Fukushima Daiichi Nuclear Power Station Completion of the Second Discharge of ALPS Treated Water in FY2025

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

- The Second discharge of ALPS treated water (approximately 7,800m³) in FY2025 from the measurement/confirmation facility tank group C began at 11:33 AM on July 14.
- 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 10 locations within 3km radius and 4 locations within 10km square 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).

< Announced by August 3 >

- During the Second discharge of ALPS treated water in FY2025, there was the issuance of a tornado watch (Probability 2) in Okuma town and Futaba town on July 21st, and a tsunami advisory in Fukushima Prefecture on July 30. To ensure safety in the event of natural phenomena, ALPS treated water dilution/discharge facilities were manually suspended in accordance with predetermined procedures.
- Field patrols found that there were no abnormalities with facilities and we resumed the discharge into the sea.
- We have completed the discharge of the ALPS treated water from the measurement/confirmation facility tank group C at 6:36 AM on August 3. The flush out of the water remaining in the ALPS treated water transfer line (ALPS treated water) was completed at 12:22 PM on August 3, and the completion of this task marked the end of the second discharge of ALPS treated water in FY2025. (Total amount of water discharged: approx. 7,873 m³, Total amount of tritium discharged: approx. 2.0 trillion Bq)
- Going forward, we will remain vigilant to ensure the safe and stable discharge of ALPS treated water.

^{*1 10} locations within 3 km of the power station

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

[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.

Transfer source tank ^{*2}	Amount of water >> to be transferred	 €3	Discharge commencement period
G4 south area group B (Transferred to Measurement/Confirmation facility Group A) K3 area group A/B ** (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
		Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.45 - 0.62 ³⁶ Tritium concentration: 220,000~380,000Bq/liter ³⁷ Total tritium volume: Approx. 1.9 trillion Bq	June - July
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 ³⁶ Tritium concentration: 200,000~380,000Bq/liter ³⁷ Total tritium volume: Approx. 2.9 trillion Bq	July - August
G5 area group E/C/B(Transferred to Measurement/Confirmation facility Group B)	*4 : <u>Approx. 8,970m³</u>	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.47 - 0.62 ³⁶ Tritium concentration: 200,000~220,000Bq/liter ³⁷ Total tritium volume: Approx. 1.6 trillion Bq	September
	G4 south area group B K3 area group A/B K3 area group A/B K3 area group A/B K4 area group A/B K5 (Transferred to Measurement/Confirmation facility Group A) K5 area group B (Transferred to Measurement/Confirmation facility Group C) J1 area group E (Transferred to Measurement/Confirmation facility Group C) J1 area group E (Transferred to Measurement/Confirmation facility Group A) G5 area group E (Transferred to Measurement/Confirmation facility Group A)	Transfer source tank**2 G4 south area group B (Transferred to Measurement/Confirmation facility Group A) : Approx. 8,080m³ K3 area group A/B **5 (Transferred to Measurement/Confirmation facility Group A) : Approx. 910m³ K3 area group A/B **5 (Transferred to Measurement/Confirmation facility Group C) : Approx. 6,970m³ J1 area group E (Transferred to Measurement/Confirmation facility Group C) : Approx. 820m³ J1 area group E (Transferred to Measurement/Confirmation facility Group A) : Approx. 7,300m³ G5 area group E (Transferred to Measurement/Confirmation facility Group A) : Approx. 480m³	G4 south area group B (Transferred to Measurement/Confirmation facility Group A) : Approx. 8,080m³

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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, "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.
- X7 Tank group average, estimated taking into consideration decay as of April 1, 2025.

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



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Inspection suspension (including full inspections of measurement/confirmation facility Group C tanks)

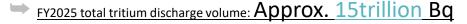
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G4 north area group A/B (Transferred to measurement/confirmation facility Group B) : Approx. 3,700m³ H2 area group (Transferred to measurement/confirmation facility Group B) : Approx. 4,100 m³

Secondary treatment: None

Sum of the ratios to regulatory concentrations: 0.58 - 0.78³ Tritium concentration: 260,000~270,000Bq/liter 4 Total tritium volume: Approx. 2.0 trillion Bg

March



^{*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} 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.

^{*4} Tank group average, estimated taking into consideration decay as of April 1, 2025

[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)

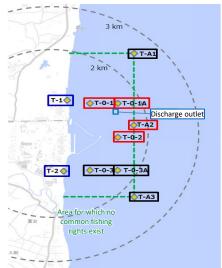


Figure 1: Specimen sampling locations within 3km of the power station (near the discharge outlet)

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

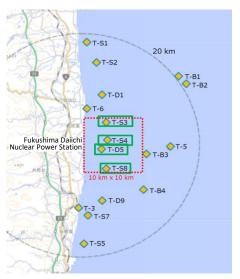


Figure 2: Specimen sampling locations within a 10km square in front of the power station

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

	[Fig.1] Within 3km of the p	[Fig. 2] Four locations within a 10km square		
	Four locations in the vicinity of the discharge outlet	Other six locations	in front of the power station	
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)