

Fukushima Daiichi Nuclear Power Station

Analysis Results of ALPS Treated Water

Sampled from the Measurement/Confirmation Facility Tank Group C

< Reference document >
September 21, 2023
Tokyo Electric Power Company Holdings, Inc.
Fukushima Daiichi Decontamination &
Decommissioning Engineering Company

- We began circulating/agitating ALPS treated water in measurement/confirmation facility tank group B on March 17 in order to make the water quality in the tank group homogeneous. After the water in the tank group was agitated/circulated for more than the amount of time required to make the water quality in the tank group homogeneous, samples were taken on March 27. On June 22, we confirmed based on the analysis results of sampled specimens that the water in tank group B meets discharge criteria.
- We commenced the first discharge of ALPS treated water from tank group B on August 24 and completed it on September 11. Throughout the process, we confirmed that the water is being safely discharged as planned by conducting daily quick analyses of tritium concentrations in the seawater.

< Announced by September 11 >

- We began circulating/agitating ALPS treated water in measurement/confirmation facility tank group C on June 19. After the water in the tank group was agitated/circulated for more than the amount of time required to make the water quality in the tank group homogeneous, samples were taken on June 26.
- The analysis results from sampled specimens have confirmed that the water in tank group C 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: 0.25 (confirmed to be less than 1)
 - ② Tritium: 140,000Bq/liter (confirmed to be less than 1 million Bq/L)
 - ③ Nuclides voluntarily checked to ensure that they are not significantly present (39 nuclides):
No significant concentrations found of any of the nuclides
 - ④ General water quality (voluntary check to confirm that there are no unusual water quality) (44 criteria): Criteria values has been met
- Measurements taken by external agencies* (Kaken) show the same results and confirm that the water in tank group C meets discharge criteria.
 - * Measurements taken of ① Nuclides to be measured and assessed (29 nuclides); ② Tritium; and, ③ Nuclides voluntarily checked to ensure that they are not significantly present (39 nuclides).
- We are currently inspecting the entire ALPS treated water dilution/discharge facility and reviewing the operational records for the first discharge. We will proceed with the preparations for the second discharge after we have completed the inspection and the record review.

[Reference] Treated Water Portal Site Webpage for "Measurement/Confirmation Facility Conditions"

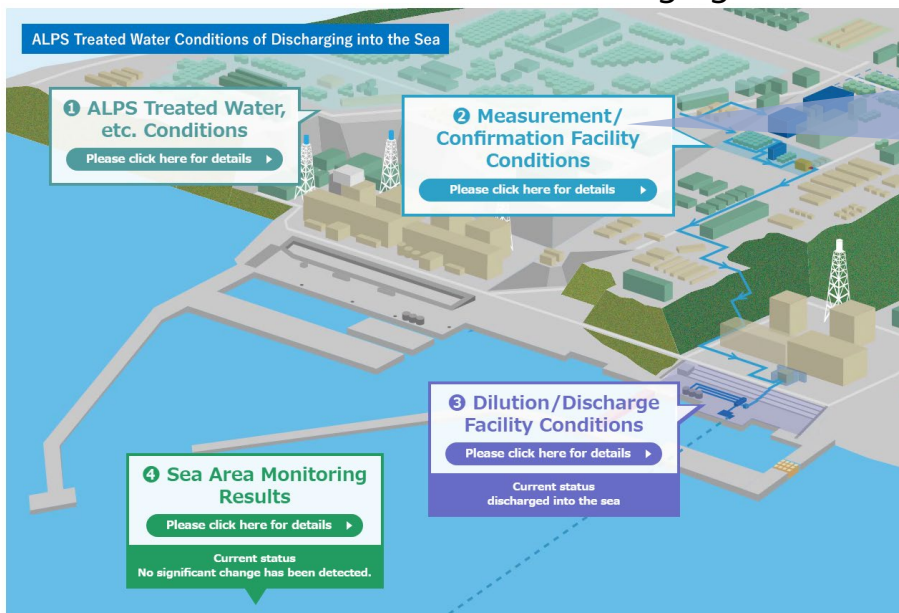
- Status of Measurement/confirmation facility and the analysis results for ALPS treated water in tank groups A,B, and C are displayed (tritium concentration and the sum of the ratios of the concentration of each radionuclide to the regulatory concentration limit).

Screen image of

Screen image of

"ALPS treated water Conditions of Discharging into the Sea"

"Measurement/Confirmation Facility Conditions"



Measurement/Confirmation Facility Conditions

The measurement/confirmation facility is split into three groups of 10 tanks (Total capacity of 10 tanks: Approximately 10,000m³) with each of the groups used on a rotating basis as receiving tanks, measurement/confirmation tanks, and discharge tanks.
(All of the tanks will be filled with water when the facility is put into service. The tanks will then be successively measured and confirmed.)

Group A

Measurement/con
firmation prepar
ations underway

Group B

Measurement/con
firmation

Group C

Measurement/con
firmation prepar
ations underway

ALPS treated water measurement results (June 23, 2023) → Confirmed that discharge criteria have been met.

Analysis results
The sum of the ratios of the concentration of each radionuclide to the regulatory concentration is 0.28

Tritium concentration:
14×10⁴ Bq/L
Confirmed to be less than 1 million Bq/L

The concentration of radioactive substances excluding tritium.
The sum of the ratios of the concentration of each radionuclide to the regulatory concentration: **0.28**

Regulatory standards
1

① The sum of the ratios of the concentration of each radionuclide to the regulatory concentration : 1

*Nuclides that are voluntarily checked to ensure that they are not significantly present were confirmed not to be significantly present for all target nuclides.

Measurement results from external agencies designated by TEPCO (Kaken)

- ▶ Tritium concentration: One hundred and forty thousand Bq/L
- ▶ The sum of the ratios of the concentration of each radionuclide to the regulatory concentration excluding tritium: 0.28

② Click here for more detailed data

■ Treated Water Portal Site Measurement/Confirmation Facility Conditions

<https://www.tepco.co.jp/en/decommission/progress/watertreatment/measurementfacility/index-e.html>



③ Click here for analysis results from third parties (Japan Atomic Energy Agency) (only in Japanese)