(4) Reprocessing Facilities (Liquid Radioactive Waste)

Japan Atomic Energy Agency, Tokai Research and Development Center, Nuclear Fuel Cycle Engineering Laboratories, Reprocessing Facility	Item	Tritium [^{3}H] (Bq)	Iodine [^{129}I] (Bq)	Iodine [^{131}I] (Bq)
	Annual release	8.7E+11	1.2E+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	1.1E+12	6.7E+06	N.D.
	Annual release Control target value	1.8E+16	4.3E+10	1.7E+11

Japan Atomic Energy Agency, Tokai Research and Development Center, Nuclear Fuel Cycle Engineering Laboratories, Reprocessing Facility	Item		Strontium [^{89}Sr] (Bq)	Strontium [^{90}S] (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	Other radionuclides (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, Tokai Research and Development Center, Nuclear Fuel Cycle Engineering Laboratories, Reprocessing Facility	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	Other radionuclides (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 Facilities (Liquid RadioactiveWaste) (cont.)

Total Alpha Radioactivity (Bq)	Plutonium [Pu(α)] (Bq)			Total Beta Radioactivity (excluding ^{3}H) (Bq)
N.D.	1.4E+05			N.D.
4.1E+09	2.3E+09			9.6E+11
Other radionuclides (nuclides that emit alpha rays) (Bq)	Breakdown of the left column (by nuclide)			Other radionuclides (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.
3.8E+09	–			2.1E+11

Zirconium - Niobium [^{95}Zr-^{95}Nb] (Bq)	Ruthenium [^{103}Ru] (Bq)	Ruthenium - Rhodium [^{106}Ru-^{106}Rh] (Bq)	Cesium [^{134}Cs] (Bq)	Cesium [^{134}Ce] (Bq)	Cerium [^{14}C] (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 radionuclides (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 radioactivity (Bq) of liquid radioactive waste is obtained by multiplying the concentration of the radioactive material (Bq/cm^{3}) 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/cm^{3})

Japan Atomic Energy Agency,
Tokai Research and Development Center,
Nuclear Fuel Cycle Engineering Laboratories,
Reprocessing Facility

^{129}I	: 1.4E-03 or less
^{131}I	: 1.8E-03 or less
Total Alpha Radioacti	: 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) (represented by the value for total alpha)	: 4E-03 or less
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) (represented by the value for total beta (gamma))	: 4E-02 or less
^{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