Fukushima Daiichi Nuclear Power Station
Commencement of the Discharge of ALPS Treated Water into the Sea
(Sixth Discharge in FY2025)

＜Reference document＞
December 4, 2025
Tokyo Electric Power Company Holdings, Inc.
Fukushima Daiichi Decontamination and Decommissioning Engineering Company

- Transfer of ALPS treated water from G5 area Group A/D and G4 North area Group A to measurement/confirmation facility tank group A was completed on October 3, 2025, in preparation for the Sixth discharge of FY2025.
- We have confirmed that analysis results of the samples taken on October 17, 2025 for the tank group A at the measurement/confirmation facility, including analysis by external agencies, have met government's regulatory standards.
- During the discharges so far, we have taken samples from the seawater pipe every day to measure tritium concentration in order to confirm that tritium is being suitably diluted. As a result, we have been able to confirm that the analysis values are approximately equal to the calculated concentrations, and less than 1,500 Bq/liter.
- Moreover, seawater samples have also been taken from 10 locations within 3km and 4 locations within a 10km square in front of the power station, and the detection limit has been raised to approximately 10 Bq/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). (Refer to page 5)

*1 10 locations within 3 km of the power station *2 4 locations within a 10 km square in front of the power station

<Announced by December 3>

- Today (December 4), we commenced the discharge of ALPS treated water at 11:15 a.m. (planned term of discharge: December 4, 2025 - December 22, 2025, planned total amount of water to be discharged: approx. 7,800m^3, planned tritium discharge volume: approx. 2.4 trillion Bq)
- Tritium concentration after dilution at this discharge is approximately 419 Bq/liter, which is well below the regulatory concentration limit (60,000 Bq/liter), WHO standard for drinking water quality guidelines (10,000 Bq/liter), and value stipulated in the government policy (1,500 Bq/liter).
- Going forward, we will remain vigilant to ensure the safe and stable discharge of ALPS treated water into the sea.

[Reference] Outline of the Sixth discharge in FY2025

Outline of discharge for group: K4-C			
Attributes of the treated water	Concentration of the 29 types of radionuclides (excluding tritium) in scope of measurement/assessment	Within regulatory requirements (sum of the ratios of legally required concentrations of radioactive substances is less than 1) (sum of the ratios of concentration: 0.19) (details on P.1 of the link)	
	Tritium concentration	31 x 10^4 Bq/liter (details on P.2 of the link)	
	Concentration of the 39 significant types of radionuclides measured voluntarily	No significant radionuclides identified (details on P.3 of the link)	
	Status of water quality assessment	Within government and prefectural requirements (details on P.4 of the link)	
	Water temperature	Same as outdoor temperature After diluted to 740 times (design dilution factor), same as sea water temperature (not the same as plant's thermal discharge)	
Planned volume of treated water discharge		Approximately 7,800m^3	
Treated water flow rate		Approximately 460m^3/day (set not to exceed designed maximum on 500m^3/day)	
Dilution sea water flow rate		Approximately 340,000m^3/day (same speed as walking in the tunnel [approximated 1m/second])	
Planned volume of tritium discharge		Approximately 2.4 trillion Bq	
Concentration of tritium after dilution		Approximately 419 Bq/liter	
Planed term of discharge		December 4, 2025 – December 22, 2025	

[Reference] FY2025 ALPS treated water discharge plan（1/2）

- The FY2025 discharge plan is as follows. There will be seven discharges during the year with each discharge releasing approximately 7,800m³ for an annual discharge of approximately 54,600m³. The annual tritium discharge volume will be approximately 15 trillion Bq.

Management number※1	Transfer source tank※2	Amount of water to be transferred※3		Discharge commencement period
25-1-12	G4 south area Group B（Transferred to Measurement/Confirmation facility group A） K3 area Group A/B※5（Transferred to Measurement/Confirmation facility group A）	※4 : Approx. 8,080m³ : Approx. 910m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.45 - 0.55※6 Tritium concentration: 220,000~370,000Bq/liter※7 Total tritium volume: Approx. 2.8 trillion Bq	April
25-2-13	K3 area Group A/B※5（Transferred to Measurement/Confirmation facility group C） J1 area Group E（Transferred to Measurement/Confirmation facility group C）	: Approx. 6,970m³ : Approx. 820m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.45 - 0.62※6 Tritium concentration: 220,000~380,000Bq/liter※7 Total tritium volume: Approx. 1.9 trillion Bq	June - July
25-3-14	J1 area Group E（Transferred to Measurement/Confirmation facility group A） G5 area Group E（Transferred to Measurement/Confirmation facility group A）	: Approx. 7,300m³ : Approx. 480m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.47 - 0.62※6 Tritium concentration: 200,000~380,000Bq/liter※7 Total tritium volume: Approx. 2.9 trillion Bq	July - August
25-4-15	G5 area Group E/C/B（Transferred to Measurement/Confirmation facility group B）	※4 : Approx. 8,970m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.47 - 0.62※6 Tritium concentration: 200,000~220,000Bq/liter※7 Total tritium volume: Approx. 1.6 trillion Bq	September

Continues on next slide

※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, “25-1-12” indicates that the data is for the first discharge of FY2025, which is the twelfth discharge to date.

※2 The tank order from which water will be transferred will not be impacted by increases/decreases in the transfer volume (factual measurements). But order of discharge may be moved forward or backward.

※3 Underlined parts are updated as actual values according to the progress of the work.

※4 Since there will be no water remaining in the receiving tanks (Measurement/Confirmation tank groups A/B) after the tank inspections, the amount of water to be transferred will total approximately 9,000m³ (discharge volume is approximately 7,800m³).

※5 K3 area Group A/B tanks emptied as a result of transfer/discharge during FY2023 and FY2024 will be reused to receive ALPS treated water.

※6 Conservative values calculated from the analytical values of the seven major nuclides (Cs-134, Cs-137, Sr-90, I-129, Co-60, Sb-125, Ru-106) measured after ALPS treatment and storage in tanks, plus the maximum value of C-14 (0.11) and an estimate of the total of other nuclides at 0.3.

※7 Tank group average, estimated taking into consideration decay as of April 1, 2025.

[Reference] FY2025 ALPS treated water discharge plan (2/2)

TEPCO

Continued from previous slide

Management number※1	Transfer source tank※2	Amount of water to be transferred※3		Discharge commencement period
25-5-16	G5 area Group A/B (Transferred to measurement/confirmation facility group C)	: Approx. 7,780m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.47 - 0.59※4 Tritium concentration: 220,000~260,000Bq/liter ※5 Total tritium volume: Approx. 1.9 trillion Bq	October - November
25-6-17	G5 area Group A/D (Transferred to measurement/confirmation facility group A) G4 north area Group A (Transferred to measurement/confirmation facility group A)	: Approx. 4,050m³ : Approx. 3,710 m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.46 - 0.76※4 Tritium concentration: 260,000~300,000Bq/liter ※5 Total tritium volume: Approx. 2.2 trillion Bq	November - December
Inspection suspension (including full inspections of measurement/confirmation facility Group C tanks)				
25-7-18	G4 north area Group A/B (Transferred to measurement/confirmation facility group B) H2 area Group J (Transferred to measurement/confirmation facility group B)	: Approx. 3,760m³ : Approx. 4,040 m³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.58 - 0.78※4 Tritium concentration: 260,000~270,000Bq/liter ※5 Total tritium volume: Approx. 2.0 trillion Bq	March

FY2025 total tritium discharge volume: Approx. 15trillion 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, "25-1-12" indicates that the data is for the first discharge of 2025, which is the twelfth discharge to date.

※2 Whereas the order of the tanks from which water will be transferred will not change due to increases or decreases in the amount of water transferred (actual measurements), the discharge number may be moved up or back.

※3 The underlined sections indicate actual values.

※4 Conservative values calculated from the analytical values of the seven major nuclides (Cs-134, Cs-137, Sr-90, I-129, Co-60, Sb-125, Ru-106) measured after ALPS treatment and storage in tanks, plus the maximum value of C-14 (0.11) and an estimate of the total of other nuclides at 0.3.

※5 Tank group average, estimated taking into consideration decay as of April 1, 2025.

[Reference] Measurement monitoring plan for obtaining quick results

- 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)

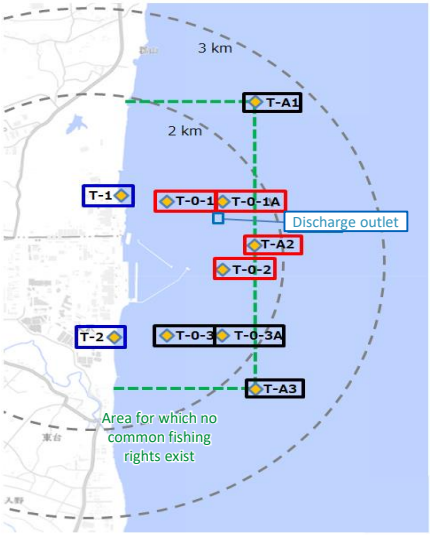

Figure 1: Specimen sampling locations within 3km of the power station (near the discharge outlet)

: Monitoring points used to obtain quick results (10 locations)

Indicator (Discharge suspension level) 700Bq/liter

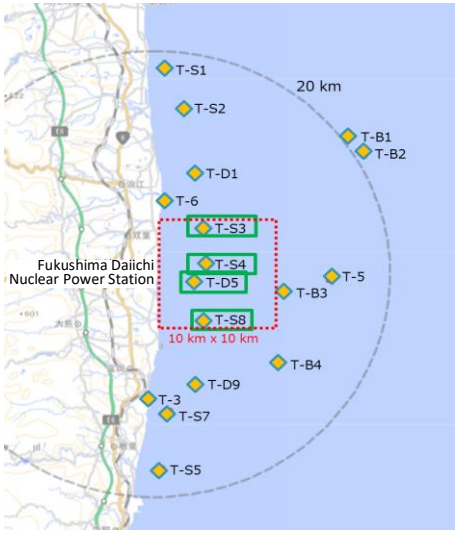

Figure 2: Specimen sampling locations within a 10km square in front of the power station

: 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: Once a 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)