

Appendix

List of Tables

<i>Table A.1. List of 'parent' nuclides of the source term following a major accident in a 2785 MWth (900 MWe) PWR.....</i>	2
<i>Table A.2. List of 'parent' nuclides (of the source term) and the related 'progeny' taken into account in this study.....</i>	2
<i>Table A.3. With regards to the cloud, relations between individual doses (millisieverts) and time integrated concentration of 'parent' nuclides expressed in Becquerels (Bq·s m⁻³).....</i>	3
<i>Table A.4. Relation between millisieverts and Becquerels in the calculation on radioactive deposition.....</i>	3
<i>Table A.5. Total radioactive deposition in several European areas after a major accident at the Tricastin nuclear power plant.....</i>	3
<i>Table A.6. Distribution of the number of persons impacted by the radioactive cloud ≥ 6 mSv.....</i>	4
<i>Table A.7. Distribution of the number of persons impacted by the radioactive cloud ≥ 20 mSv.....</i>	4
<i>Table A.8. Model B: Radio-induced severe diseases (cardio & cancer) that would occur in 5 territories, over 1096 simul.</i>	5
<i>Table A.9. Model B: Radio-induced deaths that would occur in 5 territories, over 1096 simulations.....</i>	5
<i>Table A.10. - Classes of CLC2018 (Land cover)</i>	6
<i>Table A.11. Vineyard, number of radioactive square kilometres distributed by quantiles (under 1096 simulations).....</i>	7
<i>Table A.12. Cultivated, number of radioactive square kilometres distributed by quantiles (under 1096 simulations).....</i>	7
<i>Table A.13. Herbaceous, number of radioactive square kilometres distributed by quantiles (under 1096 simulations).....</i>	7
<i>Table A.14. 'Others', number of radioactive square kilometres distributed by quantiles (under 1096 simulations).....</i>	7

Modeling of a Hypothetical Major Nuclear Accident at Tricastin Nuclear Power Plant under 1 096 Meteorological Simulations and Analysis of its Health Impact. 2021.

Table A.1. List of 'parent' nuclides of the source term following a major accident in a 2785 MWth (900 MWe) PWR				
Parent nuclides	Fraction of the core inventory	Source term	Half-Life T1/2	
Isotope	Group	Bq	s	
I-129	2	6.00E-01	3.75E+10	4.95E+14
I-131	2	6.00E-01	1.67E+18	6.95E+05
Cs-134	3	4.00E-01	1.07E+17	6.51E+07
Cs-135	3	4.00E-01	3.62E+11	7.26E+13
Cs-136	3	4.00E-01	5.40E+16	1.13E+06
Cs-137	3	4.00E-01	8.80E+16	9.47E+08
Rb-86	3	4.00E-01	1.32E+15	1.61E+06
Sb-124	4	8.00E-02	1.12E+14	5.20E+06
Sb-125	4	8.00E-02	1.34E+15	8.74E+07
Sb-126	4	8.00E-02	1.05E+14	1.07E+06
Sb-127	4	8.00E-02	1.86E+16	3.33E+05
Te-125m	4	8.00E-02	2.69E+14	5.10E+06
Te-127m	4	8.00E-02	2.40E+15	9.42E+06
Te-129m	4	8.00E-02	1.55E+16	2.90E+06
Te-132	4	8.00E-02	3.13E+17	2.82E+05
Ba-140	5	5.00E-02	2.43E+17	1.10E+06
Sr-89	5	5.00E-02	1.40E+17	4.36E+06
Sr-90	5	5.00E-02	8.20E+15	9.19E+08
Ag-108m	6	2.00E-02	1.07E+08	4.04E+09
Ag-110m	6	2.00E-02	1.29E+14	2.16E+07
Ag-111	6	2.00E-02	2.74E+15	6.44E+05
Ru-103	6	2.00E-02	8.08E+16	3.39E+06
Ru-106	6	2.00E-02	2.24E+16	3.18E+07
Tc-99	6	2.00E-02	5.76E+11	6.72E+12
Am-241	7	3.00E-03	6.39E+11	1.36E+10
Am-243	7	3.00E-03	6.27E+10	2.33E+11
Cm-242	7	3.00E-03	1.78E+14	1.41E+07
Cm-243	7	3.00E-03	1.12E+11	8.99E+08
Cm-244	7	3.00E-03	6.06E+12	5.72E+08
Eu-152	7	3.00E-03	3.12E+10	4.21E+08
Eu-154	7	3.00E-03	4.68E+13	2.78E+08
Eu-155	7	3.00E-03	1.91E+13	1.57E+08
Eu-156	7	3.00E-03	9.75E+14	1.31E+06
Nb-93m	7	3.00E-03	5.61E+08	4.29E+08
Nb-94	7	3.00E-03	5.19E+06	6.41E+11
Nb-95	7	3.00E-03	1.44E+16	3.04E+06
Nb-95m	7	3.00E-03	3.30E+11	3.12E+05
Nd-147	7	3.00E-03	5.52E+15	9.49E+05
Pm-147	7	3.00E-03	1.34E+15	8.28E+07
Pm-148	7	3.00E-03	1.33E+15	4.64E+05
Pm-148m	7	3.00E-03	2.92E+14	3.57E+06
Pr-143	7	3.00E-03	1.31E+16	1.17E+06
Sm-147	7	3.00E-03	8.76E+03	3.35E+18
Sm-151	7	3.00E-03	2.66E+12	2.87E+09
Y-91	7	3.00E-03	1.08E+16	5.06E+06
Zr-93	7	3.00E-03	1.20E+10	4.83E+13
Zr-95	7	3.00E-03	1.43E+16	5.52E+06
Ce-141	8	3.00E-03	1.39E+16	2.81E+06
Ce-144	8	3.00E-03	9.84E+15	2.45E+07
Np-237	8	3.00E-03	1.94E+09	6.75E+13
Pu-236	8	3.00E-03	1.29E+10	9.00E+07
Pu-238	8	3.00E-03	1.23E+13	2.77E+09
Pu-239	8	3.00E-03	2.74E+12	7.59E+11
Pu-240	8	3.00E-03	3.03E+12	2.06E+11
Pu-241	8	3.00E-03	8.10E+14	4.54E+08
Pu-242	8	3.00E-03	8.25E+09	1.19E+13
U-234	8	3.00E-03	8.52E+07	7.72E+12
U-235	8	3.00E-03	2.66E+08	2.22E+16
U-238	8	3.00E-03	2.56E+09	1.41E+17
TOTAL (Bq)		2.85E+18		

1° Fractions are published by IRSN (2013, 77); the reactor core inventory that we were able to view to calculate the source term was published by EDF (2004, 16).

2° The present study doesn't take into account parent rare gas.

Table A.2. List of 'parent' nuclides (of the source term) and the related 'progeny' taken into account in this study

Parent nuclides	Progeny	Progeny's T1/2 (s)	Progeny's yield
Isotope	Isotope		
I-131	Xe-131m	1.02E+06	1.18E-02
Cs-137	Ba-137m	1.53E+02	9.44E-01
SB-125	Te-125m	4.96E+06	2.31E-01
SB-127	Te-127	3.37E+04	8.23E-01
SB-127	Te-127m	9.42E+06	1.77E-01
TE-127M	Te-127	3.37E+04	9.76E-01
TE-129M	Te-129	4.18E+03	6.30E-01
TE-129M	I-129	4.96E+14	3.70E-01
TE-132	I-132	8.26E+03	1.00E+00
BA-140	La-140	1.45E+05	1.00E+00
SR-90	Y-90	2.31E+05	1.00E+00
Ag-108m	Ag-108	1.42E+02	8.70E-02
Ag-110m	Ag-110	2.46E+01	1.36E-02
RU-103	Rh-103m	3.37E+03	9.88E-01
RU-106	Rh-106	2.98E+01	1.00E+00
AM-241	Np-237	6.77E+13	1.00E+00
AM-243	Np-239	2.04E+05	1.00E+00
CM-242	Pu-238	2.77E+09	1.00E+00
CM-243	Pu-239	7.61E+11	9.98E-01
CM-243	Am-243	2.33E+11	2.40E-03
CM-244	Pu-240	2.07E+11	1.00E+00
Eu-152	Gd-152	3.41E+21	2.79E-01
NB-95M	Nb-95	3.02E+06	9.44E-01
ND-147	Pm-147	8.28E+07	1.00E+00
Pm-147	Sm-147	3.35E+18	1.00E+00
Pm-148	Sm-148	2.21E+23	1.00E+00
Pm-148m	Sm-148	2.21E+23	9.58E-01
Pm-148m	Pm-148	4.64E+05	4.20E-02
ZR-93	Nb-93m	5.09E+08	9.75E-01
ZR-95	Nb-95	3.02E+06	9.89E-01
ZR-95	Nb-95m	3.12E+05	1.08E-02
CE-144	Pr-144	1.04E+03	9.90E-01
CE-144	Pr-144m	4.32E+02	9.77E-03
NP-237	Pa-233	2.33E+06	1.00E+00
PU-236	U-232	2.18E+09	1.00E+00
PU-238	U-234	7.75E+12	1.00E+00
PU-239	U-235m	1.56E+03	9.99E-01
PU-239	U-235	2.22E+16	6.00E-04
PU-240	U-236	7.40E+14	1.00E+00
PU-241	Am-241	1.36E+10	1.00E+00
PU-241	U-237	5.83E+05	2.45E-05
PU-242	U-238	1.41E+17	1.00E+00
U-234	Th-230	2.38E+12	1.00E+00
U-235	Th-231	9.19E+04	1.00E+00
U-238	Th-234	2.08E+06	1.00E+00

Source: (EPA 2019a, Table A-1. Nuclides of ICRP Publication 107 ordered by atomic number)

IRSN, Institut de radioprotection et de sûreté nucléaire. 2013. Les accidents de fusion du cœur des réacteurs nucléaires de puissance : État des connaissances. EDP sciences. 444 p.

EDF, SEPTEN. 2004. Étude des conséquences radiologiques « court terme » et « long terme » en accident grave pour les termes sources réévalués S'4 et S'3 - palier 900 MWe, Note d'étude ENTEAG040273, A1, p. 16/34.

From Bq to mSv, for the cloud and for the deposition respectively

Table A.3. With regards to the cloud, relations between individual doses (millisieverts) and time integrated concentration of 'parent' nuclides expressed in Becquerels ($\text{Bq}\cdot\text{s m}^{-3}$)					
Tricastin ($\text{Bq}\cdot\text{s m}^{-3}$)	4.07E+08	2.44E+09	8.14E+09	4.07E+10	2.03E+11
Tricastin (mSv)	1	6	20	100	500
The relationship between millisieverts and Becquerels is dependent of the progeny nuclides considered in this study.					

Table A.4. Relation between millisieverts and Becquerels in the calculation on radioactive deposition									
NPP and MWth: Fra 2785 MWth									
ALL nuclides (mSv (1st yr)-1)	0.01	0.10	1.00	6	20	50	100	1000	2000
Parents' Becquerels(t_1) (Bq m^{-2})	1.22E+04	1.22E+05	1.22E+06	7.32E+06	2.44E+07	6.10E+07	1.22E+08	1.22E+09	2.44E+09
Cs-137(t_1) (Bq m^{-2})	3.76E+02	3.76E+03	3.76E+04	2.26E+05	7.52E+05	1.88E+06	3.76E+06	3.76E+07	7.52E+07
Cs-137 + Ba-137 (mSv (1st yr) $^{-1}$)	0.0018	0.0176	0.176	1.06	3.53	8.82	17.64	176.36	352.71

Note: From Bq to mSv → through specific half-lives & dose factors; and through indoor factor at 0.4

Note: From Bq to mSv → through specific half-lives & dose factors; and through indoor factor at 0.4 (supra 2.6)

Distribution of radioactive fallout over four distinct territorial areas

Table A.5. Total radioactive deposition in several European areas after a major accident at the Tricastin nuclear power plant				
Results are based on 1096 simulations of 72 hours each.				
	EUR39	FRA	ITA	CHE
	All surfaces (Bq)	All surfaces (Bq)	All surfaces (Bq)	All surfaces (Bq)
Max	2.35E+18	2.33E+18	2.39E+17	9.62E+16
Q95	1.17E+18	1.13E+18	7.42E+16	1.42E+16
Q80	7.52E+17	7.05E+17	3.06E+16	1.59E+15
Q50	3.32E+17	2.75E+17	5.15E+15	1.40E+10
Q20	1.26E+17	9.17E+16	0.00E+00	0.00E+00
Q5	6.04E+16	4.15E+16	0.00E+00	0.00E+00
Min	2.04E+16	1.31E+16	0.00E+00	0.00E+00

The results of each country are ranked independently of the other surfaces
By comparison, the total release of a major nuclear accident in Tricastin is set at $2.85E+18$ Bq

Number of persons impacted by the radioactive cloud

Cloud	'Europe-51'		France		Italia		Switzerland		Spain	
	$\geq 6 \text{ mSv}$		$\geq 6 \text{ mSv}$		$\geq 6 \text{ mSv}$		$\geq 6 \text{ mSv}$		$\geq 6 \text{ mSv}$	
	(persons)	(persons)								
Average	2 089 318	Average	1 496 932	Average	291 440	Average	72 207	Average	48 340	
Max	16 212 516	Max	14 857 795	Max	12 046 082	Max	3 986 464	Max	6 073 195	
Q99	8 967 932	Q99	5 081 060	Q99	4 137 733	Q99	2 125 129	Q99	1 126 083	
Q95	5 766 651	Q95	3 791 732	Q95	1 435 576	Q95	302 600	Q95	62 846	
Q90	4 421 165	Q90	3 018 436	Q90	825 534	Q90	33 937	Q90	137	
Q85	3 660 042	Q85	2 696 953	Q85	516 547	Q85	2 243	Q85	0	
Q75	2 746 969	Q75	2 185 299	Q75	162 409	Q75	0	Q75	0	
Q50	1 645 436	Q50	1 248 672	Q50	13	Q50	0	Q50	0	
Q25	777 147	Q25	491 047	Q25	0	Q25	0	Q25	0	
Q15	504 650	Q15	333 814	Q15	0	Q15	0	Q15	0	
Q10	370 110	Q10	255 604	Q10	0	Q10	0	Q10	0	
Q5	268 298	Q5	209 388	Q5	0	Q5	0	Q5	0	
Q1	186 722	Q1	167 044	Q1	0	Q1	0	Q1	0	
Min	60 434	Min	58 945	Min	0	Min	0	Min	0	

Cloud	'Europe-51'		France		Italia		Switzerland		Spain	
	$\geq 20 \text{ mSv}$		$\geq 20 \text{ mSv}$		$\geq 20 \text{ mSv}$		$\geq 20 \text{ mSv}$		$\geq 20 \text{ mSv}$	
	(persons)	(persons)								
Average	595 657	Average	568 260	Average	16 934	Average	6 785	Average	2 378	
Max	4 040 718	Max	4 035 774	Max	1 024 771	Max	1 448 933	Max	858 555	
Q99	2 497 467	Q99	2 464 551	Q99	371 454	Q99	223 100	Q99	43 844	
Q95	1 736 338	Q95	1 699 158	Q95	114 926	Q95	0	Q95	0	
Q90	1 327 868	Q90	1 280 638	Q90	9 906	Q90	0	Q90	0	
Q85	1 034 861	Q85	987 260	Q85	153	Q85	0	Q85	0	
Q75	731 158	Q75	678 138	Q75	0	Q75	0	Q75	0	
Q50	423 832	Q50	399 274	Q50	0	Q50	0	Q50	0	
Q25	234 037	Q25	222 749	Q25	0	Q25	0	Q25	0	
Q15	178 803	Q15	177 492	Q15	0	Q15	0	Q15	0	
Q10	159 948	Q10	158 375	Q10	0	Q10	0	Q10	0	
Q5	138 646	Q5	134 461	Q5	0	Q5	0	Q5	0	
Q1	79 186	Q1	79 186	Q1	0	Q1	0	Q1	0	
Min	18 211	Min	18 211	Min	0	Min	0	Min	0	

Distribution of the health impact by geographical areas and meteorological simulations. Cancer and cardiovascular diseases as well as deaths would occur within a few decades.

Table A.8. Model B: Radio-induced severe diseases (cardio & cancer) that would occur in 5 territories, over 1096 simul.

Cloud + (deposition ≤ 20 mSv (1st year))

NPP: Tricastin

Impacted:	'Europe-51'	France	Italy	Switzerland	Spain
	Model B	Model B	Model B	Model B	Model B
	Pers. (No)	Pers. (No)	Pers. (No)	Pers. (No)	Pers. (No)
Average	80 476	Average	62 536	Average	1 685
Max	342 398	Max	332 077	Max	78 937
Q99	244 338	Q99	197 483	Q99	30 236
Q95	169 578	Q95	134 876	Q95	10 501
Q90	140 846	Q90	117 179	Q90	4 213
Q85	127 890	Q85	106 045	Q85	1 484
Q75	111 473	Q75	88 937	Q75	178
Q50	73 353	Q50	56 752	Q50	0
Q25	41 753	Q25	26 926	Q25	0
Q15	30 134	Q15	17 964	Q15	0
Q10	22 824	Q10	14 417	Q10	0
Q5	16 716	Q5	10 148	Q5	0
Q1	10 484	Q1	6 182	Q1	0
Min	4 340	Min	3 441	Min	0

Results over 1096 meteorological simulations (overs years 2017, 2018, 2020) without low dose <1 mSv.

Table A.9. Model B: Radio-induced deaths that would occur in 5 territories, over 1096 simulations

Cloud + (deposition ≤ 20 mSv (1st year))

NPP: Tricastin

Impacted:	'Europe-51'	France	Italy	Switzerland	Spain
	Model B				
	Deaths (No)				
Average	36 580	Average	28 426	Average	766
Max	155 635	Max	150 944	Max	35 880
Q99	111 063	Q99	89 765	Q99	13 744
Q95	77 081	Q95	61 307	Q95	4 773
Q90	64 021	Q90	53 263	Q90	1 915
Q85	58 132	Q85	48 202	Q85	674
Q75	50 669	Q75	40 426	Q75	81
Q50	33 342	Q50	25 796	Q50	0
Q25	18 979	Q25	12 239	Q25	0
Q15	13 697	Q15	8 165	Q15	0
Q10	10 375	Q10	6 553	Q10	0
Q5	7 598	Q5	4 613	Q5	0
Q1	4 766	Q1	2 810	Q1	0
Min	1 973	Min	1 564	Min	0

Results over 1096 meteorological simulations (overs years 2017, 2018, 2020) without low dose <1 mSv.

Corine by Copernicus: original classes of land cover and their aggregation in four categories (Vcatg)

Table A.10. - Classes of CLC2018 (Land cover)						
ObjectID	Value	Count	LABEL3	CODE_18	CLASS_ENG	Vcatg
1	1	800699	Continuous urban fabric	111	Others	4
2	2	17085234	Discontinuous urban fabric	112	Others	4
3	3	3210212	Industrial or commercial units	121	Others	4
4	4	414626	Road and rail networks and associated land	122	Others	4
5	5	122685	Port areas	123	Others	4
6	6	352020	Airports	124	Others	4
7	7	820443	Mineral extraction sites	131	Others	4
8	8	125373	Dump sites	132	Others	4
9	9	201018	Construction sites	133	Others	4
10	10	330596	Green urban areas	141	Herbaceous	3
11	11	1310736	Sport and leisure facilities	142	Herbaceous	3
12	12	121469220	Non-irrigated arable land	211	Others	4
13	13	10943399	Permanently irrigated land	212	Cultivated	1
14	14	821737	Rice fields	213	Cultivated	1
15	15	4112102	Vineyards	221	Vineyards	2
16	16	4304276	Fruit trees and berry plantations	222	Cultivated	1
17	17	5247375	Olive groves	223	Cultivated	1
18	18	43061005	Pastures	231	Herbaceous	3
19	19	558481	Annual crops associated with permanent crops	241	Cultivated	1
20	20	24295716	Complex cultivation patterns	242	Cultivated	1
21	21	27014639	Land princip. occupied by agricult. with signific. areas of natural vegetation	243	Cultivated	1
22	22	3312024	Agro-forestry areas	244	Cultivated	1
23	23	58678001	Broad-leaved forest	311	Others	4
24	24	81743560	Coniferous forest	312	Others	4
25	25	31065342	Mixed forest	313	Others	4
26	26	21557169	Natural grasslands	321	Herbaceous	3
27	27	17478178	Moors and heathland	322	Others	4
28	28	10890506	Sclerophyllous vegetation	323	Others	4
29	29	29721311	Transitional woodland-shrub	324	Others	4
30	30	763776	Beaches, dunes, sands	331	Others	4
31	31	8952679	Bare rocks	332	Others	4
32	32	23594478	Sparsely vegetated areas	333	Others	4
33	33	226982	Burnt areas	334	Others	4
34	34	1554720	Glaciers and perpetual snow	335	Others	4
35	35	1377227	Inland marshes	411	Others	4
36	36	11566473	Peat bogs	412	Others	4
37	37	586549	Salt marshes	421	Others	4
38	38	73892	Salines	422	Others	4
39	39	1218413	Intertidal flats	423	Others	4
40	40	1353727	Water courses	511	Others	4
41	41	12964044	Water bodies	512	Others	4
42	42	652034	Coastal lagoons	521	Others	4
43	43	382221	Estuaries	522	Others	4
44	44	148586809	Sea and ocean	523	Not relevant	5
45	48	40471	NODATA	999	Not relevant	5

Four categories of land cover (see the Table on “All surfaces” in the main article – Table 3.7)

Table A.11. Vineyard, number of radioactive square kilometres distributed by quantiles (under 1096 simulations)									
Fra 2785 MWth									
Parent + Progeny (mSv (1st yr)-1)	≥0.1	≥1	≥6	≥20	≥50	≥100	≥500	≥1000	≥2000
Parents' Becquerels(t1) (Bq m-2)	1.22E+05	1.22E+06	7.32E+06	2.44E+07	6.10E+07	1.22E+08	6.10E+08	1.22E+09	2.44E+09
Impacted area: ‘Europe39’	km2								
Q95	7 089	3 573	1 309	504	292	203	47	14	3
Q80	3 934	1 742	552	264	166	115	17	4	0
Q50	2 189	723	205	128	77	41	2	0	0
Q20	1 112	284	111	59	25	8	0	0	0
Q5	361	162	38	16	7	2	0	0	0
Addit. Informat.: Cs-137(t1) (Bq m ⁻²)	3.76E+03	3.76E+04	2.26E+05	7.52E+05	1.88E+06	3.76E+06	1.88E+07	3.76E+07	7.52E+07

Table A.12. Cultivated, number of radioactive square kilometres distributed by quantiles (under 1096 simulations)									
Fra 2785 MWth									
Parent + Progeny (mSv (1st yr)-1)	≥0.1	≥1	≥6	≥20	≥50	≥100	≥500	≥1000	≥2000
Parents' Becquerels(t1) (Bq m-2)	1.22E+05	1.22E+06	7.32E+06	2.44E+07	6.10E+07	1.22E+08	6.10E+08	1.22E+09	2.44E+09
Impacted area: ‘Europe39’	km2								
Q95	50 511	12 667	2 502	753	428	262	90	61	28
Q80	32 529	8 604	1 433	511	287	165	61	32	7
Q50	19 331	5 232	791	343	162	96	13	0	0
Q20	10 205	2 315	465	216	82	39	0	0	0
Q5	2 754	730	340	120	39	12	0	0	0
Addit. Informat.: Cs-137(t1) (Bq m ⁻²)	3.76E+03	3.76E+04	2.26E+05	7.52E+05	1.88E+06	3.76E+06	1.88E+07	3.76E+07	7.52E+07

Table A.13. Herbaceous, number of radioactive square kilometres distributed by quantiles (under 1096 simulations)									
Fra 2785 MWth									
Parent + Progeny (mSv (1st yr)-1)	≥0.1	≥1	≥6	≥20	≥50	≥100	≥500	≥1000	≥2000
Parents' Becquerels(t1) (Bq m-2)	1.22E+05	1.22E+06	7.32E+06	2.44E+07	6.10E+07	1.22E+08	6.10E+08	1.22E+09	2.44E+09
Impacted area: ‘Europe39’	km2								
Q95	67 195	17 950	1 995	272	125	50	4	3	1
Q80	40 019	9 626	665	173	43	10	2	1	0
Q50	12 353	2 083	270	63	10	4	0	0	0
Q20	2 713	640	113	18	3	1	0	0	0
Q5	764	248	39	6	1	0	0	0	0
Addit. Informat.: Cs-137(t1) (Bq m ⁻²)	3.76E+03	3.76E+04	2.26E+05	7.52E+05	1.88E+06	3.76E+06	1.88E+07	3.76E+07	7.52E+07

Table A.14. 'Others', number of radioactive square kilometres distributed by quantiles (under 1096 simulations)									
Fra 2785 MWth									
Parent + Progeny (mSv (1st yr)-1)	≥0.1	≥1	≥6	≥20	≥50	≥100	≥500	≥1000	≥2000
Parents' Becquerels(t1) (Bq m-2)	1.22E+05	1.22E+06	7.32E+06	2.44E+07	6.10E+07	1.22E+08	6.10E+08	1.22E+09	2.44E+09
Impacted area: ‘Europe39’	km2								
Q95	329 697	68 424	8 838	1 852	746	444	117	61	29
Q80	187 960	40 607	4 484	1 029	509	301	76	38	8
Q50	92 609	20 971	2 093	666	301	164	22	0	0
Q20	34 810	8 002	968	399	139	58	0	0	0
Q5	8 616	1 666	667	210	64	20	0	0	0
Addit. Informat.: Cs-137(t1) (Bq m ⁻²)	3.76E+03	3.76E+04	2.26E+05	7.52E+05	1.88E+06	3.76E+06	1.88E+07	3.76E+07	7.52E+07

The above four types of land cover are summarized in the “All surfaces” category of Table 3.7 (in the main article). The results are indicative to the extent they come from simulations based on simplified hypothesis.