

Data Table 6-17 Atmospheric Releases

2010-2014 Atmospheric Releases: Units are Curies

Radionuclide	2010	2011	2012	2013	2014	2013-2014 % Difference
Gases and Vapors						
H-3 (oxide)	3.64E+04	2.38E+04	1.39E+04	2.11E+04	2.38E+04	13%
H-3 (elem)	4.10E+03	4.30E+03	2.77E+03	3.17E+03	3.49E+03	10%
H-3 Total	4.05E+04	2.81E+04	1.67E+04	2.43E+04	2.73E+04	12%
C-14	1.81E-02	1.30E-03	5.34E-02	1.14E-01	2.08E-01	82%
Kr-85			8.91E+03	1.51E+04	6.46E+03	-57%
I-129	6.12E-03	1.42E-03	1.65E-03	1.41E-03	2.21E-03	57%
I-131		1.44E-04				
Particles						
Ag-110m	4.96E-12	1.57E-11	1.57E-11	1.48E-11	1.48E-11	0%
Am-241	1.56E-05	3.19E-05	2.76E-05	1.60E-05	1.91E-05	19%
Am-242m	9.41E-06				6.19E-10	
Am-243	7.81E-06	5.53E-07	2.14E-06		1.25E-08	
Ba-133			1.37E-04			
Bi-212			1.06E-04			
Bi-214			1.28E-03			
Ce-141	2.34E-03	1.65E-04	1.61E-04	4.94E-11	4.94E-11	0%
Ce-144	5.49E-03	3.87E-04	6.07E-04	2.00E-08	6.50E-06	32400%
Cf-249			1.35E-04		3.74E-08	
Cf-251			3.74E-04		3.04E-08	
Cm-242	3.08E-05		2.14E-09	1.89E-16	5.12E-10	270899471%
Cm-243					3.45E-08	
Cm-244	1.87E-05	1.38E-06	1.86E-06	3.66E-07	4.31E-07	18%
Cm-245					2.97E-08	
Cm-246					4.90E-09	
Cm-247			1.17E-06		3.30E-08	
Co-57			7.79E-05			
Co-58	4.78E-11		1.33E-05			
Co-60	2.27E-03	3.64E-04	3.20E-04	8.49E-06	4.30E-06	-49%
Cs-134	3.66E-07	4.57E-07	1.92E-05	4.31E-07	4.31E-07	0%
Cs-137	7.47E-03	1.41E-02	1.21E-02	7.70E-02	1.70E-02	-78%
Eu-152	2.68E-03	1.89E-04	3.04E-04		5.43E-07	
Eu-154	3.06E-04	7.10E-04	7.20E-04	3.55E-07	7.19E-07	103%
Eu-155	1.01E-07	9.14E-06	3.20E-04	1.18E-07	2.22E-06	1780%
F-18		4.00E-02	3.20E-02	3.60E-02	2.00E-02	-44%
Mn-54	1.33E-04	9.37E-06	1.36E-05		4.84E-07	
Na-22	1.07E-04	7.87E-06	1.17E-05			
Nb-94	1.21E-04	8.79E-06	1.38E-05	2.42E-07	2.42E-07	0%
Nb-95		2.70E-09	2.70E-09	3.63E-07	3.63E-07	0%
Ni-59	8.12E-04	6.01E-05	6.70E-05	5.76E-11	2.91E-07	505208%
Ni-63	6.25E-05	4.41E-06	3.70E-03	5.62E-09	2.00E-06	35423%
Np-237	2.16E-05	3.31E-06	4.08E-06	1.53E-06	7.09E-06	362%
Np-239	4.95E-03	3.49E-04	5.87E-04			
Pa-233	3.98E-06	1.51E-06	1.99E-04	1.42E-06	1.42E-06	0%
Pb-212	1.52E-03		1.69E-04	8.43E-07	8.43E-07	0%
Pb-214			2.07E-06		8.84E-13	
Pm-144	1.23E-04	8.67E-06	1.44E-05			
Pm-146	1.58E-03	1.11E-04	1.77E-04			
Pm-147	2.45E-06	3.06E-06	3.29E-06	2.89E-06	2.89E-06	0%
Pm-148m		2.02E-12	2.02E-12	1.90E-12	1.90E-12	0%

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Particles						
Pr-144		2.12E-08	2.12E-08	2.00E-08	2.00E-08	0%
Pu-236	6.21E-10	3.80E-10			1.83E-10	
Pu-238	4.67E-03	1.95E-04	9.45E-05	1.48E-04	4.25E-05	-71%
Pu-239	2.96E-04	1.07E-04	9.79E-04	8.58E-04	4.27E-05	-95%
Pu-240	2.15E-05	2.93E-05	2.91E-05	7.68E-06	7.73E-06	1%
Pu-241	2.28E-03	3.91E-04	3.24E-04	2.07E-04	2.09E-04	1%
Pu-242	3.31E-05	2.37E-06	2.54E-06	1.38E-08	1.56E-08	13%
Ra-226	4.11E-07	8.67E-06	1.17E-06	3.01E-07	2.73E-07	-9%
Ra-228	4.11E-07	2.69E-07	3.44E-07	3.01E-07	2.65E-07	-12%
Rh-106	9.83E-09	1.40E-08	1.40E-08	1.19E-08	1.19E-08	0%
Ru-103	1.59E-03	1.12E-04	1.16E-04	5.11E-10	5.11E-10	0%
Ru-106		4.20E-04	6.43E-04	3.04E-06	3.04E-06	0%
Sb-124	1.13E-03	7.96E-05				
Sb-125	3.12E-03	2.36E-04	1.59E-05	1.18E-06	1.28E-06	8%
Sb-126			1.93E-04	1.70E-07	1.70E-07	0%
Se-79		5.19E-09	3.59E-06	4.90E-09	4.90E-09	0%
Sm-151	1.65E-07	3.07E-06	3.07E-06	2.89E-06	2.89E-06	0%
Sn-113			1.46E-04			
Sn-123		7.06E-12	7.06E-12	6.66E-12	6.66E-12	0%
Sn-126		7.06E-12	1.93E-04	1.70E-07	1.70E-07	0%
Sr-89			4.36E-10	4.12E-10	5.18E-10	26%
Sr-89,90	5.20E-04	9.86E-02	9.83E-02	4.88E-04	9.79E-05	-80%
Tc-99	3.76E-04	7.08E-04	1.58E-03	4.09E-07	1.94E-06	374%
Te-127		1.10E-11	1.10E-11	1.04E-11	1.04E-11	0%
Te-129		1.11E-12	1.11E-12	1.05E-12	1.05E-12	0%
Th-228	1.42E-10		2.48E-10	1.71E-10	2.17E-09	1169%
Th-229	8.05E-10	7.70E-10			9.28E-10	
Th-230	7.00E-11	7.00E-11	6.32E-09	9.71E-08	6.80E-07	600%
Th-231			2.25E-04	2.12E-04	2.12E-04	0%
Th-232	4.39E-06		1.21E-09	1.04E-09	4.44E-09	327%
Tl-208			7.88E-05	1.41E-06	1.41E-06	0%
U-232	1.51E-09	3.50E-09	3.39E-06	2.23E-10	3.19E-09	1332%
U-233	5.70E-05	4.02E-06	8.32E-05	3.47E-10	3.93E-07	113181%
U-234	3.94E-05	2.98E-05	5.94E-06	2.85E-05	9.38E-06	-67%
U-235	2.24E-05	2.26E-04	2.42E-05	1.00E-06	2.27E-07	-77%
U-236	3.91E-08	3.19E-08	3.19E-08	3.01E-08	3.01E-08	0%
U-238	9.07E-05	1.25E-05	8.90E-06	3.00E-05	1.29E-05	-57%
Y-88	2.55E-10	1.01E-07	1.26E-05			
Y-90			9.80E-02	4.78E-04	9.47E-05	-80%
Y-91		8.46E-10	8.46E-10	7.98E-10	7.98E-10	0%
Zn-65		1.93E-07	3.15E-05		1.96E-06	
Zr-95	7.65E-10	2.44E-07	2.59E-05	1.22E-07	1.22E-07	0%
Alpha	3.07E-05	2.85E-05	1.52E-04	1.25E-03	1.04E-04	-92%
Beta-Gamma	1.62E-02	7.97E-03	1.99E-02	4.17E-02	2.15E-03	-95%