

(4) Reprocessing Facility (Radioactive Liquid Waste)

Japan Atomic Energy Agency, Reprocessing Facilities	Item	Tritium [³ H] (Bq)	Iodine [¹²⁹ I] (Bq)	Iodine [¹³¹ I] (Bq)
	Annual release	7.0E+10	3.2E+06	N.D.
	Annual release control target value	1.9E+15	2.7E+10	1.2E+11
Japan Nuclear Fuel Ltd., Reprocessing Plant (Reprocessing Facility)	Item	Tritium [³ H] (Bq)	Iodine [¹²⁹ I] (Bq)	Iodine [¹³¹ I] (Bq)
	Annual release	9.0E+11	2.1E+06	N.D.
	Annual release control target value	1.8E+16	4.3E+10	1.7E+11

Japan Atomic Energy Agency, Reprocessing Facilities	Item	/	Strontium [⁸⁹ Sr] (Bq)	Strontium [⁹⁰ Sr] (Bq)
	Annual release	/	N.D.	N.D.
	Annual release control target value	/	1.6E+10	3.2E+10
Japan Nuclear Fuel Ltd., Reprocessing Plant (Reprocessing Facility)	Item	Cobalt [⁶⁰ Co] (Bq)	Other nuclides (nuclides that do not emit alpha rays)/Breakdown (by nuclide)	
	Annual release	N.D.	/	Strontium - Yttrium [⁹⁰ Sr- ⁹⁰ Y] (Bq)
	Annual release control target value	-	-	

Japan Atomic Energy Agency, Reprocessing Facilities	Item	Cerium - Praseodymium [¹⁴⁴ Ce- ¹⁴⁴ Pr] (Bq)	/	/
	Annual release	N.D.	/	/
	Annual release control target value	1.2E+11	/	/
Japan Nuclear Fuel Ltd., Reprocessing Plant (Reprocessing Facility)	Item	Cerium - Praseodymium [¹⁴⁴ Ce- ^{144m} Pr, ¹⁴⁴ Pr] (Bq)	Europium [¹⁵⁴ Eu] (Bq)	Plutonium [²⁴¹ Pu] (Bq)
	Annual release	N.D.	N.D.	N.D.
	Annual release control target value	-	-	

(4) Reprocessing Facilities (Radioactive Liquid Waste) (cont.)

Total Alpha Radioactivity (Bq)	Plutonium [Pu (α)] (Bq)			Total Beta Radioactivity (excluding ³ H) (Bq)
N.D.	1.2E+05			N.D.
4.1E+09	2.3E+09			9.6E+11
Breakdown of the left column (by nuclide)				
Other radionuclides (nuclides that emit alpha rays) (Bq)	Plutonium [Pu (α)] (Bq)	Americium [Am (α)] (Bq)	Curium [Cm (α)] (Bq)	Other radionuclides (nuclides that do not emit alpha rays) (Bq)
N.D.	N.D.	N.D.	N.D.	N.D.
3.8E+09	-			2.1E+11

Zirconium - Niobium [⁹⁵ Zr - ⁹⁵ Nb] (Bq)	Ruthenium [¹⁰³ Ru] (Bq)	Ruthenium - Rhodium [¹⁰⁶ Ru - ¹⁰⁶ Rh h] (Bq)	Cesium [¹³⁴ Cs] (Bq)	Cesium [¹³⁷ Cs] (Bq)	Cerium [¹⁴¹ Ce] (Bq)
N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
4.1E+10	6.4E+10	5.1E+11	6.0E+10	5.5E+10	5.9E+09
Other nuclides (nuclides that do not emit alpha rays)/Breakdown (by nuclide)					
		Ruthenium - Rhodium [¹⁰⁶ Ru - ¹⁰⁶ Rh] (Bq)	Cesium [¹³⁴ Cs] (Bq)	Cesium - Barium [¹³⁷ Cs - ^{137m} Ba] (Bq)	
		N.D.	N.D.	N.D.	
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Notes: The radioactivity (Bq) of radioactive liquid waste is obtained by multiplying the concentration of the radioactive material (Bq/cm³) in the released liquid by the amount of released liquid.

Values lower than the detection limit of radioactivity are indicated as N.D.

The detection limits are as follows. (Bq/cm³)

Japan Atomic Energy Agency, Reprocessing Facility

¹²⁹ I	: 1.4E-03 or less
¹³¹ I	: 1.8E-03 or less
Total alpha radioactivity	: 1.1E-03 or less
Pu (α)	: 3.7E-05 or less
Total beta radioactivity (excluding ³ H)	: 2.2E-02 or less
⁸⁹ Sr	: 2.2E-03 or less
⁹⁰ Sr	: 1.1E-03 or less
⁹⁵ Zr - ⁹⁵ Nb	: 4.3E-03 or less
¹⁰³ Ru	: 1.1E-03 or less
¹⁰⁶ Ru - ¹⁰⁶ Rh	: 3.2E-02 or less
¹³⁴ Cs	: 1.1E-03 or less
¹³⁷ Cs	: 1.8E-03 or less
¹⁴¹ Ce	: 2.2E-03 or less
¹⁴⁴ Ce- ¹⁴⁴ Pr	: 2.2E-02 or less

Japan Nuclear Fuel Ltd., Reprocessing Plant (reprocessing facility)

¹³¹ I	: 2E-02 or less
Other radionuclides (nuclides that emit alpha rays)	: 4E-03 or less (represented by the value for total alpha)
Pu (α)	: 1E-03 or less
Am (α)	: 6E-05 or less
Cm (α)	: 6E-05 or less
Other radionuclides (nuclides that do not emit alpha rays)	: 4E-02 or less (represented by the value for total beta (gamma))
⁶⁰ Co	: 2E-02 or less
⁹⁰ Sr - ⁹⁰ Y	: 7E-04 or less
¹⁰⁶ Ru - ¹⁰⁶ Rh	: 2E-02 or less
¹³⁴ Cs	: 2E-02 or less
¹³⁷ Cs - ^{137m} Ba	: 2E-02 or less
¹⁴⁴ Ce - ^{144m} Pr, ¹⁴⁴ Pr	: 2E-02 or less
¹⁵⁴ Eu	: 2E-02 or less
²⁴¹ Pu	: 3E-02 or less