

Fukushima Daiichi Nuclear Power Station

Analysis Results of ALPS Treated Water

Sampled from the Measurement/Confirmation Facility Tank Group A

< Reference document >
October 19, 2023
Tokyo Electric Power Company Holdings, Inc.
Fukushima Daiichi Decontamination &
Decommissioning Engineering Company

- On March 27, we took samples of specimens from the measurement/confirmation facility tank group B. On June 22, we confirmed based on the analysis results of the specimens that the water in tank group B meets discharge criteria. We commenced the 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 seawater.
- Furthermore, we took samples of specimens from the measurement/confirmation facility tank group C on June 26. On September 21, we confirmed based on the analysis results of the specimens that the water in tank group C meets discharge criteria. Therefore, we have been discharging ALPS treated water from tank group C into the sea since October 5.

<Announced as of October 5>

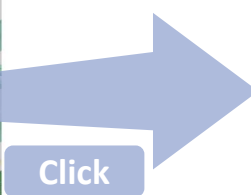
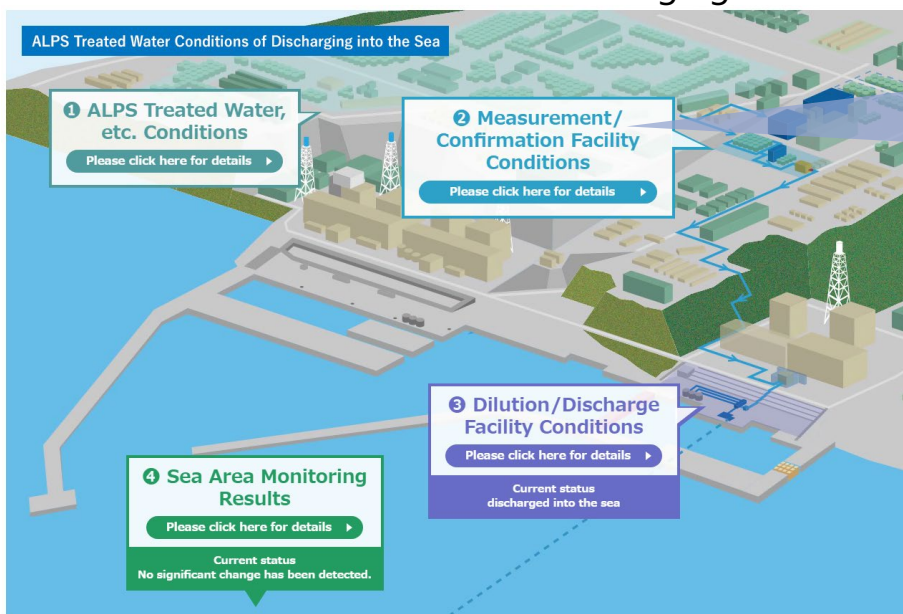
- We began circulating/agitating ALPS treated water in measurement/confirmation facility tank group A on July 3. After the water in the tank group was circulated/agitated for more than the amount of time required to make the water quality in the tank group homogeneous, samples were taken on July 10.
- 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: 0.25 (confirmed to be less than 1)
 - ② Tritium: 130,000 Bq/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 have been met
- Measurements taken by external agencies* (Kaken) show the same results and confirm that the water in tank group A 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).
- Currently, we are discharging ALPS treated water from tank group C (second discharge). We will commence preparations for the discharge of ALPS treated water from tank group A (third discharge) after the facility inspection and operational review following the completion of the second discharge.

[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

"ALPS treated water Conditions of Discharging into the Sea"



Screen image of

"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 ions underway

Group B

Measurement/con firmation

Group C

Measurement/con firmation prepar ions underway

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

0.28

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

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**

*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

Click here for more detailed data

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

■ Treated Water Portal Site Measurement/Confirmation Facility Conditions

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

