

(4) Reprocessing Facilities (Gaseous Waste)

*1 Japan Atomic Energy Agency Tokai Research and Development Center Nuclear Fuel Cycle Engineering Laboratories (Reprocessing Facilities)			Krypton [ <sup>85</sup> Kr] (Bq)	Iodine [ <sup>129</sup> I] (Bq)
	Reprocessing Facilities Total		15 1.4×10	7 6.8×10
	Annual release Target control level		16 8.9×10	9 1.7×10
*2 Japan Nuclear Fuel Limited Reprocessing Plant (Reprocessing Facilities)		Radioactive Argon (Bq) *4	Krypton [ <sup>85</sup> Kr] (Bq)	Iodine [ <sup>129</sup> I] (Bq)
	Reprocessing Facilities Total	N.D.	16 1.7×10	8 2.2×10
	Annual release Target control level	-	17 3.3×10	10 1.1×10

*1 Japan Atomic Energy Agency Tokai Research and Development Center Nuclear Fuel Cycle Engineering Laboratories (Reprocessing Facilities)		Total radioactive particulate matter		
		[total α] (Bq)		[total βγ] (Bq)
	Reprocessing Facilities Total	N.D.		N.D.
	Annual release Target control level	*3 2.2×10	-8	*3 1.1×10
*2 Japan Nuclear Fuel Limited Reprocessing Plant (Reprocessing Facilities)		Other radionuclides (nuclides that emit α rays) (Bq)	Radionuclide(s) categorized into the left group Plutonium [Pu (α)] (Bq) *4	Other radionuclides (nuclides that do not emit α rays) (Bq)
	Reprocessing Facilities Total	N.D.	N.D.	N.D.
	Annual release Target control level	8 3.3×10	-	10 9.4×10

Note: The radioactivity (Bq) of gaseous waste is obtained by multiplying the concentration of the radioactive material (Bq/cm<sup>3</sup>) 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.

Radioactive Argon	: 1×10 <sup>-4</sup>	(Bq/cm <sup>3</sup> ) or lower (*2)
<sup>85</sup> Kr	: 2.4×10 <sup>-3</sup>	(Bq/cm <sup>3</sup> ) or lower (*1)
	: 2×10 <sup>-2</sup>	(Bq/cm <sup>3</sup> ) or lower (*2)
<sup>129</sup> I	: 3.7×10 <sup>-8</sup>	(Bq/cm <sup>3</sup> ) or lower (*1)
	: 4×10 <sup>-8</sup>	(Bq/cm <sup>3</sup> ) or lower (*2)
<sup>131</sup> I	: 3.7×10 <sup>-8</sup>	(Bq/cm <sup>3</sup> ) or lower (*1)
<sup>3</sup> H	: 3.7×10 <sup>-5</sup>	(Bq/cm <sup>3</sup> ) or lower (*1)
<sup>14</sup> C	: 4.0×10 <sup>-5</sup>	(Bq/cm <sup>3</sup> ) or lower (*1)
Total radioactive particulate matter (Totalα rays)	: 1.5×10 <sup>-10</sup>	(Bq/cm <sup>3</sup> ) or lower
Total radioactive particulate matter (Totalβ and γ rays)	: 1.5×10 <sup>-9</sup>	(Bq/cm <sup>3</sup> ) or lower
Other radionuclides (nuclides that emit α rays)	: 4×10 <sup>-10</sup>	(Bq/cm <sup>3</sup> ) or lower (Represented by a value relative to total α)
Pu (α)	: 4×10 <sup>-10</sup>	(Bq/cm <sup>3</sup> ) or lower
Other radionuclides (nuclides that do not emit α rays)	: 4×10 <sup>-9</sup>	(Bq/cm <sup>3</sup> ) or lower (Represented by a value relative to total β(γ))
<sup>90</sup> Sr- <sup>90</sup> Y	: 4×10 <sup>-10</sup>	(Bq/cm <sup>3</sup> ) or lower
<sup>106</sup> Ru- <sup>106</sup> Rh	: 4×10 <sup>-9</sup>	(Bq/cm <sup>3</sup> ) or lower
<sup>137</sup> Cs- <sup>137m</sup> Ba	: 4×10 <sup>-9</sup>	(Bq/cm <sup>3</sup> ) or lower

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

Iodine [ <sup>31</sup> I] (Bq)	Tritium [ <sup>3</sup> H] (Bq)	Carbon [ <sup>14</sup> C] (Bq)
N.D.	1.4×10 <sup>12</sup>	9.0×10 <sup>10</sup>
1.6×10 <sup>10</sup>	5.6×10 <sup>14</sup>	5.1×10 <sup>12</sup>
Iodine [ <sup>131</sup> I] (Bq) *4	Tritium [ <sup>3</sup> H] (Bq)	Carbon [ <sup>14</sup> C] (Bq) *4
3.2×10 <sup>5</sup>	6.0×10 <sup>12</sup>	9.1×10 <sup>11</sup>
1.7×10 <sup>10</sup>	1.9×10 <sup>15</sup>	5.2×10 <sup>13</sup>

Radionuclide(s) categorized into the left group		
Strontium -Yttrium [ <sup>90</sup> Sr- <sup>90</sup> Y] (Bq) *4	Ruthenium -Rhodium [ <sup>106</sup> Ru- <sup>106</sup> Rh] (Bq) *4	Cesium -Barium [ <sup>137</sup> Cs- <sup>137m</sup> Ba] (Bq) *4
N.D.	N.D.	N.D.
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\*3 Three-month average control concentration targets (Bq/cm<sup>3</sup>)

\*4 Since active tests were introduced in March 31, 2006, these radionuclides were added as items to be measured.