

I-4. Reprocessing facility

(Bq/cm<sup>3</sup>)

Facility	Measured point	Measured object	First three months (Oct. to Dec.)		Second three months (Jan. to Mar.)		Detection limit value		
			Mean value	Maximum value	Mean value	Maximum value			
Japan Atomic Energy Agency, Tokai R&D Center, Nuclear Fuel Cycle Engineering Laboratories	Exhaust outlet or exhaust monitoring equipment (main stack, first sub stack, and second sub stack)	Total alpha radioactivity	ND	ND	ND	ND	1.5×10 <sup>-10</sup>		
		Total beta and gamma radioactivity (excluding 85Kr, 3H, 14C, 131I, and 129I)	ND	ND	ND	ND	1.5×10 <sup>-9</sup>		
		<sup>85</sup> Kr	2.4×10 <sup>-3</sup>	3.3×10 <sup>-3</sup>	ND	ND	2.4×10 <sup>-3</sup>		
		<sup>3</sup> H	2.7×10 <sup>-4</sup>	3.3×10 <sup>-4</sup>	2.7×10 <sup>-4</sup>	3.2×10 <sup>-4</sup>	-		
		<sup>14</sup> C	ND	ND	ND	ND	4.0×10 <sup>-5</sup>		
		<sup>131</sup> I	ND	ND	ND	ND	3.7×10 <sup>-8</sup>		
	Sea discharge outlet of sea discharge monitoring equipment		<sup>129</sup> I	4.0×10 <sup>-8</sup>	6.5×10 <sup>-8</sup>	ND	ND	3.7×10 <sup>-8</sup>	
			Total alpha radioactivity	ND	ND	ND	ND	1.1×10 <sup>-3</sup>	
			Total beta radioactivity (excluding tritium.)	ND	ND	ND	ND	2.2×10 <sup>-2</sup>	
			<sup>86</sup> Sr	ND	ND	ND	ND	2.2×10 <sup>-3</sup>	
			<sup>90</sup> Sr	ND	ND	ND	ND	1.1×10 <sup>-3</sup>	
			<sup>92</sup> Zr - <sup>92</sup> Nb	ND	ND	ND	ND	4.3×10 <sup>-3</sup>	
			<sup>103</sup> Ru	ND	ND	ND	ND	1.1×10 <sup>-3</sup>	
			<sup>106</sup> Ru - <sup>106</sup> Rh	ND	ND	ND	ND	3.2×10 <sup>-2</sup>	
			<sup>134</sup> Cs	ND	ND	ND	ND	1.1×10 <sup>-3</sup>	
			<sup>137</sup> Cs	ND	ND	ND	ND	1.8×10 <sup>-3</sup>	
			<sup>141</sup> Ce	ND	ND	ND	ND	2.2×10 <sup>-3</sup>	
			<sup>144</sup> Ce - <sup>144</sup> Pr	ND	ND	ND	ND	2.2×10 <sup>-2</sup>	
			<sup>3</sup> H	1.0×10 <sup>2</sup>	2.7×10 <sup>2</sup>	ND	ND	3.7	
<sup>129</sup> I	2.8×10 <sup>-3</sup>	3.0×10 <sup>-3</sup>	ND	ND	1.4×10 <sup>-3</sup>				
<sup>131</sup> I	ND	ND	ND	ND	1.8×10 <sup>-3</sup>				
Pu(α)	6.2×10 <sup>-5</sup>	8.5×10 <sup>-5</sup>	ND	ND	3.7×10 <sup>-5</sup>				
Japan Nuclear Fuel Limited, Reprocessing Plant	Exhaust outlet of main exhaust stack	<sup>85</sup> Kr	5.0	3.9×10 <sup>1</sup>	8.8×10 <sup>-1</sup>	2.0×10 <sup>1</sup>	-		
		<sup>3</sup> H	1.0×10 <sup>-3</sup>	2.5×10 <sup>-3</sup>	3.7×10 <sup>-4</sup>	2.0×10 <sup>-3</sup>	-		
		<sup>14</sup> C	2.5×10 <sup>-4</sup>	8.1×10 <sup>-4</sup>	9.7×10 <sup>-5</sup>	8.1×10 <sup>-4</sup>	-		
		<sup>129</sup> I	3.8×10 <sup>-8</sup>	1.2×10 <sup>-7</sup>	1.3×10 <sup>-8</sup>	1.2×10 <sup>-7</sup>	-		
		<sup>131</sup> I	9.3×10 <sup>-10</sup>	2.7×10 <sup>-9</sup>	1.5×10 <sup>-9</sup>	9.3×10 <sup>-9</sup>	-		
		Other nuclides (nuclides that emit alpha rays)	ND	ND	ND	ND	4×10 <sup>-10</sup> (Note 1)		
		Other nuclides (nuclides that do not emit alpha rays)	ND	ND	ND	ND	4×10 <sup>-9</sup> (Note 2)		
		Pu(α)	ND	ND	ND	ND	4×10 <sup>-10</sup>		
		<sup>106</sup> Ru/ <sup>106</sup> Rh	ND	ND	ND	ND	4×10 <sup>-9</sup>		
		<sup>137</sup> Cs/ <sup>137m</sup> Ba	ND	ND	ND	ND	4×10 <sup>-9</sup>		
		<sup>90</sup> Sr/ <sup>90</sup> Y	ND	ND	ND	ND	4×10 <sup>-10</sup>		
		Exhaust outlet or exhaust monitoring equipment	Exhaust outlet of ventilation stack of spent fuel receiving and storage building	<sup>85</sup> Kr	ND	ND	ND	ND	2×10 <sup>-2</sup>
				<sup>3</sup> H	1.3×10 <sup>-5</sup>	1.6×10 <sup>-5</sup>	1.2×10 <sup>-5</sup>	1.4×10 <sup>-5</sup>	-
	<sup>129</sup> I			ND	ND	ND	ND	4×10 <sup>-8</sup>	
	Exhaust outlet of ventilation stack of spent fuel transportation container control building		Other nuclides (nuclides that do not emit alpha rays)		ND	ND	ND	ND	4×10 <sup>-9</sup> (Note 2)
			Exhaust outlet of ventilation stack of low-level waste treatment building	<sup>3</sup> H	6.3×10 <sup>-7</sup>	3.0×10 <sup>-6</sup>	2.2×10 <sup>-7</sup>	1.2×10 <sup>-6</sup>	-
				Other nuclides (nuclides that emit alpha rays)	ND	ND	ND	ND	4×10 <sup>-10</sup> (Note 1)
	Exhaust outlet of ventilation stack of hull end piece and first vitrified waste storage building	Other nuclides (nuclides that do not emit alpha rays)		ND	ND	ND	ND	4×10 <sup>-9</sup> (Note 2)	
		Other nuclides (nuclides that emit alpha rays)		ND	ND	ND	ND	4×10 <sup>-10</sup> (Note 1)	
	Exhaust outlet of cooling air outlet shaft of high-level liquid waste vitrification building	Other nuclides (nuclides that do not emit alpha rays)		ND	ND	ND	ND	4×10 <sup>-9</sup> (Note 2)	
		Radioactive argon		ND	ND	ND	ND	1×10 <sup>4</sup>	
	Exhaust outlet of cooling air outlet shaft of first vitrified waste storage building	Radioactive argon		ND	ND	ND	ND	1×10 <sup>4</sup>	
		Sea discharge outlet of sea discharge monitoring equipment	<sup>3</sup> H	5.3×10 <sup>4</sup>	1.7×10 <sup>5</sup>	2.8×10 <sup>4</sup>	6.5×10 <sup>4</sup>	-	
	<sup>129</sup> I		6.8×10 <sup>-3</sup>	5.0×10 <sup>-2</sup>	9.6×10 <sup>-3</sup>	1.7×10 <sup>-2</sup>	-		
	<sup>131</sup> I		1.3×10 <sup>-4</sup>	1.5×10 <sup>-3</sup>	ND	ND	2×10 <sup>2</sup>		
	Other nuclides (nuclides that emit alpha rays)		ND	ND	ND	ND	4×10 <sup>-3</sup> (Note 1)		
	Other nuclides (nuclides that do not emit alpha rays)		ND	ND	ND	ND	4×10 <sup>-2</sup> (Note 2)		
Pu(α)	ND		ND	ND	ND	1×10 <sup>-3</sup>			
<sup>241</sup> Pu	ND		ND	ND	ND	3×10 <sup>-2</sup>			
Am(α)	ND		ND	ND	ND	6×10 <sup>-5</sup>			
Cm(α)	ND		ND	ND	ND	6×10 <sup>-5</sup>			
<sup>60</sup> Co	ND		ND	ND	ND	2×10 <sup>-2</sup>			
<sup>106</sup> Ru/ <sup>106</sup> Rh	ND		ND	ND	ND	2×10 <sup>-2</sup>			
<sup>134</sup> Cs	ND		ND	ND	ND	2×10 <sup>-2</sup>			
<sup>137</sup> Cs/ <sup>137m</sup> Ba	ND		ND	ND	ND	2×10 <sup>-2</sup>			
<sup>144</sup> Ce/ <sup>144m</sup> Pr, <sup>144</sup> Pr	ND		ND	ND	ND	2×10 <sup>-2</sup>			
<sup>154</sup> Eu	ND	ND	ND	ND	2×10 <sup>-2</sup>				
<sup>90</sup> Sr/ <sup>90</sup> Y	ND	ND	ND	ND	7×10 <sup>-4</sup>				

(Note 1) The detection limit values of other nuclides (nuclides that emit alpha rays) are written with the values of total alpha as representatives.

(Note 2) The detection limit values of other nuclides (nuclides that do not emit alpha rays) are written with the values of total beta(r) as representatives.