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Table 25-2 Exempt Material Activity Concentrations and Exempt Consignment Activity Limits for Radionuclides

Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Actinium (89)				
Ac-225	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Ac-227	$1.0x10^{-1}$	$2.7x10^{-12}$	$1.0x10^{3}$	$2.7x10^{-8}$
Ac-228	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Silver (47)				
Ag-105	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ag-108m (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ag-110m	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ag-111	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Aluminum (13)				
Al-26	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Americium (95)				
Am-241	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Am-242m (b)	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Am-243 (b)	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Argon (18)				
Ar-37	$1.0x10^{6}$	$2.7x10^{-5}$	$1.0x10^{8}$	$2.7x10^{-3}$
Ar-39	$1.0x10^{7}$	$2.7x10^{-4}$	$1.0x10^{4}$	$2.7x10^{-7}$
Ar-41	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{9}$	$2.7x10^{-2}$
Arsenic (33)				
As-72	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
As-73	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
As-74	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
As-76	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
As-77	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Astatine (85)				
At-211	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Gold (79)				
Au-193	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Au-194	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Au-195	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Au-198	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Au-199	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Barium (56)				
Ba-131	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ba-133	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ba-133m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ba-140 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Beryllium (4)				
Be-7	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Be-10	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{6}$	$2.7x10^{-5}$
Bismuth (83)				
Bi-205	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Bi-206	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Bi-207	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Bi-210	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Bi-210m	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-6}$
Bi-212 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Berkelium (97)				
Bk-247	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Bk-249	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Bromine (35)				
Br-76	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-6}$
Br-77	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Br-82	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Carbon (6)				
C-11	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
C-14	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Calcium (20)				
Ca-41	$1.0x10^{5}$	$2.7x10^{-6}$	$1.0x10^{7}$	$2.7x10^{-4}$
Ca-45	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Ca-47	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cadmium (48)				
Cd-109	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cd-113m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cd-115	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cd-115m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cerium (58)				
Ce-139	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ce-141	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Ce-143	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ce-144 (b)	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Californium (98)				
Cf-248	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cf-249	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Cf-250	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cf-251	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Cf-252	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cf-253	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cf-254	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Chlorine (17)				
Cl-36	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cl-38	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Curium (96)				
Cm-240	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cm-241	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cm-242	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cm-243	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cm-244	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cm-245	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Cm-246	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Cm-247	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cm-248	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Cobalt (27)				
Co-55	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Co-56	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Co-57	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Co-58	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Co-58m	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Co-60	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Chromium (24)				
Cr-51	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Cesium (55)				
Cs-129	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cs-131	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cs-132	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cs-134	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Cs-134m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cs-135	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Cs-136	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Cs-137 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Copper (29)				
Cu-64	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Cu-67	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-6}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Dysprosium (66)				
Dy-159	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Dy-165	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Dy-166	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Erbium (68)				
Er-169	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Er-171	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Europium (63)				
Eu-147	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-148	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-149	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Eu-150 (short lived).	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-150 (long lived).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-152	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-152m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-154	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Eu-155	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Eu-156	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Fluorine (9)				
F-18	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Iron (26)				
Fe-52	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Fe-55	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{6}$	$2.7x10^{-5}$
Fe-59	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Fe-60	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Gallium (31)				
Ga-67	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ga-68	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ga-72	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Gadolinium (64)				
Gd-146	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Gd-148	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Gd-153	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Gd-159	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Germanium (32)				
Ge-68	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ge-71	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{8}$	$2.7x10^{-3}$
Ge-77	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Hafnium (72)				
Hf-172	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Hf-175	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Hf-181	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Hf-182	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Mercury (80)				
Hg-194	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Hg-195m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Hg-197	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Hg-197m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Hg-203	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Holmium (67)				
Ho-166	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ho-166m	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Iodine (53)				
I-123	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
I-124	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
I-125	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
I-126	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
I-129	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
I-131	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
I-132	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
I-133	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
I-134	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
I-135	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Indium (49)				
In-111	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
In-113m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
In-114m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
In-115m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Iridium (77)				
Ir-189	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Ir-190	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ir-192	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Ir-194	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Potassium (19)				
K-40	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
K-42	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
K-43	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Krypton (36)				
Kr-81	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Kr-85	$1.0x10^{5}$	$2.7x10^{-6}$	$1.0x10^{4}$	$2.7x10^{-7}$
Kr-85m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{10}$	$2.7x10^{-1}$
Kr-87	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{9}$	$2.7x10^{-2}$
Lanthanum (57)				
La-137	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
La-140	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Lutetium (71)				
Lu-172	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Lu-173	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Lu-174	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Lu-174m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Lu-177	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Magnesium (12)				
Mg-28	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Manganese (25)				
Mn-52	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Mn-53	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{9}$	$2.7x10^{-2}$
Mn-54	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Mn-56	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Molybdenum (42)				
Mo-93	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{8}$	$2.7x10^{-3}$
Mo-99	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Nitrogen (7)				
N-13	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{9}$	$2.7x10^{-2}$
Sodium (11)				
Na-22	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Na-24	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Niobium (41)				
Nb-93m	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Nb-94	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Nb-95	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Nb-97	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Neodymium (60)				
Nd-147	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Nd-149	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Nickel (28)				
Ni-59	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{8}$	$2.7x10^{-3}$
Ni-63	$1.0x10^{5}$	$2.7x10^{-6}$	$1.0x10^{8}$	$2.7x10^{-3}$
Ni-65	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$

APPENDIX B

Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Neptunium (93)				
Np-235	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Np-236 (short lived).	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Np-236 (long lived).	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Np-237 (b)	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Np-239	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Osmium (76)				
Os-185	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Os-191	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Os-191m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Os-193	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Os-194	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Phosphorus (15)				
P-32	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{5}$	$2.7x10^{-6}$
P-33	$1.0x10^{5}$	$2.7x10^{-6}$	$1.0x10^{8}$	$2.7x10^{-3}$
Protactinium (91)				
Pa-230	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pa-231	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Pa-233	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Lead (82)				
Pb-201	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pb-202	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pb-203	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pb-205	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Pb-210 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Pb-212 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Palladium (46)				
Pd-103	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{8}$	$2.7x10^{-3}$
Pd-107	$1.0x10^{5}$	$2.7x10^{-6}$	$1.0x10^{8}$	$2.7x10^{-3}$
Pd-109	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Promethium (61)				
Pm-143	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pm-144	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pm-145	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Pm-147	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Pm-148m	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pm-149	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pm-151	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Polonium (84)				
Po-210	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Praseodymium (59)				
Pr-142	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Pr-143	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{6}$	$2.7x10^{-5}$
Platinum (78)				
Pt-188	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pt-191	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{67}$	$2.7x10^{-5}$
Pt-193	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Pt-193m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Pt-195m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pt-197	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Pt-197m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Plutonium (94)				
Pu-236	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Pu-237	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Pu-238	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Pu-239	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Pu-240	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Pu-241	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Pu-242	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Pu-244	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Radium (88)				
Ra-223 (b)	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ra-224 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ra-225	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ra-226 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Ra-228 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Rubidium (37)				
Rb-81	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Rb-83	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Rb-84	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Rb-86	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Rb-87	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Rb (nat)	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Rhenium (75)				
Re-184	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Re-184m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Re-186	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Re-187	$1.0x10^{6}$	$2.7x10^{-5}$	$1.0x10^{9}$	$2.7x10^{-2}$
Re-188	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Re-189	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Re (nat)	$1.0x10^{6}$	$2.7x10^{-5}$	$1.0x10^{9}$	$2.7x10^{-2}$
Rhodium (45)				
Rh-99	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Rh-101	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Rh-102	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Rh-102m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Rh-103m	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{8}$	$2.7x10^{-3}$
Rh-105	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Radon (86)				
Rn-222 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{8}$	$2.7x10^{-3}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Ruthenium (44)				
Ru-97	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Ru-103	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ru-105	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ru-106 (b)	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Sulfur (16)				
S-35	$1.0x10^{5}$	$2.7x10^{-6}$	$1.0x10^{8}$	$2.7x10^{-3}$
Antimony (51)				
Sb-122	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{4}$	$2.7x10^{-7}$
Sb-124	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sb-125	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sb-126	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Scandium (21)				
Sc-44	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Sc-46	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sc-47	$1.0x10^{3}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sc-48	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Selenium (34)				
Se-75	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Se-79	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Silicon (14)				
Si-31	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Si-32	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Samarium (62)				
Sm-145	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Sm-147	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Sm-151	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{8}$	$2.7x10^{-3}$
Sm-153	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Tin (50)				
Sn-113	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Sn-117m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sn-119m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Sn-121m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Sn-123	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sn-125	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Sn-126	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Strontium (38)				
Sr-82	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Sr-85	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sr-85m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Sr-87m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sr-89	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Sr-90 (b)	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{4}$	$2.7x10^{-7}$
Sr-91	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Sr-92	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tritium (1)				
T(H-3)	$1.0x10^{6}$	$2.7x10^{-5}$	$1.0x10^{9}$	$2.7x10^{-2}$
Tantalum (73)				
Ta-178 (long lived).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Ta-179	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Ta-182	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Terbium (65)				
Tb-157	$1.0x10^{4}$	$2.7x10^{70}$	$1.0x10^{7}$	$2.7x10^{-4}$
Tb-158	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tb-160	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Technetium (43)				
Tc-95m	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tc-96	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tc-96m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Tc-97	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{8}$	$2.7x10^{-3}$

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Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Tc-97m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Tc-98	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tc-99	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Tc-99m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Tellurium (52)				
Te-121	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Te-121m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Te-123m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Te-125m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Te-127	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Te-127m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Te-129	$1.0x10^{3}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Te-129m	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Te-131m	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Te-132	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Thorium (90)				
Th-227	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Th-228 (b)	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Th-229 (b)	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Th-230	1.0	$2.7x10^{-11}$	$1.0x10^{4}$	$2.7x10^{-7}$
Th-231	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Th-232	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
Th-234 (b)	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{5}$	$2.7x10^{-6}$
Th (nat) (b)	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Titanium (22)				
Ti-44	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
Thallium (81)				
Tl-200	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tl-201	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tl-202	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tl-204	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{4}$	$2.7x10^{-7}$

APPENDIX B

Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
Thulium (69)				
Tm-167	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tm-170	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Tm-171	$1.0x14^{1}$	$2.7x10^{-7}$	$1.0x10^{8}$	$2.7x10^{-3}$
Uranium (92)				
U-230 (fast lung absorption) (b),(d).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
U-230 (medium lung absorption) (e).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-230 (slow lung absorption) (f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-232 (fast lung absorption) (b),(d).	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
U-232 (medium lung absorption) (f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-232 (slow lung absorption) (f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-233 (fast lung absorption) (d).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-233 (medium lung absorption) (e).	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
U-233 (slow lung absorption) (f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
U-234 (fast lung absorption) (d).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-234 (medium lung absorption) (e).	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
U-234 (slow lung absorption) (f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
U-235 (all lung absorption types) (b),(d),(e),(f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-236 (fast lung absorption) (d).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-236 (medium lung absorption) (e).	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
U-236 (slow lung absorption) (f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U-238 (all lung absorption types) (b),(d),(e),(f).	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{4}$	$2.7x10^{-7}$
U (nat) (b)	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
U (enriched to 20% or less) (g).	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
U (dep)	1.0	$2.7x10^{-11}$	$1.0x10^{3}$	$2.7x10^{-8}$
Vanadium (23)				
V-48	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$
V-49	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$
Tungsten (74)				
W-178	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
W-181	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
W-185	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{7}$	$2.7x10^{-4}$

APPENDIX B

Element, Atomic No., Radionuclide	Activity concentration for exempt material (Bq/g)	Activity concentration for exempt material (Ci/g)	Activity limit for exempt consignment (Bq)	Activity limit of exempt consignment (Ci)
W-187	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
W-188	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Xenon (54)				
Xe-122	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{9}$	$2.7x10^{-2}$
Xe-123	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{9}$	$2.7x10^{-2}$
Xe-127	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{5}$	$2.7x10^{-6}$
Xe-131m	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{4}$	$2.7x10^{-7}$
Xe-133	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{4}$	$2.7x10^{-7}$
Xe-135	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{10}$	$2.7x10^{-1}$
Yttrium (39)				
Y-87	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Y-88	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Y-90	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{5}$	$2.7x10^{-6}$
Y-91	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{6}$	$2.7x10^{-5}$
Y-91m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Y-92	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Y-93	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{5}$	$2.7x10^{-6}$
Ytterbium (70)				
Yb-169	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{7}$	$2.7x10^{-4}$
Yb-175	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Zinc (30)				
Zn-65	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Zn-69	$1.0x10^{4}$	$2.7x10^{-7}$	$1.0x10^{6}$	$2.7x10^{-5}$
Zn-69m	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Zirconium (40)				
Zr-88	$1.0x10^{2}$	$2.7x10^{-9}$	$1.0x10^{6}$	$2.7x10^{-5}$
Zr-93 (b)	$1.0x10^{3}$	$2.7x10^{-8}$	$1.0x10^{7}$	$2.7x10^{-4}$
Zr-95	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{6}$	$2.7x10^{-5}$
Zr-97 (b)	$1.0x10^{1}$	$2.7x10^{-10}$	$1.0x10^{5}$	$2.7x10^{-6}$

a [Reserved]

b Parent nuclides and their progeny included in secular equilibrium are listed in the following:

Sr-90	Y-90
Zr-93	Nb-93m
Zr-97	Nb-97
Ru-106	Rh-106
Cs-137	Ba-137m
Ce-134	La-134
Ce-144	Pr-144
Ba-140	La-140
Bi-212	Tl-208 (0.36), Po-212 (0.64)
Pb-210	Bi-210, Po-210
Pb-212	Bi-212, Tl-208 (0.36), Po-212 (0.64)
Rn-220	Po-216
Rn-222	Po-218, Pb-214, Bi-214, Po-214
Ra-223	Rn-219, Po-215, Pb-211, Bi-211, Tl-207
Ra-224	Rn-220, Po-216, Pb-212, Bi-212, Tl-208(0.36), Po-212 (0.64)
Ra-226	Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
Ra-228	Ac-228
Th-226	Ra-222, Rn-218, Po-214
Th-228	Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-229	Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209
Th-nat	Ra-228, Ac-228, Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
Th-234	Pa-234m
U-230	Th-226, Ra-222, Rn-218, Po-214
U-232	Th-228, Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208 (0.36), Po-212 (0.64)
U-235	Th-231
U-238	Th-234, Pa-234m
U-nat	Th-234, Pa-234m, U-234, Th-230, Ra-226, Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210
U-240	Np-240m
Np-237	Pa-233
Am-242m	Am-242
Am-243	Np-239

c [Reserved]

d These values apply only to compounds of uranium that take the chemical form of UF_6, UO_2F_2 and $UO_2(NO_3)_2$ in both normal and accident conditions of transport.

e These values apply only to compounds of uranium that take the chemical form of UO_3, UF_4, UCl_4 and hexavalent compounds in both normal and accident conditions of transport.

f These values apply to all compounds of uranium other than those specified in notes (d) and (e) of this table.