

(4) Reprocessing Facilities (Gaseous Radioactive Waste)

Japan Atomic Energy Agency, Tokai Research and Development Center, Nuclear Fuel Cycle Engineering Laboratories, Reprocessing Facility	Item		Krypton [⁸⁵ Kr] (Bq)	Iodine [¹²⁹ I] (Bq)
	Reprocessing facilities total		N.D.	N.D.
	Annual release Control target value		8.9E+16	1.7E+09
Japan Nuclear Fuel Ltd., Reprocessing Plant (Reprocessing Facility)	Item	Radioactivity Argon (Bq)	Krypton [⁸⁵ Kr] (Bq)	Iodine [¹²⁹ I] (Bq)
	Reprocessing facilities total	N.D.	1.6E+11	N.D.
	Annual release Control target value	—	3.3E+17	1.1E+10
Japan Atomic Energy Agency, Tokai Research and Development Center, Nuclear Fuel Cycle Engineering Laboratories, Reprocessing Facility	Item	Total Radioactive Particulate Matter		
		[total alpha] (Bq)		total beta gamma (Bq)
	Reprocessing facilities total	N.D.		*15 2.4E+04
Annual release Control target value	*14 2.2E-08		*14 1.1E-04	
Japan Nuclear Fuel Ltd., Reprocessing Plant (Reprocessing Facility)	Item	Other radionuclides (nuclides that emit alpha rays) (Bq)	Breakdown of the left column (by nuclide) Plutonium [Pu(α)] (Bq)	Other radionuclides (nuclides that do not emit alpha rays) (Bq)
		Reprocessing facilities total	N.D.	N.D.
	Annual release Control target value	3.3E+08	—	9.4E+10

Note: The radioactivity (Bq) of gaseous radioactive waste is obtained by multiplying the concentration of the radioactive material (Bq/cm³) in the released gas by the amount of released gas.
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

¹⁴C : 4.0E-05 or less
¹²⁹I : 3.7E-08 or less

Total radioactive particulate material (total α)
⁸⁵Kr : 1.5E-10 or less
¹³¹I : 2.4E-03 or less
: 3.7E-08 or less

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

Radioactive Argon : 1E-04 or less
⁸⁵Kr : 2E-02 or less
¹²⁹I : 4E-08 or less
¹⁴C : 4E-05 or less

Other radionuclides (nuclides that emit alpha rays) : 4E-10 or less
(represented by the value for total alpha)

Pu(α) : 4E-10 or less

Other radionuclides (nuclides that do not emit alpha rays) : 4E-09 or less
(represented by the value for total beta (gamma))

¹⁰⁶Ru-¹⁰⁶Rh : 4E-09 or less
(The values for particulate ¹⁰⁶Ru and volatile ¹⁰⁶Ru are indicated.)
¹³⁷Cs-^{137m}Ba : 4E-09 or less
⁹⁰Sr-⁹⁰Y : 4E-10 or less

*15: Attributable to the accidents at the Fukushima Daiichi Nuclear Power Station.

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

Iodine [¹³¹ I] (Bq)	Tritium [³ H] (Bq)	Carbon [¹⁴ C] (Bq)
N.D.	5.0E+11	N.D.
1.6E+10	5.6E+14	5.1E+12
Iodine [¹³¹ I] (Bq)	Tritium [³ H] (Bq)	Carbon [¹⁴ C] (Bq)
6.6E+05	1.6E+11	4.2E+10
1.7E+10	1.9E+15	5.2E+13
Breakdown of the left column (by nuclide)		
Strontium - Yttrium [⁹⁰ Sr- ⁹⁰ Y] (Bq)	Ruthenium - Rhodium [¹⁰⁶ Ru- ¹⁰⁶ Rh] (Bq)	Cesium - Barium [¹³⁷ Cs- ^{137m} Ba] (Bq)
N.D.	N.D.	N.D.
-		