

Data Table 4-3, 2013 Radioactive Atmospheric Releases by Source (Curies)^(a)

Radionuclide	Calculated (d)	Reactors	Separations(b)	SRNL(c)	Total
GASES AND VAPORS					
H-3 (oxide)	2.09E+02	9.27E+02	2.00E+04		2.11E+04
H-3 (elemental)			3.17E+03		3.17E+03
H-3 Total	2.09E+02	9.27E+02	2.32E+04		2.43E+04
C-14	7.10E-09		1.14E-01		1.14E-01
Kr-85			1.51E+04		1.51E+04
I-129	1.15E-04		1.29E-03	1.94E-06	1.41E-03
PARTICLES					
Ag-110m	1.48E-11				1.48E-11
Am-241	1.12E-05	6.85E-11	4.80E-06		1.60E-05
Ce-141	4.94E-11				4.94E-11
Ce-144	2.00E-08				2.00E-08
Cm-242	1.89E-16				1.89E-16
Cm-244	2.78E-07		8.87E-08		3.66E-07
Co-60	8.49E-06				8.49E-06
Cs-134	4.31E-07				4.31E-07
Cs-137	7.70E-02		2.65E-05		7.70E-02
Eu-154	3.55E-07				3.55E-07
Eu-155	1.18E-07				1.18E-07
F-18	3.60E-02				3.60E-02
Nb-94	2.42E-07				2.42E-07
Nb-95	3.63E-07				3.63E-07
Ni-59	5.76E-11				5.76E-11
Ni-63	5.62E-09				5.62E-09
Np-237	1.53E-06				1.53E-06
Pa-233	1.42E-06				1.42E-06
Pb-212	8.43E-07				8.43E-07
Pm-147	2.89E-06				2.89E-06
Pm-148m	1.90E-12				1.90E-12
Pr-144	2.00E-08				2.00E-08
Pu-238	1.42E-04		5.52E-06		1.48E-04
Pu-239	8.52E-04	2.56E-11	5.85E-06		8.58E-04
Pu-240	7.68E-06				7.68E-06
Pu-241	2.07E-04				2.07E-04
Pu-242	1.38E-08				1.38E-08
Ra-226	3.01E-07				3.01E-07
Ra-228	3.01E-07				3.01E-07
Rh-106	1.19E-08				1.19E-08
Ru-103	5.11E-10				5.11E-10
Ru-106	3.04E-06				3.04E-06
Sb-125	1.18E-06				1.18E-06
Sb-126	1.70E-07				1.70E-07
Se-79	4.90E-09				4.90E-09

Data Table 4-3, 2013 Radioactive Atmospheric Releases by Source (Curies)^(a)

Radionuclide	Calculated (d)	Reactors	Separations(b)	SRNL(c)	Total
PARTICLES					
Sm-151	2.89E-06				2.89E-06
Sn-123	6.66E-12				6.66E-12
Sn-126	1.70E-07				1.70E-07
Sr-89	4.12E-10				4.12E-10
Sr-90	4.78E-04	2.18E-09	1.00E-05		4.88E-04
Tc-99	4.09E-07				4.09E-07
Te-127	1.04E-11				1.04E-11
Te-129	1.05E-12				1.05E-12
Th-228		1.71E-10			1.71E-10
Th-230		2.73E-09	9.44E-08		9.71E-08
Th-231	2.12E-04				2.12E-04
Th-232	4.79E-14	1.04E-09			1.04E-09
Tl-208	1.41E-06				1.41E-06
U-232	2.23E-10				2.23E-10
U-233	3.47E-10				3.47E-10
U-234	2.06E-05	7.84E-10	7.91E-06		2.85E-05
U-235	9.12E-07		9.05E-08		1.00E-06
U-236	3.01E-08				3.01E-08
U-238	2.04E-05	9.24E-10	9.64E-06		3.00E-05
Y-90	4.78E-04				4.78E-04
Y-91	7.98E-10				7.98E-10
Zr-95	1.22E-07				1.22E-07
Unidentified Alpha	1.25E-03		1.72E-06		1.25E-03
Unidentified Beta	4.10E-02	7.85E-05	5.87E-04	2.44E-06	4.17E-02

-
- a. One curie equals 3.7E+10 Becquerels
b. Includes separations, waste management, and tritium facilities
c. Savannah River National Laboratory
d. Estimated releases from unmonitored sources