

Reference document: Status of Annual Radioactive Gaseous Waste and Radioactive Liquid Waste and Radioactive Solid Waste Management at Commercial Power Reactor Facilities

1. Release Results of Radioactive Noble Gas in Radioactive Gaseous Waste by Fiscal Year (Unit: curie)

FY	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Power station										
Japan Atomic Power Company Co., Ltd. Tokai Power Station	8.0×10 <sup>3</sup>	9.3×10 <sup>3</sup>	1.0×10 <sup>4</sup>	8.6×10 <sup>3</sup>	8.5×10 <sup>3</sup>	7.9×10 <sup>3</sup>	7.6×10 <sup>3</sup>	7.7×10 <sup>3</sup>	6.3×10 <sup>3</sup>	7.0×10 <sup>3</sup>
Japan Atomic Power Company Co., Ltd. Tokai Daini Power Station	N.D.	3.3×10 <sup>0</sup>	2.1×10 <sup>0</sup>	1.8×10 <sup>0</sup>	N.D.	N.D.	N.D.	N.D.	1.0×10 <sup>0</sup>	N.D.
Japan Atomic Power Company Co., Ltd. Tsuruga Power Station	1.5×10 <sup>1</sup>	5.0×10 <sup>-1</sup>	3.7×10 <sup>0</sup>	5.6×10 <sup>0</sup>	1.3×10 <sup>0</sup>	6.8×10 <sup>-2</sup>	4.4×10 <sup>-2</sup>	2.4×10 <sup>0</sup>	7.0×10 <sup>-2</sup>	1.6×10 <sup>-1</sup>
Tohoku Electric Power Co., Inc. Onagawa Nuclear Power Station					N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tokyo Electric Power Co., Inc. Fukushima Daiichi Nuclear Power Station	3.2×10 <sup>3</sup>	3.0×10 <sup>3</sup>	1.2×10 <sup>3</sup>	1.4×10 <sup>3</sup>	1.8×10 <sup>3</sup>	4.8×10 <sup>2</sup>	2.0×10 <sup>1</sup>	7.8×10 <sup>0</sup>	5.2×10 <sup>0</sup>	1.1×10 <sup>-1</sup>
Tokyo Electric Power Co., Inc. Fukushima Daini Nuclear Power Station			N.D.	1.1×10 <sup>-2</sup>	1.5×10 <sup>-1</sup>	N.D.	N.D.	N.D.	9.2×10 <sup>-5</sup>	N.D.
Tokyo Electric Power Co., Inc. Kashiwazaki-Kariwa Nuclear Power Station						3.8×10 <sup>-5</sup>	N.D.	N.D.	N.D.	N.D.
Chubu Electric Power Co., Inc. Hamaoka Nuclear Power Station	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Chugoku Electric Power Co., Inc. Shimane Nuclear Power Station	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Hokkaido Electric Power Co., Inc. Tomari Power Station										N.D.
Kansai Electric Power Co., Inc. Mihama Power Station	5.5×10 <sup>1</sup>	8.2×10 <sup>2</sup>	8.4×10 <sup>1</sup>	2.9×10 <sup>1</sup>	6.4×10 <sup>1</sup>	5.0×10 <sup>1</sup>	3.7×10 <sup>1</sup>	3.9×10 <sup>1</sup>	2.5×10 <sup>1</sup>	7.4×10 <sup>0</sup>
Kansai Electric Power Co., Inc. Takahama Power Station	1.4×10 <sup>2</sup>	2.1×10 <sup>1</sup>	2.6×10 <sup>1</sup>	7.9×10 <sup>1</sup>	1.0×10 <sup>2</sup>	3.7×10 <sup>1</sup>	5.5×10 <sup>1</sup>	1.7×10 <sup>1</sup>	1.3×10 <sup>1</sup>	3.1×10 <sup>1</sup>
Kansai Electric Power Co., Inc. Ohi Power Station	1.3×10 <sup>2</sup>	3.6×10 <sup>1</sup>	7.1×10 <sup>1</sup>	5.9×10 <sup>1</sup>	4.6×10 <sup>1</sup>	5.1×10 <sup>1</sup>	3.5×10 <sup>1</sup>	1.0×10 <sup>2</sup>	4.1×10 <sup>1</sup>	2.5×10 <sup>1</sup>
Shikoku Electric Power Co., Inc. Ikata Power Station	7.7×10 <sup>1</sup>	1.1×10 <sup>2</sup>	5.3×10 <sup>1</sup>	1.7×10 <sup>1</sup>	2.7×10 <sup>0</sup>	1.3×10 <sup>1</sup>	1.3×10 <sup>0</sup>	5.0×10 <sup>-1</sup>	2.0×10 <sup>-1</sup>	1.7×10 <sup>-1</sup>
Kyushu Electric Power Co., Inc. Genkai Nuclear Power Station	2.7×10 <sup>1</sup>	3.8×10 <sup>1</sup>	6.4×10 <sup>1</sup>	4.8×10 <sup>1</sup>	6.8×10 <sup>1</sup>	2.5×10 <sup>1</sup>	3.6×10 <sup>1</sup>	3.9×10 <sup>1</sup>	2.8×10 <sup>1</sup>	2.9×10 <sup>1</sup>
Kyushu Electric Power Co., Inc. Sendai Nuclear Power Station					N.D.	4.7×10 <sup>-1</sup>	1.8×10 <sup>0</sup>	1.1×10 <sup>0</sup>	1.1×10 <sup>0</sup>	9.7×10 <sup>-1</sup>

2. Discharge Results of Radioactive Iodine (<sup>131</sup>I) in Radioactive Gaseous Waste by Fiscal Year (Unit: curie)

FY	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Power station										
Japan Atomic Power Company Co., Ltd. Tokai Power Station	9.7×10 <sup>-5</sup>	1.2×10 <sup>-4</sup>	6.8×10 <sup>-5</sup>	1.9×10 <sup>-5</sup>	5.6×10 <sup>-5</sup>	1.0×10 <sup>-5</sup>	4.6×10 <sup>-5</sup>	4.2×10 <sup>-4</sup>	8.4×10 <sup>-5</sup>	2.2×10 <sup>-5</sup>
Japan Atomic Power Company Co., Ltd. Tokai Daini Power Station	7.6×10 <sup>-4</sup>	1.7×10 <sup>-3</sup>	9.8×10 <sup>-4</sup>	2.1×10 <sup>-4</sup>	2.1×10 <sup>-4</sup>	N.D.	N.D.	4.8×10 <sup>-4</sup>	1.9×10 <sup>-3</sup>	N.D.
Japan Atomic Power Company Co., Ltd. Tsuruga Power Station	3.5×10 <sup>-3</sup>	7.2×10 <sup>-4</sup>	2.7×10 <sup>-4</sup>	2.5×10 <sup>-4</sup>	1.1×10 <sup>-4</sup>	1.1×10 <sup>-5</sup>	5.4×10 <sup>-6</sup>	1.2×10 <sup>-3</sup>	3.5×10 <sup>-5</sup>	N.D.
Tohoku Electric Power Co., Inc. Onagawa Nuclear Power Station					N.D.	N.D.	N.D.	4.1×10 <sup>-4</sup>	N.D.	1.0×10 <sup>-5</sup>
Tokyo Electric Power Co., Inc. Fukushima Daiichi Nuclear Power Station	1.5×10 <sup>-1</sup>	5.2×10 <sup>-2</sup>	5.8×10 <sup>-2</sup>	5.1×10 <sup>-2</sup>	3.5×10 <sup>-2</sup>	1.3×10 <sup>-2</sup>	3.4×10 <sup>-3</sup>	1.0×10 <sup>-2</sup>	9.5×10 <sup>-4</sup>	1.1×10 <sup>-3</sup>
Tokyo Electric Power Co., Inc. Fukushima Daini Nuclear Power Station			N.D.	N.D.	1.7×10 <sup>-4</sup>	5.3×10 <sup>-5</sup>	1.5×10 <sup>-7</sup>	2.4×10 <sup>-3</sup>	3.1×10 <sup>-7</sup>	N.D.
Tokyo Electric Power Co., Inc. Kashiwazaki-Kariwa Nuclear Power Station						N.D.	N.D.	1.7×10 <sup>-3</sup>	N.D.	N.D.
Chubu Electric Power Co., Inc. Hamaoka Nuclear Power Station	1.4×10 <sup>-4</sup>	2.7×10 <sup>-4</sup>	1.8×10 <sup>-4</sup>	1.3×10 <sup>-4</sup>	1.8×10 <sup>-4</sup>	7.0×10 <sup>-6</sup>	7.9×10 <sup>-5</sup>	2.5×10 <sup>-3</sup>	1.8×10 <sup>-5</sup>	1.3×10 <sup>-5</sup>
Chugoku Electric Power Co., Inc. Shimane Nuclear Power Station	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	9.4×10 <sup>-4</sup>	N.D.	N.D.
Hokkaido Electric Power Co., Inc. Tomari Power Station										N.D.
Kansai Electric Power Co., Inc. Mihama Power Station	1.0×10 <sup>-3</sup>	3.5×10 <sup>-2</sup>	2.5×10 <sup>-3</sup>	1.7×10 <sup>-3</sup>	1.2×10 <sup>-4</sup>	2.4×10 <sup>-3</sup>	7.4×10 <sup>-4</sup>	1.8×10 <sup>-3</sup>	1.0×10 <sup>-4</sup>	3.5×10 <sup>-5</sup>
Kansai Electric Power Co., Inc. Takahama Power Station	3.5×10 <sup>-4</sup>	2.1×10 <sup>-4</sup>	3.9×10 <sup>-5</sup>	9.2×10 <sup>-5</sup>	2.4×10 <sup>-3</sup>	5.0×10 <sup>-5</sup>	5.7×10 <sup>-4</sup>	3.0×10 <sup>-3</sup>	7.2×10 <sup>-5</sup>	5.3×10 <sup>-4</sup>
Kansai Electric Power Co., Inc. Ohi Power Station	3.6×10 <sup>-3</sup>	3.9×10 <sup>-4</sup>	7.0×10 <sup>-3</sup>	1.7×10 <sup>-3</sup>	1.5×10 <sup>-4</sup>	1.4×10 <sup>-5</sup>	1.6×10 <sup>-4</sup>	6.1×10 <sup>-3</sup>	4.2×10 <sup>-5</sup>	1.5×10 <sup>-3</sup>
Shikoku Electric Power Co., Inc. Ikata Power Station	N.D.	1.4×10 <sup>-4</sup>	2.1×10 <sup>-4</sup>	9.8×10 <sup>-5</sup>	N.D.	9.1×10 <sup>-4</sup>	1.3×10 <sup>-6</sup>	9.1×10 <sup>-4</sup>	N.D.	N.D.
Kyushu Electric Power Co., Inc. Genkai Nuclear Power Station	N.D.	N.D.	6.3×10 <sup>-5</sup>	N.D.	1.5×10 <sup>-4</sup>	N.D.	N.D.	2.3×10 <sup>-4</sup>	N.D.	N.D.
Kyushu Electric Power Co., Inc. Sendai Nuclear Power Station					N.D.	N.D.	N.D.	3.0×10 <sup>-4</sup>	N.D.	N.D.

\* The influence of the Soviet Union Chernobyl Nuclear Station accident is seen.

3. Discharge Results of Radioactive Substance (<sup>3</sup>H is excluded) in Radioactive Liquid Waste by Fiscal Year.(Unit: curie)

FY	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988
Power station										
Japan Atomic Power Company Co., Ltd. Tokai Power Station	1.1×10 <sup>-2</sup>	8.9×10 <sup>-3</sup>	4.4×10 <sup>-3</sup>	5.0×10 <sup>-3</sup>	3.8×10 <sup>-3</sup>	3.2×10 <sup>-3</sup>	2.8×10 <sup>-3</sup>	1.6×10 <sup>-3</sup>	1.8×10 <sup>-3</sup>	8.5×10 <sup>-4</sup>
Japan Atomic Power Company Co., Ltd. Tokai Daini Power Station	1.2×10 <sup>-2</sup>	7.1×10 <sup>-3</sup>	6.8×10 <sup>-3</sup>	9.8×10 <sup>-3</sup>	6.8×10 <sup>-3</sup>	3.6×10 <sup>-3</sup>	3.4×10 <sup>-3</sup>	3.3×10 <sup>-3</sup>	N.D.	N.D.
Japan Atomic Power Company Co., Ltd. Tsuruga Power Station	1.3×10 <sup>-2</sup>	6.9×10 <sup>-3</sup>	3.7×10 <sup>-3</sup>	4.8×10 <sup>-4</sup>	7.8×10 <sup>-4</sup>	6.8×10 <sup>-4</sup>	5.2×10 <sup>-4</sup>	3.3×10 <sup>-4</sup>	3.0×10 <sup>-4</sup>	3.0×10 <sup>-4</sup>
Tohoku Electric Power Co., Inc. Onagawa Nuclear Power Station					N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tokyo Electric Power Co., Inc. Fukushima Daiichi Nuclear Power Station	7.2×10 <sup>-2</sup>	4.3×10 <sup>-2</sup>	3.6×10 <sup>-2</sup>	1.1×10 <sup>-2</sup>	6.4×10 <sup>-3</sup>	2.5×10 <sup>-3</sup>	1.0×10 <sup>-3</sup>	2.7×10 <sup>-4</sup>	1.8×10 <sup>-4</sup>	N.D.
Tokyo Electric Power Co., Inc. Fukushima Daini Nuclear Power Station			N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Tokyo Electric Power Co., Inc. Kashiwazaki-Kariwa Nuclear Power Station						N.D.	N.D.	N.D.	N.D.	N.D.
Chubu Electric Power Co., Inc. Hamaoka Nuclear Power Station	1.3×10 <sup>-1</sup>	3.6×10 <sup>-2</sup>	1.4×10 <sup>-2</sup>	8.9×10 <sup>-3</sup>	2.8×10 <sup>-3</sup>	1.9×10 <sup>-3</sup>	1.5×10 <sup>-3</sup>	8.0×10 <sup>-4</sup>	3.9×10 <sup>-4</sup>	3.3×10 <sup>-4</sup>
Chugoku Electric Power Co., Inc. Shimane Nuclear Power Station	8.2×10 <sup>-4</sup>	9.4×10 <sup>-4</sup>	5.9×10 <sup>-4</sup>	6.2×10 <sup>-4</sup>	5.0×10 <sup>-4</sup>	2.2×10 <sup>-4</sup>	1.9×10 <sup>-4</sup>	2.4×10 <sup>-4</sup>	2.2×10 <sup>-4</sup>	1.6×10 <sup>-4</sup>
Hokkaido Electric Power Co., Inc. Tomari Power Station										N.D.
Kansai Electric Power Co., Inc. Mihama Power Station	1.2×10 <sup>-2</sup>	3.7×10 <sup>-3</sup>	2.4×10 <sup>-3</sup>	2.3×10 <sup>-3</sup>	2.7×10 <sup>-3</sup>	1.0×10 <sup>-3</sup>	6.0×10 <sup>-4</sup>	4.0×10 <sup>-4</sup>	4.7×10 <sup>-4</sup>	5.6×10 <sup>-4</sup>
Kansai Electric Power Co., Inc. Takahama Power Station	1.7×10 <sup>-3</sup>	1.3×10 <sup>-3</sup>	3.1×10 <sup>-4</sup>	1.9×10 <sup>-4</sup>	2.4×10 <sup>-4</sup>	1.7×10 <sup>-4</sup>	2.2×10 <sup>-4</sup>	3.6×10 <sup>-4</sup>	7.2×10 <sup>-5</sup>	N.D.
Kansai Electric Power Co., Inc. Ohi Power Station	1.7×10 <sup>-3</sup>	1.6×10 <sup>-3</sup>	5.0×10 <sup>-4</sup>	7.9×10 <sup>-4</sup>	6.0×10 <sup>-4</sup>	5.0×10 <sup>-4</sup>	5.6×10 <sup>-4</sup>	4.4×10 <sup>-4</sup>	1.2×10 <sup>-4</sup>	5.7×10 <sup>-6</sup>
Shikoku Electric Power Co., Inc. Ikata Power Station	1.8×10 <sup>-4</sup>	2.7×10 <sup>-4</sup>	7.1×10 <sup>-5</sup>	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kyushu Electric Power Co., Inc. Genkai Nuclear Power Station	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
Kyushu Electric Power Co., Inc. Sendai Nuclear Power Station					N.D.	N.D.	N.D.	N.D.	N.D.	N.D.

\* The influence of the Soviet Union Chernobyl Nuclear Station accident is seen.

4. Discharge Results of Tritium ( $^3\text{H}$ ) in Radioactive Liquid Waste by Fiscal Year (Unit: curie)

Power station	FY										
	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	
Japan Atomic Power Company Co., Ltd. Tokai Power Station	2.1×10 <sup>-2</sup>	1.0×10 <sup>0</sup>	5.6×10 <sup>-2</sup>	5.5×10 <sup>-1</sup>	2.0×10 <sup>-2</sup>	9.7×10 <sup>-2</sup>	8.4×10 <sup>-1</sup>	5.3×10 <sup>-3</sup>	6.0×10 <sup>-1</sup>	1.4×10 <sup>-3</sup>	
Japan Atomic Power Company Co., Ltd. Tokai Daini Power Station	6.9×10 <sup>0</sup>	1.2×10 <sup>1</sup>	1.1×10 <sup>1</sup>	1.0×10 <sup>1</sup>	1.2×10 <sup>1</sup>	1.3×10 <sup>1</sup>	1.6×10 <sup>1</sup>	2.0×10 <sup>1</sup>	1.4×10 <sup>1</sup>	1.3×10 <sup>1</sup>	
Japan Atomic Power Company Co., Ltd. Tsuruga Power Station	3.2×10 <sup>1</sup>	3.6×10 <sup>1</sup>	3.2×10 <sup>1</sup>	1.3×10 <sup>1</sup>	1.2×10 <sup>1</sup>	1.1×10 <sup>1</sup>	9.5×10 <sup>0</sup>	1.6×10 <sup>2</sup>	6.4×10 <sup>2</sup>	1.2×10 <sup>2</sup>	
Tohoku Electric Power Co., Inc. Onagawa Nuclear Power Station					1.7×10 <sup>-2</sup>	5.5×10 <sup>-1</sup>	6.4×10 <sup>-1</sup>	1.1×10 <sup>0</sup>	1.7×10 <sup>0</sup>	2.7×10 <sup>0</sup>	
Tokyo Electric Power Co., Inc. Fukushima Daiichi Nuclear Power Station	1.7×10 <sup>1</sup>	3.5×10 <sup>1</sup>	3.3×10 <sup>1</sup>	5.4×10 <sup>1</sup>	5.5×10 <sup>1</sup>	9.9×10 <sup>1</sup>	1.1×10 <sup>2</sup>	9.3×10 <sup>1</sup>	6.3×10 <sup>1</sup>	6.9×10 <sup>1</sup>	
Tokyo Electric Power Co., Inc. Fukushima Daini Nuclear Power Station			3.2×10 <sup>-1</sup>	8.0×10 <sup>-1</sup>	1.1×10 <sup>1</sup>	4.6×10 <sup>0</sup>	1.1×10 <sup>1</sup>	1.2×10 <sup>1</sup>	1.9×10 <sup>1</sup>	2.6×10 <sup>1</sup>	
Tokyo Electric Power Co., Inc. Kashiwazaki-Kariwa Nuclear Power Station						3.9×10 <sup>-2</sup>	1.2×10 <sup>0</sup>	4.3×10 <sup>-1</sup>	9.6×10 <sup>-1</sup>	N.D.	
Chubu Electric Power Co., Inc. Hamaoka Nuclear Power Station	1.9×10 <sup>1</sup>	1.6×10 <sup>1</sup>	1.4×10 <sup>1</sup>	2.2×10 <sup>1</sup>	4.5×10 <sup>1</sup>	7.6×10 <sup>1</sup>	6.4×10 <sup>1</sup>	4.6×10 <sup>1</sup>	4.6×10 <sup>1</sup>	4.0×10 <sup>1</sup>	
Chugoku Electric Power Co., Inc. Shimane Nuclear Power Station	4.4×10 <sup>0</sup>	6.6×10 <sup>0</sup>	5.0×10 <sup>0</sup>	6.0×10 <sup>0</sup>	5.0×10 <sup>0</sup>	3.6×10 <sup>0</sup>	8.5×10 <sup>0</sup>	3.2×10 <sup>0</sup>	7.7×10 <sup>0</sup>	3.6×10 <sup>0</sup>	
Hokkaido Electric Power Co., Inc. Tomari Power Station										1.2×10 <sup>1</sup>	
Kansai Electric Power Co., Inc. Mihama Power Station	3.2×10 <sup>2</sup>	3.5×10 <sup>2</sup>	3.9×10 <sup>2</sup>	2.7×10 <sup>2</sup>	2.7×10 <sup>2</sup>	5.0×10 <sup>2</sup>	4.4×10 <sup>2</sup>	5.9×10 <sup>2</sup>	6.4×10 <sup>2</sup>	5.8×10 <sup>2</sup>	
Kansai Electric Power Co., Inc. Takahama Power Station	3.0×10 <sup>2</sup>	2.9×10 <sup>2</sup>	3.7×10 <sup>2</sup>	3.8×10 <sup>2</sup>	4.4×10 <sup>2</sup>	5.7×10 <sup>2</sup>	1.0×10 <sup>3</sup>	1.2×10 <sup>3</sup>	1.3×10 <sup>3</sup>	1.9×10 <sup>3</sup>	
Kansai Electric Power Co., Inc. Ohi Power Station	4.1×10 <sup>2</sup>	5.9×10 <sup>2</sup>	3.1×10 <sup>2</sup>	8.4×10 <sup>2</sup>	9.1×10 <sup>2</sup>	8.2×10 <sup>2</sup>	7.9×10 <sup>2</sup>	1.1×10 <sup>3</sup>	8.9×10 <sup>2</sup>	8.0×10 <sup>2</sup>	
Shikoku Electric Power Co., Inc. Ikata Power Station	1.2×10 <sup>2</sup>	2.7×10 <sup>2</sup>	2.8×10 <sup>2</sup>	6.8×10 <sup>2</sup>	4.5×10 <sup>2</sup>	3.9×10 <sup>2</sup>	8.4×10 <sup>2</sup>	8.8×10 <sup>2</sup>	9.0×10 <sup>2</sup>	5.7×10 <sup>2</sup>	
Kyushu Electric Power Co., Inc. Genkai Nuclear Power Station	1.8×10 <sup>2</sup>	5.6×10 <sup>2</sup>	4.2×10 <sup>2</sup>	5.3×10 <sup>2</sup>	5.0×10 <sup>2</sup>	6.1×10 <sup>2</sup>	5.8×10 <sup>2</sup>	8.6×10 <sup>2</sup>	7.8×10 <sup>2</sup>	4.7×10 <sup>2</sup>	
Kyushu Electric Power Co., Inc. Sendai Nuclear Power Station					8.5×10 <sup>1</sup>	3.6×10 <sup>2</sup>	5.4×10 <sup>2</sup>	7.3×10 <sup>2</sup>	9.1×10 <sup>2</sup>	1.1×10 <sup>3</sup>	