

Fukushima Daiichi Nuclear Power Station

Completion of the Fifth Discharge of ALPS Treated Water in FY2024

- The fifth of ALPS treated water (approximately 7,800m³) in FY2024 from the measurement/confirmation facility tank group A began at 11:59 AM on September 26.
- In order to ensure that the ALPS treated water (tritium) is properly diluted every day during the discharge period, we have analyzed the tritium concentration in the water after dilution with seawater and confirmed that the analysis values are approximately equal to calculated concentrations, and below 1,500Bq/liter.
- During the discharge period, seawater samples have also been taken from 4 locations within 3km and 10km radius of the power station, and the detection limit has been raised to approximately 10Bq/liter in order to quickly obtain tritium concentration measurement results. As a result, we have confirmed that the analysis values are below both the discharge suspension level (700 Bq/liter^{*1} or 30 Bq/liter^{*2}) and the investigation level (350 Bq/liter^{*1} or 20 Bq/liter^{*2}).

*1 10 locations within 3 km of the power station

*2 4 locations within 10 km square in front of the power station

< Announced by October 14 >

- During the fifth discharge of ALPS treated water in FY2024, the amount of the ALPS treated water being discharged remained constant at approximately 460m³/day, and daily quick analysis results of tritium concentrations in the seawater have confirmed that the ALPS treated water is being discharged safely as planned.
- We have completed the discharge of the ALPS treated water from the measurement/confirmation facility tank group A at 2:10 PM on October 13. The flush out of the water remaining in the ALPS treated water transfer line (ALPS treated water) was completed at 11:59 AM on October 14, and the completion of this task marked the end of the fifth discharge of ALPS treated water in FY2024. (Total amount of water discharged: approx. 7,817m³, Total amount of tritium discharged: approx. 2.2 trillion Bq)
- Going forward, we will remain vigilant to ensure the safe and stable discharge of ALPS treated water.

- After the completion of the fourth discharge of ALPS treated water in FY2024, we plan to inspect measurement/confirmation facility sequentially for each facility group based on long-term inspection plan.
- We inspected facilities related to tank group C after the completion of the fourth discharge in FY2024, and plan to inspect facilities related to tank group A after the fifth discharge in FY2024.
- After the completion of the sixth discharge, we plan to inspect common facilities (transfer, dilution, water discharge, and water intake facilities) together with facilities related to tank group B.
- Since measurement/confirmation facility, etc. consists of three groups (Group A, Group B, and Group C), if one group is under inspection, the other two groups can be used. Therefore the discharge plan and schedule will not be affected.

[Reference] FY2024 discharge plan (1/2)

- The FY2024 discharge plan as of January 2024 is as follows: There will be seven discharges during the fiscal year that will result in an annual discharge of approximately 54,600m³ of treated water and an annual tritium discharge volume of approximately 14 trillion Bq.
- ALPS treated water generated daily during FY2024 shall be stored in tanks that have been emptied by transferring the water in them to the measurement/confirmation facility (excluding the J9 area in which the tanks will be dismantled)

Management number*1		Amount of water to be transferred*2		Discharge period
24-1-5	K3 area Group A/B (Transferred to Measurement/confirmation facility group C)	: <u>Approx. 4,510m³</u>	Secondary treatment: No Tritium concentration : Approx. 180,000-200,000 Bq/liter*3 Total amount of tritium: 1.5 trillion Bq	April-May
	J4 area Group L (Transferred to Measurement/confirmation facility group C)	: <u>Approx. 3,240m³</u>		
24-2-6	J4 area Group L (Transferred to Measurement/confirmation facility group A)	: <u>Approx. 2,030m³</u>	Secondary treatment: No Tritium concentration : Approx. 170,000-190,000 Bq/liter*3 Total amount of tritium: 1.4 trillion Bq	May-June
	J9 area Group A/B (Transferred to Measurement/confirmation facility group A)	: <u>Approx. 5,710m³</u>		
24-3-7	J9 area Group A/B (Transferred to Measurement/confirmation facility group B)	: <u>Approx. 1,800m³</u>	Secondary treatment: No Tritium concentration : Approx. 160,000-180,000 Bq/liter*3 Total amount of tritium: 1.3 trillion Bq	June-July
	K1 area Group C/D (Transferred to Measurement/confirmation facility group B)	: <u>Approx. 5,980m³</u>		
24-4-8	K1 area Group C/D (Transferred to Measurement/confirmation facility group C)	: <u>Approx. 4,730m³</u>	Secondary treatment: No Tritium concentration : Approx. 160,000~310,000 Bq/liter*3 Total amount of tritium: 1.7 trillion Bq	July-August
	G4 south area Group C (Transferred to Measurement/confirmation facility group C)	: <u>Approx. 3,060m³</u>		

[Inspection of measurement/confirmation facility \(Group C\)](#)

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*1 The management number is made up of the fiscal year, followed by the discharge number for that fiscal year, and the total number of discharges to date.

For example, "24-1-5" indicates that the data is for the first discharge of 2024, which is the fifth discharge to date.

*2 Underlined texts indicate actual results.

*3 Average value of the tank group that was assessed taking into account the radioactive decay until April 1, 2024

[Reference] FY2024 discharge plan (2/2)

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Management number* ¹		Amount of water to be transferred* ²		Discharge period
24-5-9	G4 south area Group C (Transferred to Measurement/confirmation facility group A)	: <u>Approx. 6,780m³</u>	Secondary treatment: No Tritium concentration : Approx. 300,000~350,000 Bq/liter ※ ³ Total amount of tritium: 2.4 trillion Bq	August-September
	G4 south area Group A (Transferred to Measurement/confirmation facility group A)	: <u>Approx. 1,000m³</u>		
	<u>Inspection of measurement/confirmation facility (Group A)</u>			
24-6-10	G4 south area Group A (Transferred to Measurement/confirmation facility group B)	: <u>Approx. 7,770m³</u>	Secondary treatment: No Tritium concentration : Approx. 340,000~350,000 Bq/liter ※ ³ Total amount of tritium: 2.7 trillion Bq	September-October
Inspection suspension (including full inspections of measurement/confirmation facility Group B)				
24-7-11	G4 south area Group A (Transferred to Measurement/confirmation facility group C)	: <u>Approx. 800m³</u>	Secondary treatment: No Tritium concentration : Approx. 340,000~400,000 Bq/liter ※ ³ Total amount of tritium: 3.0 trillion Bq	February-March
	G4 south area Group B (Transferred to Measurement/confirmation facility group C)	: <u>Approx. 7,000m³</u>		

➔ Total amount of tritium to be discharged during FY2024 : Approx. 14 trillion Bq

*1 The management number is made up of the fiscal year, followed by the discharge number for that fiscal year, and the total number of discharges to date.

For example, "24-1-5" indicates that the data is for the first discharge of 2024, which is the fifth discharge to date.

*2 Underlined texts indicate actual results.

*3 Average value of the tank group that was assessed taking into account the radioactive decay until April 1, 2024

[Reference] Measurement monitoring plan for obtaining quick results **TEPCO**

- Since the commencement of ALPS-treated water discharge into the sea in August 2023, TEPCO has engaged in monitoring to obtain quick measurements of the concentration of tritium in seawater at 14 locations shown in the diagrams below (Upper detection limit: Approximately 10Bq/liter). The discharge is immediately suspended if any of the values exceed the discharge suspension level (noted in the diagrams)

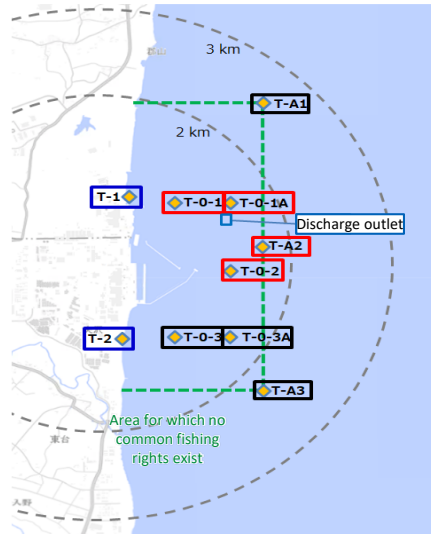


Figure 1: Specimen sampling locations within 3km of the power station (near the discharge outlet)

▭ ▭ : Monitoring points used to obtain quick results (10 locations)
Indicator (Discharge suspension level) 700Bq/liter

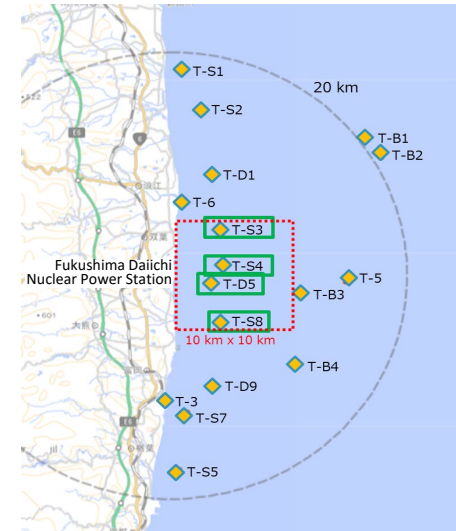


Figure 2: Specimen sampling locations within a 10km square in front of the power station

: Monitoring points used to obtain quick results (4 locations)
Indicator (Discharge suspension level) 30Bq/liter

	【Fig.1】 Within 3km of the power station (near the discharge outlet)		【Fig. 2】 Four locations within a 10km square in front of the power station
	Four locations in the vicinity of the discharge outlet ▭	Other six locations ▭ 	
During the discharge period and for one week after the completion of discharge	Daily ^{※1}	Twice a week ^{※2}	T-D5: Every week T-S3, T-S4, T-S8: Once a month
During the discharge suspension period (Excluding the week following the completion of discharge)	Once a week ^{※2}	Once a month ^{※2}	

※1 If bad weather during the discharge period prevents measurements for being taken for two consecutive days, on the following day (third day) if it is again expected that measurements cannot be taken, measured results will be quickly obtained from T-1 and T-2.

※2 We have engaged in monitoring daily since the commencement of discharge in August 2023, but the monitoring plan was changed on December 26, 2023 in light of actual measurements taken during discharge ([Announced on December 25, 2023](#))