Table 1.1 Comparison of occupational air concentration limits[1]

Radionuclide	Old part 20 concentration limit (μCi/ml)	New part 20 derived air concentration limit (μCi/ml)	New Limit / Old Limit
Hydrogen-3	5 E-6[a]	2 E-5	4
Carbon-14	4 E-6	1 E-6	0.25
Phosphorus-32	7 E-8	4 E-7	5.7
Argon-41 (sub.)	2 E-6	3 E-6	1.5
Manganese-54	4 E-8	3 E-7	7.5
Cobalt-60	4 E-8	3 E-7	7.8
Strontium-90	1 E-9	8 E-9	8
Technetium-99m	4 E-5	6 E-5	1.5
Ruthenium-106	8 E-8	4 E-8	0.5
Iodine-131	9 E-9	2 E-8	2.2
Xenon-133	1 E-5	1 E-4	10
Cesium-137	6 E-8	6 E-8	1
Cerium-144	6 E-9	1 E-8	1.7
Gold-198	2 E-7	2 E-6	10
Radon-222	3 E-8	3 E-8	1
Thorium-232	3 E-11	5 E-13	0.017
Uranium-238 (sol)	7 E-11	3 E-11	4.3
Uranium-238 (insol)	1 E-10	2 E-10	0.20
Plutonium-239	4 E-11	7 E-12	0.175
Americium-241	6 E-12	3 E-12	0.5

[a] 5 E-6 = 5×10^{-6} = 0.000005

[1] H.T. Peterson, Jr., D.A. Cool, J.D. Buchanan, and W.S. Cool (ret.), "Overview of Revised 10 CFR Part 20, Standards for Protection Against Radiation", U.S. Nuclear Regulatory Commission, Health Physics Society, Twenty-fourth Midyear Topical Meeting, 1992.

Table 1.2 Comparison of effluent concentration limits[a]

Radionuclide	Airborne effluent limit (μCi/ml)			Liquid effluent limit (μCi/ml)		
	Old part 20	New part 20	New Limit / Old Limit	Old part 20	New part 20	New Limit / Old Limit
Hydrogen-3	2 E-7[b]	1 E-7	0.5	3 E-5	1 E-3	0.33
Carbon-14	1 E-7	3 E-9	0.03	8 E-4	3 E-5	0.0375
Phosphorus-32	2 E-9	1 E-9	0.5	2 E-5	9 E-6	0.45
Argon-41	4 E-8	1 E-8	0.25	---	---	---
Manganese-54	1 E-9	1 E-9	1.0	1 E-4	3 E-5	0.3
Cobalt-60	3 E-10	2 E-10	0.67	3 E-5	3 E-6	0.1
Strontium-90	3 E-11	3 E-11	1.0	3 E-7	5 E-7	1.67
Technetium-99m	1 E-6	2 E-7	0.2	6 E-3	1 E-3	0.167
Ruthenium-106	3 E-9	4 E-8	13.3	1 E-5	3 E-6	0.3
Iodine-131	1 E-10	2 E-10	2.0	3 E-7	1 E-7	3.3
Xenon-133	3 E-7	5 E-7	1.67	---	---	---
Cesium-137	2 E-9	2 E-10	0.1	2 E-5	1 E-6	0.05
Cerium-144	2 E-10	4 E-11	0.2	1 E-5	3 E-6	0.3
Gold-198	8 E-9	4 E-9	0.5	5 E-5	1 E-5	0.2
Radon-222	3 E-8	1 E-10	0.033	---	---	---
Thorium-232	1 E-12	4 E-15	0.004	2 E-6	3 E-8	0.015
Uranium-238 (s)	3 E-12	3 E-12	1.0	4 E-5	3 E-7	0.0075
Uranium-238 (l)	5 E-12	6 E-14	0.012	4 E-5	3 E-7	0.0075
Plutonium-239	1 E-12	2 E-14	0.02	3 E-5	2 E-8	0.00067
Americium-241	2 E-13	2 E-14	0.1	4 E-6	2 E-8	0.005

[a]H.T. Peterson, Jr., D.A. Cool, J.D. Buchanan, and W.S. Cool (ret.), "Overview of Revised 10 CFR Part 20, Standards for Protection Against Radiation", U.S. Nuclear Regulatory Commission, Health Physics Society, Twenty-Fourth Midyear Topical Meeting, 1992.

[b]2 E-7 = 2×10^{-7} = 0.0000002