FY2023 Discharge Plan

- ALPS treated water will be discharged starting from which stored in the measurement/confirmation facility, the K4 area tank groups A-C.
- Especially, the water stored in the tank group B which was analyzed by International Atomic Energy Agency (IAEA) is discharged first.

Tritium concentrations will be less than 1,500Bq/liter by dilution more than 700 times with seawater

Discharge			Tritium Concentration	Total Amount of Tritium
1st	B	Approx. 7,800m³	140,000Bq/liter	1.1 trillion Bq
2nd	C	Approx. 7,800m³	140,000Bq/liter	1.1 trillion Bq
3rd	A	Approx. 7,800m³	130,000Bq/liter	1.0 trillion Bq
4th	K4 area Group E K3 area Group A	Approx. 4,500m³ Approx. 3,300m³	170,000～ 210,000Bq/liter*	1.4 trillion Bq*

Being transferred to K4 area tank group B that was empty after the 1st discharge was completed

* Average value of the tank group that was assessed taking into account the radioactive decay until July 1, 2023

Total amount of tritium to be discharged

FY2023 : Approx. 5 trillion Bq

Annual limit : 22 trillion Bq

FY2023 Discharge History

- Discharge progress of ALPS treated water into the sea are as follows.

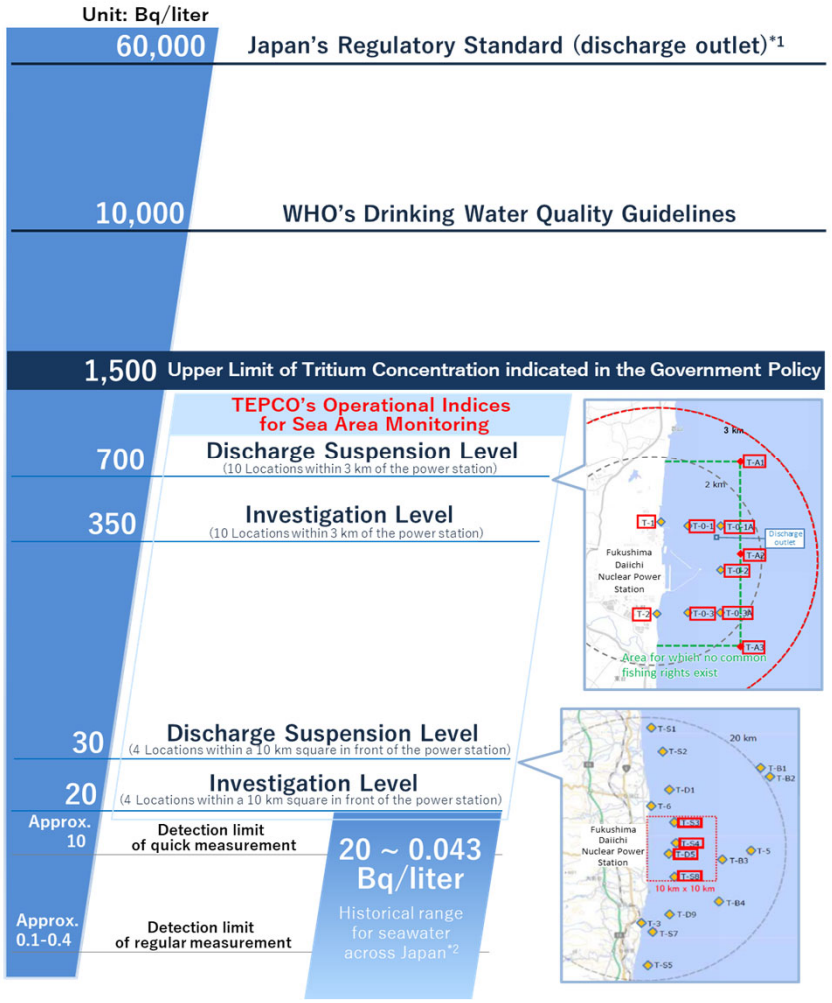
Analysis date of measurement/ confirmation facility	Tank group	Tritium concentration	Concentration of radioactive materials excluding tritium	Commencement of discharge	Completion of discharge	Dilution rate during discharge	Tritium concentrations after dilution*1	Amount of discharge	Amount of tritium radioactivity
June 22, 2023	Group B	14×10^4 Bq/liter	The sum of ratios of legally required concentrations 0.28 < Regulatory standards 1	August 24, 2023	September 11, 2023	Approx. 800 times	160-200 Bq/liter	7,788m^3	Approx. 1.1 trillion Bq
September 21, 2023	Group C	14×10^4 Bq/liter	The sum of ratios of legally required concentrations 0.25 < Regulatory standards 1	October 5, 2023	October 23, 2023	Approx. 800 times	150-170 Bq/liter	7,810m^3	Approx. 1.1 trillion Bq
October 19, 2023	Group A	13×10^4 Bq/liter	The sum of ratios of legally required concentrations 0.25 < Regulatory standards 1	November 2, 2023	November 20, 2023	Approx. 800 times	150-180 Bq/liter	7,753m^3	Approx. 1.0 trillion Bq
February 26, 2024	Group B	17×10^4 Bq/liter	The sum of ratios of legally required concentrations 0.34 < Regulatory standards 1	February 28, 2024	March 17, 2023	Approx. 800 times	170-230 Bq/liter	7,794m^3	Approx. 1.3 trillion Bq

*1 Tritium concentrations of the water sampled at seawater pipe.

Sea area monitoring results (concentrations of tritium in seawater)

	Area	Monitoring locations	Results of quick tritium measurement
First discharge	Within a 3km of the power station	10 locations	Below the detection limit – Max. 10 Bq/liter
	Within a 10km square in front of the power station	4 locations	Below the detection limit
Second discharge	Within a 3km of the power station	10 locations	Below the detection limit – Max. 22 Bq/liter
	Within a 10km square in front of the power station	4 locations	Below the detection limit
Third discharge	Within a 3km of the power station	10 locations	Below the detection limit – Max. 11 Bq/liter
	Within a 10km square in front of the power station	4 locations	Below the detection limit
Fourth discharge	Within a 3km of the power station	10 locations	Below the detection limit – Max. 16 Bq/liter
	Within a 10km square in front of the power station	4 locations	Below the detection limit

【Reference】Comparison of concentration of tritium in seawater



*1: This standard has been stipulated based on the calculation that if a person were to drink approximately 2L of the water coming out of the discharge outlet of a nuclear facility every day for one year, his/her exposure would be 1mSv.
*2: Source: Environmental Radioactivity and Radiation in Japan (Period: April 2019 to March 2022)