3.5x105
Be-10		20	541	0.5	13.5	8.3x10-4	2.2x10-2
Bi-205	Bismuth(83)	0.6	16.2	0.6	16.2	1.5x103	4.2x104
Bi-206		0.3	8.11	0.3	8.11	3.8x103	1.0x105
Bi-207		0.7	18.9	0.7	18.9	1.9	5.2x101
Bi-210m		0.3	8.11	3x10-2	0.811	2.1x10-5	5.7x10-4
Bi-210		0.6	16.2	0.5	13.5	4.6x103	1.2x105
Bi-212		0.3	8.11	0.3	8.11	5.4x105	1.5x107
Bk-247	Berkelium(97)	2	54.1	2x10-4	5.41x10-3	3.8x10-2	1.0
Bk-249		40	1080	8x10-2	2.16	6.1x101	1.6x103
Br-76	Bromine(35)	0.3	8.11	0.3	8.11	9.4x104	2.5x106
Br-77		3	81.1	3	81.1	2.6x104	7.1x105
Br-82		0.4	10.8	0.4	10.8	4.0x104	1.1x106
C-11	Carbon(6)	1	27	0.5	13.5	3.1x107	8.4x108
C-14		40	1080	2	54.1	1.6x10-1	4.5
Ca-41	Calcium(20)	40	1080	40	1080	3.1x10-3	8.5x10-2
Ca-45		40	1080	0.9	24.3	6.6x102	1.8x104
Ca-47		0.9	24.3	0.5	13.5	2.3x104	6.1x105
Cd-109	Cadmium(48)	40	1080	1	27.0	9.6x101	2.6x103
Cd-113m		20	541	9x10-2	2.43	8.3x104	2.2x102
Cd-115m		0.3	8.11	0.3	8.11	9.4x102	2.5x104
Cd-115		4	108	0.5	13.5	1.9x104	5.1x105
Ce-139	Cerium(58)	6	162	6	162	2.5x1026	.8x103
Ce-141		10	270	0.5	13.5	1.1x103	2.8x104
Ce-143		0.6	16.2	0.5	13.5	2.5x104	6.6x105
Ce-144		0.2	5.41	0.2	5.41	1.2x102	3.2x103
Cf-248	Californium (98)	30	811	3x10-3	8.11x10-2	5.8x101	1.6x103
Cf-249		2	54.1	2x10-4	5.41x10-3	1.5x10-1	4.1
Cf-250		5	135	5x10-4	1.35x10-2	4.0	1.1x102
Cf-251		2	54.1	2x10-4	5.41x10-3	5.9x10-2	1.6
Cf-252		0.1	2.70	1x10-3	2.70x10-2	2.0x101	5.4x102
Cf-253		40	1080	6x10-2	1.62	1.1x103	2.9x104
Cf-254		3x10-3	8.11x10-2	6x10-4	1.62x10-2	3.1x102	8.5x103
Cl-36	Chlorine (17)	20	541	0.5	13.5	1.2x10-3	3.3x10-2
Cl-38		0.2	5.41	0.2	5.41	4.9x106	1.3x108
Cm-240	Curium(96)	40	1080	2x10-2	0.541	7.5x102	2.0x104
Cm-241		2	54.1	0.9	24.3	6.1x102	1.7x104
Cm-242		40	1080	1x10-2	0.270	1.2x102	3.3x103
Cm-243		3	81.1	3x10-4	8.11x10-3	1.9	5.2x101
Cm-244		4	108	4x10-4	1.08x10-2	3.0	8.1x101
Cm-245		2	54.1	2x10-4	5.41x10-3	6.4x10-3	1.7x10-1
Cm-246		2	54.1	2x10-4	5.41x10-3	1.1x10-2	3.1x10-1
Cm-247		2	54.1	2x10-4	5.41x10-3	3.4x10-6	9.3x10-5

Cm-248		4x10-2	1.08	5x10-5	1.35x10-3	1.6x10-4	4.2x10-3
Co-55	Cobalt(27)	0.5	13.5	0.5	13.5	1.1x105	3.1x106
Co-56		0.3	8.11	0.3	8.11	1.1x103	3.0x104
Co-57		8	216	8	216	3.1x102	8.4x103
Co-58m		40	1080	40	1080	2.2x105	5.9x106
Co-58		1	27.0	1	27.0	1.2x103	3.2x104
Co-60		0.4	10.8	0.4	10.8	4.2x101	1.1x103
Cr-51	Chromium(24)	30	811	30	811	3.4x103	9.2x104
Cs-129	Cesium(55)	4	108	4	108	2.8x104	7.6x105
Cs-131		40	1080	40	1080	3.8x103	1.0x105
Cs-132		1	27.0	1	27.0	5.7x103	1.5x105
Cs-134m		40	1080	9	243	3.0x105	8.0x106
Cs-134		0.6	16.2	0.5	13.5	4.8x101	1.3x103
Cs-135		40	1080	0.9	24.3	4.3x10-5	1.2x10-3
Cs-136		0.5	13.5	0.5	13.5	2.7x103	7.3x104
Cs-137		2	54.1	0.5	13.5	3.2	8.7x101
Cu-64	Copper(29)	5	135	0.9	24.3	1.4x105	3.9x106
Cu-67		9	243	0.9	24.3	2.8x104	7.6x105
Dy-159	Dysprosium(66)	20	541	20	541	2.1x102	5.7x103
Dy-165		0.6	16.2	0.5	13.5	3.0x105	8.2x106
Dy-166		0.3	8.11	0.3	8.11	8.6x103	2.3x105
Er-169	Erbium(68)	40	1080	0.9	24.3	3.1x103	8.3x104
Er-171		0.6	16.2	0.5	13.5	9.0x104	2.4x106
Es-253	Einsteinium(99)a	200	5400	2.1x10-2	5.4x100-1		
Es-254		30	811	3x10-3	8.11x10-2		
Es-254m		0.6	16.2	0.4	10.8		
Es-255							
Eu-147	Europium(63)	2	54.1	2	54.1	1.4x103	3.7x104
Eu-148		0.5	13.5	0.5	13.5	6.0x102	1.6x104
Eu-149		20	541	20	541	3.5x102	9.4x103
Eu-150		0.7	18.9	0.7	18.9	6.1x104	1.6x106
Eu-152m		0.6	16.2	0.5	13.5	8.2x104	2.2x106
Eu-152		0.9	24.3	0.9	24.3	6.5	1.8x102
Eu-154		0.8	21.6	0.5	13.5	9.8	2.6x102
Eu-155		20	541	2	54.1	1.8x101	4.9x102
Eu-156		0.6	16.2	0.5	13.5	2.0x103	5.5x104
F-18	Fluorine(9)	1	27.0	0.5	13.5	3.5x106	9.5x107
Fe-52	Iron(26)	0.2	5.41	0.2	5.41	2.7x105	7.3x106
Fe-55		40	1080	40	1080	8.8x101	2.4x103
Fe-59		0.8	21.6	0.8	21.6	1.8x103	5.0x104
Fe-60		40	1080	0.2	5.41	7.4x10-4	2.0x10-2
Fm-255	Fermium(100)b	40	1080	0.8	21.6		
Fm-257		10	270	8x10-3	21.6x10-1		
Ga-67	Gallium(31)	6	162	6	162	2.2x104	6.0x105
Ga-68		0.3	8.11	0.3	8.11	1.5x106	4.1x107
Ga-72		0.4	10.8	0.4	10.8	1.1x105	3.1x106
Gd-146	Gadolinium(64)	0.4	10.8	0.4	10.8	6.9x102	1.9x104
Gd-148		3	81.1	3x10-4	8.11x10-3	1.2	3.2x101
Gd-153		10	270	5	135	1.3x102	3.5x103
Gd-159		4	108	0.5	13.5	3.9x104	1.1x106
Ge-68	Germanium(32)	0.3	8.11	0.3	8.11	2.6x102	7.1x103
Ge-71		40	1080	40	1080	5.8x103	1.6x105
Ge-77		0.3	8.11	0.3	8.11	1.3x105	3.6x106
H-3	Hydrogen(1)SeeT-Tritium						
Hf-172	Hafnium(72)	0.5	13.5	0.3	8.11	4.1x101	1.1x103
Hf-175		3	81.1	3	81.1	3.9x102	1.1x104
Hf-181		2	54.1	0.9	24.3	6.3x102	1.7x104
Hf-182		4	108	3x10-2	0.811	8.1x10-6	2.2x10-4
Hg-194	Mercury(80)	1	27.0	1	27.0	1.3x10-1	3.5
Hg-195m		5	135	5	135	1.5x104	4.0x105
Hg-197m		10	270	0.9	24.3	2.5x104	6.7x105
Hg-197		10	270	10	270	9.2x103	2.5x105
Hg-203		4	108	0.9	24.3	5.1x102	1.4x104
Ho-163	Holmium(67)	40	1080	40	1080	2.7	7.6x101
Ho-166m		0.6	16.2	0.3	8.11	6.6x10-2	1.8
Ho-166		0.3	8.11	0.3	8.11	2.6x104	7.0x105
I-123	Iodine(53)	6	162	6	162	7.1x104	1.9x106
I-124		0.9	24.3	0.9	24.3	9.3x103	2.5x105
I-125		20	541	2	54.1	6.4x102	1.7x104
I-126		2	54.1	0.9	24.3	2.9x103	8.0x104
I-129		Unlimited	Unlimited	Unlimited	Unlimited	6.5x10-6	1.8x10-4
I-131		3	81.1	0.5	13.5	4.6x103	1.2x105
I-132		0.4	10.8	0.4	10.8	3.8x105	1.0x107
I-133		0.6	16.2	0.5	13.5	4.2x104	1.1x106
I-134		0.3	8.11	0.3	8.11	9.9x105	2.7x107
I-135		0.6	16.2	0.5	13.5	1.3x105	3.5x106
In-111	Indium(49)	2	54.1	2	54.1	1.5x104	4.2x105
In-113m		4	108	4	108	6.2x105	1.7x107
In-114m		0.3	8.11	0.3	8.11	8.6x102	2.3x104
In-115m		6	162	0.9	24.3	2.2x105	6.1x106
Ir-189	Iridium(77)	10	270	10	270	1.9x103	5.2x104
Ir-190		0.7	18.9	0.7	18.9	2.3x103	6.2x104
Ir-192		1	27.0	0.5	13.5	3.4x102	9.2x103

Ir-193m		10	270	10	270	2.4x103	6.4x104
Ir-194		0.2	5.41	0.2	5.41	3.1x104	8.4x105
K-40	Potassium(19)	0.6	16.2	0.6	16.2	2.4x10-7	6.4x10-6
K-42		0.2	5.41	0.2	5.41	2.2x105	6.0x106
K-43		1.0	27.0	0.5	13.5	1.2x105	3.3x106
Kr-81	Krypton(36)	40	1080	40	1080	7.8x10-4	2.1x10-2
Kr-85m		6	162	6	162	3.0x105	8.2x106
Kr-85		20	541	10	270	1.5x101	3.9x102
Kr-87		0.2	5.41	0.2	5.41	1.0x106	2.8x107
La-137	Lanthanum(57)	40	1080	2	54.1	1.6x10-3	4.4x10-2
La-140		0.4	10.8	0.4	10.8	2.1x104	5.6x105
Lu-172	Lutetium(71)	0.5	13.5	0.5	13.5	4.2x103	1.1x105
Lu-173		8	216	8	216	5.6x101	1.5x103
Lu-174m		20	541	8	216	2.0x102	5.3x103
Lu-74		8	216	4	108	2.3x101	6.2x102
Lu-177		30	811	0.9	24.3	4.1x103	1.1x105
MFP		(see §173.433)		(see §173.433)			
Mg-28	Magnesium(12)	0.2	5.41	0.2	5.41	2.0x105	5.4x106
Mn-52	Manganese(25)	0.3	8.11	0.3	8.11	1.6x104	4.4x105
Mn-53		Unlimited	Unlimited	Unlimited	Unlimited	6.8x10-5	1.8x10-3
Mn-54		1	27.0	1	27.0	2.9x102	7.7x103
Mn-56		0.2	5.41	0.2	5.41	8.0x105	2.2x107
Mo-93	Molybdenum(42)	40	1080	7	189	4.1x10-2	1.1
Mo-99		0.6	16.2	0.5	13.5c	1.8x104	4.8x105
N-13	Nitrogen(7)	0.6	16.2	0.5	13.5	5.4x107	1.5x109
Na-22	Sodium(11)	0.5	13.5	0.5	13.5	2.3x102	6.3x103
Na-24		0.2	5.41	0.2	5.41	3.2x105	8.7x106
Nb-92m	Niobium(41)	0.7	18.9	0.7	18.9	5.2x103	1.4x105
Nb-93m		40	1080	6	162	8.8	2.4x102
Nb-94		0.6	16.2	0.6	16.2	6.9x10-3	1.9x10-1
Nb-95		1	27.0	1	27.0	1.5x103	3.9x104
Nb-97		0.6	16.2	0.5	13.5	9.9x105	2.7x107
Nd-147	Neodymium(60)	4	108	0.5	13.5	3.0x103	8.1x104
Nd-149		0.6	16.2	0.5	13.5	4.5x105	1.2x107
Ni-59	Nickel(28)	40	1080	40	1080	3.0x10-3	8.0x10-2
Ni-63		40	1080	30	811	2.1	5.7x101
Ni-65		0.3	8.11	0.3	8.11	7.1x105	1.9x107
Np-235	Neptunium(93)	40	1080	40	1080	5.2x101	1.4x103
Np-236		7	189	1x10-3	2.70x10-2	4.7x10-4	1.3x10-2
Np-237		2	54.1	2x10-4	5.41x10-3	2.6x10-5	7.1x10-4
Np-239		6	162	0.5	13.5	8.6x103	2.3x105
Os-185	Osmium(76)	1	27.0	1	27.0	2.8x102	7.5x103
Os-191m		40	1080	40	1080	4.6x104	1.3x106
Os-191		10	270	0.9	24.3	1.6x103	4.4x104
Os-193		0.6	16.2	0.5	13.5	2.0x104	5.3x105
Os-194		0.2	5.41	0.2	5.41	1.1x101	3.1x102
P-32	Phosphorus(15)	0.3	8.11	0.3	8.11	1.1x104	2.9x105
P-33		40	1080	0.9	24.3	5.8x103	1.6x105
Pa-230	Protactinium(91)	2	54.1	0.1	2.70	1.2x103	3.3x104
Pa-231		0.6	16.2	6x10-5	1.62x10-3	1.7x10-3	4.7x10-2
Pa-233		5	135	0.9	24.3	7.7x102	2.1x104
Pb-201	Lead(82)	1	27.0	1	27.0	6.2x104	1.7x106
Pb-202		40	1080	2	54.1	1.2x10-4	3.4x10-3
Pb-203		3	81.1	3	81.1	1.1x104	3.0x105
Pb-205		Unlimited	Unlimited	Unlimited	Unlimited	4.5x10-6	1.2x10-4
Pb-210		0.6	16.2	9x10-3	0.243	2.8	7.6x101
Pb-212		0.3	8.11	0.3	8.11	5.1x104	1.4x106
Pd-103	Palladium(46)	40	1080	40	1080	2.8x103	7.5x104
Pd-107		Unlimited	Unlimited	Unlimited	Unlimited	1.9x10-5	5.1x10-4
Pd-109		0.6	16.2	0.5	13.5	7.9x104	2.1x106
Pm-143	Promethium(61)	3	81.1	3	81.1	1.3x102	3.4x103
Pm-144		0.6	16.2	0.6	16.2	9.2x101	2.5x103
Pm-145		30	811	7	189	5.2	1.4x102
Pm-147		40	1080	0.9	24.3	3.4x101	9.3x102
Pm-148m		0.5	13.5	0.5	13.5	7.9x102	2.1x104
Pm-149		0.6	16.2	0.5	13.5	1.5x104	4.0x105
Pm-151		3	81.1	0.5	13.5	2.7x104	7.3x105
Po-208	Polonium(84)	40	1080	2x10-2	0.541	2.2x101	5.9x102
Po-209		40	1080	2x10-2	0.541	6.2x10-1	1.7x101
Po-210		40	1080	2x10-2	0.541	1.7x102	4.5x103
Pr-142	Praseodymium (59)	0.2	5.41	0.2	5.41	4.3x104	1.2x106
Pr-143		4	108	0.5	13.5	2.5x103	6.7x104
Pt-188	Platinum(78)	0.6	16.2	0.6	16.2	2.5x103	6.8x104
Pt-191		3	81.1	3	81.1	8.7x103	2.4x105
Pt-193m		40	1080	9	243	5.8x103	1.6x105
Pt-193		40	1080	40	1080	1.4	3.7x101
Pt-195m		10	270	2	54.1	6.2x103	1.7x105
Pt-197m		10	270	0.9	24.3	3.7x105	1.0x107
Pt-197		20	541	0.5	13.5	3.2x104	8.7x105
Pu-236	Plutonium(94)	7	189	7x10-4	1.89x10-2	2.0x101	5.3x102
Pu-237		20	541	20	541	4.5x102	1.2x104
Pu-238		2	54.1	2x10-4	5.41x10-3	6.3x10-1	1.7x101
Pu-239		2	54.1	2x10-4	5.41x10-3	2.3x10-3	6.2x10-2

Pu-240		2	54.1	2x10-4	5.41x10-3	8.4x10-3	2.3x10-1
Pu-241		40	1080	1x10-2	0.270	3.8	1.0x102
Pu-242		2	54.1	2x10-4	5.41x10-3	1.5x10-4	3.9x10-3
Pu-244		0.3	8.11	2x10-4	5.41x10-3	6.7x10-7	1.8x10-5
Ra-223	Radium(88)	0.6	16.2	3x10-2	0.811	1.9x103	5.1x104
Ra-224		0.3	8.11	6x10-2	1.62	5.9x103	1.6x105
Ra-225		0.6	16.2	2x10-2	0.541	1.5x103	3.9x104
Ra-226		0.3	8.11	2x10-2	0.541	3.7x10-2	1.0
Ra-228		0.6	16.2	4x10-2	1.08	1.0x101	2.7x102
Rb-81	Rubidium(37)	2	54.1	0.9	24.3	3.1x105	8.4x106
Rb-83		2	54.1	2	54.1	6.8x102	1.8x104
Rb-84		1	27.0	0.9	24.3	1.8x103	4.7x104
Rb-86		0.3	8.11	0.3	8.11	3.0x103	8.1x104
Rb-87		Unlimited	Unlimited	Unlimited	Unlimited	3.2x10-9	8.6x10-8
Rb (natural)		Unlimited	Unlimited	Unlimited	Unlimited	6.7x106	1.8x108
Re-183	Rhenium(75)	5	135	5	135	3.8x102	1.0x104
Re-184m		3	81.1	3	81.1	1.6x102	4.3x103
Re-184		1	27.0	1	27.0	6.9x102	1.9x104
Re-186		4	108	0.5	13.5	6.9x103	1.9x105
Re-187		Unlimited	Unlimited	Unlimited	Unlimited	1.4x10-9	3.8x10-8
Re-188		0.2	5.41	0.2	5.41	3.6x104	9.8x105
Re-189		4	108	0.5	13.5	2.5x104	6.8x105
Re (natural)		Unlimited	Unlimited	Unlimited	Unlimited	------	2.4x108
Rh-99	Rhodium(45)	2	54.1	2	54.1	3.0x103	8.2x104
Rh-101		4	108	4	108	4.1x101	1.1x103
Rh-102m		2	54.1	0.9	24.3	2.3x102	6.2x103
Rh-102		0.5	13.5	0.5	13.5	4.5x101	1.2x103
Rh-103m		40	1080	40	1080	1.2x106	3.3x107
Rh-105		10	270	0.9	24.3	3.1x104	8.4x105
Rn-222	Radon(86)	0.2	5.41	4x10-3	0.108	5.7x103	1.5x105
Ru-97	Ruthenium(44)	4	108	4	108	1.7x104	4.6x105
Ru-103		2	54.1	0.9	24.3	1.2x103	3.2x104
Ru-105		0.6	16.2	0.5	13.5	2.5x105	6.7x106
Ru-106		0.2	5.41	0.2	5.41	1.2x102	3.3x103
S-35	Sulfur(16)	40	1080	2	54.1	1.6x103	4.3x104
Sb-122	Antimony(51)	0.3	8.11	0.3	8.11	1.5x104	4.0x105
Sb-124		0.6	16.2	0.5	13.5	6.5x102	1.7x104
Sb-125		2	54.1	0.9	24.3	3.9x101	1.0x103
Sb-126		0.4	10.8	0.4	10.8	3.1x103	8.4x104
Sc-44	Scandium(21)	0.5	13.5	0.5	13.5	6.7x105	1.8x107
Sc-46		0.5	13.5	0.5	13.5	1.3x103	3.4x104
Sc-47		9	243	0.9	24.3	3.1x104	8.3x105
Sc-48		0.3	8.11	0.3	8.11	5.5x104	1.5x106
Se-75	Selenium(34)	3	81.1	3	81.1	5.4x102	1.5x104
Se-79		40	1080	2	54.1	2.6x10-3	7.0x10-2
Si-31	Silicon(14)	0.6	16.2	0.5	13.5	1.4x106	3.9x107
Si-32		40	10800	0.2	5.41	3.9	1.1x102
Sm-145	Samarium(62)	20	541	20	541	9.8x101	2.6103
Sm-147		Unlimited	Unlimited	Unlimited	Unlimited	8.510-10	2.310-8
Sm-151		40	1080	4	108	9.710-1	2.6x101
Sm-153		4	108	0.5	13.5	1.6x104	4.4x105
Sn-113	Tin(50)	4	108	4	108	3.7x102	1.0x104
Sn-117m		6	162	2	54.1	3.0x103	8.2x104
Sn-119m		40	1080	40	1080	1.4x102	3.7x103
Sn-121m		40	1080	0.9	24.3	2.0	5.4x101
Sn-123		0.6	16.2	0.5	13.5	3.0x102	8.2x103
Sn-125		0.2	5.41	0.2	5.41	4.0x103	1.1x105
Sn-126		0.3	8.11	0.3	8.11	1.010-3	2.810-2
Sr-82	Strontium(38)	0.2	5.41	0.2	5.41	2.3x103	6.2x104
Sr-85m		5	135	5	135	1.2x106	3.3x107
Sr-85		2	54.1	2	54.1	8.8x102	2.4x104
Sr-87m		3	81.1	3	81.1	4.8x105	1.3x107
Sr-89		0.6	16.2	0.5	13.5	1.1x103	2.9x104
Sr-90		0.2	5.41	0.1	2.70	5.1	1.4x102
Sr-91		0.3	8.11	0.3	8.11	1.3x105	3.6x106
Sr-92		0.8	21.6	0.5	13.5	4.7x105	1.3x107
T	Tritium(1)	40	1080	40	1080	3.6x102	9.7x103
Ta-178	Tantalum(73)	1	27.0	1	27.0	4.2x106	1.1x108
Ta-179		30	811	30	811	4.1x101	1.1x103
Ta-182		0.8	21.6	0.5	13.5	2.3x102	6.2x103
Tb-157	Terbium(65)	40	1080	10	270	5.610-1	1.5x101
Tb-158		1	27.0	0.7	18.9	5.610-1	1.5x101
Tb-160		0.9	24.3	0.5	13.5	4.2x102	1.1x104
Tc-95m	Technetium(43)	2	54.1	2	54.1	8.3x102	2.2x104
Tc-96m		0.4	10.8	0.4	10.8	1.4x106	3.8x107
Tc-96		0.4	10.8	0.4	10.8	1.2x104	3.2x105
Tc-97m		40	1080	40	1080	5.6x102	1.5x104
Tc-97		Unlimited	Unlimited	Unlimited	Unlimited	5.2x10-5	1.4x10-3
Tc-98		0.7	18.9	0.7	18.9	3.2x10-5	8.7x10-4
Tc-99m		8	216	8	216	1.9x105	5.3x106
Tc-99		40	1080	0.9	24.3	6.3x10-4	1.7x10-2
Te-118	Tellurium(52)	0.2	5.41	0.2	5.41	6.8x103	1.8x105
Te-121m		5	135	5	135	2.6x102	7.0x103

Te-121		2	54.1	2	54.1	2.4x103	6.4x104
Te-123m		7	189	7	189	3.3x102	8.9x103
Te-125m		30	811	9	243	6.7x102	1.8x104
Te-127m		20	541	0.5	13.5	3.5x102	9.4x103
Te-127		20	541	0.5	13.5	9.8x104	2.6x106
Te-129m		0.6	16.2	0.5	13.5	1.1x103	3.0x104
Te-129		0.6	16.2	0.5	13.5	7.7x105	2.1x107
Te-131m		0.7	18.9	0.5	13.5	3.0x104	8.0x105
Te-132		0.4	10.8	0.4	10.8	1.1x104	3.0x105
Th-227	Thorium(90)	9	243	1x10-2	0.270	1.1x103	3.1x104
Th-228		0.3	8.11	4x10-4	1.08x10-2	3.0x101	8.2x102
Th-229		0.3	8.11	3x10-5	8.11x10-4	7.9x10-3	2.1x10-1
Th-230		2	54.1	2x10-4	5.41x10-3	7.6x10-4	2.1x10-2
Th-231		40	1080	0.9	24.3	2.0x104	5.3x105
Th-232		Unlimited	Unlimited	Unlimited	Unlimited	4.0x10-9	1.1x10-7
Th-234		0.2	5.41	0.2	5.41	8.6x102	2.3x104
Th (natural)		Unlimited	Unlimited	Unlimited	Unlimited	8.1x10-9	2.2x10-7
Ti-44	Titanium(22)	0.5	13.5	0.2	5.41	6.4	1.7x102
Tl-200	Thallium(81.1)	0.8	21.6	0.8	21.6	2.2x104	6.0x105
Tl-201		10	270	10	270	7.9x103	2.1x105
Tl-202		2	54.1	2	54.1	2.0x103	5.3x104
Tl-204		4	108	0.5	13.5	1.7x101	4.6x102
Tm-167	Thulium(69)	7	189	7	189	3.1x103	8.5x104
Tm-168		0.8	21.6	0.8	21.6	3.1x102	8.3x103
Tm-170		4	108	0.5	13.5	2.2x102	6.0x103
Tm-171		40	1080	10	270	4.0x101	1.1x103
U-230	Uranium(92)	40	1080	1x10-2	0.270	1.0x103	2.7x104
U-232		3	81.1	3x10-4	8.11x10-3	8.3x10-1	2.2x101
U-233		10	270	1x10-3	2.70x10-2	3.6x10-4	9.7x10-3
U-234		10	270	1x10-3	2.70x10-2	2.3x10-4	6.2x10-3
U-235		Unlimited	Unlimited	Unlimited	Unlimited	8.0x10-8	2.2x10-6
U-236		10	270	1x10-3	2.70x10-2	2.4x10-6	6.5x10-5
U-238		Unlimited	Unlimited	Unlimited	Unlimited	1.2x10-8	3.4x10-7
U (natural)		Unlimited	Unlimited	Unlimited	Unlimited	2.6x10-8	7.1x10-7
U (enriched less)		Unlimited	Unlimited	Unlimited	Unlimited	------	(see §173.434)5% or
U (enriched than 5%)		10	270	1x10-3	2.70x10-2	------	(see §173.434)more
U (depleted)		Unlimited	Unlimited	Unlimited	Unlimited	------	(see §173.434)
V-48	Vanadium(23)	0.3	8.11	0.3	8.11	6.3x103	1.7x105
V-49		40	1080	40	1080	3.0x102	8.1x103
W-178	Tungsten(74)	1	27.0	1	27.0	1.3x10-3	3.4x104
W-181		30	811	30	811	2.2x102	6.0x103
W-185		40	1080	0.9	24.3	3.5x102	9.4x103
W-187		2	54.1	0.5	13.5	2.6x104	7.0x105
W-188		0.2	5.41	0.2	5.41	3.7x102	1.0x104
Xe-122	Xenon(54)	0.2	5.41	0.2	5.41	4.8x104	1.3x106
Xe-123		0.2	5.41	0.2	5.41	4.4x105	1.2x107
Xe-127		4	108	4	108	1.0x103	2.8x104
Xe-131m		40	1080	40	1080	3.1x103	8.4x104
Xe-133		20	541	20	541	6.9x103	1.9x105
Xe-135		4	108	4	108	9.5x104	2.6x106
Y-87	Yttrium(39)	2	54.1	2	54.1	1.7x104	4.5x105
Y-88		0.4	10.8	0.4	10.8	5.2x102	1.4x104
Y-90		0.2	5.41	0.2	5.41	2.0x104	5.4x105
Y-91m		2	54.1	2	54.1	1.5x106	4.2x107
Y-91		0.3	8.11	0.3	8.11	9.1x102	2.5x104
Y-92		0.2	5.41	0.2	5.41	3.6x105	9.6x106
Y-93		0.2	5.41	0.2	5.41	1.2x105	3.3x106
Yb-169	Ytterbium(70)	3	81.1	3	81.1	8.9x102	2.4x104
Yb-175		30	811	0.9	24.3	6.6x103	1.8x105
Zn-65	Zinc(30)	2	54.1	2	54.1	3.0x102	8.2x103
Zn-69m		2	54.1	0.5	13.5	1.2x105	3.3x106
Zn-69		4	108	0.5	13.5	1.8x106	4.9x107
Zr-88	Zirconium(40)	3	81.1	3	81.1	6.6x102	1.8x104
Zr-93		40	1080	0.2	5.41	9.3x10-5	2.5x10-3
Zr-95		1	27.0	0.9	24.3	7.9x102	2.1x104
Zr-97		0.3	8.11	0.3	8.11	7.1x104	1.9x106

aInternational shipments of Einsteinium require multilateral approval of A1 and A2 values. bInternational shipments of Fermium require multilateral approval of A1 and A2 values. c20 Ci for Mo99 for domestic use. MFP: For mixed fission products, use formula for mixtures or Table 10 in §173.433. Note: The activity per gram of radionuclide quantities are technical information that might not provide a direct relationship between the activity and total mass of material contained in a package.

a International shipments of Einsteinium require multilateral approval of A1 and A2 values.
b International shipments of Fermium require multilateral approval of A1 and A2 values.
c 20 Ci for Mo99 for domestic use.
MFP: For mixed fission products, use formula for mixtures or Table 10 in § 173.433.
Note: The activity per gram of radionuclide quantities are technical information that might not provide a direct relationship between the activity and total mass of material contained in a package.

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