Fukushima Daiichi Nuclear Power Station

Analysis Results of ALPS Treated Water Sampled from the Measurement/Confirmation Facility Tank Group A and the Scheduled Date of the Commencement of the Third Discharge in FY2025

< Reference document >
A u g u s t 5 , 2 0 2 5
Tokyo Electric Power Company Holdings, Inc.
Fukushima Daiichi Decontamination &
Decommissioning Engineering Company

- Transfer of ALPS treated water from J1 area group E and G5 area group E to measurement/confirmation facility tank group A was completed on June 3, 2025, in preparation for the third discharge of FY2025. Circulation/agitation commenced on June 10, 2025 and samples were taken on June 17, 2025.
 < Announced by July 31, 2025 >
- The analysis results from sampled specimens have confirmed that the water in tank group A meets discharge criteria.
 - ① Nuclides to be measured and assessed (29 nuclides):

 The sum of the ratios of the concentration of each radionuclide to the regulatory concentration: 0.12 (confirmed to be less than 1)
 - ② Tritium: 380,000 Bq/liter (confirmed to be less than 1 million Bq/liter)
 - 3 Nuclides voluntarily checked to ensure that they are not significantly present (39 nuclides): No significant concentrations found of any of the nuclides
 - Cerium 144 has been excluded from the list of nuclides targeted for measurement/assessment since this discharge, based on the reevaluation of nuclides targeted for measurement/assessment during FY2025. Even after excluding cerium 144 from the nuclides targeted for measurement/assessment, we shall still voluntarily take measurements for the substance prior to discharges into the sea (announced on August 4, 2025). As in previous analyses, the results were below the detectable levels.
 - 4 General water quality (voluntary check to confirm that there are no unusual water quality) (44 criteria): Criteria values have been met
- Measurements taken by the external agency* (Kaken) show the same results and confirm that the water meets discharge criteria. Therefore, we plan to commence of the discharge of ALPS treated water into the sea from August 7, 2025 and complete the discharge on August 25, 2025. (planned total amount of water to be discharged: approx. 7,800m³, planned tritium discharge volume: approx. 3.0 trillion Bq)
- Tritium concentration after dilution is approximately 510 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). We are discharging ALPS treated water starting from the one with lower tritium concentration. It is expected that the concentration of tritium in seawater will be affected depending on the concentration of tritium in the ALPS treated water to be released in the future, and higher values than before will be detected. Even in such cases, it is evaluated that the concentration will remain below the discharge suspension level (700 Bq/liter) and the investigation level (350 Bq/liter).
- Going forward, we will remain vigilant to ensure the safe and stable discharge of ALPS treated water.

[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	र्दें 3	Discharge commencement period
	25-1-12		Fransferred to Measurement/Confirmation facility Group A) Fransferred 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 ⁸⁶ Tritium concentration: 220,000~370,000Bq/liter ⁸⁷ Total tritium volume: Approx. 2.8 trillion Bq	April
	25-2-13		ransferred to Measurement/Confirmation facility Group C) : ransferred to Measurement/Confirmation facility Group C)		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		ransferred to Measurement/Confirmation facility Group A) ransferred to Measurement/Confirmation facility Group A)	: <u>Approx. 7,300m³</u> : <u>Approx. 480m³</u>	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(Tra	ansferred to Measurement/Confirmation facility Group B):	Approx. 8,970m ³	Secondary treatment: None Sum of the ratios to regulatory concentrations: 0.47 - $0.62\%6$ Tritium concentration: $200,000^{\circ}220,000Bq/liter$ $\%7$ Total tritium volume: Approx. 1.6 trillion Bq	September

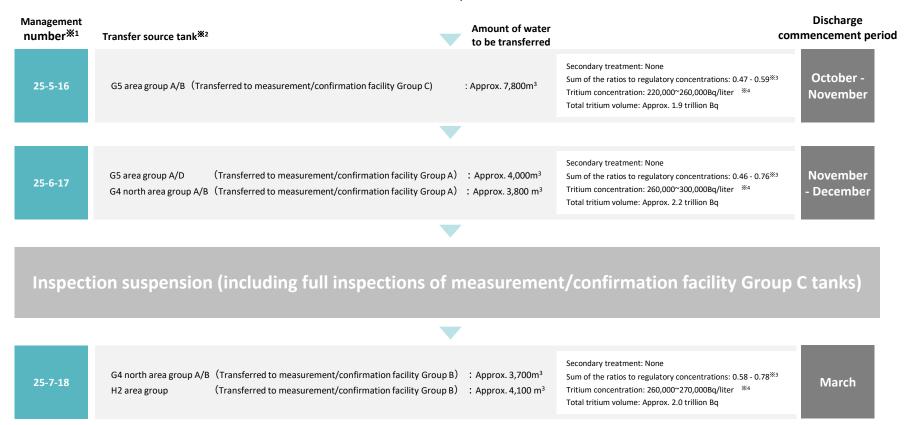
Continues on next slide

- **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).
- X5 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)



Continued from previous slide



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} 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