

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. 7,800m ³ | 140,000Bq/liter | 1.1 trillion Bq |
| 2nd | C | Approx. 7,800m ³ | 140,000Bq/liter | 1.1 trillion Bq |
| 3rd | A | Approx. 7,800m ³ | 130,000Bq/liter | 1.0 trillion Bq |
| 4th | K4 area Group E K3 area Group A | Approx. 4,500m ³ Approx. 3,300m ³ | 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

Total amount of tritium to be discharged
FY2023 : Approx. 5 trillion Bq
Annual limit : 22 trillion Bq

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

FY2023 Discharge History

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

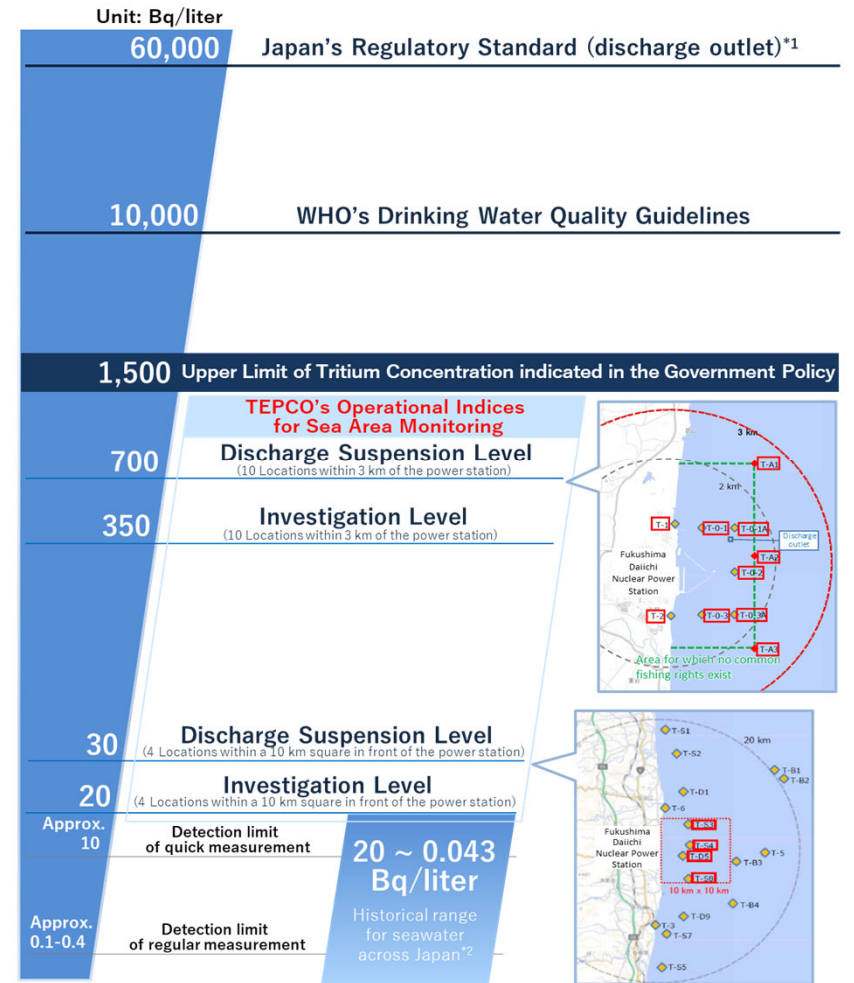
| Analysis date of measurement/confirmation facility | Tank group | Tritium concentration | Concentration of radioactive materials excluding tritium | Commencement of discharge | Completion of discharge | Dilution rate during discharge | Tritium concentrations after dilution*1 | Amount of discharge | Amount of tritium radioactivity |
|--|------------|-----------------------------|---|---------------------------|-------------------------|--------------------------------|---|---------------------|---------------------------------|
| June 22, 2023 | Group B | 14×10 ⁴ Bq/liter | The sum of ratios of legally required concentrations 0.28 < 1 <small>Regulatory standards</small> | 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 < 1 <small>Regulatory standards</small> | 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 < 1 <small>Regulatory standards</small> | November 2, 2023 | November 20, 2023 | Approx. 800 times | 150-180 Bq/liter | 7,753m ³ | Approx. 1.0 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 |

【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)