Republic of Latvia

Cabinet
Regulation No. 288
Adopted 3 July 2001

Regulations Regarding Activities with Sources of Ionising Radiation for which a Special Permit (Licence) or Permit is not Required

Issued pursuant to Section 3, Paragraph one, Clause 5 and Section 11, Paragraph two, Clause 3 of the Law On Radiation Protection and Nuclear Safety

I. General Provisions

1. These Regulations determine cases where activities with sources of ionising radiation a special permit (licence) or a permit (hereinafter – activities with sources of ionising radiation) is not required, because it is not possible to influence such activities by human actions or the potential dose of ionising radiation and the harmful effects of the radiation are so small that from the viewpoint of radiation safety it need not be taken into account.

2. Persons performing activities with sources of ionising radiation shall ensure that limit values of the sources of ionising radiation specified in Paragraph 4 of these Regulations are complied with, and shall be liable for radiation safety and nuclear safety in the zone under the control of such persons.

3. If changes in the activities with sources of ionising radiation need to be made and such changes could be significant for radiation safety and nuclear safety, or when making such changes the limit values of the sources of ionising radiation specified in Paragraph 4 of these Regulations may be exceeded, the person performing the relevant activities shall inform the Radiation Safety Centre regarding the necessary changes and, if necessary, prior to making such changes shall apply for a special permit (licence) or a permit.

II. Radioactivity Limit Values, Strength of Dose and Dose Amount of Sources of Ionising Radiation

4. A special permit (licence) or a permit is not required for activities with sources of ionising radiation if the following sources of ionising radiation are utilised:

4.1. radioactive substances. In the utilisation of radioactive substances, one of the following conditions shall be observed:

4.1.1. the total radioactivity of the relevant radio-nuclide does not exceed the level specified in Annex 1 of these Regulations; or

4.1.2. the specific radioactivity per unit weight of the relevant radio-nuclide does not exceed the limit value specified in Annex 1 of these Regulations if the total amount of the radioactive substance does not exceed 1 000 kg;

4.2. a cathode-ray tube intended for recording visual images. In utilising a cathode-ray tube one of the following conditions shall be observed:

4.2.1. under operating conditions that conform to the conditions prescribed by the manufacturer, the strength of ionising radiation dose created by a cathode-ray tube is less

than 1 μSv per hour at a distance of 0.1 m from any accessible part of the surface of the apparatus; or

4.2.2. the voltage is less than 5 kV;

4.3. electric apparatus. In utilising electric apparatus, one of the following conditions shall be observed:

4.3.1. under operating conditions that conform to the conditions prescribed by the manufacturer, the strength of ionising radiation dose created by such apparatus is less than 1 μSv per hour at a distance of 0.1 m from any accessible part of the surface of the apparatus; or

4.3.2. the voltage is less than 5 kV;

4.4. equipment or apparatus that contain a sealed radiation source and the total radioactivity, specific radioactivity or both of these radioactive levels for the relevant radionuclide present in the radioactive source exceed the levels specified in Annex 1 of these Regulations. In utilisation of such equipment or apparatus one of the following conditions shall be observed:

4.4.1. under operating conditions that conform to the conditions prescribed by the manufacturer, the strength of ionising radiation dose created by such apparatus is less than 1 μSv per hour at a distance of 0.1 m from any accessible part of the surface of the apparatus; or

4.4.2. the expected effective radiation dose for a person is less than 10 μSv per year;

4.5. smoke detectors in which the americium isotope 241Am is utilised if the total radioactivity of a single detector does not exceed 74 kBq and the total number of such detectors is 100 units;

4.6. thorium alloys in electrodes of luminescent lamps, discharge tubes and in picture tubes, as well as in filaments of heated gas-filled lamps, if the number of units of the relevant products to be stored in a single undertaking does not exceed 10 000 units per year;

4.7. thorium in special alloys in aircraft engines or refractory laboratory equipment if the total weight of such alloys does not exceed 1 000 kg;

4.8. thorium in electrodes for welding if the concentration of thorium is less than 5% and the total quantity of such electrodes utilised per year does not exceed 1 000 kg; and

4.9. natural radioactive materials the specific radioactivity of which exceeds the levels specified in Annex 1 of these Regulations if such material is not specially treated in order to increase its specific radioactivity. In utilising natural radioactive materials, the condition shall be observed that during performance of activities with such materials the total dose of ionising radiation received by an employees does not exceed 1 mSv per year.

5. In a mixture of radionuclides the quotients of the total or specific radioactivity of each nuclide divided by the value of the relevant radionuclide specified in Annex 1 of these Regulations shall be summed up and multiplied by the percentage concentration of the relevant nuclide in the mixture. If the sum is less than 1 or equal to 1, a special permit (licence) or a permit is not necessary.

6. If Annex 1 of these Regulations specifies that in the process of degradation of a radio-nuclide (parent nuclide) other radio-nuclides (daughter nuclides) referred to in Annex 2 of these Regulations are generated, the values of radioactivity specified in Annex 1 of these Regulations apply not only to the parent nuclide but also to the relevant daughter nuclides. In such case, in order to determine whether activities with sources of ionising radiation require a special permit (licence) or a permit, the value specified for the parent nuclide shall be utilised.

III. Suspension of Activities with Sources of Ionising Radiation

7. The Radiation Safety Centre may suspend activities with sources of ionising radiation in cases prescribed in Section 6, Paragraph 2 of the Law On Radiation Protection and Nuclear Safety as well as in cases where it has been established that the limit values of ionising radiation specified in Paragraph 4 of these Regulations have been exceeded.

8. If a decision to suspend activities with sources of ionising radiation has been taken, the Radiation Safety Centre not later than within 10 days of the date the decision was taken shall inform the person performing the relevant activities thereof in writing. The person referred to shall suspend the activities with sources of ionising radiation set out in the decision on the day of receipt of such decision.

Prime Minister A. Bērziņš

Minister for Environmental Protection and Regional Development V. Makarovs

Annex 1
Cabinet Regulation No. 288
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Limit Values of Radioactivity up to which for Activities with Sources of Ionising Radiation a Special Permit (Licence) or Permit is not required

No.	Radio-nuclide 1	Total radioactivity Bq	Specific radioactivity Bq/g
1	3H	1 x 109	1 x 106
2	7Be	1 x 107	1 x 103
3	14C	1x 107	1 x 104
4	15O	1 x 109	1 x 102
5	18F	1 x 106	1 x 101
6	22Na	1 x 106	1 x 101
7	24Na	1 x 105	1 x 101
8	31Si	1 x 106	1 x 103
9	32P	1 x 105	1 x 103
10	33P	1 x 108	1 x 105
11	35S	1 x 108	1 x 105
12	36Cl	1 x 106	1 x 104
13	38Cl	1 x 105	1 x 101
14	37Ar	1 x 108	1 x 106
15	41Ar	1 x 109	1 x 102
16	40K	1 x 106	1 x 102
17	42K	1 x 106	1 x 102
18	43K	1 x 106	1 x 101
19	45Ca	1 x 107	1 x 104
20	47Ca	1 x 106	1 x 101
21	46Sc	1 x 106	1 x 101
22	47Sc	1 x 106	1 x 102
23	48Sc	1 x 105	1 x 101
24	48V	1 x 105	1 x 101
25	51Cr	1 x 107	1 x 103
26	51Mn	1 x 105	1 x 101
27	52Mn	1 x 105	1 x 101
28	52mMn	1 x 105	1 x 101
29	53Mn	1 x 109	1 x 104
30	54Mn	1 x 106	1 x 101
31	56Mn	1 x 105	1 x 101
32	52Fe	1 x 106	1 x 101
33	55Fe	1 x 106	1 x 104
34	59Fe	1 x 106	1 x 101
35	55Co	1 x 106	1 x 101
36	56Co	1 x 105	1 x 101

37	57Co	1 x 106	1 x 102
38	58Co	1 x 106	1 x 101
39	58mCo	1 x 107	1 x 104
40	60Co	1 x 105	1 x 101
41	60mCo	1 x 106	1 x 103
42	61Co	1 x 106	1 x 102
43	62mCo	1 x 105	1 x 101
44	59Ni	1 x 108	1 x 104
45	63Ni	1 x 108	1 x 105
46	65Ni	1 x 106	1 x 101
47	64Cu	1 x 106	1 x 102
48	65Zn	1 x 106	1 x 101
49	69Zn	1 x 106	1 x 104
50	69mZn	1 x 106	1 x 102
51	72Ga	1 x 105	1 x 101
52	71Ge	1 x 108	1 x 104
53	73As	1 x 107	1 x 103
54	74As	1 x 106	1 x 101
55	76As	1 x 105	1 x 102
56	77As	1 x 106	1 x 103
57	75Se	1 x 106	1 x 102
58	82Br	1 x 106	1 x 101
59	74Kr	1 x 109	1 x 102
60	76Kr	1 x 109	1 x 102
61	77Kr	1 x 109	1 x 102
62	79Kr	1 x 109	1 x 103
63	81Kr	1 x 107	1 x 104
64	83mKr	1 x 1012	1 x 105
65	85Kr	1 x 104	1 x 105
66	85mKr	1 x 1010	1 x 103
67	87Kr	1 x 109	1 x 102
68	88Kr	1 x 109	1 x 102
69	86Rb	1 x 105	1 x 102
70	85Sr	1 x 106	1 x 102
71	85mSr	1 x 107	1 x 102
72	87mSr	1 x 106	1 x 102
73	89Sr	1 x 106	1 x 103
74	90Sr+	1 x 104	1 x 102
75	91Sr	1 x 105	1 x 101
76	92Sr	1 x 106	1 x 101
77	90Y	1 x 105	1 x 103
78	91Y	1 x 106	1 x 103
79	91mY	1 x 106	1 x 102
80	92Y	1 x 105	1 x 102
81	93Y	1 x 105	1 x 102
82	93Zr+	1 x 107	1 x 103
83	95Zr	1 x 106	1 x 101
84	97Zr+	1 x 105	1 x 101
85	93mNb	1 x 107	1 x 104

86	94Nb	1 x 106	1 x 101
87	95Nb	1 x 106	1 x 101
88	97Nb	1 x 106	1 x 101
89	98Nb	1 x 105	1 x 101
90	90Mo	1 x 106	1 x 101
91	93Mo	1 x 108	1 x 103
92	99Mo	1 x 106	1 x 102
93	101Mo	1 x 106	1 x 101
94	96Tc	1 x 106	1 x 101
95	96mTc	1 x 107	1 x 103
96	97Tc	1 x 108	1 x 103
97	97mTc	1 x 107	1 x 103
98	99Tc	1 x 107	1 x 104
99	99mTc	1 x 107	1 x 102
100	97Ru	1 x 107	1 x 102
101	103Ru	1 x 106	1 x 102
102	105Ru	1 x 106	1 x 101
103	106Ru+	1 x 105	1 x 102
104	103mRh	1 x 108	1 x 104
105	105Rh	1 x 107	1 x 102
106	103Pd	1 x 108	1 x 103
107	109Pd	1 x 106	1 x 103
108	105Ag	1 x 106	1 x 102
109	108mAg+	1 x 106	1 x 101
110	110mAg	1 x 106	1 x 101
111	111Ag	1 x 106	1 x 103
112	109Cd	1 x 106	1 x 104
113	115Cd	1 x 106	1 x 102
114	115mCd	1 x 106	1 x 103
115	111In	1 x 106	1 x 102
116	113mIn	1 x 106	1 x 102
117	114mIn	1 x 106	1 x 102
118	115mIn	1 x 106	1 x 102
119	113Sn	1 x 107	1 x 103
120	125Sn	1 x 105	1 x 102
121	122Sb	1 x 104	1 x 102
122	124Sb	1 x 106	1 x 101
123	125Sb	1 x 106	1 x 102
124	123mTe	1 x 107	1 x 102
125	125mTe	1 x 107	1 x 103
126	127Te	1 x 106	1 x 103
127	127mTe	1 x 107	1 x 103
128	129Te	1 x 106	1 x 102
129	129mTe	1 x 106	1 x 103
130	131Te	1 x 105	1 x 102
131	131mTe	1 x 106	1 x 101
132	132Te	1 x 107	1 x 102
133	133Te	1 x 105	1 x 101
134	133mTe	1 x 105	1 x 101

135	134Te	1 x 106	1 x 101
136	123I	1 x 107	1 x 102
137	125I	1 x 106	1 x 103
138	126I	1 x 106	1 x 102
139	129I	1 x 105	1 x 102
140	130I	1 x 106	1 x 101
141	131I	1 x 106	1 x 102
142	132I	1 x 105	1 x 101
143	133I	1 x 106	1 x 101
144	134I	1 x 105	1 x 101
145	135I	1 x 106	1 x 101
146	131mXe	1 x 104	1 x 104
147	133Xe	1 x 104	1 x 103
148	135Xe	1 x 1010	1 x 103
149	129Cs	1 x 105	1 x 102
150	131Cs	1 x 106	1 x 103
151	132Cs	1 x 105	1 x 101
152	134mCs	1 x 105	1 x 103
153	134Cs	1 x 104	1 x 101
154	135Cs	1 x 107	1 x 104
155	136Cs	1 x 105	1 x 101
156	137Cs+	1 x 104	1 x 101
157	138Cs	1 x 104	1 x 101
158	131Ba	1 x 106	1 x 102
159	140Ba+	1 x 105	1 x 101
160	140La	1 x 105	1 x 101
161	139Ce	1 x 106	1 x 102
162	141Ce	1 x 107	1 x 102
163	143Ce	1 x 106	1 x 102
164	144Ce+	1 x 105	1 x 102
165	142Pr	1 x 105	1 x 102
166	143Pr	1 x 106	1 x 104
167	147Nd	1 x 106	1 x 102
168	149Nd	1 x 106	1 x 102
169	147Pm	1 x 107	1 x 104
170	149Pm	1 x 106	1 x 103
171	151Sm	1 x 108	1 x 104
172	153Sm	1 x 106	1 x 102
173	152Eu	1 x 106	1 x 101
174	152mEu	1 x 106	1 x 102
175	154Eu	1 x 106	1 x 101
176	155Eu	1 x 107	1 x 102
177	153Gd	1 x 107	1 x 102
178	159Gd	1 x 106	1 x 103
179	160Tb	1 x 106	1 x 101
180	165Dy	1 x 106	1 x 103
181	166Dy	1 x 106	1 x 103
182	166Ho	1 x 105	1 x 103
183	169Er	1 x 107	1 x 104

184	171Er	1 x 106	1 x 102
185	170Tm	1 x 106	1 x 103
186	171Tm	1 x 108	1 x 104
187	175Yb	1 x 107	1 x 103
188	177Lu	1 x 107	1 x 103
189	181Hf	1 x 106	1 x 101
190	182Ta	1 x 104	1 x 101
191	181W	1 x 107	1 x 103
192	185W	1 x 107	1 x 104
193	187W	1 x 106	1 x 102
194	186Re	1 x 106	1 x 103
195	188Re	1 x 105	1 x 102
196	185Os	1 x 106	1 x 101
197	191Os	1 x 107	1 x 102
198	191mOs	1 x 107	1 x 103
199	193Os	1 x 106	1 x 102
200	190Ir	1 x 106	1 x 101
201	192Ir	1 x 104	1 x 101
202	194Ir	1 x 105	1 x 102
203	191Pt	1 x 106	1 x 102
204	193mPt	1 x 107	1 x 103
205	197Pt	1 x 106	1 x 103
206	197mPt	1 x 106	1 x 102
207	198Au	1 x 106	1 x 102
208	199Au	1 x 106	1 x 102
209	197Hg	1 x 107	1 x 102
210	197mHg	1 x 106	1 x 102
211	203Hg	1 x 105	1 x 102
212	200Tl	1 x 106	1 x 101
213	201Tl	1 x 106	1 x 102
214	202Tl	1 x 106	1 x 102
215	204Tl	1 x 104	1 x 104
216	203Pb	1 x 106	1 x 102
217	210Pb+	1 x 104	1 x 101
218	212Pb+	1 x 105	1 x 101
219	206Bi	1 x 105	1 x 101
220	207Bi	1 x 106	1 x 101
221	210Bi	1 x 106	1 x 103
222	212Bi+	1 x 105	1 x 101
223	203Po	1 x 106	1 x 101
224	205Po	1 x 106	1 x 101
225	207Po	1 x 106	1 x 101
226	210Po	1 x 104	1 x 101
227	211At	1 x 107	1 x 103
228	220Rn+	1 x 107	1 x 104
229	222Rn+	1 x 108	1 x 101
230	223Ra+	1 x 105	1 x 102
231	224Ra+	1 x 105	1 x 101
232	225Ra	1 x 105	1 x 102

233	226Ra+	1 x 104	1 x 101
234	227Ra	1 x 106	1 x 102
235	228Ra+	1 x 105	1 x 101
236	228Ac	1 x 106	1 x 101
237	226Th+	1 x 107	1 x 103
238	227Th	1 x 104	1 x 101
239	228Th+	1 x 104	1 x 100
240	229Th+	1 x 103	1 x 100
241	230Th	1 x 104	1 x 100
242	231Th	1 x 107	1 x 103
243	dab.Th (232Th)	1 x 103	1 x 100
244	234Th+	1 x 105	1 x 103
245	230Pa	1 x 106	1 x 101
246	231Pa	1 x 103	1 x 100
247	233Pa	1 x 107	1 x 102
248	230U+	1 x 105	1 x 101
249	231U	1 x 107	1 x 102
250	232U+	1 x 103	1 x 100
251	233U	1 x 104	1 x 101
252	234U	1 x 104	1 x 101
253	235U+	1 x 104	1 x 101
254	236U	1 x 104	1 x 101
255	237U	1 x 106	1 x 102
256	238U+	1 x 104	1 x 101
257	dab.U	1 x 103	1 x 100
258	239U	1 x 106	1 x 102
259	240U	1 x 107	1 x 103
260	240U+	1 x 106	1 x 101
261	237Np+	1 x 103	1 x 100
262	239Np	1 x 107	1 x 102
263	240Np	1 x 106	1 x 101
264	234Pu	1 x 107	1 x 102
265	235Pu	1 x 107	1 x 102
266	236Pu	1 x 104	1 x 101
267	237Pu	1 x 107	1 x 103
268	238Pu	1 x 104	1 x 100
269	239Pu	1 x 104	1 x 100
270	240Pu	1 x 103	1 x 100
271	241Pu	1 x 105	1 x 102
272	242Pu	1 x 104	1 x 100
273	243Pu	1 x 107	1 x 103
274	244Pu	1 x 104	1 x 100
275	241Am	1 x 104	1 x 100
276	242Am	1 x 106	1 x 103
277	242mAm+	1 x 104	1 x 101
278	243Am+	1 x 103	1 x 100
279	242Cm	1 x 105	1 x 102
280	243Cm	1 x 104	1 x 100
281	244Cm	1 x 104	1 x 101

282	245Cm	1 x 103	1 x 100
283	246Cm	1 x 103	1 x 100
284	247Cm	1 x 103	1 x 100
285	248Cm	1 x 103	1 x 100
286	249Bk	1 x 106	1 x 103
287	246Cf	1 x 106	1 x 103
288	248Cf	1 x 104	1 x 101
289	249Cf	1 x 103	1 x 100
290	250Cf	1 x 104	1 x 101
291	251Cf	1 x 103	1 x 100
292	252Cf	1 x 104	1 x 101
293	253Cf	1 x 105	1 x 102
294	254Cf	1 x 103	1 x 100
295	253Es	1 x 105	1 x 102
296	254Es	1 x 104	1 x 101
297	254mEs	1 x 106	1 x 102
298	254Fm	1 x 107	1 x 104
299	255Fm	1 x 106	1 x 103

1. A sign "+" or "dab" shall indicate parent nuclide in balance with the relevant daughter nuclides specified in Annex 2 of these Regulations.

Minister for Environmental Protection and Regional Development V. Makarovs

Annex 2
Cabinet Regulation No. 288
3 July 2001

List of Nuclides that are in Long-term Balance

No.	Parent nuclide	Daughter nuclides
1	90Sr+	90Y
2	93Zr+	93mNb
3	97Zr+	97Nb
4	106Ru+	106Rh
5	108mAg+	108Ag
6	137Cs+	137mBa
7	134Ce+	134La
8	144Ce+	144Pr
9	140Ba+	140La
10	212Bi+	208Tl (0,36), 212Po (0,64)
11	210Pb+	210Bi, 210Po
12	212Pb+	212Bi, 208Tl (0,36), 212Po (0,64)
13	220Rn+	216Po
14	222Rn+	218Po, 214Pb, 214Bi, 214Po
15	223Ra+	219Rn, 215Po, 211Pb, 211Bi, 207Tl
16	224Ra+	220Rn, 216Po, 212Pb, 212Bi, 208Tl (0,36), 212Po (0,64)
17	226Ra+	222Rn, 218Po, 214Pb, 214Bi,214Po, 210Pb, 210Bi, 210Po
18	228Ra+	228Ac
19	226Th+	222Ra, 218Rn, 214Po
20	228Th+	224Ra, 220Rn, 216Po, 212Pb, 212Bi, 208Tl (0,36), 212Po (0,64)
21	229Th+	225Ra, 225Ac, 221Fr, 217At, 213Bi, 213Po, 209Pb
22	dab.Th	228Ra, 228Ac, 228Th, 224Ra, 220Rn, 216Po, 212Pb, 212Bi, 208Tl (0,36), 212Po (0,64)
23	234Th+	234mPa
24	230U+	226Th, 222Ra, 218Rn, 214Po
25	232U+	228Th, 224Ra, 220Rn, 216Po, 212Pb,212Bi,208Tl (0,36), 212Po (0,64)
26	235U+	231Th
27	238U+	234Th, 234mPa
28	dab.U	234Th, 234mPa, 234U, 230Th, 226Ra, 222Rn, 218Po, 214Pb, 214Bi, 214Po, 210Pb, 210Bi, 210Po
29	240U+	240mNp
30	237Np+	233Pa
31	242mAm+	242Am
32	243Am+	239Np

Minister for Environmental Protection and Regional Development