

SCHEDULE 7

Quantities and concentrations of radionuclides
Regulations 2(4), 6(2), 31(1), 31(3) and Schedule 1

PART 1

**Table of artificial radionuclides and naturally occurring radionuclides
(which are processed for their radioactive, fissile or fertile properties)**

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
<i>Radionuclide name, symbol, isotope</i>	<i>Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg)</i>	<i>Quantity for Notification</i>	<i>Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg)</i>	<i>Quantity for notification of occurrences</i>	<i>Quantity for notification of occurrences</i>
	<i>Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)</i>	<i>Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)</i>	<i>Regulation 6(2)(e) (Bq/g)</i>	<i>Regulation 31(1) (Bq)</i>	<i>Regulation 31(3) (Bq)</i>
Hydrogen					
H-3 (tritiated compounds)	10 ²	10 ⁹	10 ⁶	10 ¹²	10 ¹⁰
Beryllium					
Be-7	10	10 ⁷	10 ³	10 ¹²	10 ⁸
Carbon					
C-11	0.01	10 ⁶	10	10 ¹³	10 ⁷
C-11 (monoxide)	0.01	10 ⁹	10	10 ¹²	10 ¹⁰
C-11 (dioxide)	0.01	10 ⁹	10	10 ¹²	10 ¹⁰
C-14	1	10 ⁷	10 ⁴	10 ¹¹	10 ⁸
Oxygen					
O-15	0.01	10 ⁹	10 ²	10 ¹⁰	
Fluorine					

(1) Potassium salts in quantities less than 1,000kg are exempt.

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Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
F-18	10	10⁶	10	10¹³	10⁷
Sodium					
Na-22	0.1	10⁶	10	10¹⁰	10⁷
Na-24	0.1	10⁵	10	10¹¹	10⁶
Silicon					
Si-31	10³	10⁶	10³	10¹³	10⁷
Phosphorus					
P-32	10³	10⁵	10³	10¹⁰	10⁶
P-33	10³	10⁸	10⁵	10¹¹	10⁹
Sulphur					
S-35	10²	10⁸	10⁵	10¹¹	10⁹
Chlorine					
Cl-36	1	10⁶	10⁴	10¹⁰	10⁷
Cl-38	10	10⁵	10	10¹³	10⁶
Argon					
Ar-37	0.01	10⁸	10⁶	10¹³	
Ar-41	0.01	10⁹	10²	10⁹	
Potassium					
K-40⁽¹⁾	1	10⁶	10²	10¹⁰	10⁷
K-42	10²	10⁶	10²	10¹²	10⁷
K-43	10	10⁶	10	10¹¹	10⁷
Calcium					

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Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
Ca-45	10 ²	10 ⁷	10 ⁴	10 ¹⁰	10 ⁸
Ca-47	10	10 ⁶	10	10 ¹¹	10 ⁷
Scandium					
Sc-46	0.1	10 ⁶	10	10 ¹⁰	10 ⁷
Sc-47	10 ²	10 ⁶	10 ²	10 ¹¹	10 ⁷
Sc-48	1	10 ⁵	10	10 ¹¹	10 ⁶
Vanadium					
V-48	1	10 ⁵	10	10 ¹⁰	10 ⁶
Chromium					
Cr-51	10 ²	10 ⁷	10 ³	10 ¹²	10 ⁸
Manganese					
Mn-51	10	10 ⁵	10	10 ¹³	10 ⁶
Mn-52	1	10 ⁵	10	10 ¹⁰	10 ⁶
Mn-52m	10	10 ⁵	10	10 ¹³	10 ⁶
Mn-53	10 ²	10 ⁹	10 ⁴	10 ¹²	10 ¹⁰
Mn-54	0.1	10 ⁶	10	10 ¹¹	10 ⁷
Mn-56	10	10 ⁵	10	10 ¹²	10 ⁶
Iron					
Fe-52+	10	10 ⁶	10	10 ¹²	10 ⁷
Fe-55	10 ³	10 ⁶	10 ⁴	10 ¹¹	10 ⁷
Fe-59	1	10 ⁶	10	10 ¹⁰	10 ⁷
Cobalt					
Co-55	10	10 ⁶	10	10 ¹¹	10 ⁷

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Co-56	0.1	10 ⁵	10	10 ¹⁰	10 ⁶
Co-57	1	10 ⁶	10 ²	10 ¹¹	10 ⁷
Co-58	1	10 ⁶	10	10 ¹⁰	10 ⁷
Co-58m	10 ⁴	10 ⁷	10 ⁴	10 ¹³	10 ⁸
Co-60	0.1	10 ⁵	10	10 ¹⁰	10 ⁶
Co-60m	10 ³	10 ⁶	10 ³	10 ¹⁶	10 ⁷
Co-61	10 ²	10 ⁶	10 ²	10 ¹³	10 ⁷
Co-62m	10	10 ⁵	10	10 ¹³	10 ⁶
Nickel					
Ni-59	10 ²	10 ⁸	10 ⁴	10 ¹¹	10 ⁹
Ni-63	10 ²	10 ⁸	10 ⁵	10 ¹¹	10 ⁹
Ni-65	10	10 ⁶	10	10 ¹³	10 ⁷
Copper					
Cu-64	10 ²	10 ⁶	10 ²	10 ¹²	10 ⁷
Zinc					
Zn-65	0.1	10 ⁶	10	10 ¹⁰	10 ⁷
Zn-69	10 ³	10 ⁶	10 ⁴	10 ¹⁴	10 ⁷
Zn-69m+	10	10 ⁶	10 ²	10 ¹²	10 ⁷
Gallium					
Ga-68	0.01	10 ⁵	10	10 ¹³	10 ⁶
Ga-72	10	10 ⁵	10	10 ¹¹	10 ⁶
Germanium					

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Ge-68+	0.01	10 ⁵	10	10 ¹⁰	10 ⁶
Ge-71	10 ⁴	10 ⁸	10 ⁴	10 ¹³	10 ⁹
Arsenic					
As-73	10 ³	10 ⁷	10 ³	10 ¹¹	10 ⁸
As-74	10	10 ⁶	10	10 ¹¹	10 ⁷
As-76	10	10 ⁵	10 ²	10 ¹¹	10 ⁶
As-77	10 ³	10 ⁶	10 ³	10 ¹²	10 ⁷
Selenium					
Se-75	1	10 ⁶	10 ²	10 ¹¹	10 ⁷
Bromine					
Br-82	1	10 ⁶	10	10 ¹¹	10 ⁷
Krypton					
Kr-74	0.01	10 ⁹	10 ²	10 ⁹	
Kr-76	0.01	10 ⁹	10 ²	10 ¹⁰	
Kr-77	0.01	10 ⁹	10 ²	10 ⁹	
Kr-79	0.01	10 ⁵	10 ³	10 ¹⁰	
Kr-81	0.01	10 ⁷	10 ⁴	10 ¹¹	
Kr-83m	0.01	10 ¹²	10 ⁵	10 ¹²	
Kr-85	0.01	10 ⁴	10 ⁵	10 ¹²	
Kr-85m	0.01	10 ¹⁰	10 ³	10 ¹⁰	

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Kr-87	0.01	10⁹	10²	10⁹	
Kr-88	0.01	10⁹	10²	10⁹	
Rubidium					
Rb-86	10²	10⁵	10²	10¹¹	10⁶
Strontium					
Sr-85	1	10⁶	10²	10¹¹	10⁷
Sr-85m	10²	10⁷	10²	10¹³	10⁸
Sr-87m	10²	10⁶	10²	10¹³	10⁷
Sr-89	10³	10⁶	10³	10¹⁰	10⁷
Sr-90+	1	10⁴	10²	10⁹	10⁵
Sr-91+	10	10⁵	10	10¹²	10⁶
Sr-92	10	10⁶	10	10¹²	10⁷
Yttrium					
Y-90	10³	10⁵	10³	10¹¹	10⁶
Y-91	10²	10⁶	10³	10¹⁰	10⁷
Y-91m	10²	10⁶	10²	10¹³	10⁷
Y-92	10²	10⁵	10²	10¹²	10⁶
Y-93	10²	10⁵	10²	10¹²	10⁶
Zirconium					
Zr-93+	10	10⁷	10³	10⁹	10⁸
Zr-95+	1	10⁶	10	10¹⁰	10⁷
Zr-97+	10	10⁵	10	10¹¹	10⁶

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Niobium					
Nb-93m	10	10 ⁷	10 ⁴	10 ¹¹	10 ⁸
Nb-94	0.1	10 ⁶	10	10 ⁹	10 ⁷
Nb-95	1	10 ⁶	10	10 ¹¹	10 ⁷
Nb-97+	10	10 ⁶	10	10 ¹³	10 ⁷
Nb-98	10	10 ⁵	10	10 ¹³	10 ⁶
Molybdenum					
Mo-90	10	10 ⁶	10	10 ¹²	10 ⁷
Mo-93	10	10 ⁸	10 ³	10 ¹¹	10 ⁹
Mo-99+	10	10 ⁶	10 ²	10 ¹¹	10 ⁷
Mo-101+	10	10 ⁶	10	10 ¹³	10 ⁷
Technetium					
Tc-96	1	10 ⁶	10	10 ¹¹	10 ⁷
Tc-96m	10 ³	10 ⁷	10 ³	10 ¹⁴	10 ⁸
Tc-97	10	10 ⁸	10 ³	10 ¹²	10 ⁹
Tc-97m	10 ²	10 ⁷	10 ³	10 ¹⁰	10 ⁸
Tc-99	1	10 ⁷	10 ⁴	10 ¹⁰	10 ⁸
Tc-99m	10 ²	10 ⁷	10 ²	10 ¹³	10 ⁸
Ruthenium					
Ru-97	10	10 ⁷	10 ²	10 ¹²	10 ⁸
Ru-103+	1	10 ⁶	10 ²	10 ¹⁰	10 ⁷
Ru-105+	10	10 ⁶	10	10 ¹²	10 ⁷
Ru-106+	0.1	10 ⁵	10 ²	10 ⁹	10 ⁶

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Rhodium					
Rh-103m	10⁴	10⁸	10⁴	10¹⁵	10⁹
Rh-105	10²	10⁷	10²	10¹²	10⁸
Palladium					
Pd-103+	10³	10⁸	10³	10¹¹	10⁹
Pd-109+	10²	10⁶	10³	10¹²	10⁷
Silver					
Ag-105	1	10⁶	10²	10¹¹	10⁷
Ag-108m+	0.1	10⁶	10	10¹⁰	10⁷
Ag-110m+	0.1	10⁶	10	10¹⁰	10⁷
Ag-111	10²	10⁶	10³	10¹¹	10⁷
Cadmium					
Cd-109+	1	10⁶	10⁴	10¹⁰	10⁷
Cd-115+	10	10⁶	10²	10¹¹	10⁷
Cd-115m+	10²	10⁶	10³	10¹⁰	10⁷
Indium					
In-111	10	10⁶	10²	10¹¹	10⁷
In-113m	10²	10⁶	10²	10¹³	10⁷
In-114m+	10	10⁶	10²	10¹⁰	10⁷
In-115m	10²	10⁶	10²	10¹³	10⁷
Tin					
Sn-113+	1	10⁷	10³	10¹¹	10⁸
Sn-125	10	10⁵	10²	10¹⁰	10⁶

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Antimony					
Sb-122	10	10 ⁴	10 ²	10 ¹¹	10 ⁵
Sb-124	1	10 ⁶	10	10 ¹⁰	10 ⁷
Sb-125+	0.1	10 ⁶	10 ²	10 ¹⁰	10 ⁷
Tellurium					
Te-123m	1	10 ⁷	10 ²	10 ¹⁰	10 ⁸
Te-125m	10 ³	10 ⁷	10 ³	10 ¹⁰	10 ⁸
Te-127	10 ³	10 ⁶	10 ³	10 ¹²	10 ⁷
Te-127m+	10	10 ⁷	10 ³	10 ¹⁰	10 ⁸
Te-129	10 ²	10 ⁶	10 ²	10 ¹⁴	10 ⁷
Te-129m+	10	10 ⁶	10 ³	10 ¹⁰	10 ⁷
Te-131	10 ²	10 ⁵	10 ²	10 ¹⁴	10 ⁶
Te-131m+	10	10 ⁶	10	10 ¹¹	10 ⁷
Te-132+	1	10 ⁷	10 ²	10 ¹¹	10 ⁸
Te-133	10	10 ⁵	10	10 ¹⁴	10 ⁶
Te-133m	10	10 ⁵	10	10 ¹³	10 ⁶
Te-134	10	10 ⁶	10	10 ¹³	10 ⁷
Iodine					
I-123	10 ²	10 ⁷	10 ²	10 ¹²	10 ⁸
I-125	10 ²	10 ⁶	10 ³	10 ¹⁰	10 ⁷
I-126	10	10 ⁶	10 ²	10 ¹⁰	10 ⁷
I-129	0.01	10 ⁵	10 ²	10 ⁹	10 ⁶
I-130	10	10 ⁶	10	10 ¹¹	10 ⁷

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I-131	10	10 ⁶	10 ²	10 ¹⁰	10 ⁷
I-132	10	10 ⁵	10	10 ¹²	10 ⁶
I-133	10	10 ⁶	10	10 ¹¹	10 ⁷
I-134	10	10 ⁵	10	10 ¹³	10 ⁶
I-135	10	10 ⁶	10	10 ¹²	10 ⁷
Xenon					
Xe-131m	0.01	10 ⁴	10 ⁴	10 ¹¹	
Xe-133	0.01	10 ⁴	10 ³	10 ¹¹	
Xe-135	0.01	10 ¹⁰	10 ³	10 ¹⁰	
Caesium					
Cs-129	10	10 ⁵	10 ²	10 ¹²	10 ⁶
Cs-131	10 ³	10 ⁶	10 ³	10 ¹²	10 ⁷
Cs-132	10	10 ⁵	10	10 ¹¹	10 ⁶
Cs-134	0.1	10 ⁴	10	10 ¹⁰	10 ⁵
Cs-134m	10 ³	10 ⁵	10 ³	10 ¹⁴	10 ⁶
Cs-135	10 ²	10 ⁷	10 ⁴	10 ¹¹	10 ⁸
Cs-136	1	10 ⁵	10	10 ¹⁰	10 ⁶
Cs-137+	0.1	10 ⁴	10	10 ¹⁰	10 ⁵
Cs-138	10	10 ⁴	10	10 ¹³	10 ⁵
Barium					
Ba-131	10	10 ⁶	10 ²	10 ¹¹	10 ⁷
Ba-140+	1	10 ⁵	10	10 ¹¹	10 ⁶

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Lanthanum					
La-140	1	10⁵	10	10¹¹	10⁶
Cerium					
Ce-139	1	10⁶	10²	10¹¹	10⁷
Ce-141	10²	10⁷	10²	10¹⁰	10⁸
Ce-143	10	10⁶	10²	10¹¹	10⁷
Ce-144+	10	10⁵	10²	10⁹	10⁶
Praseodymium					
Pr-142	10²	10⁵	10²	10¹²	10⁶
Pr-143	10³	10⁶	10⁴	10¹¹	10⁷
Neodymium					
Nd-147	10²	10⁶	10²	10¹¹	10⁷
Nd-149	10²	10⁶	10²	10¹³	10⁷
Promethium					
Pm-147	10³	10⁷	10⁴	10¹⁰	10⁸
Pm-149	10³	10⁶	10³	10¹¹	10⁷
Samarium					
Sm-151	10³	10⁸	10⁴	10¹⁰	10⁹
Sm-153	10²	10⁶	10²	10¹¹	10⁷
Europium					
Eu-152	0.1	10⁶	10	10⁹	10⁷
Eu-152m	10²	10⁶	10²	10¹²	10⁷
Eu-154	0.1	10⁶	10	10⁹	10⁷

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Eu-155	1	10 ⁷	10 ²	10 ¹⁰	10 ⁸
Gadolinium					
Gd-153	10	10 ⁷	10 ²	10 ¹⁰	10 ⁸
Gd-159	10 ²	10 ⁶	10 ³	10 ¹²	10 ⁷
Terbium					
Tb-160	1	10 ⁶	1	10 ¹⁰	10 ⁷
Dysprosium					
Dy-165	10 ³	10 ⁶	10 ³	10 ¹³	10 ⁷
Dy-166	10 ²	10 ⁶	10 ³	10 ¹¹	10 ⁷
Holmium					
Ho-166	10 ²	10 ⁵	10 ³	10 ¹¹	10 ⁶
Erbium					
Er-169	10 ³	10 ⁷	10 ⁴	10 ¹¹	10 ⁸
Er-171	10 ²	10 ⁶	10 ²	10 ¹²	10 ⁷
Thulium					
Tm-170	10 ²	10 ⁶	10 ³	10 ¹⁰	10 ⁷
Tm-171	10 ³	10 ⁸	10 ⁴	10 ¹¹	10 ⁹
Ytterbium					
Yb-175	10 ²	10 ⁷	10 ³	10 ¹¹	10 ⁸
Lutetium					
Lu-177	10 ²	10 ⁷	10 ³	10 ¹¹	10 ⁸
Hafnium					
Hf-181	1	10 ⁶	10	10 ¹⁰	10 ⁷
Tantalum					

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Ta-182	0.1	10⁴	10	10¹⁰	10⁵
Tungsten					
W-181	10	10⁷	10³	10¹²	10⁸
W-185	10³	10⁷	10⁴	10¹¹	10⁸
W-187	10	10⁶	10²	10¹²	10⁷
Rhenium					
Re-186	10³	10⁶	10³	10¹¹	10⁷
Re-188	10²	10⁵	10²	10¹²	10⁶
Osmium					
Os-185	1	10⁶	10	10¹¹	10⁷
Os-191	10²	10⁷	10²	10¹¹	10⁸
Os-191m	10³	10⁷	10³	10¹²	10⁸
Os-193	10²	10⁶	10²	10¹¹	10⁷
Iridium					
Ir-190	1	10⁶	10	10¹⁰	10⁷
Ir-192	1	10⁴	10	10¹⁰	10⁵
Ir-194	10²	10⁵	10²	10¹¹	10⁶
Platinum					
Pt-191	10	10⁶	10²	10¹¹	10⁷
Pt-193m	10³	10⁷	10³	10¹²	10⁸
Pt-197	10	10⁶	10³	10¹²	10⁷
Pt-197m	10²	10⁶	10²	10¹⁴	10⁷
Gold					

(1) Potassium salts in quantities less than 1,000kg are exempt.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
Au-198	10	10 ⁶	10 ²	10 ¹¹	10 ⁷
Au-199	10 ²	10 ⁶	10 ²	10 ¹¹	10 ⁷
Mercury					
Hg-197	10 ²	10 ⁷	10 ²	10 ¹²	10 ⁸
Hg-197m	10 ²	10 ⁶	10 ²	10 ¹²	10 ⁷
Hg-203	10	10 ⁵	10 ²	10 ¹¹	10 ⁶
Thallium					
Tl-200	10	10 ⁶	10	10 ¹¹	10 ⁷
Tl-201	10 ²	10 ⁶	10 ²	10 ¹²	10 ⁷
Tl-202	10	10 ⁶	10 ²	10 ¹¹	10 ⁷
Tl-204	1	10 ⁴	10 ⁴	10 ¹¹	10 ⁵
Lead					
Pb-203	10	10 ⁶	10 ²	10 ¹²	10 ⁷
Pb-210+	0.01	10 ⁴	10	10 ⁸	10 ⁵
Pb-212+	1	10 ⁵	10	10 ¹⁰	10 ⁶
Bismuth					
Bi-206	1	10 ⁵	10	10 ¹⁰	10 ⁶
Bi-207	0.1	10 ⁶	10	10 ¹⁰	10 ⁷
Bi-210	10	10 ⁶	10 ³	10 ⁹	10 ⁷
Bi-212+	1	10 ⁵	10	10 ¹¹	10 ⁶
Polonium					
Po-203	10	10 ⁶	10	10 ¹³	10 ⁷
Po-205	10	10 ⁶	10	10 ¹²	10 ⁷

(1) Potassium salts in quantities less than 1,000kg are exempt.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
Po-207	10	10 ⁶	10	10 ¹²	10 ⁷
Po-210	0.01	10 ⁴	10	10 ⁷	10 ⁵
Astatine					
At-211	10 ³	10 ⁷	10 ³	10 ¹⁰	10 ⁸
Radon					
Rn-220+	0.01	10 ⁷	10 ⁴	10 ⁸	10 ⁸
Rn-222+	0.01	10 ⁸	10	10 ⁹	10 ⁹
Radium					
Ra-223+	1	10 ⁵	10 ²	10 ⁷	10 ⁶
Ra-224+	1	10 ⁵	10	10 ⁸	10 ⁶
Ra-225	10	10 ⁵	10 ²	10 ⁷	10 ⁶
Ra-226+	0.01	10 ⁴	10	10 ⁷	10 ⁵
Ra-227	10 ²	10 ⁶	10 ²	10 ¹³	10 ⁷
Ra-228+	0.01	10 ⁵	10	10 ⁸	10 ⁶
Actinium					
Ac-228	1	10 ⁶	10	10 ¹⁰	10 ⁷
Thorium					
Th-226+	10 ³	10 ⁷	10 ³	10 ¹¹	10 ⁸
Th-227	1	10 ⁴	10	10 ⁷	10 ⁵
Th-228+	0.1	10 ⁴	1	10 ⁶	10 ⁵
Th-229+	0.1	10 ³	1	10 ⁶	10 ⁴
Th-230	0.1	10 ⁴	1	10 ⁶	10 ⁵
Th-231	10 ²	10 ⁷	10 ³	10 ¹²	10 ⁸

(1) Potassium salts in quantities less than 1,000kg are exempt.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
Th-232	0.01	10⁴	10	10⁶	10⁵
Th-234+	10	10⁵	10³	10¹⁰	10⁶
Protactinium					
Pa-230	10	10⁶	10	10⁸	10⁷
Pa-231	0.01	10³	1	10⁶	10⁴
Pa-233	10	10⁷	10²	10¹⁰	10⁸
Uranium					
U-230+	10	10⁵	10	10⁷	10⁶
U-231	10²	10⁷	10²	10¹¹	10⁸
U-232+	0.1	10³	1	10⁶	10⁴
U-233	1	10⁴	10	10⁷	10⁵
U-234	1	10⁴	10	10⁷	10⁵
U-235+	1	10⁴	10	10⁷	10⁵
U-236	10	10⁴	10	10⁷	10⁵
U-237	10²	10⁶	10²	10¹¹	10⁷
U-238+	1	10⁴	10	10⁷	10⁵
U-239	10²	10⁶	10²	10¹⁴	10⁷
U-240	0.01	10⁷	10³	10¹²	10⁸
U-240+	10²	10⁶	10	10¹¹	10⁷
Neptunium					
Np-237+	1	10³	1	10⁷	10⁴
Np-239	10²	10⁷	10²	10¹¹	10⁸
Np-240	10	10⁶	10	10¹³	10⁷

(1) Potassium salts in quantities less than 1,000kg are exempt.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
Plutonium					
Pu-234	10 ²	10 ⁷	10 ²	10 ¹⁰	10 ⁸
Pu-235	10 ²	10 ⁷	10 ²	10 ¹⁴	10 ⁸
Pu-236	1	10 ⁴	10	10 ⁷	10 ⁵
Pu-237	10 ²	10 ⁷	10 ³	10 ¹¹	10 ⁸
Pu-238	0.1	10 ⁴	1	10 ⁶	10 ⁵
Pu-239	0.1	10 ⁴	1	10 ⁶	10 ⁵
Pu-240	0.1	10 ³	1	10 ⁶	10 ⁴
Pu-241	10	10 ⁵	10 ²	10 ⁸	10 ⁶
Pu-242	0.1	10 ⁴	1	10 ⁶	10 ⁵
Pu-243	10 ³	10 ⁷	10 ³	10 ¹³	10 ⁸
Pu-244+	0.1	10 ⁴	1	10 ⁶	10 ⁵
Americium					
Am-241	0.1	10 ⁴	1	10 ⁶	10 ⁵
Am-242	10 ³	10 ⁶	10 ³	10 ¹⁰	10 ⁷
Am-242m+	0.1	10 ⁴	1	10 ⁶	10 ⁵
Am-243+	0.1	10 ³	1	10 ⁶	10 ⁴
Curium					
Cm-242	10	10 ⁵	10 ²	10 ⁷	10 ⁶
Cm-243	1	10 ⁴	1	10 ⁷	10 ⁵
Cm-244	1	10 ⁴	10	10 ⁷	10 ⁵
Cm-245	0.1	10 ³	1	10 ⁶	10 ⁴
Cm-246	0.1	10 ³	1	10 ⁶	10 ⁴

(1) Potassium salts in quantities less than 1,000kg are exempt.

Status: This is the original version (as it was originally made).

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
Cm-247+	0.1	10⁴	1	10⁶	10⁵
Cm-248	0.1	10³	1	10⁶	10⁴
Berkelium					
Bk-249	10²	10⁶	10³	10⁹	10⁷
Californium					
Cf-246	10³	10⁶	10³	10⁹	10⁷
Cf-248	1	10⁴	10	10⁷	10⁵
Cf-249	0.1	10³	1	10⁶	10⁴
Cf-250	1	10⁴	10	10⁶	10⁵
Cf-251	0.1	10³	1	10⁶	10⁴
Cf-252	1	10⁴	10	10⁷	10⁵
Cf-253	10²	10⁵	10²	10⁸	10⁶
Cf-254	1	10³	1	10⁷	10⁴
Einsteinium					
Es-253	10²	10⁵	10²	10⁸	10⁶
Es-254+	0.1	10⁴	10	10⁷	10⁵
Es-254m+	10	10⁶	10²	10⁹	10⁷
Fermium					
Fm-254	10⁴	10⁷	10⁴	10¹⁰	10⁸
Fm-255	10²	10⁶	10³	10⁹	10⁷
Other radionuclides not listed above (see Note 1)					
	0.01	10³	0.1	10⁵	10⁴
Note 1					

(1) Potassium salts in quantities less than 1,000kg are exempt.

<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>
Radionuclide name, symbol, isotope	Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2) (f) (Bq/g)	Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)	Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)	Quantity for notification of occurrences Regulation 31(1) (Bq)	Quantity for notification of occurrences Regulation 31(3) (Bq)
In the case of radionuclides not specified elsewhere in this Part, the quantities specified in this entry are to be used unless the Executive has approved some other quantity for that radionuclide.					
Note 2					
Nuclides carrying the suffix “+” in the above table represent parent nuclides and their progeny as listed in the table below. The dose contributions for those progeny are taken into account in the dose calculation (thus requiring only the exemption level of the parent radionuclide to be considered).					

(1) Potassium salts in quantities less than 1,000kg are exempt.

List of parent nuclides and their progeny as referred to in Note 2 above

Parent radionuclide	Progeny
Fe-52	Mn-52m
Zn-69m	Zn-69
Ge-68	Ga-68
Sr-90	Y-90
Sr-91	Y-91m
Zr-93	Nb-93m
Zr-95	Nb-95
Zr-97	Nb-97m, Nb-97
Nb-97	Nb-97m
Mo-99	Tc-99m
Mo-101	Tc-101

Status: This is the original version (as it was originally made).

<i>Parent radionuclide</i>	<i>Progeny</i>
Ru-103	Rh-103m
Ru-105	Rh-105m
Ru-106	Rh-106
Pd-103	Rh-103m
Pd-109	Ag-109m
Ag-108m	Ag-108
Ag-110m	Ag-110
Cd-109	Ag-109m
Cd-115	In-115m
Cd-115m	In-115m
In-114m	In-114
Sn-113	In-113m
Sb-125	Te-125m
Te-127m	Te-127
Te-129m	Te-129
Te-131m	Te-131
Te-132	I-132
Cs-137	Ba-137m
Ba-140	La-140
Ce-144	Pr-144, Pr-144m
Pb-210	Bi-210, Po-210
Pb-212	Bi-212, Ti-208, Po-212
Bi-212	Ti-208, Po-212
Rn-220	Po-216
Rn-222	Po-218, Pb-214, Bi-214, Po-214
Ra-223	Rn-219, Po-215, Pb-211, Bi-211, Ti-207
Ra-224	Rn-220, Po-216, Pb-212, Bi-212, Ti-208, Po-212
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, Ti-208, Po-212

<i>Parent radionuclide</i>	<i>Progeny</i>
Th-229	Ra-225, Ac-225, Fr-221, At-217, Bi-213, Po-213, Pb-209
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, Ti-208, Po-212
U-235	Th-231
U-238	Th-234, Pa-234m
U-240	Np-240m, Np-240
Np-237	Pa-233
Pu-244	U-240, Np-240m, Np-240
Am-242m	Am-242, Np-238
Am-243	Np-239
Cm-247	Pu-243
Es-254	Bk-250
Es-254m	Fm-254

Regulations 2(4), 6(2) and Schedule 1

PART 2

Table of naturally occurring radionuclides (which are not processed for their radioactive, fissile or fertile properties)

Values for exemption from notification and registration for naturally occurring radionuclides in solid materials (which are not processed

for their radioactive, fissile or fertile properties), which apply whether or not the radionuclide is in secular equilibrium with its progeny

1	2	3	4
<i>Radionuclide name, symbol, isotope</i>	<i>Concentration for: Notification (any amount of radioactive material); Registration (amounts of radioactive material that exceed 1,000kg) Regulation 5(1) and Schedule 1, paragraph 1(a); regulation 6(2)(f) (Bq/g)</i>	<i>Quantity for Notification Regulation 5(1) and Schedule 1, paragraph 1(b) (Bq)</i>	<i>Concentration for Registration (amounts of radioactive material that do not exceed 1,000kg) Regulation 6(2)(e) (Bq/g)</i>
K-40 ⁽¹⁾	10	10 ⁶	10 ²
Rb-87	1	10 ⁷	10 ⁴
Pb-210+	1	10 ⁴	10
Po-210	1	10 ⁴	10
Ra-226+	1	10 ⁴	10
Ra-228+	1	10 ⁵	10
Th-228+	1	10 ⁴	1
Th-232 sec	1	10 ³	1
U-238 sec	1	10 ³	1

Note

Nuclides carrying the suffix “+” in the above table represent parent nuclides and their progeny as listed in the table below. The dose contributions of those progeny are taken into account in the dose calculation (thus requiring only the exemption level of the parent radionuclide to be considered).

(1) Potassium salts in quantities less than 1,000kg are exempt.

List of parent nuclides and their progeny as referred to in the Note above

<i>Parent radionuclide</i>	<i>Progeny</i>
Pb-210	Bi-210, Po-210
Ra-226	Rn-222, Po-218, Pb-214, Bi-214, Po-214, Pb-210, Bi-210, Po-210

(1)

<i>Parent radionuclide</i>	<i>Progeny</i>
Ra-228	Ac-228
Th-228	Ra-224, Rn-220, Po-216, Pb-212, Bi-212, Tl-208, Po-212

Regulation 2(4)

PART 3

Quantity and concentration ratios for more than one radionuclide

1. For the purpose of Regulation 2(4)—
 - (a) the quantity ratio for more than one radionuclide is the sum of the quotients of the quantity of a radionuclide present Q_p divided by the quantity of that radionuclide specified in the appropriate entry in Parts 1,2 or 4 of this Schedule Q_{lim} , namely—

$$\sum \frac{Q_p}{Q_{lim}}$$

- (b) the concentration ratio for more than one radionuclide is the sum of the quotients of the concentration of a radionuclide present C_p divided by the concentration of that radionuclide specified in the appropriate entry in Parts 1 or 2 of this Schedule C_{lim} , namely—

$$\sum \frac{C_p}{C_{lim}}$$

2. In any case where the isotopic composition of a radioactive substance is not known or is only partially known, the quantity or concentration ratio for that substance is to be calculated by using the values specified in the appropriate column in Part 1 of this Schedule for 'other radionuclides not listed above' for any radionuclide that has not been identified or where the quantity or concentration of a radionuclide is uncertain, unless the employer can show that the use of some other value is appropriate in the circumstances of a particular case, when the employer may use that value.

Regulations 2(1) and 2(4)

PART 4

Table of quantities of radioactive material defining high-activity sealed sources

For radionuclides not listed in the table below, the relevant quantity value is the same as the D-value defined in section 2 Table 1 of the IAEA publication: Dangerous quantities of radioactive material (D-values), (EPR-D-VALUES 2006)

<i>Radionuclide</i>	<i>Quantity (Bq)</i>
Co-60	3×10^{10}
Se-75	2×10^{11}
Sr-90 (Y-90)	1×10^{12}

(*) The activity given is that of the alpha-emitting radionuclide.

Status: This is the original version (as it was originally made).

Radionuclide	Quantity (Bq)
Cs-137	1×10^{11}
Pm-147	4×10^{13}
Gd-153	1×10^{12}
Tm-170	2×10^{13}
Yb-169	3×10^{11}
Ir-192	8×10^{10}
Ra-226	4×10^{10}
Pu-238	6×10^{10}
Pu-239/Be-9 ^(*)	6×10^{10}
Am-241	6×10^{10}
Am-241/Be-9 ^(*)	6×10^{10}
Cm-244	5×10^{10}
Cf-252	2×10^{10}

(*) The activity given is that of the alpha-emitting radionuclide.