

(4) Reprocessing facility (liquid waste)

Japan Atomic Energy Agency Reprocessing facility		Tritium [³ H] (Bq)	Iodine [¹²⁹ I] (Bq)	Iodine [¹³¹ I] (Bq)
	Annual release	¹² 7.3×10	⁷ 1.2×10	N.D.
	Annual release control target value	¹⁵ 1.9×10	¹⁰ 2.7×10	¹¹ 1.2×10
Japan Nuclear Fuel Ltd. Reprocessing Plant (reprocessing facility)		Tritium [³ H] (Bq)	Iodine [¹²⁹ I] (Bq)	Iodine [¹³¹ I] (Bq)
	Annual release	¹⁵ 1.3×10	⁸ 2.4×10	⁶ 4.6×10
	Annual release control target value	¹⁶ 1.8×10	¹⁰ 4.3×10	¹¹ 1.7×10
Japan Atomic Energy Agency Reprocessing facility		–	Strontium [⁸⁹ Sr] (Bq)	Strontium [⁸⁹ Sr] (Bq)
	Annual release	–	N.D.	N.D.
	Annual release control target value	–	¹⁰ 1.6×10	¹⁰ 3.2×10
Japan Nuclear Fuel Ltd. Reprocessing Plant (reprocessing facility)		Other nuclides (nuclides that do not emit alpha rays) breakdown (by nuclide)		
		Cobalt [⁶⁰ Co] (Bq)	–	Strontium - yttrium [⁹⁰ Sr - ⁹⁰ Y] (Bq)
	Annual release	N.D.	–	N.D.
	Annual release control target value	–		
Japan Atomic Energy Agency Reprocessing facility		Cerium -praseodymium [¹⁴⁴ Ce - ¹⁴⁴ Pr] (Bq)	–	–
	Annual release	N.D.	–	–
	Annual release control target value	¹¹ 1.2×10	–	–
Japan Nuclear Fuel Ltd. Reprocessing Plant (reprocessing facility)		Other nuclides (nuclides that do not emit alpha rays) breakdown (by nuclide)		
		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 facility (liquid waste) (cont.)

Total alpha radioactivity (Bq)	Plutonium [Pu(α)] (Bq)	–	–	Total beta radioactivity (excluding ³ H) (Bq)
N.D.	⁶ 1.3×10	–	–	N.D.
⁹ 4.1×10	⁹ 2.3×10	–	–	¹¹ 9.6×10
Other nuclides (nuclides that emit alpha rays) (Bq)	Breakdown of the left column (by nuclide)			Other nuclides (nuclides that do not emit alpha rays) (Bq)
	Plutonium [Pu(α)] (Bq)	Americium [Am(α)] (Bq)	Curium [Cm(α)] (Bq)	
N.D.	N.D.	N.D.	N.D.	N.D.
⁹ 3.8×10		–		¹¹ 2.1×10

Zirconium -niobium [⁹⁵ Zr - ⁹⁵ Nb] (Bq)	Ruthenium [¹⁰³ Ru] (Bq)	Ruthenium - rhodium [¹⁰⁶ Ru - ¹⁰⁶ Rh] (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.
¹⁰ 4.1×10	¹⁰ 6.4×10	¹¹ 5.1×10	¹⁰ 6.0×10	¹⁰ 5.5×10	⁹ 5.9×10
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.	–
–					

Note: The released radioactivity (Bq) of liquid waste is obtained by multiplying the concentration of radioactive material (Bq/cm³) in discharge water by Released radioactivity concentration lower than the detection limit concentration is represented as N.D.
The detection limit concentration is as follows: (Bq/cm³)

Japan Atomic Energy Agency, Reprocessing Facility/Japan Nuclear Fuel Ltd., Reprocessing Plant (reprocessing facility)

¹³¹ I	: 1.8×10 ⁻³ or lower	Other nuclides (nuclides that emit alpha rays)	: 4×10 ⁻³ or lower
Total alpha radioactivity	: 1.1×10 ⁻³ or lower	(with value of total alpha as representative)	
Total beta radioactivity (excluding ³ H)		Pu(α)	: 1×10 ⁻³ or lower
	: 2.2×10 ⁻² or lower	Am(α)	: 6×10 ⁻⁵ or lower
⁸⁹ Sr	: 2.2×10 ⁻³ or lower	Cm(α)	: 6×10 ⁻⁵ or lower
⁹⁰ Sr	: 1.1×10 ⁻³ or lower	Other nuclides (nuclides that do not emit alpha rays)	: 4×10 ⁻² or lower
⁹⁵ Zr - ⁹⁵ Nb	: 4.3×10 ⁻³ or lower	(with value of total beta(gamma) as representative)	
¹⁰³ Ru	: 1.1×10 ⁻³ or lower	⁶⁰ Co	: 2×10 ⁻² or lower
¹⁰⁶ Ru - ¹⁰⁶ Rh	: 3.2×10 ⁻² or lower	⁹⁰ Sr - ⁹⁰ Y	: 7×10 ⁻⁴ or lower
¹³⁴ Cs	: 1.1×10 ⁻³ or lower	¹⁰⁶ Ru - ¹⁰⁶ Rh	: 2×10 ⁻² or lower
¹³⁷ Cs	: 1.8×10 ⁻³ or lower	¹³⁴ Cs	: 2×10 ⁻² or lower
¹⁴¹ Ce	: 2.2×10 ⁻³ or lower	¹³⁷ Cs - ^{137m} Ba	: 2×10 ⁻² or lower
¹⁴⁴ Ce - ¹⁴⁴ Pr	: 2.2×10 ⁻² or lower	¹⁴⁴ Ce - ^{144m} Pr, ¹⁴⁴ Pr	: 2×10 ⁻² or lower
		¹⁵⁴ Eu	: 2×10 ⁻² or lower
		²⁴¹ Pu	: 3×10 ⁻² or lower