

④ Reprocessing Facilities

Facility		Radioactive gaseous waste		
		Krypton [ <sup>85</sup> Kr] (Bq)	Iodine [ <sup>129</sup> I] (Bq)	Iodine [ <sup>131</sup> I] (Bq)
Japan Nuclear Cycle Tokai Works (Reprocessing facility)	*1 Reprocessing Facilities Total	2.9×10 <sup>15</sup>	3.1×10 <sup>7</sup>	N.D.
	Annual release Target control level	8.9×10 <sup>16</sup>	1.7×10 <sup>9</sup>	1.6×10 <sup>10</sup>
Japan Nuclear Fuel Ltd. Reprocessing Plant (Reprocessing facility)	*2 Reprocessing Facilities Total	N.D.	N.D.	-
	Annual release Target control level	5.0×10 <sup>13</sup>	1.0×10 <sup>8</sup>	-

Facility		Radioactive liquid waste		
		Total α radioactivity (Bq)	Total β radioactivity (excluding <sup>3</sup> H) (Bq)	Strontium [ <sup>89</sup> Sr] (Bq)
Japan Nuclear Cycle Tokai Works (Reprocessing facility)	*1 Annual release	N.D.	N.D.	N.D.
	Annual release Target control level	4.1×10 <sup>9</sup>	9.6×10 <sup>11</sup>	1.6×10 <sup>10</sup>
Japan Nuclear Fuel Ltd. Reprocessing Plant (Reprocessing facility)	*2 Annual release	-	-	-
	Annual release Target control level	-	-	-

Facility		Radioactive liquid waste		
		Cesium [ <sup>137</sup> Cs] (Bq)	Cerium [ <sup>141</sup> Ce] (Bq)	Cerium -praseodymium [ <sup>144</sup> Ce, <sup>144</sup> Pr] (Bq)
Japan Nuclear Cycle Tokai Works (Reprocessing facility)	*1 Annual release	N.D.	N.D.	N.D.
	Annual release Target control level	5.5×10 <sup>10</sup>	5.9×10 <sup>9</sup>	1.2×10 <sup>11</sup>
Japan Nuclear Fuel Ltd. Reprocessing Plant (Reprocessing facility)	*2 Annual release	-	-	-
	Annual release Target control level	-	-	-

Notes: The radioactivity (Bq) of gaseous (or liquid) waste is obtained by multiplying the concentration of the radioactive material (Bq/cm<sup>3</sup>) in the released gas (or liquid).

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

The detection limits are as follows.

Radioactive gaseous waste

<sup>85</sup>Kr : 2.4 × 10<sup>-3</sup> (Bq/cm<sup>3</sup>) or less (\*1)

: 2.0 × 10<sup>-2</sup> (Bq/cm<sup>3</sup>) or less (\*2)

<sup>129</sup>I : 3.7 × 10<sup>-8</sup> (Bq/cm<sup>3</sup>) or less (\*1)

: 4.0 × 10<sup>-8</sup> (Bq/cm<sup>3</sup>) or less (\*2)

<sup>131</sup>I : 3.7 × 10<sup>-8</sup> (Bq/cm<sup>3</sup>) or less

<sup>3</sup>H : 3.7 × 10<sup>-5</sup> (Bq/cm<sup>3</sup>) or less (\*1)

<sup>14</sup>C : 4.0 × 10<sup>-5</sup> (Bq/cm<sup>3</sup>) or less

Total radioactive particulate matter (Total α rays) : 1.5 × 10<sup>-10</sup> (Bq/cm<sup>3</sup>) or less

Total radioactive particulate matter (Total β and γ rays) : 1.5 × 10<sup>-9</sup> (Bq/cm<sup>3</sup>) or less

Other radionuclides (nuclides that do not emit α rays) : 4.0 × 10<sup>-9</sup> (Bq/cm<sup>3</sup>) or less (<sup>60</sup>Co value was used) (\*2)

④ Reprocessing Facilities (cont.)

Radioactive gaseous waste				
Tritium [ <sup>3</sup> H] (Bq)	Carbon [ <sup>14</sup> C] (Bq)	Total radioactive particulate matter		Other radionuclides (nuclides that do not emit α rays) (Bq)
		[total α] (Bq/cm <sup>3</sup> )	[total βγ] (Bq/cm <sup>3</sup> )	
2.8 × 10 <sup>12</sup>	1.7 × 10 <sup>11</sup>	N.D.	N.D.	-
5.6 × 10 <sup>14</sup>	5.1 × 10 <sup>12</sup>	*3 2.2 × 10 <sup>-8</sup>	*3 1.1 × 10 <sup>-4</sup>	-
7.5 × 10 <sup>9</sup>	-	-	-	N.D.
1.0 × 10 <sup>11</sup>	-	-	-	1.0 × 10 <sup>7</sup>

Radioactive liquid waste				
Strontium [ <sup>90</sup> Sr] (Bq)	Zirconium -niobium [ <sup>95</sup> Zr- <sup>95</sup> Nb] (Bq)	Ruthenium [ <sup>103</sup> Ru] (Bq)	Ruthenium -Rhodium [ <sup>106</sup> Ru- <sup>106</sup> Rh] (Bq)	Cesium [ <sup>134</sup> Cs] (Bq)
N.D.	N.D.	N.D.	N.D.	N.D.
3.2 × 10 <sup>10</sup>	4.1 × 10 <sup>10</sup>	6.4 × 10 <sup>10</sup>	5.1 × 10 <sup>11</sup>	6.0 × 10 <sup>10</sup>
-	-	-	-	-
-	-	-	-	-

Radioactive liquid waste				
Tritium [ <sup>3</sup> H] (Bq)	Iodine [ <sup>129</sup> I] (Bq)	Iodine [ <sup>131</sup> I] (Bq)	Plutonium [Pu (α)] (Bq)	Other radionuclides (nuclides that do not emit α rays) (Bq)
1.3 × 10 <sup>14</sup>	1.9 × 10 <sup>7</sup>	N.D.	6.0 × 10 <sup>6</sup>	-
1.9 × 10 <sup>15</sup>	2.7 × 10 <sup>10</sup>	1.2 × 10 <sup>11</sup>	2.3 × 10 <sup>9</sup>	-
9.0 × 10 <sup>9</sup>	N.D.	-	-	N.D.
5.6 × 10 <sup>10</sup>	3.0 × 10 <sup>7</sup>	-	-	6.3 × 10 <sup>9</sup>

Radioactive liquid waste

Total α radioactivity : 1.1 × 10<sup>-3</sup> or less

Total β radioactivity (excluding <sup>3</sup>H)  
: 2.2 × 10<sup>-2</sup> or less

<sup>89</sup>Sr : 2.2 × 10<sup>-3</sup> or less

<sup>90</sup>Sr : 1.1 × 10<sup>-3</sup> or less

<sup>95</sup>Zr-<sup>95</sup>Nb : 4.3 × 10<sup>-3</sup> or less

<sup>103</sup>Ru : 1.1 × 10<sup>-3</sup> or less

<sup>106</sup>Ru-<sup>106</sup>Rh : 3.2 × 10<sup>-2</sup> or less

<sup>134</sup>Cs : 1.1 × 10<sup>-3</sup> or less

<sup>137</sup>Cs : 1.8 × 10<sup>-3</sup> or less

<sup>141</sup>Ce : 2.2 × 10<sup>-3</sup> or less

<sup>144</sup>Ce-<sup>144</sup>Pr : 2.2 × 10<sup>-2</sup> or less

<sup>3</sup>H : 3.7 × 10<sup>0</sup> or less (\*1)

Unit: Bq/cm<sup>3</sup>

<sup>129</sup>I : 1.4 × 10<sup>-3</sup> (Bq/cm<sup>3</sup>) or less (\*1)

: 2.0 × 10<sup>-3</sup> (Bq/cm<sup>3</sup>) or less (\*2)

<sup>131</sup>I : 1.8 × 10<sup>-3</sup> (Bq/cm<sup>3</sup>) or less

Pu (α) : 3.7 × 10<sup>-5</sup> (Bq/cm<sup>3</sup>) or less

Other radionuclides (nuclides that do not emit α rays)

: 2.0 × 10<sup>-2</sup> (Bq/cm<sup>3</sup>) or less

(the <sup>60</sup>Co value was used) (\*2)

\*3 Three-month average control concentration targets