

# ALPS Treated Water Discharge Status Update

October 30, 2025

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Tokyo Electric Power Company Holdings, Inc.

## **1. Performance of the discharge of ALPS treated water**

**(Management number\* : 25-4-15)**

## **2. Plan of the discharge of ALPS treated water**

**(Management number\* : 25-5-16)**

## **3. Status of the dismantling of the J8 area tanks**

## **4. Transfer of ALPS treated water in preparation for the future discharges**

## **(Reference) Sea area monitoring history after the commencement of discharge**

\* 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, “25-4-15” indicates that the data is for the fourth discharge of 2025, which is the fifteenth discharge to date.

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(Management number\* : 25-5-16)

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## (Reference) Sea area monitoring history after the commencement of discharge

\* 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, "25-4-15" indicates that the data is for the fourth discharge of 2025, which is the fifteenth discharge to date.

# Overview

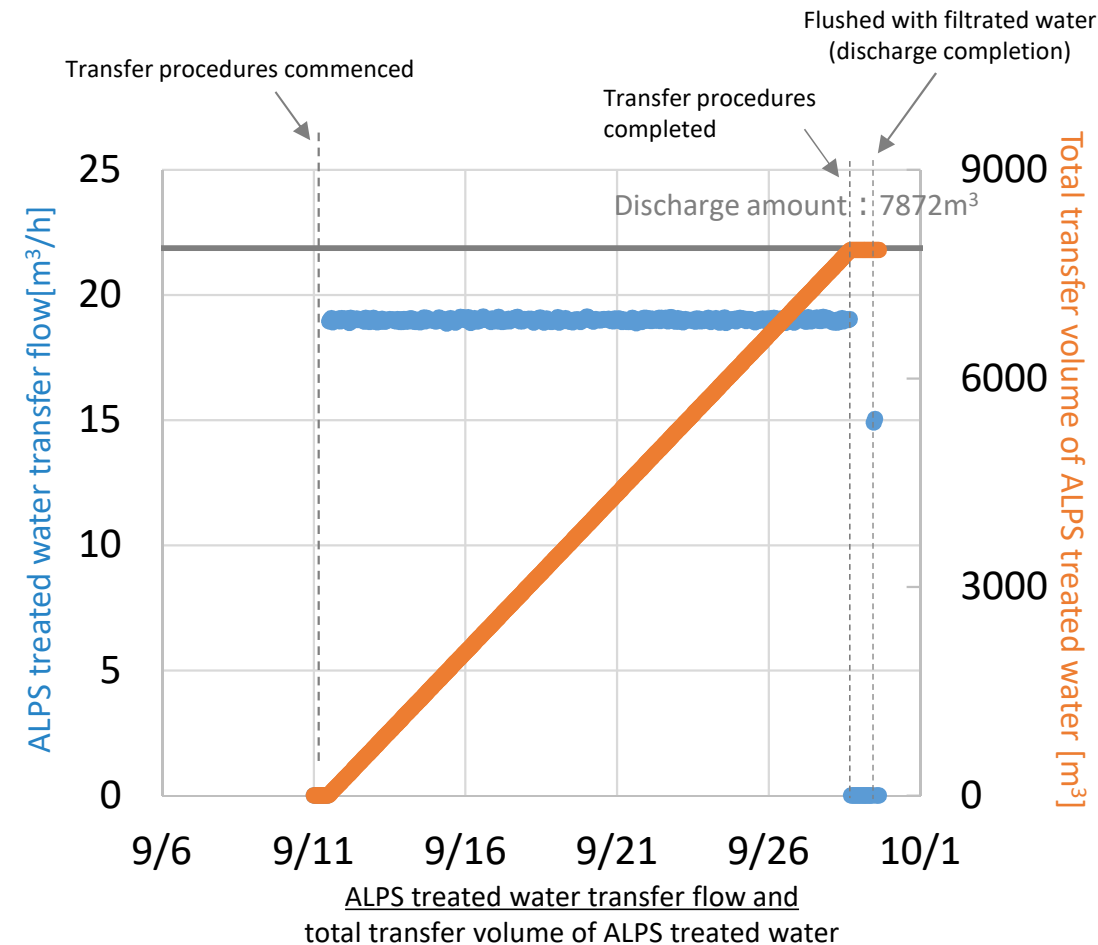
- We are planning to conduct the discharge of ALPS treated water (management number: 25-4-15) as follows.
- On the next page, we will explain that there was no abnormality in parameters and sea area monitoring.

## FY2025

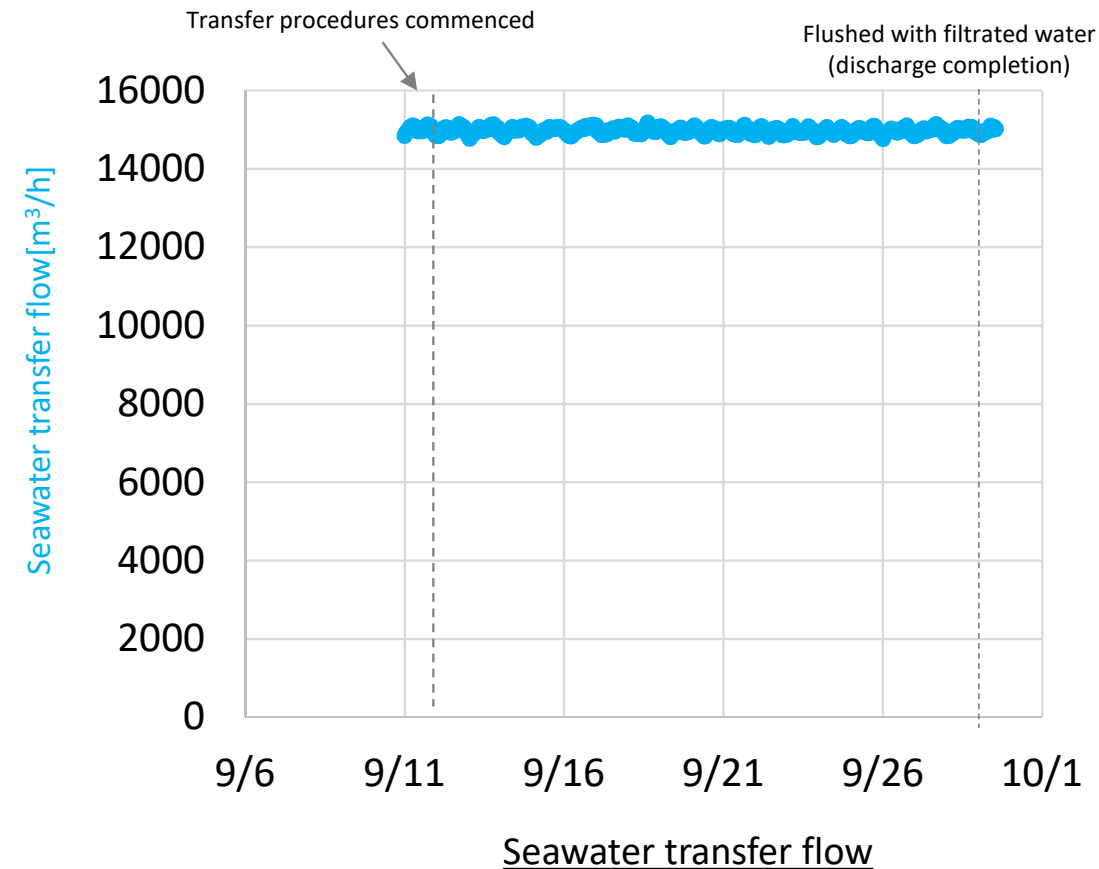
| Management number | Tank group | Tritium Concentration        | Commenced          | Completed          | Amount of discharge | Amount of tritium radioactivity |
|-------------------|------------|------------------------------|--------------------|--------------------|---------------------|---------------------------------|
| 25-1-12           | Group A    | 37x 10 <sup>4</sup> Bq/liter | April 10, 2025     | April 28, 2025     | 7,853m <sup>3</sup> | Approx.<br>2.9 trillion Bq      |
| 25-2-13           | Group C    | 25x 10 <sup>4</sup> Bq/liter | July 14, 2025      | August 3, 2025     | 7,873m <sup>3</sup> | Approx.<br>2.0 trillion Bq      |
| 25-3-14           | Group A    | 38x 10 <sup>4</sup> Bq/liter | August 7, 2025     | August 25, 2025    | 7,908m <sup>3</sup> | Approx.<br>3.0 trillion Bq      |
| 25-4-15           | Group B    | 21x 10 <sup>4</sup> Bq/liter | September 11, 2025 | September 29, 2025 | 7,872m <sup>3</sup> | Approx.<br>1.7 trillion Bq      |
| 25-5-16           | Group C    | 25x 10 <sup>4</sup> Bq/liter | October 30, 2025   | November 17, 2025  | 7,800m <sup>3</sup> | Approx.<br>2.0 trillion Bq      |

# 1-1. Operating parameter records during the discharge (1/3)

- We were able to operate ALPS treated water transfer systems and seawater systems without issue.



- ALPS treated water transfer flow\*1
- Total transfer volume of ALPS treated water



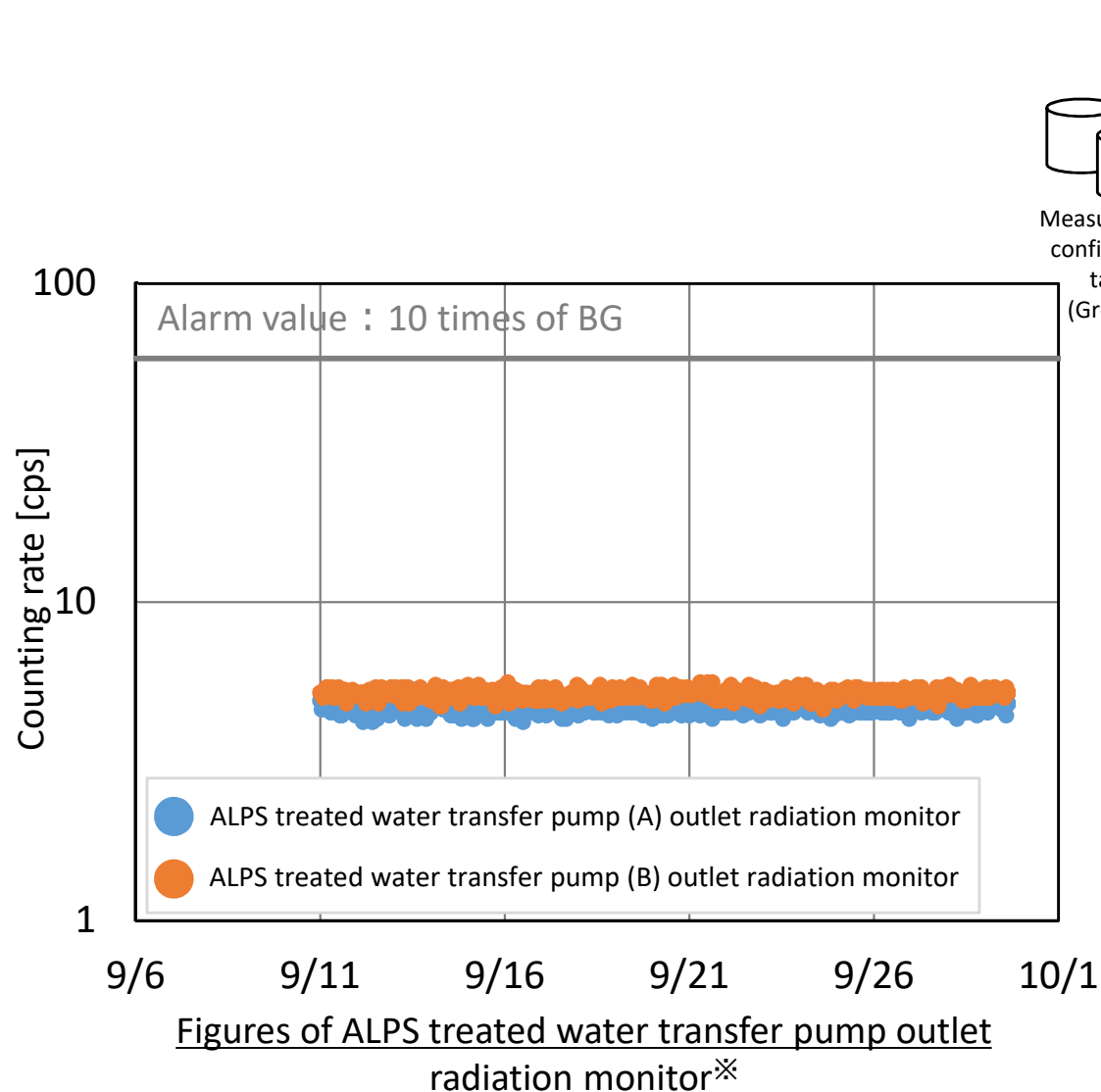
- Seawater transfer flow\*2

\*1 : The flowmeters are reduplicate, so the higher of the figures from both meters was used.

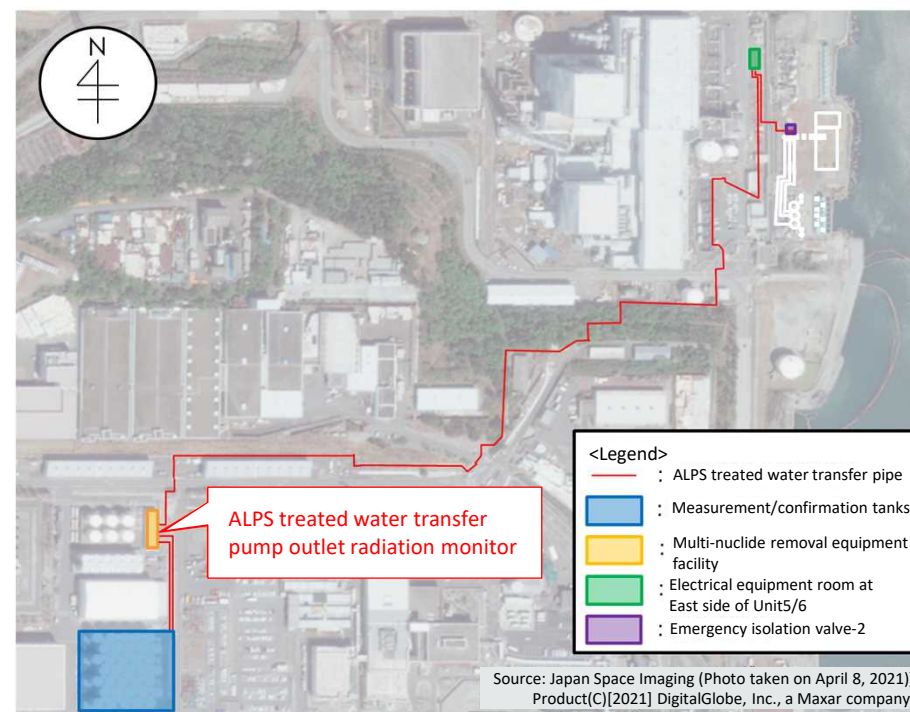
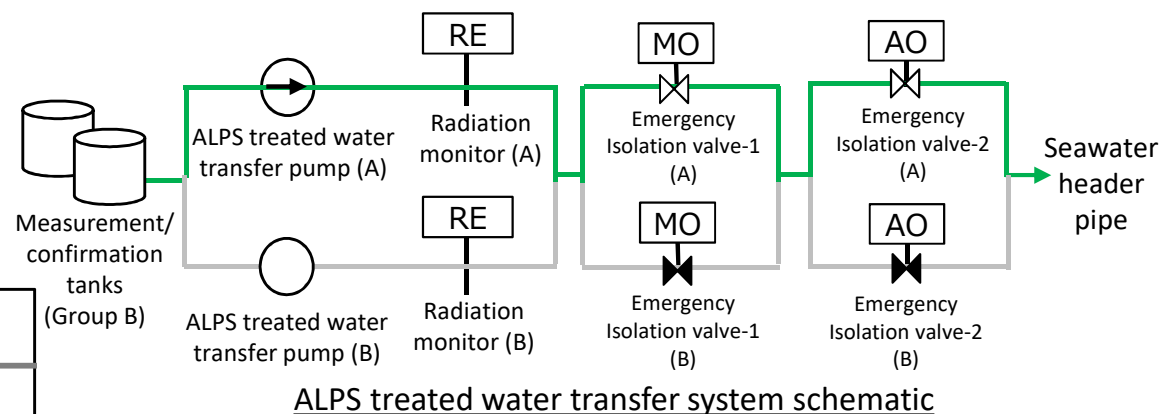
\*2 : Total for systems A and B

# 1-1. Operating parameter records during the discharge (2/3)

- No abnormalities were seen in the figures from the ALPS treated water transfer pump outlet radiation monitor.



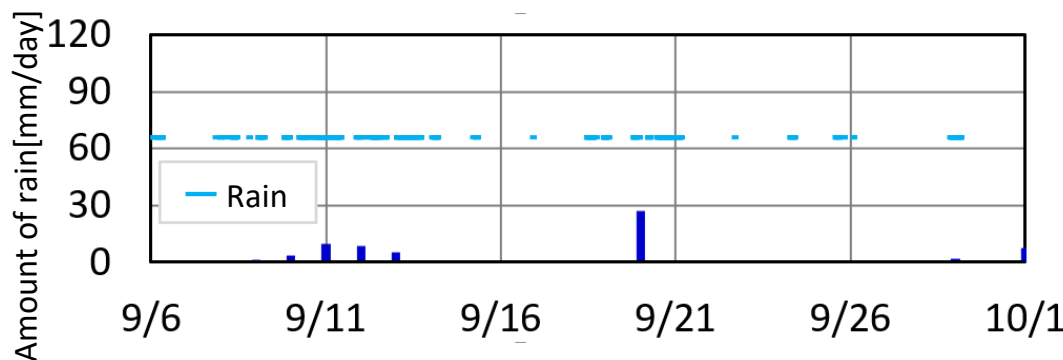
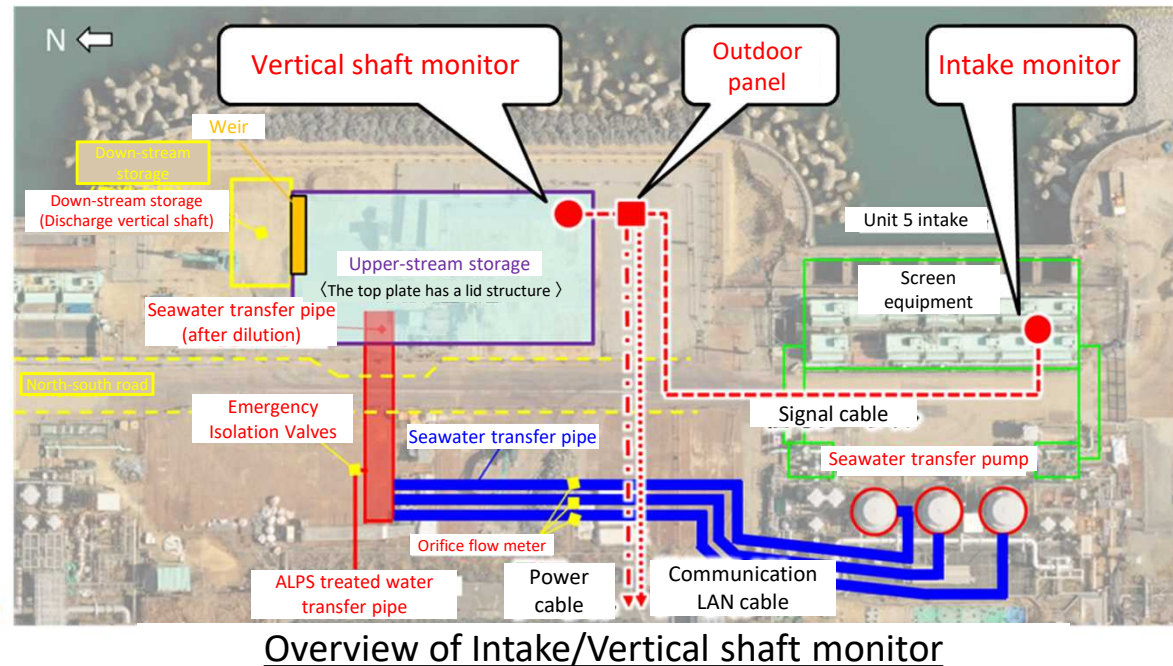
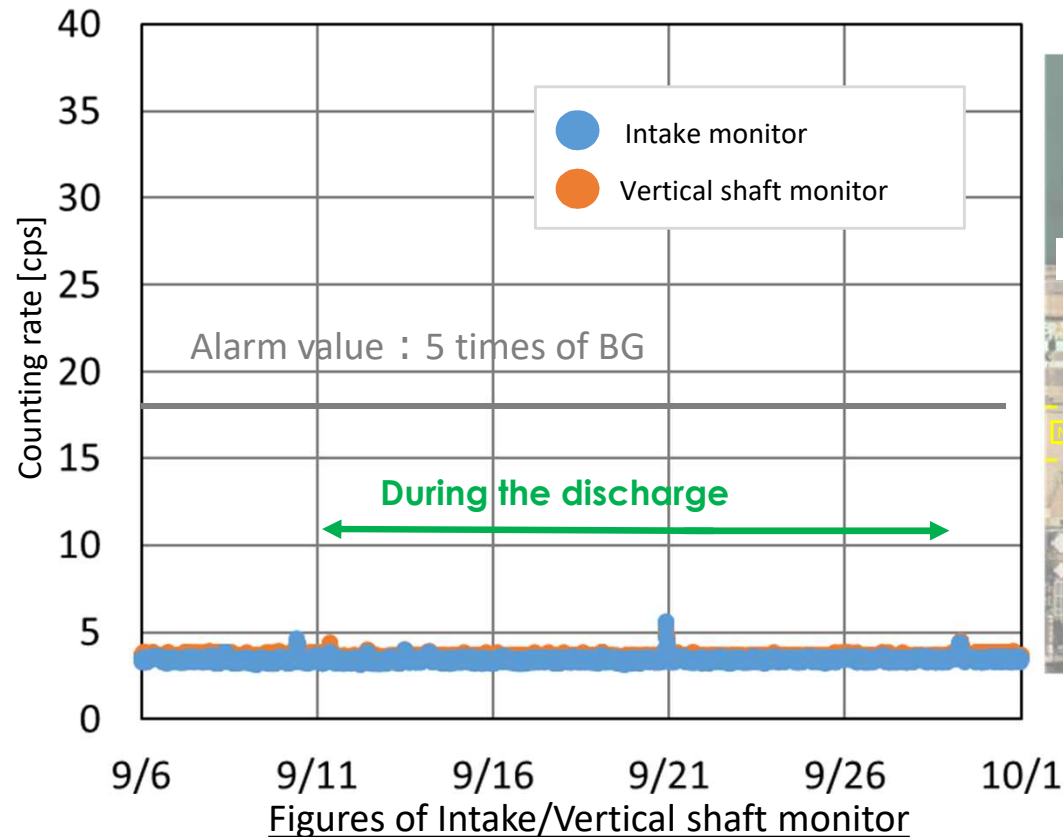
※ : As shown in the schematic on the upper right, ALPS treated water was passed through System A. (System B was filled with filtrated water)



Overview of ALPS treated water dilution/discharge facility

# 1-1. Operating parameter records during the discharge (3/3)

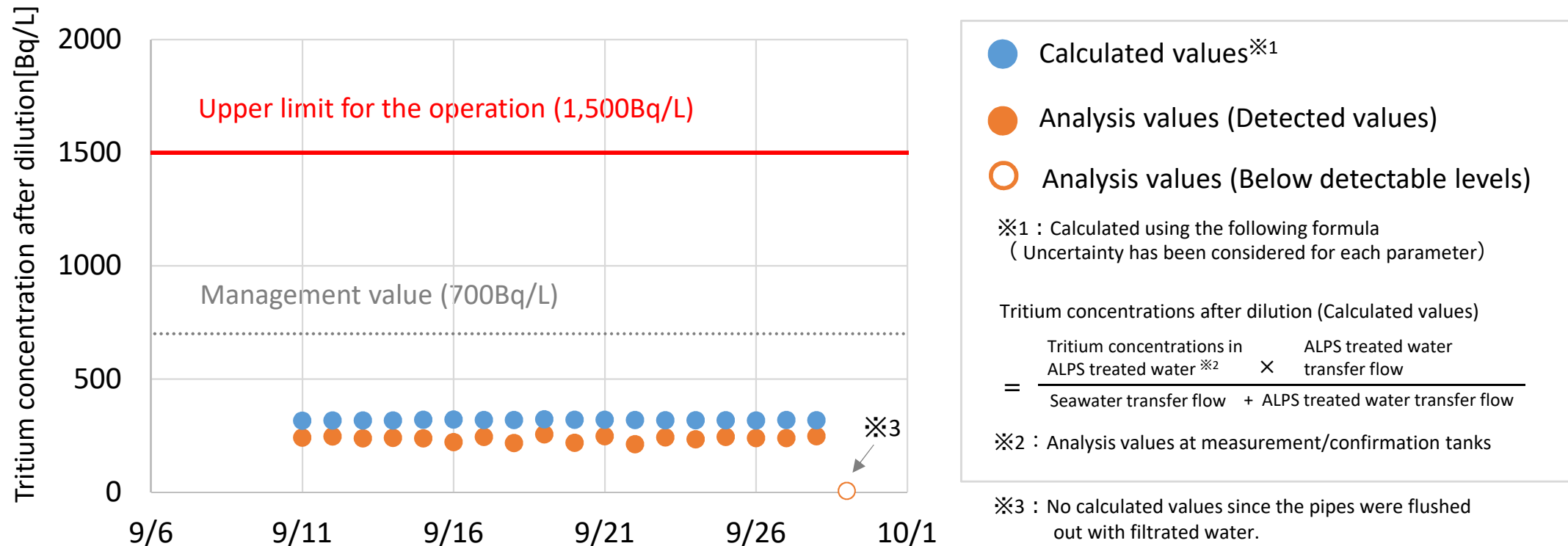
- Temporary increase in values, possibly due to rain is observed, but no abnormalities are seen in the readings.



※It is assumed that the temporary increases during rainfall were caused by the runoff of fallout from onshore areas and precipitation of natural radionuclides (such as daughter nuclide of radon, etc.).

# 1-2. Tritium concentrations after dilution during the discharge TEPCO

- During the discharge period, water was sampled daily from the seawater pipe to analyze tritium concentrations.  
⇒ Confirmed to be less than the upper limit for the operation: 1,500Bq/liter

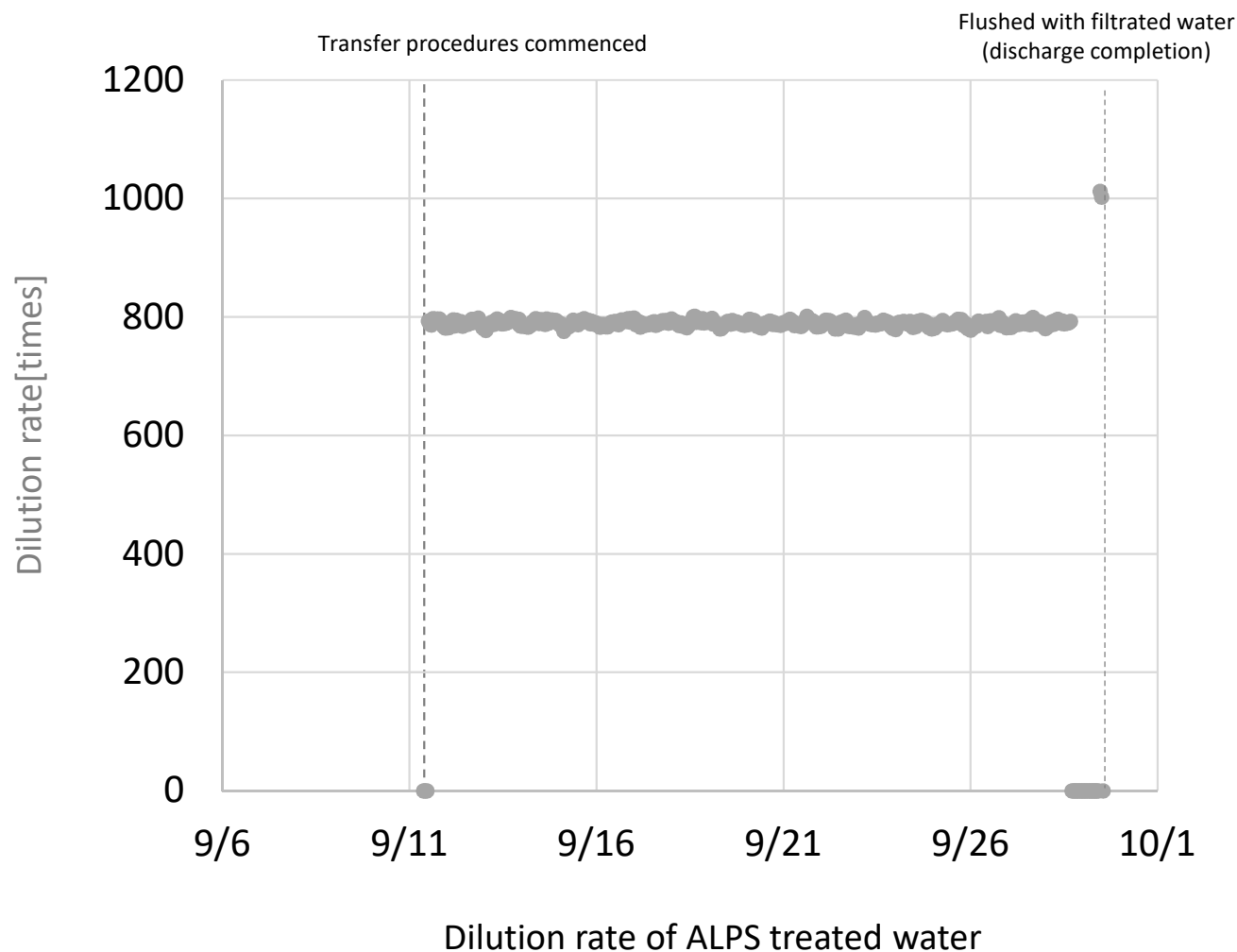


Tritium concentrations after dilution (calculated values and analysis values)

|                                            | 9/11  | 9/12~9/28 | 9/29  |
|--------------------------------------------|-------|-----------|-------|
| Calculated value: Time of data acquisition | 18:00 | 7:00      | —     |
| Analysis value: Time of specimen sampling  | 18:32 | 6:00~9:00 | 12:05 |

# [Reference] Dilution rate of ALPS treated water

- The dilution rate had always been kept at over 100 times during the discharge.



● Dilution rate※1

※1 : Calculated using the following formula

$$\text{Dilution rate} = \frac{\text{Seawater flow rate ※2} + \text{ALPS treated water flow rate ※3}}{\text{ALPS treated water flow rate ※3}}$$

※2 : Total for systems A and B

※3 : The flowmeters are reduplicate, so the higher of the figures from both meters was used for calculation

# 1-3. Sea area monitoring history (1/2)

- Measurement results of tritium concentrations in water sampled in the vicinity of the discharge outlet (within 3km of the power station) and outside of the vicinity of the discharge outlet (within a 10km square in front of the power station) are all below indices (discharge suspension level and investigation level).

(Unit: Bq/L)

|                                              | Sampling location*3 | Frequency      | September 2025 |      |      |      |      |      |     |      |      | October 2025 |      |
|----------------------------------------------|---------------------|----------------|----------------|------|------|------|------|------|-----|------|------|--------------|------|
|                                              |                     |                | 22             | 23   | 24   | 25   | 26   | 27   | 28  | 29*4 | 30   | 1            | 2    |
| In the vicinity of the discharge outlet      | T-1                 | Twice a week*1 | <6.3           | -    | -    | <5.6 | -    | -    | -   | <5.6 | -    | -            | <6.2 |
|                                              | T-2                 | Twice a week*1 | <6.3           | -    | -    | <5.6 | -    | -    | -   | <5.6 | -    | -            | <6.2 |
|                                              | T-0-1               | Once a day*2   | <6.0           | <8.4 | <7.5 | <5.6 | <6.2 | <6.1 | _*5 | <8.6 | <7.0 | <5.9         | <6.2 |
|                                              | T-0-1A              | Once a day*2   | <5.9           | <7.2 | 23   | <7.8 | <5.4 | <7.8 | _*5 | <8.6 | <7.0 | <5.9         | <5.5 |
|                                              | T-0-2               | Once a day*2   | <6.0           | <8.4 | <7.5 | <7.8 | <6.2 | <6.1 | _*5 | <8.5 | <6.9 | <5.9         | <6.2 |
|                                              | T-0-3A              | Twice a week*1 | <7.1           | -    | -    | <7.6 | -    | -    | -   | <5.6 | -    | -            | <5.5 |
|                                              | T-0-3               | Twice a week*1 | <6.0           | -    | -    | <7.8 | -    | -    | -   | <8.5 | -    | -            | <5.4 |
|                                              | T-A1                | Twice a week*1 | <7.1           | -    | -    | <7.6 | -    | -    | -   | <5.6 | -    | -            | <8.0 |
|                                              | T-A2                | Once a day*2   | <7.1           | <7.2 | <7.2 | <7.6 | <5.4 | <7.7 | _*5 | <5.6 | <7.0 | <5.9         | <8.0 |
|                                              | T-A3                | Twice a week*1 | <7.1           | -    | -    | <7.6 | -    | -    | -   | <5.6 | -    | -            | <8.0 |
| Outside the vicinity of the discharge outlet | T-D5                | Once a week    | <6.4           | -    |      |      |      |      | -   | <5.6 | -    | -            | -    |
|                                              | T-S3                | Once a month   | -              | -    |      |      |      |      | -   | -    | -    | -            | -    |
|                                              | T-S4                | Once a month   | -              | -    |      |      |      |      | -   | -    | -    | -            | -    |
|                                              | T-S8                | Once a month   | -              | -    |      |      |      |      | -   | -    | -    | -            | -    |

※: A “less than” symbol (<) indicates that the analysis result was less than the detection limit   indicates that the detected value   : Term of discharge of ALPS treated water

\*1: Conduct twice a week during the discharge period and for one week following the completion of discharge. Conduct once a month outside the discharge period, excluding the one week following the completion of discharge

\*2: Conduct once a day during the discharge period and for one week following the completion of discharge. Conduct once a week outside the discharge period, excluding the one week following the completion of discharge

\*3: For sampling locations, refer to “[Reference] Measurement monitoring plan”

\*4: Sampled before the completion of discharge at 9AM

\*5: Sampling suspended due to bad weather condition

# 1-3. Sea area monitoring history (2/2)

(Unit: Bq/L)

|                                              | Sampling location <sup>*3</sup> | Frequency                  | October 2025 |      |      |      |      |      |      |      |
|----------------------------------------------|---------------------------------|----------------------------|--------------|------|------|------|------|------|------|------|
|                                              |                                 |                            | 3            | 4    | 5    | 6    | 13   | 14   | 20   | 27   |
| In the vicinity of the discharge outlet      | T-1                             | Twice a week <sup>*1</sup> | -            | -    | -    | <6.4 | -    | -    | -    | -    |
|                                              | T-2                             | Twice a week <sup>*1</sup> | -            | -    | -    | <6.4 | -    | -    | -    | -    |
|                                              | T-0-1                           | Once a day <sup>*2</sup>   | <7.8         | <6.9 | <5.9 | <7.1 | <6.9 | -    | <7.0 | <6.9 |
|                                              | T-0-1A                          | Once a day <sup>*2</sup>   | <7.8         | <6.9 | <5.9 | <7.1 | <6.9 | -    | <7.0 | <6.9 |
|                                              | T-0-2                           | Once a day <sup>*2</sup>   | <7.8         | <6.9 | <5.9 | <7.1 | <6.9 | -    | <7.0 | <6.9 |
|                                              | T-0-3A                          | Twice a week <sup>*1</sup> | -            | -    | -    | <6.6 | -    | -    | -    | -    |
|                                              | T-0-3                           | Twice a week <sup>*1</sup> | -            | -    | -    | <7.1 | -    | -    | -    | -    |
|                                              | T-A1                            | Twice a week <sup>*1</sup> | -            | -    | -    | <6.5 | -    | -    | -    | -    |
|                                              | T-A2                            | Once a day <sup>*2</sup>   | <7.8         | <6.8 | <5.9 | <6.6 | <7.6 | -    | <6.8 | <5.6 |
|                                              | T-A3                            | Twice a week <sup>*1</sup> | -            | -    | -    | <6.5 | -    | -    | -    | -    |
| Outside the vicinity of the discharge outlet | T-D5                            | Once a week                | -            | -    | -    | <6.3 | <7.6 | -    | <6.8 | <5.5 |
|                                              | T-S3                            | Once a month               | -            | -    | -    | -    | -    | <6.2 | -    | -    |
|                                              | T-S4                            | Once a month               | -            | -    | -    | -    | -    | <6.2 | -    | -    |
|                                              | T-S8                            | Once a month               | -            | -    | -    | -    | -    | <6.2 | -    | -    |

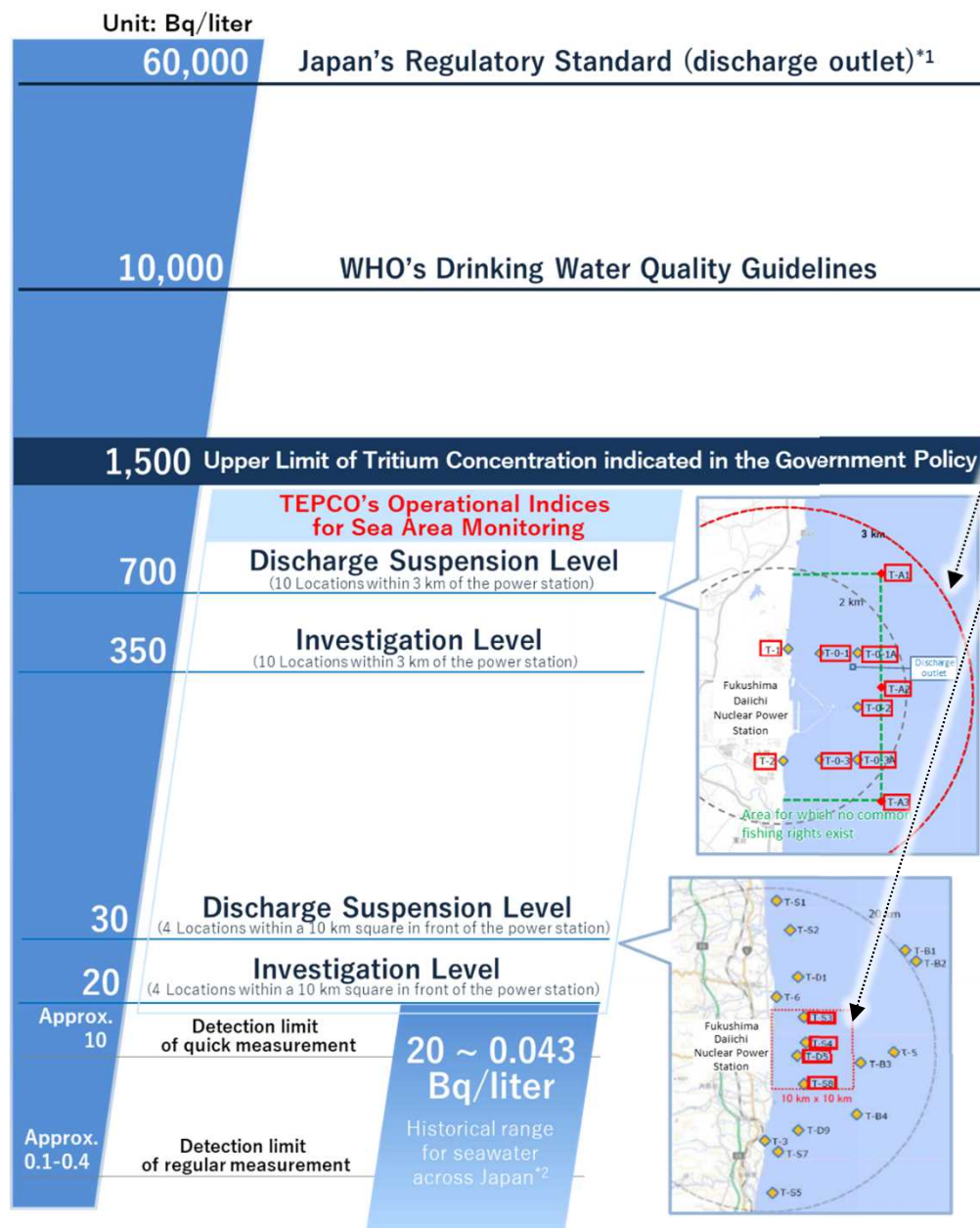
※: A “less than” symbol (<) indicates that the analysis result was less than the detection limit  indicates that the detected value  : Term of discharge of ALPS treated water (Management number: 25-4-15)

\*1: Conduct twice a week during the discharge period and for one week following the completion of discharge. Conduct once a month outside the discharge period, excluding the one week following the completion of discharge

\*2: Conduct once a day during the discharge period and for one week following the completion of discharge. Conduct once a week outside the discharge period, excluding the one week following the completion of discharge

\*3: For sampling locations, refer to “[Reference] Measurement monitoring plan”

# [Reference] Comparison of tritium concentration in seawater



- We have set a discharge suspension level and an investigation level as TEPCO's operational indices.

|                                                    | Discharge suspension level | Investigation level |
|----------------------------------------------------|----------------------------|---------------------|
| Within 3km of the power station                    | 700 Bq/L                   | 350 Bq/L            |
| Within a 10km square in front of the power station | 30 Bq/L                    | 20 Bq/L             |

If the discharge suspension level is exceeded, the sea discharge will be immediately suspended.

If the investigation level is exceeded, facilities/operation status will be inspected and the frequency of monitoring will be increased as necessary.

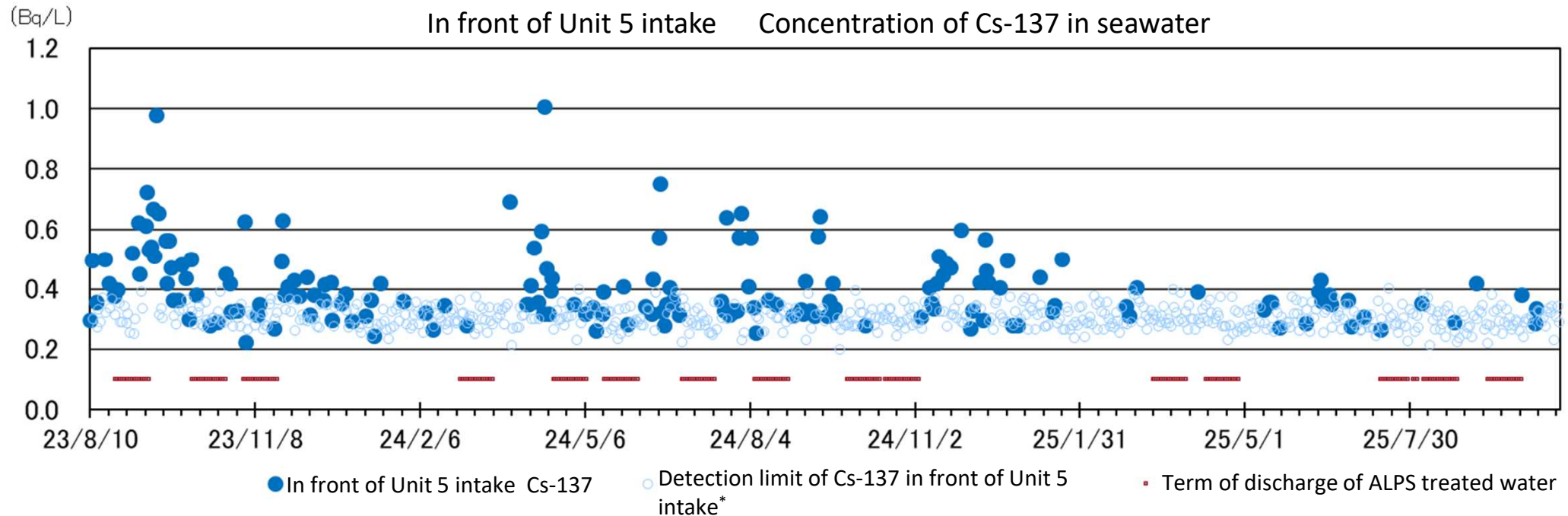
- Even if the tritium concentration exceeds indices (Discharge suspension level and Investigation level), the levels are well below the Japan's regulatory standard of 60,000 Bq/L and the WHO's drinking water quality guidelines of 10,000 Bq/L, and we assess that the surrounding sea areas are still safe.
- It is expected that the concentration of tritium in seawater will be affected depending on the concentration of tritium in the 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 investigation level and other indices.

\*1: This standard has been stipulated based on the calculation that if a person were to drink approximately 2L of the water coming out of the discharge outlet of a nuclear facility every day for one year, his/her exposure would be 1mSv.

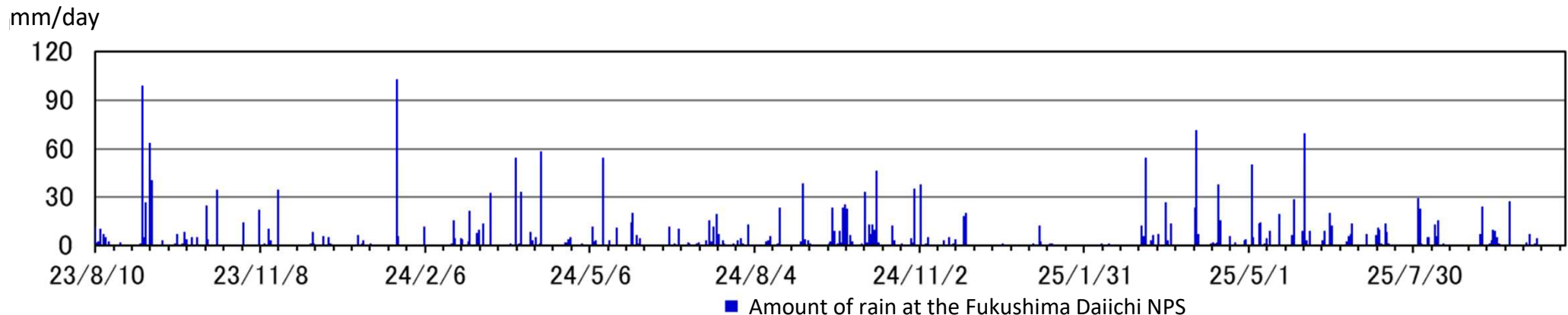
\*2: Source: Environmental Radioactivity and Radiation in Japan (Period: April 2019 to March 2022)

## 1-4. Unit 5 intake channel monitoring

- Sea water monitoring results at near the intake for seawater to be used for dilution during the discharge of ALPS treated water have confirmed that values are similar to those outside of the term of the discharge.

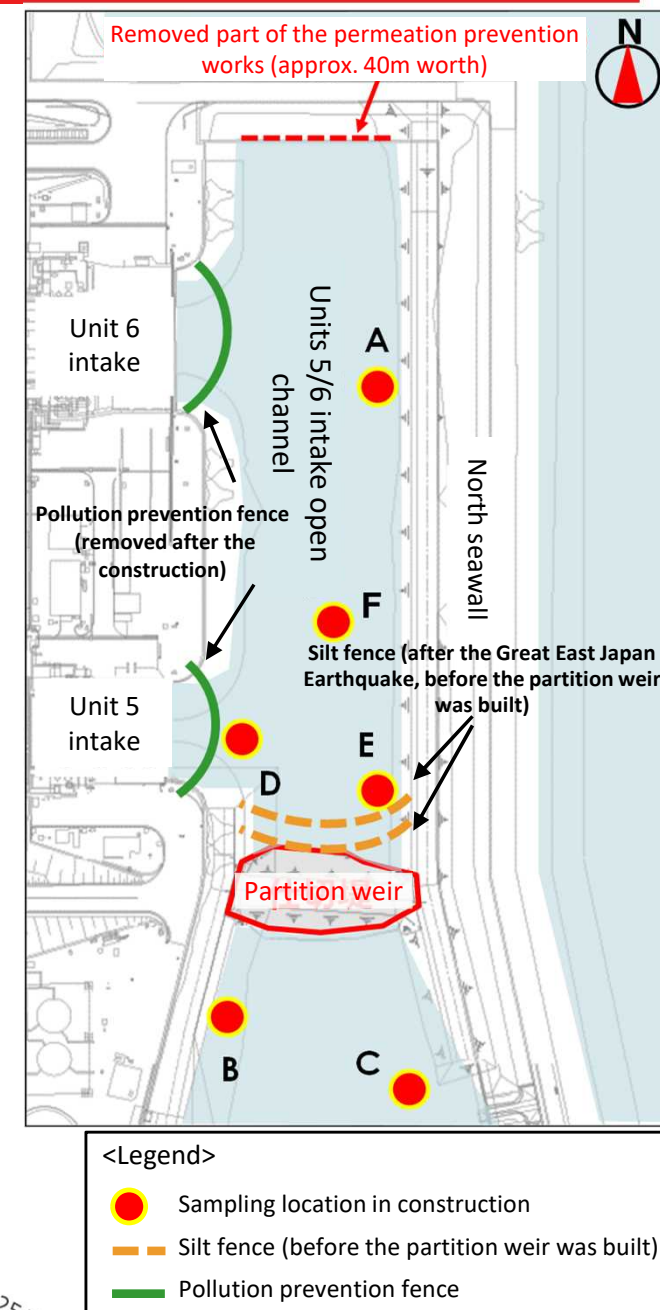
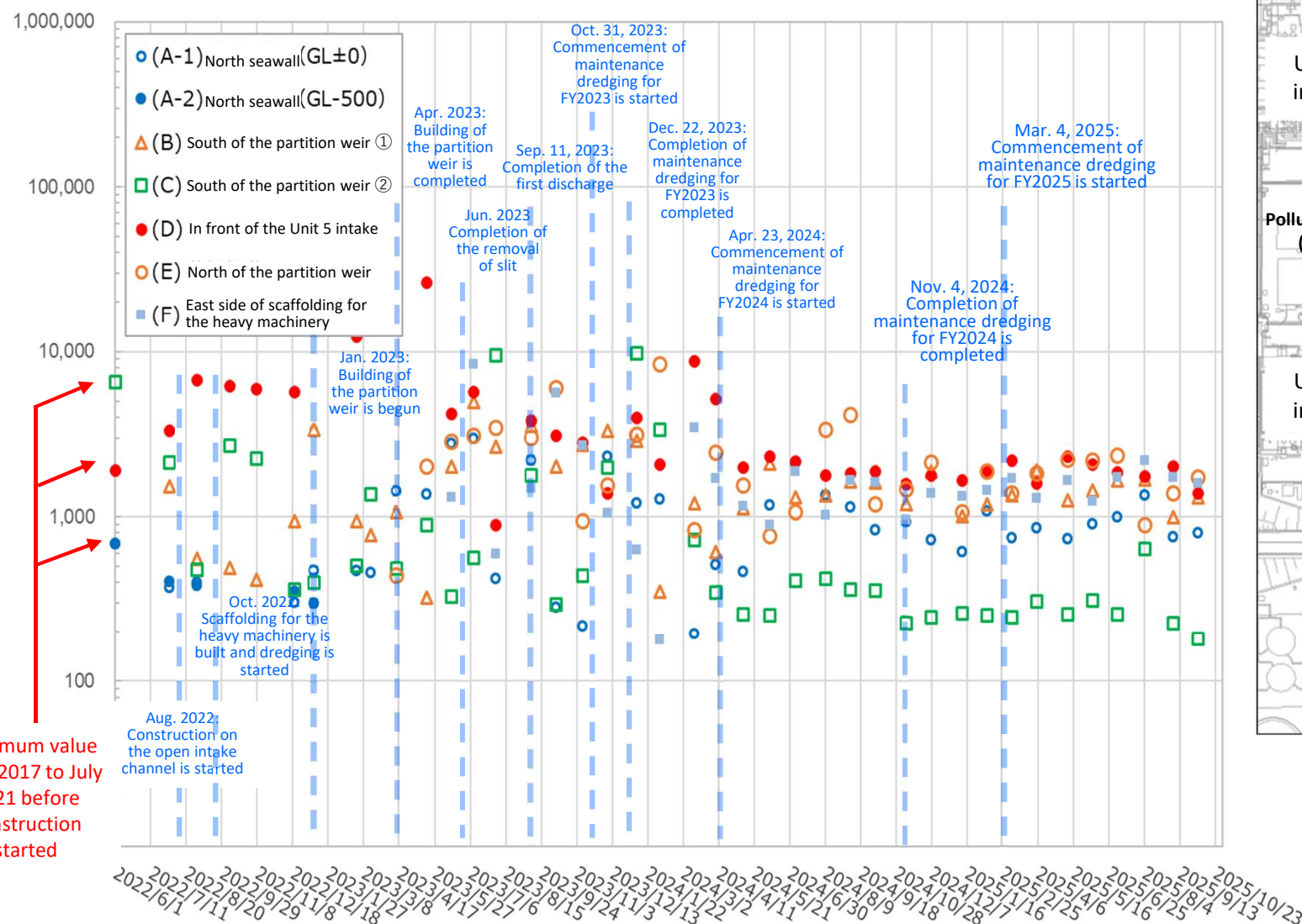


\*: Detection limit is displayed on the graph when the concentration is lower than detection limit.



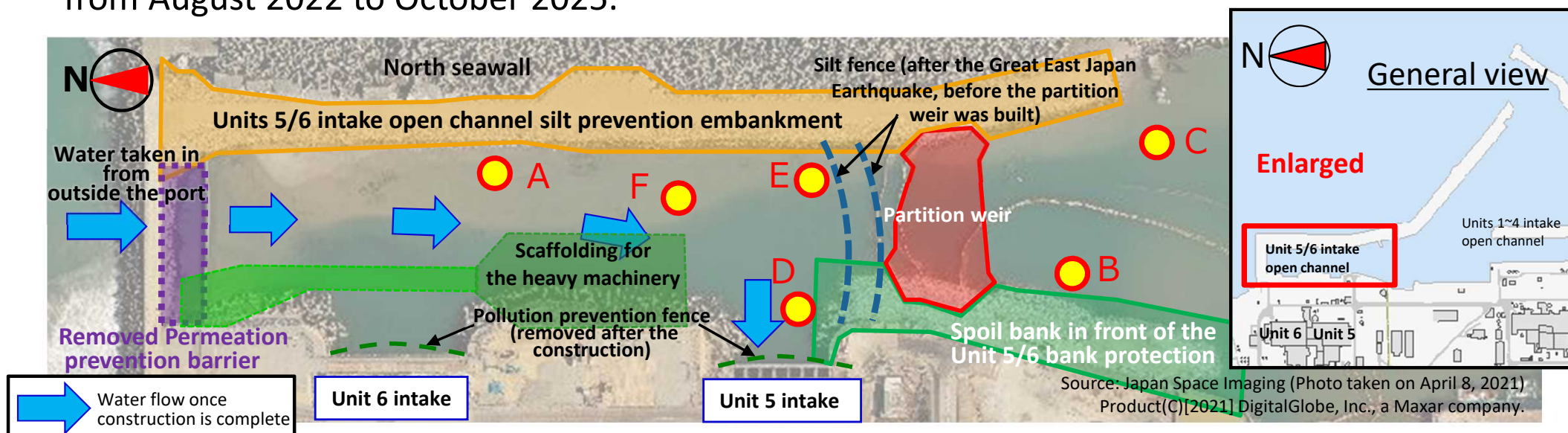
# 1-5. Monitoring results for seabed soil inside the Unit 5/6 intake open channel (1)

- Monitoring results for seabed soil in front of Unit 5 intake did not show significant fluctuations from the beginning of construction at the intake open channel until December 2022. While they showed higher readings after January 2023, we have confirmed that these readings decreased after the completion of silt removal.
- We will continue to monitor the seabed soil.



# 1-5. Monitoring results for seabed soil inside the Unit 5/6 intake open channel (2)

- The following shows monitoring results for seabed soil inside the unit 5/6 intake open channel from August 2022 to October 2025.



| Sampling points                                                                         |        | Before construction | FY2022            | 2023                                                                            | 2024          | 2025    |         |         |         |         |         |         |
|-----------------------------------------------------------------------------------------|--------|---------------------|-------------------|---------------------------------------------------------------------------------|---------------|---------|---------|---------|---------|---------|---------|---------|
|                                                                                         |        | 2017 to July 2021   | Aug. ~ Mar.       | Apr. ~ Mar.                                                                     | Apr. ~ Mar.   | Apr.    | May     | Jun.    | Jul.    | Aug.    | Sep.    | Oct.    |
| A-1 North side of the Unit 5/6 open channel<br>North side of the silt fence (GL ± 0m)   | Cs-134 | 4.4~52.3            | 31.5~39.8         | 32.0~69.5                                                                       | 34.4~64.5     | 45.0    | 51.3    | 47.3    | 46.7    | 92.3    | 42.5    | 60.1    |
|                                                                                         | Cs-137 | 163.6~678.6         | 303.2~468.1       | 216.7~2975.0                                                                    | 461.7~2107.0  | 850.5   | 727.6   | 902.6   | 999.4   | 1,352.0 | 747.7   | 790.3   |
| A-2 North side of the Unit 5/6 open channel<br>North side of the silt fence (GL ± 0.5m) | Cs-134 | 14.4~58.5           | 32.5~38.3         | ※Only sampled from the surface (GL ± 0m) since sand was removed during dredging |               |         |         |         |         |         |         |         |
|                                                                                         | Cs-137 | 310.0~689.8         | 299.1~404.0       |                                                                                 |               |         |         |         |         |         |         |         |
| B South side of the partition weir<br>① (South side of the silt fence)                  | Cs-134 | 723.0               | 34.5~65.6         | 48.8~97.1                                                                       | 35.1~64.5     | 55.0    | 35.7    | 40.0    | 50.1    | 55.7    | 37.1    | 58.7    |
|                                                                                         | Cs-137 | 6,475.0             | 412.8~3,331.0     | 323.8~4943.0                                                                    | 613.8~1889.0  | 1,889.0 | 1,251.0 | 1,447.0 | 1,654.0 | 1,669.0 | 987.7   | 1,306.0 |
| C South side of the partition weir<br>② (South side of the silt fence)                  | Cs-134 | 183.0               | 30.9~68.7         | 37.1~234.8                                                                      | 26.5~48.6     | 36.7    | 33.7    | 50.7    | 35.4    | 38.1    | 31.0    | 29.7    |
|                                                                                         | Cs-137 | 1,893.0             | 360.8~2,671.0     | 295.9~9519.0                                                                    | 227.4~419.6   | 306.9   | 257.5   | 311.6   | 255.8   | 633.3   | 224.9   | 182.1   |
| D Unit 5 intake                                                                         | Cs-134 | —                   | 101.6~3,546.0     | 50.2~690.7                                                                      | 35.9~114.8    | 44.4    | 47.1    | 53.1    | 80.5    | 40.6    | 59.2    | 52.8    |
|                                                                                         | Cs-137 | —                   | 3,301.0~144,000.0 | 951.7~26400.0                                                                   | 1563.0~2306.0 | 1,587.0 | 2,306.0 | 2,064.0 | 1,852.0 | 1,757.0 | 2,014.0 | 1,380.0 |
| E North side of the partition weir                                                      | Cs-134 | —                   | —                 | 35.6~147.0                                                                      | 30.0~59.7     | 44.4    | 47.4    | 82.8    | 38.9    | 47.3    | 42.7    | 36.0    |
|                                                                                         | Cs-137 | —                   | —                 | 437.1~5795.0                                                                    | 746.6~4154.0  | 1,834.0 | 2,202.0 | 2,196.0 | 2,344.0 | 882.6   | 1,377.0 | 1,718.0 |
| F East side of scaffolding for the heavy machinery                                      | Cs-134 | —                   | —                 | 40.2~166.1                                                                      | 34.1~87.1     | 50.0    | 56.4    | 40.7    | 39.6    | 63.8    | 37.5    | 69.2    |
|                                                                                         | Cs-137 | —                   | —                 | 592.4~8303.0                                                                    | 891.0~1884.0  | 1,295.0 | 1,664.0 | 1,235.0 | 1,715.0 | 2,187.0 | 1,729.0 | 1,579.0 |

※Unit: Bq/liter, Figures in gray were below the detection limit

# [Reference] Total radioactivity of nuclides to be measured and assessed (29 nuclides)

- The following chart shows the total radioactivity (Bq) for nuclides to be measured and assessed (29 nuclides) during the discharge of Management number: 25-4-15. (Calculated from analysis values※<sup>1</sup> (Bq/liter) and discharge volume (7,872m<sup>3</sup>) for each nuclide)

※<sup>1</sup>: It was confirmed that the sum of the ratios of legally required concentrations of the nuclides targeted for measurement/assessment is 0.012 and less than 1.

- The total radioactivity from nuclides for which analysis values were below detection limit (ND) have not been included.

| Nuclide            | Analysis value [Bq/liter] | Total radioactivity [Bq] | Nuclide               | Analysis value [Bq/liter] | Total radioactivity [Bq] | Nuclide              | Analysis value [Bq/liter] | Total radioactivity [Bq] |
|--------------------|---------------------------|--------------------------|-----------------------|---------------------------|--------------------------|----------------------|---------------------------|--------------------------|
| C-14               | 3.7E+01                   | 2.9E+08                  | Cd-113m               | <6.7E-02                  | —                        | U-234※ <sup>3</sup>  | <3.7E-02                  | —                        |
| Mn-54              | <2.7E-02                  | —                        | Sb-125                | 1.8E-01                   | 1.4E+06                  | U-238※ <sup>3</sup>  | <3.7E-02                  | —                        |
| Fe-55              | <1.7E+01                  | —                        | Te-125m※ <sup>2</sup> | 6.5E-02                   | 5.1E+05                  | Np-237※ <sup>3</sup> | <3.7E-02                  | —                        |
| Co-60              | 4.6E-01                   | 3.6E+06                  | I-129                 | 5.0E-01                   | 3.9E+06                  | Pu-238※ <sup>3</sup> | <3.7E-02                  | —                        |
| Ni-63              | <8.1E+00                  | —                        | Cs-134                | <3.3E-02                  | —                        | Pu-239※ <sup>3</sup> | <3.7E-02                  | —                        |
| Se-79              | <9.6E-01                  | —                        | Cs-137                | 2.5E-01                   | 2.0E+06                  | Pu-240※ <sup>3</sup> | <3.7E-02                  | —                        |
| Sr-90              | 1.9E-01                   | 1.5E+06                  | Pm-147※ <sup>2</sup>  | <3.2E-01                  | —                        | Pu-241※ <sup>2</sup> | <1.0E+00                  | —                        |
| Y-90※ <sup>2</sup> | 1.9E-01                   | 1.5E+06                  | Sm-151※ <sup>2</sup>  | <1.2E-02                  | —                        | Am-241※ <sup>3</sup> | <3.7E-02                  | —                        |
| Tc-99              | <3.0E-01                  | —                        | Eu-154                | <7.2E-02                  | —                        | Cm-244※ <sup>3</sup> | <3.7E-02                  | —                        |
| Ru-106             | <2.3E-01                  | —                        | Eu-155                | <1.7E-01                  | —                        |                      |                           |                          |

※<sup>2</sup> Analysis values were assessed with radioactive equilibrium

※<sup>3</sup> Gross Alpha measurements

## 1. Performance of the discharge of ALPS treated water

(Management number\* : 25-4-15)

## 2. Plan of the discharge of ALPS treated water

(Management number\* : 25-5-16)

## 3. Status of the dismantling of the J8 area tanks

## 4. Transfer of ALPS treated water in preparation for the future discharges

## (Reference) Sea area monitoring history after the commencement of discharge

\* 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, "25-4-15" indicates that the data is for the fourth discharge of 2025, which is the fifteenth discharge to date.

## 2-1. Outline of the sixteenth discharge of ALPS treated water into the sea (Management number: 25-5-16)

| 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/evaluation | Within regulatory requirements (the sum of the ratios of legally required concentrations of radioactive substances is less than 1)<br>(sum of the ratios of concentration: 0.14) (details on p1 of the link) |  |
|                                                | Tritium concentration                                                                                 | 25 x 10 <sup>4</sup> Bq/L (details on p2 of the link)                                                                                                                                                        |                                                                                     |
|                                                | Concentration of the 39 significant types of radionuclides measured voluntarily                       | No significant radionuclides identified (details on p3 of the link)                                                                                                                                          |                                                                                     |
|                                                | Status of water quality assessment                                                                    | Within government and prefectural requirements (details on p4 of the link)                                                                                                                                   |                                                                                     |
|                                                | Water temperature                                                                                     | Same as outdoor temperature.<br>After diluted to 740 times (design dilution factor ), same as sea water temperature (not the same as plant's thermal discharge)                                              |                                                                                     |
| Actual volume of treated water discharge       |                                                                                                       | 7,800m <sup>3</sup>                                                                                                                                                                                          |                                                                                     |
| Treated water flow rate                        |                                                                                                       | Approximately 460m <sup>3</sup> /day<br>(set not to exceed designed maximum on 500m <sup>3</sup> /day)                                                                                                       |                                                                                     |
| Dilution sea water flow rate                   |                                                                                                       | Approximately 340,000m <sup>3</sup> /day<br>(same speed as walking in the tunnel [approximated 1m/second])                                                                                                   |                                                                                     |
| Actual amount of tritium radioactivity         |                                                                                                       | Approximately 2.0 trillion Bq                                                                                                                                                                                |                                                                                     |
| Actual concentration of tritium after dilution |                                                                                                       | Approximately 338 Bq/L                                                                                                                                                                                       |                                                                                     |
| Actual term of discharge                       |                                                                                                       | October 30, 2025 – November 17, 2025                                                                                                                                                                         |                                                                                     |

## 1-2. Analysis results of ALPS treated water in the measurement/confirmation tanks (Management number: 25-5-16)

- Pre-discharge analysis results for the samples taken from the measurement/confirmation tank (Group C) on September 12, 2025, were obtained. It was confirmed that the water satisfies discharge requirements (Table 1. Disclosed on October 28, 2025).
  - Item 1: For 29 nuclides to be measured and assessed, the sum of the ratios of the concentration of each radionuclide to the regulatory concentration is 0.14, and it is confirmed to be less than 1.
  - Item 2: Analysis results of tritium concentration is  $25 \times 10^4$  Bq/L, and it is confirmed to be less than 1 million Bq/L.
  - Item 1/2: The external agency consigned by TEPCO (Kaken) and the third-party consigned by the Japanese Government (JAEA)\*<sup>1</sup> obtained the same results from their analyses.
  - Item 3/4: It was confirmed that operational targets have been satisfied.

\*1 ALPS treated water third-party analysis  
([https://fukushima.jaea.go.jp/okuma/alps/index\\_e.html](https://fukushima.jaea.go.jp/okuma/alps/index_e.html))

Table 1 . Pre-discharge analysis results of water in the measurement/confirmation tank (Management number: 25-5-16)

| Items |                                                                                              | Requirement basis   | Operational Target                                                                                                                  | Analysis Results                                                       |
|-------|----------------------------------------------------------------------------------------------|---------------------|-------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------|
| ①     | Nuclide to be measured and assessed (29 nuclides)                                            | Implementation plan | The sum of the ratios of the concentration of each radionuclide to the regulatory concentration, except for tritium, is less than 1 | <b>0.14 ( &lt; 1 )</b>                                                 |
| ②     | Tritium                                                                                      |                     | Tritium concentration is less than 1 million Bq/L                                                                                   | <b><math>25 \times 10^4</math> Bq/liter (less than 1 million Bq/L)</b> |
| ③     | Nuclides voluntarily checked to ensure that they are not significantly present (39 nuclides) | Voluntary           | No significant concentrations were found of any of the nuclides                                                                     | <b>None of the nuclides are present in significant consternation</b>   |
| ④     | General water quality: 44 criteria                                                           |                     | Pre-check of water quality standards* <sup>2</sup>                                                                                  | <b>All criteria satisfied</b>                                          |

\*2 Water sampled from the discharge vertical shaft (upper-stream storage) once a year to confirm that legal requirements are being satisfied.

# [Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation (Management number: 25-5-16) (1/4)

- For 29 nuclides to be measured and assessed, the sum of the ratios of the concentration of each radionuclide to the regulatory concentration is 0.14, and it is confirmed to be less than 1.

Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation Tanks (1/4)

|                                  |                                                                                                                                                         |         |
|----------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|---------|
| Sample Name                      | ALPS Treated Water in the Measurement/Confirmation Tanks                                                                                                | Group C |
| Date and Time of Sampling        | September 12, 2025                                                                                                                                      | 9:24    |
| Storage Volume (m <sup>3</sup> ) | 8943                                                                                                                                                    |         |
| Summary                          | Nuclides to be measured and assessed (29 nuclides) :<br>The sum of the ratios of the concentration of each radionuclide to the regulatory concentration |         |
|                                  | 0.14<br>(Confirmed to be less than 1)                                                                                                                   |         |

Radioactivity Analysis: Nuclides to be measured and assessed (29 nuclides)

| No.                                                                                                                                                   | Nuclide | Analysis Results      |                       |                        |                       |                       |                        | Ratios to Regulatory Concentration Limit |                   | Regulatory Concentration Limit #2 (Bq/L) | Analysis Method #4                                |
|-------------------------------------------------------------------------------------------------------------------------------------------------------|---------|-----------------------|-----------------------|------------------------|-----------------------|-----------------------|------------------------|------------------------------------------|-------------------|------------------------------------------|---------------------------------------------------|
|                                                                                                                                                       |         | TEPCO                 |                       |                        | KAKEN Co.,Ltd.        |                       |                        | TEPCO                                    | KAKEN Co.,Ltd.    |                                          |                                                   |
|                                                                                                                                                       |         | Analysis Value (Bq/L) | Uncertainty *1 (Bq/L) | Detection Limit (Bq/L) | Analysis Value (Bq/L) | Uncertainty *1 (Bq/L) | Detection Limit (Bq/L) |                                          |                   |                                          |                                                   |
| 1                                                                                                                                                     | C-14    | 3.7E+01               | ± 2.9E+00             | 1.8E+00                | 3.3E+01               | ± 1.9E+00             | 9.9E-01                | 1.9E-02                                  | 1.6E-02           | 2000                                     | Measurement                                       |
| 2                                                                                                                                                     | Mn-54   | ND                    | —                     | 2.3E-02                | ND                    | —                     | 2.0E-02                | less than 2.3E-05                        | less than 2.0E-05 | 1000                                     | Measurement                                       |
| 3                                                                                                                                                     | Fe-55   | ND                    | —                     | 1.4E+01                | ND                    | —                     | 1.4E+01                | less than 7.1E-03                        | less than 6.9E-03 | 2000                                     | Measurement                                       |
| 4                                                                                                                                                     | Co-60   | 4.1E-01               | ± 7.4E-02             | 2.5E-02                | 4.0E-01               | ± 5.3E-02             | 1.9E-02                | 2.0E-03                                  | 2.0E-03           | 200                                      | Measurement                                       |
| 5                                                                                                                                                     | Ni-63   | ND                    | —                     | 8.9E+00                | ND                    | —                     | 5.1E+00                | less than 1.5E-03                        | less than 8.5E-04 | 6000                                     | Measurement                                       |
| 6                                                                                                                                                     | Se-79   | ND                    | —                     | 1.1E+00                | ND                    | —                     | 1.6E+00                | less than 5.4E-03                        | less than 7.8E-03 | 200                                      | Measurement                                       |
| 7                                                                                                                                                     | Sr-90   | 1.1E+00               | ± 4.7E-02             | 3.6E-02                | 1.1E+00               | ± 1.4E-01             | 3.2E-02                | 3.7E-02                                  | 3.7E-02           | 30                                       | Measurement                                       |
| 8                                                                                                                                                     | Y-90    | 1.1E+00               | —                     | 3.6E-02                | 1.1E+00               | —                     | 3.2E-02                | 3.7E-03                                  | 3.7E-03           | 300                                      | Sr-90/Y-90 Radioactive Equilibrium Assessment     |
| 9                                                                                                                                                     | Tc-99   | ND                    | —                     | 3.5E-01                | ND                    | —                     | 3.2E-01                | less than 3.5E-04                        | less than 3.2E-04 | 1000                                     | Measurement                                       |
| 10                                                                                                                                                    | Ru-106  | ND                    | —                     | 2.2E-01                | ND                    | —                     | 1.8E-01                | less than 2.2E-03                        | less than 1.8E-03 | 100                                      | Measurement                                       |
| 11                                                                                                                                                    | Cd-113m | ND                    | —                     | 7.0E-02                | ND                    | —                     | 6.0E-02                | less than 1.7E-03                        | less than 1.5E-03 | 40                                       | Measurement                                       |
| 12                                                                                                                                                    | Sb-125  | 1.7E-01               | ± 6.3E-02             | 8.4E-02                | 1.7E-01               | ± 6.0E-02             | 8.3E-02                | 2.1E-04                                  | 2.1E-04           | 800                                      | Measurement                                       |
| 13                                                                                                                                                    | Te-125m | 6.2E-02               | —                     | 3.1E-02                | 6.2E-02               | —                     | 3.1E-02                | 6.9E-05                                  | 6.9E-05           | 900                                      | Sb-125/Te-125m Radioactive Equilibrium Assessment |
| 14                                                                                                                                                    | I-129   | 3.7E-01               | ± 3.1E-02             | 1.2E-02                | 3.5E-01               | ± 3.9E-02             | 2.0E-02                | 4.1E-02                                  | 3.9E-02           | 9                                        | Measurement                                       |
| 15                                                                                                                                                    | Cs-134  | ND                    | —                     | 7.7E-02                | ND                    | —                     | 2.6E-02                | less than 4.5E-04                        | less than 4.3E-04 | 60                                       | Measurement                                       |
| 16                                                                                                                                                    | Cs-137  | 2.1E-01               | ± 3.3E-02             | 3.3E-02                | 2.0E-01               | ± 3.1E-02             | 2.2E-02                | 2.3E-03                                  | 2.3E-03           | 90                                       | Measurement                                       |
| 17                                                                                                                                                    | Pm-147  | ND                    | —                     | 3.0E-01                | ND                    | —                     | 2.5E-01                | less than 1.0E-04                        | less than 8.5E-05 | 3000                                     | Eu-154 Relative Ratio Assessment                  |
| 18                                                                                                                                                    | Gm-151  | ND                    | —                     | 1.2E-02                | ND                    | —                     | 9.7E-03                | less than 1.4E-06                        | less than 1.2E-06 | 8000                                     | Eu-154 Relative Ratio Assessment                  |
| 19                                                                                                                                                    | Eu-154  | ND                    | —                     | 6.8E-02                | ND                    | —                     | 5.7E-02                | less than 1.7E-04                        | less than 1.4E-04 | 400                                      | Measurement                                       |
| 20                                                                                                                                                    | Eu-155  | ND                    | —                     | 1.6E-01                | ND                    | —                     | 1.3E-01                | less than 5.5E-05                        | less than 4.4E-05 | 3000                                     | Measurement                                       |
| 21                                                                                                                                                    | U-234   | ND                    | —                     | 2.7E-02                | ND                    | —                     | 2.4E-02                | less than 6.7E-03                        | less than 6.0E-03 | 20                                       | Gross Alpha                                       |
| 22                                                                                                                                                    | U-238   |                       |                       |                        |                       |                       |                        |                                          |                   | 20                                       | Gross Alpha                                       |
| 23                                                                                                                                                    | Np-237  |                       |                       |                        |                       |                       |                        |                                          |                   | 9                                        | Gross Alpha                                       |
| 24                                                                                                                                                    | Pu-238  |                       |                       |                        |                       |                       |                        |                                          |                   | 4                                        | Gross Alpha                                       |
| 25                                                                                                                                                    | Pu-239  |                       |                       |                        |                       |                       |                        |                                          |                   | 4                                        | Gross Alpha                                       |
| 26                                                                                                                                                    | Pu-240  |                       |                       |                        |                       |                       |                        |                                          |                   | 4                                        | Gross Alpha                                       |
| 27                                                                                                                                                    | Am-241  |                       |                       |                        |                       |                       |                        |                                          |                   | 5                                        | Gross Alpha                                       |
| 28                                                                                                                                                    | Cm-244  |                       |                       |                        |                       |                       |                        |                                          |                   | 7                                        | Gross Alpha                                       |
| 29                                                                                                                                                    | Pu-241  | ND                    | —                     | 7.3E-01                | ND                    | —                     | 6.6E-01                | less than 3.7E-03                        | less than 3.3E-03 | 200                                      | Pu-238 Relative Ratio Assessment                  |
| The sum of the ratios of the concentration of each radionuclide to the regulatory concentration (sum of the ratios to regulatory concentration limit) |         |                       |                       |                        |                       |                       |                        | less than 1.4E-01                        | less than 1.3E-01 |                                          |                                                   |

\* ND indicates that analysis result is less than the detection limit.

\* Values are expressed in exponential notation.

For example, "3.1E+01" means "3.1×10<sup>1</sup>" and equals 31. Similarly, "3.1E+00" means "3.1×10<sup>0</sup>" and equals 3.1, and "3.1E-01" means "3.1×10<sup>-1</sup>" and equals 0.31.

\*1 "Uncertainty" refers to the accuracy of analysis data.

\*2 "Uncertainty" is calculated using "Expanded Uncertainty: Coverage Factor k=2".

\*3 Regulatory concentration limits stipulated in the Regulations of the Safety and Physical Protection of Specific Nuclear Fuel Material at Fukushima Daiichi Nuclear Power Station of the Tokyo Electric Power Company, Incorporated. (Attached Chart 1, Row 6: Concentration limits in the water outside of the environmental monitoring area [in this chart Bq/cm<sup>2</sup> has been converted into Bq/L])

\*4 The ratio to regulatory concentration limit for alpha-radionuclides has been assessed using the lowest regulatory concentration limit for all the target nuclides.

\*4 Analysis methods are as follows:

Measurement - The concentrations of each radionuclide have been calculated by directly measuring/analyzing radioactivity intensity and the quantity of the element.

Gross Alpha - The total amount of alpha-radionuclides in the specimen are calculated by directly measuring alpha rays.

Radioactive Equilibrium Assessment - Calculated using a physical phenomenon in which the amount of radioactivity of one radionuclide and another radionuclide produced by the decay of that radionuclide exist in a certain ratio.

Relative Ratio Assessment - Calculated based on the assessment values of radionuclides that existed inside the reactor while considering radionuclide decay and migration into ALPS treated water.

Nuclides to be measured and assessed (29 nuclides)

Analysis results of radioactivity (Bq/L)

Ratios to Regulatory Concentration Limit

**[Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation  
(Management number: 25-5-16) (2/4)**



■ Analysis results of tritium concentration is  $25 \times 10^4$  Bq/liter.

Tritium Concentration (Bq/L)

Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation Tanks (2/4)

|         |                                                                  |
|---------|------------------------------------------------------------------|
| Summary | $25 \times 10^4$ Bq/L (confirmed to be less than 1 million Bq/L) |
|---------|------------------------------------------------------------------|

Radioactivity Analysis: Tritium

|     |         | Analysis Results         |                          |                           |                          |                          |                           | Analysis Objective | Analysis Method *3 |
|-----|---------|--------------------------|--------------------------|---------------------------|--------------------------|--------------------------|---------------------------|--------------------|--------------------|
| No. | Nuclide | TEPCO                    |                          |                           | KAKEN Co.,Ltd.           |                          |                           |                    |                    |
|     |         | Analysis Value<br>(Bq/L) | Uncertainty *1<br>(Bq/L) | Detection Limit<br>(Bq/L) | Analysis Value<br>(Bq/L) | Uncertainty *1<br>(Bq/L) | Detection Limit<br>(Bq/L) |                    |                    |
| 1   | H-3     | 2.5E+05                  | ± 1.4E+04                | 1.8E+01                   | 2.4E+05                  | ± 1.8E+04                | 2.0E+01                   | *2                 | Measurement        |

\* Values are expressed in exponential notation.

For example, "3.1E+01" means "3.1 $\times 10^1$ " and equals 31. Similarly, "3.1E+00" means "3.1 $\times 10^0$ " and equals 3.1, and "3.1E-01" means "3.1 $\times 10^{-1}$ " and equals 0.31.

\*1 "Uncertainty" refers to the accuracy of analysis data.

"Uncertainty" is calculated using "Expanded Uncertainty: Coverage Factor  $k=2$ ".

\*2 To confirm that the tritium concentration is less than 1E+06Bq/liter (less than 1 million Bq/liter), the maximum concentration stipulated in the implementation plan, ensuring that the tritium concentration after dilution is less than 1,500 Bq/liter.

\*3 Analysis method is as follows:

Measurement - The concentration of radionuclide has been calculated by directly measuring/analyzing radioactivity intensity and the quantity of the element.

<Excerpt from Treated Water Portal Site>

# [Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation (Management number: 25-5-16) (3/4)

- We voluntarily checked that the nuclides (39 nuclides) are not significantly present.  
We confirmed that all the 39 nuclides are not significantly present.

| Summary                                                                                                              |         |               |                        |                 |                        |
|----------------------------------------------------------------------------------------------------------------------|---------|---------------|------------------------|-----------------|------------------------|
| No significant concentrations found of any of the nuclides                                                           |         |               |                        |                 |                        |
| Radioactivity Analysis: Nuclides voluntarily checked to ensure that they are not significantly present (39 nuclides) |         |               |                        |                 |                        |
| No.                                                                                                                  | Nuclide | TEPCO         |                        | KAKEN Co., Ltd. |                        |
|                                                                                                                      |         | Assessment *1 | Detection Limit (Bq/L) | Assessment *1   | Detection Limit (Bq/L) |
| 1                                                                                                                    | Fe-59   | ○             | 4.5E-02                | ○               | 4.7E-02                |
| 2                                                                                                                    | Co-58   | ○             | 2.4E-02                | ○               | 1.8E-02                |
| 3                                                                                                                    | Zn-65   | ○             | 5.1E-02                | ○               | 3.8E-02                |
| 4                                                                                                                    | Rb-86   | ○             | 2.8E-01                | ○               | 2.7E-01                |
| 5                                                                                                                    | Sr-89   | ○             | 6.8E-02                | ○               | 6.2E-02                |
| 6                                                                                                                    | Y-91    | ○             | 2.7E+00                | ○               | 2.4E+00                |
| 7                                                                                                                    | Nb-95   | ○             | 3.3E-02                | ○               | 2.5E-02                |
| 8                                                                                                                    | Ru-103  | ○             | 2.5E-02                | ○               | 2.3E-02                |
| 9                                                                                                                    | Ag-110m | ○             | 2.4E-02                | ○               | 1.8E-02                |
| 10                                                                                                                   | Cd-115m | ○             | 1.4E+00                | ○               | 1.1E+00                |
| 11                                                                                                                   | Sn-123  | ○             | 1.4E+00                | ○               | 1.1E+00                |
| 12                                                                                                                   | Sn-126  | ○             | 1.7E-01                | ○               | 1.1E-01                |
| 13                                                                                                                   | Sb-124  | ○             | 6.4E-02                | ○               | 4.2E-02                |
| 14                                                                                                                   | Te-123m | ○             | 4.3E-02                | ○               | 7.0E-02                |
| 15                                                                                                                   | Te-127  | ○             | 7.6E-01                | ○               | 6.2E-01                |
| 16                                                                                                                   | Te-129m | ○             | 7.3E-01                | ○               | 6.3E-01                |
| 17                                                                                                                   | Te-129  | ○             | 3.2E-01                | ○               | 2.3E-01                |
| 18                                                                                                                   | Cs-136  | ○             | 2.3E-02                | ○               | 2.5E-02                |
| 19                                                                                                                   | Ba-140  | ○             | 8.9E-02                | ○               | 1.3E-01                |
| 20                                                                                                                   | Ce-141  | ○             | 1.0E-01                | ○               | 1.0E-01                |
| 21                                                                                                                   | Ce-144  | ○             | 3.0E-01                | ○               | 2.8E-01                |
| 22                                                                                                                   | Pm-146  | ○             | 5.4E-02                | ○               | 5.4E-02                |
| 23                                                                                                                   | Pm-148m | ○             | 2.3E-02                | ○               | 2.3E-02                |
| 24                                                                                                                   | Pm-148  | ○             | 9.8E-02                | ○               | 8.9E-02                |
| 25                                                                                                                   | Eu-152  | ○             | 1.1E-01                | ○               | 1.1E-01                |
| 26                                                                                                                   | Gd-153  | ○             | 1.5E-01                | ○               | 1.2E-01                |
| 27                                                                                                                   | Tb-160  | ○             | 8.0E-02                | ○               | 6.7E-02                |
| 28                                                                                                                   | Am-243  | ○             | 2.7E-02                | ○               | 2.4E-02                |
| 29                                                                                                                   | Cm-242  | ○             | 2.7E-02                | ○               | 2.4E-02                |
| 30                                                                                                                   | Cm-243  | ○             | 2.7E-02                | ○               | 2.4E-02                |
| 31                                                                                                                   | Rh-103m | ○             | 2.5E-02                | ○               | 2.3E-02                |
| 32                                                                                                                   | Rh-106  | ○             | 2.2E-01                | ○               | 1.8E-01                |
| 33                                                                                                                   | Sn-119m | ○             | 6.3E-03                | ○               | 4.0E-03                |
| 34                                                                                                                   | Te-127m | ○             | 7.8E-01                | ○               | 6.4E-01                |
| 35                                                                                                                   | Cs-135  | ○             | 2.1E-07                | ○               | 1.5E-07                |
| 36                                                                                                                   | Ba-137m | ○             | 3.1E-02                | ○               | 2.1E-02                |
| 37                                                                                                                   | Pr-144m | ○             | 4.6E-03                | ○               | 4.3E-03                |
| 38                                                                                                                   | Pr-144  | ○             | 3.0E-01                | ○               | 2.8E-01                |
| 39                                                                                                                   | Am-242m | ○             | 1.8E-04                | ○               | 1.6E-04                |

\*1 "○" indicates that the absence of significant concentrations was confirmed by the following, and "×" indicates that significant concentrations of nuclide was confirmed.

- Concentration of nuclide measured was below detection limit

- For nuclide that has been assessed using radioactive equilibrium, etc., if its target nuclide is detected and the assessment value of the target nuclide is extremely small compared to the regulatory concentration limit, or in other words, if it is less than 1/100 of the regulatory concentration limit which is the value set as the detection limit, then it shall be deemed to be below the detection limit.

| Nuclide | Assessment Values (Bq/L) |                 | Regulatory Concentration Limit |
|---------|--------------------------|-----------------|--------------------------------|
|         | TEPCO                    | KAKEN Co., Ltd. |                                |
| Rh-103m | —                        | —               | 2.0E+05                        |
| Rh-106  | —                        | —               | 3.0E+05                        |
| Sn-119m | —                        | —               | 2.0E+03                        |
| Te-127m | —                        | —               | 3.0E+02                        |
| Cs-135  | 1.4E-06                  | 1.3E-06         | 6.0E+02                        |
| Ba-137m | 2.0E-01                  | 1.9E-01         | 8.0E+05                        |
| Pr-144m | —                        | —               | 4.0E+04                        |
| Pr-144  | —                        | —               | 2.0E+04                        |
| Am-242m | —                        | —               | 5.0E+00                        |

- A hyphen "—" indicates that the concentration of the target nuclide was below the detection limit.

- Values are expressed in exponential notation.

For example, "3.1E+01" means "3.1×10<sup>1</sup>" and equals 31. Similarly, "3.1E+00" means "3.1×10<sup>0</sup>" and equals 3.1, and "3.1E-01" means "3.1×10<sup>-1</sup>" and equals 0.31.

\*2 Analysis Methods are as follows:

Measurement - The concentrations of each radionuclide have been calculated by directly measuring/analyzing radioactivity intensity and the quantity of the element.  
Measurement (substituted with gross alpha) - The total amount of alpha-radionuclides in the specimen are calculated by directly measuring alpha rays.

Radioactive Equilibrium Assessment - Calculated using a physical phenomenon in which the amount of radioactivity of one radionuclide and another radionuclide produced by the decay of that radionuclide exist in a certain ratio.

Relative Ratio Assessment - Calculated based on the assessment values of radionuclides that existed inside the reactor while considering radionuclide decay and migration into ALPS treated water.

\*3 Regulatory concentration limits stipulated in the Regulations of the Safety and Physical Protection of Specific Nuclear Fuel Material at Fukushima Daiichi Nuclear Power Station of the Tokyo Electric Power Company, Incorporated.

(Attached Chart 1, Row 6: Concentration limits in the water outside of the environmental monitoring area [in this chart Bq/cm<sup>3</sup> has been converted into Bq/L])

<Excerpt from Treated Water Portal Site>

Nuclides voluntarily checked to ensure that they are not significantly present (39 nuclides)

Assessment results

- : absence of significant concentration was confirmed
- × : significant concentration was confirmed

# [Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation

(Management number: 25-5-16) (4/4)



- For 44 general water quality measurement items (voluntary check to confirm that there are no unusual water quality), **it is confirmed that all criteria\* satisfied.**

\* In accordance with Fukushima Prefecture's "Ordinance on Discharge Standards Based on the Air Pollution Control Act and Wastewater Standard based on the Water Pollution Prevention Act (attached Chart 2)", and "the Ordinance Enforcement Regulations Pertaining to the Preservation of the Living Environment in Fukushima (attached Chart 5)".

## General water quality measurement items (44 criteria)

## Analysis results

Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation (4/4)

Summary Criteria Satisfied

General Water Quality Analysis: Voluntary check to confirm that there are no unusual water quality (44 criteria)

| No. | Measurement Items               | Unit   | Analysis Result | Criteria *1                             |
|-----|---------------------------------|--------|-----------------|-----------------------------------------|
| 1   | Hydrogen Ions (pH)              | -      | 8.6             | Sea Area 5.0~9.0                        |
| 2   | Suspended Solids (SS)           | mg/L   | <1              | Maximum: 70 or less Average: 50 or less |
| 3   | Chemical Oxygen Demand (COD)    | mg/L   | 0.7             | Maximum: 40 or less Average: 30 or less |
| 4   | Boron                           | mg/L   | 0.5             | Sea Area 230 or less                    |
| 5   | Soluble Iron                    | mg/L   | <1              | 10 or less                              |
| 6   | Copper                          | mg/L   | <0.1            | 2 or less                               |
| 7   | Nickel                          | mg/L   | <0.1            | 2 or less                               |
| 8   | Chrome                          | mg/L   | <0.1            | 2 or less                               |
| 9   | Zinc                            | mg/L   | <0.1            | 2 or less                               |
| 10  | Biochemical Oxygen Demand (BOD) | mg/L   | <1              | Maximum: 40 or less Average: 30 or less |
| 11  | Escherichia coli                | CFU/mL | 0               | 800 or less                             |
| 12  | Cadmium                         | mg/L   | <0.01           | 0.03 or less                            |
| 13  | Cyanide                         | mg/L   | <0.05           | 0.5 or less                             |
| 14  | Organic Phosphorus              | mg/L   | <0.1            | 1 or less                               |
| 15  | Lead                            | mg/L   | <0.01           | 0.1 or less                             |
| 16  | Hexavalent Chromium             | mg/L   | <0.05           | 0.2 or less                             |
| 17  | Arsenic                         | mg/L   | <0.01           | 0.1 or less                             |
| 18  | Mercury                         | mg/L   | <0.0005         | 0.005 or less                           |
| 19  | Alkyl Mercury                   | mg/L   | <0.0005         | Not Detected *2                         |
| 20  | Polychlorinated Biphenyl        | mg/L   | <0.0005         | 0.003 or less                           |
| 21  | Trichloroethylene               | mg/L   | <0.03           | 0.1 or less                             |
| 22  | Tetrachloroethylene             | mg/L   | <0.01           | 0.1 or less                             |
| 23  | Dichloromethane                 | mg/L   | <0.02           | 0.2 or less                             |
| 24  | Carbon Tetrachloride            | mg/L   | <0.002          | 0.02 or less                            |

|    |                                                            |      |        |                     |
|----|------------------------------------------------------------|------|--------|---------------------|
| 25 | 1,2-Dichloroethane                                         | mg/L | <0.004 | 0.04 or less        |
| 26 | 1,1-Dichloroethylene                                       | mg/L | <0.1   | 1 or less           |
| 27 | Cis-1,2-Dichloroethylene                                   | mg/L | <0.04  | 0.4 or less         |
| 28 | 1,1,1-Trichloroethane                                      | mg/L | <0.3   | 3 or less           |
| 29 | 1,1,2-Trichloroethane                                      | mg/L | <0.006 | 0.06 or less        |
| 30 | 1,3-Dichloropropene                                        | mg/L | <0.002 | 0.02 or less        |
| 31 | Thiuram                                                    | mg/L | <0.006 | 0.06 or less        |
| 32 | Simazine                                                   | mg/L | <0.003 | 0.03 or less        |
| 33 | Thiobencarb                                                | mg/L | <0.02  | 0.2 or less         |
| 34 | Benzene                                                    | mg/L | <0.01  | 0.1 or less         |
| 35 | Selenium                                                   | mg/L | <0.01  | 0.1 or less         |
| 36 | Fenitrothion                                               | mg/L | <0.003 | 0.03 or less        |
| 37 | Phenols                                                    | mg/L | <0.1   | 1 or less           |
| 38 | Fluorine                                                   | mg/L | <0.5   | Sea Area 10 or less |
| 39 | Soluble Manganese                                          | mg/L | <1     | 10 or less          |
| 40 | Ammonia, Ammonium Compounds                                | mg/L | <1     | 100 or less         |
| 41 | Nitrite Compounds and Nitrate Compounds                    | mg/L | 5      |                     |
| 42 | 1,4-Dioxane                                                | mg/L | <0.05  | 0.5 or less         |
| 43 | n-Hexane Extractables (Mineral Oils)                       | mg/L | <0.5   | 1 or less           |
| 44 | n-Hexane Extractables (Animal and Vegetable Oils and Fats) | mg/L | <1     | 10 or less          |

\* A "less than" symbol (<) indicates that the quantity is below quantitation limit.

\*1 In accordance with Fukushima Prefecture's "Ordinance on Discharge Standards Based on the Air Pollution Control Act and Wastewater Standards based on the Water Pollution Prevention Act (attached Chart 2)" [大気汚染防止法に基づく排出基準及び水質汚濁防止法に基づく排水基準を定める条例(別表第2)], and "the Ordinance Enforcement Regulations Pertaining to the Preservation of the Living Environment in Fukushima (attached Chart 5)" [福島県生活環境の保全等に関する条例施行規則(別表第5)].

\*2 "Not Detected" indicates that, as described in "Ministerial Ordinance on Effluent standards (attached Table 1)" [排水基準を定める省令(別表第一)], when the state of water pollution is assessed in discharged water using the methods established by the Minister of the Environment, the result is below the limit of quantification (Alkyl Mercury: 0.0005 mg/liter) of the assessment method.

<Excerpt from Treated Water Portal Site>

## 1. Performance of the discharge of ALPS treated water

(Management number\* : 25-4-15)

## 2. Plan of the discharge of ALPS treated water

(Management number\* : 25-5-16)

## 3. Status of the dismantling of the J8 area tanks

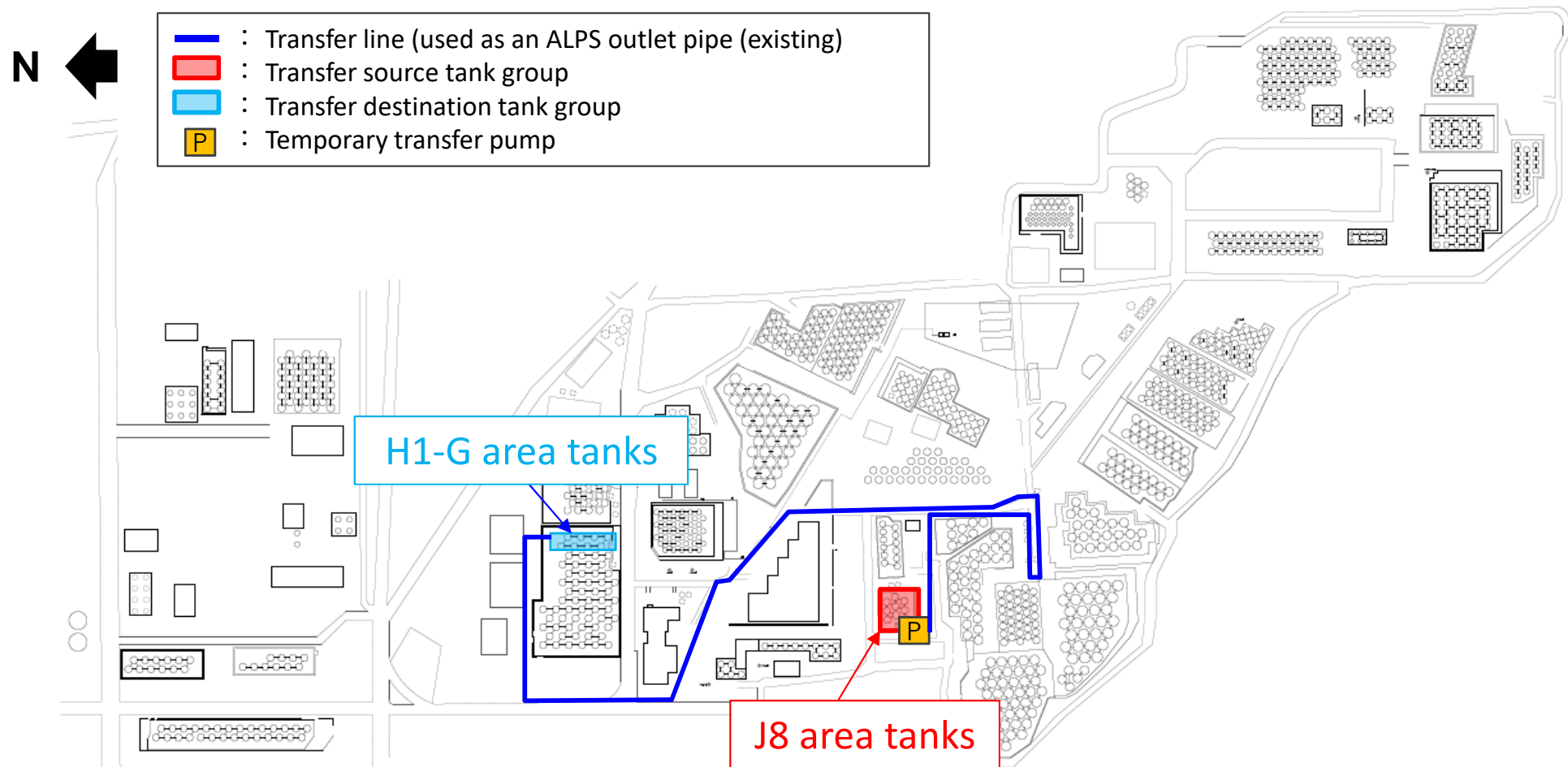
## 4. Transfer of ALPS treated water in preparation for the future discharges

## (Reference) Sea area monitoring history after the commencement of discharge

\* 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, “25-4-15” indicates that the data is for the fourth discharge of 2025, which is the fifteenth discharge to date.

### 3. Transferring water in preparation for the dismantling of the J8 area tanks **TEPCO**

- In preparation to dismantle the J8 area tanks we began transferring water to be re-purified to be re-purified currently stored in the J8 area tanks to the H1-G area on July 3, 2025. The transfer completed on September 25, 2025.
- We will commence with the dismantling of the tanks in J8 area as soon as preparations such as yard maintenance have been completed.



## 1. Performance of the discharge of ALPS treated water

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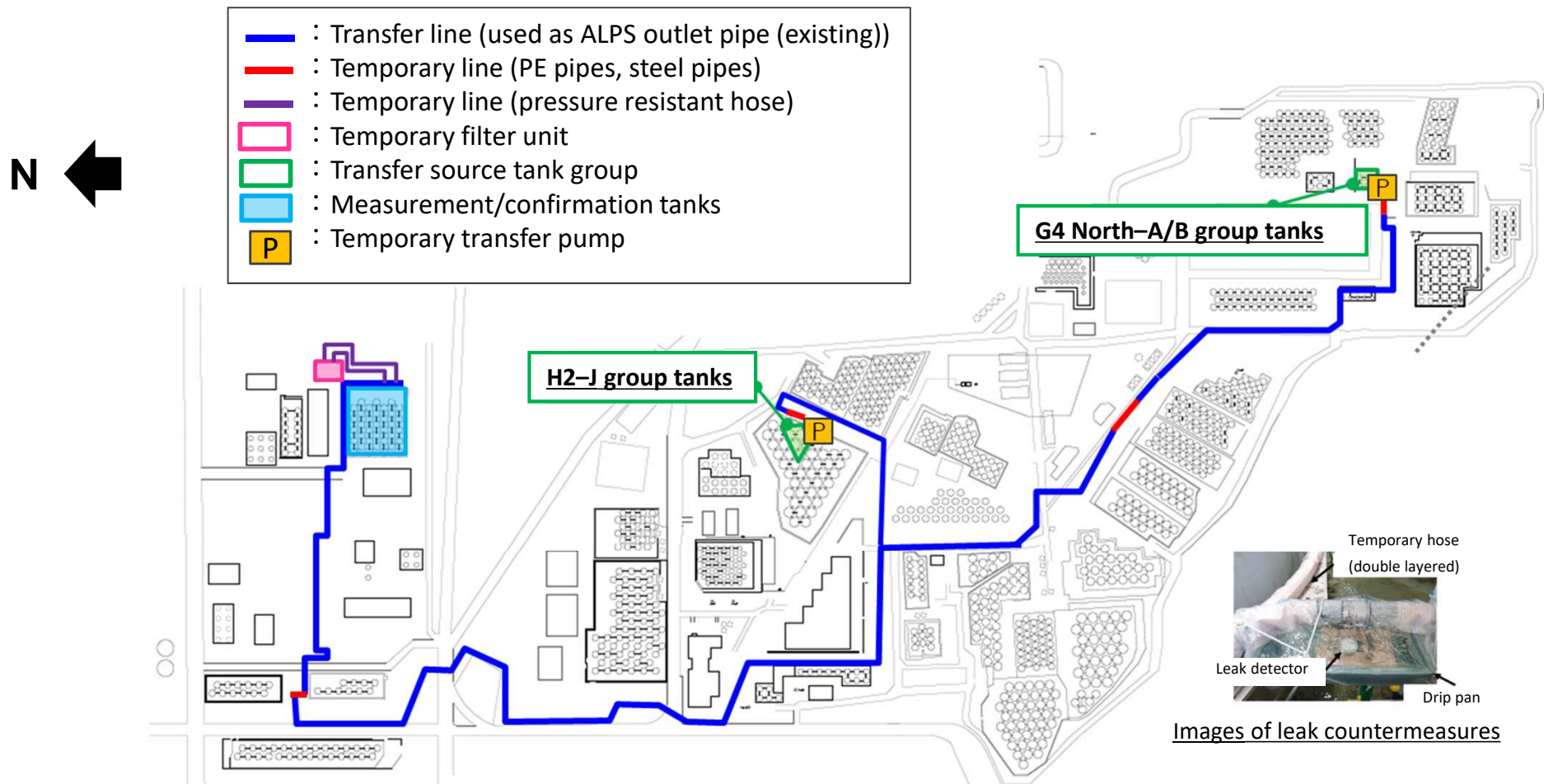
## 4. Transfer of ALPS treated water in preparation for the future discharges

(Reference) Sea area monitoring history after the commencement of discharge

\* 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, "25-4-15" indicates that the data is for the fourth discharge of 2025, which is the fifteenth discharge to date.

## 4. Transfer of ALPS treated water in preparation for the future discharges

- Transfer of ALPS treated water from G5 area Group A/D and G4 North area Group A/B to measurement/confirmation facility tank group A in preparation for the discharge of Management number: 25-6-17 commenced on September 4, 2025 to October 3, 2025. Circulation/agitation of the tanks commenced on October 10, 2025 and samples were taken on October 17, 2025. Samples are currently being analyzed.
- Transfer of ALPS treated water from G4 North area Group A/B and H2 area Group J to measurement/confirmation facility tank group B in preparation for the discharge of Management number: 25-7-18 commenced on October 7, 2025 and will be completed in around early November 2025.



## 1. Performance of the discharge of ALPS treated water

(Management number\* : 25-4-15)

## 2. Plan of the discharge of ALPS treated water

(Management number\* : 25-5-16)

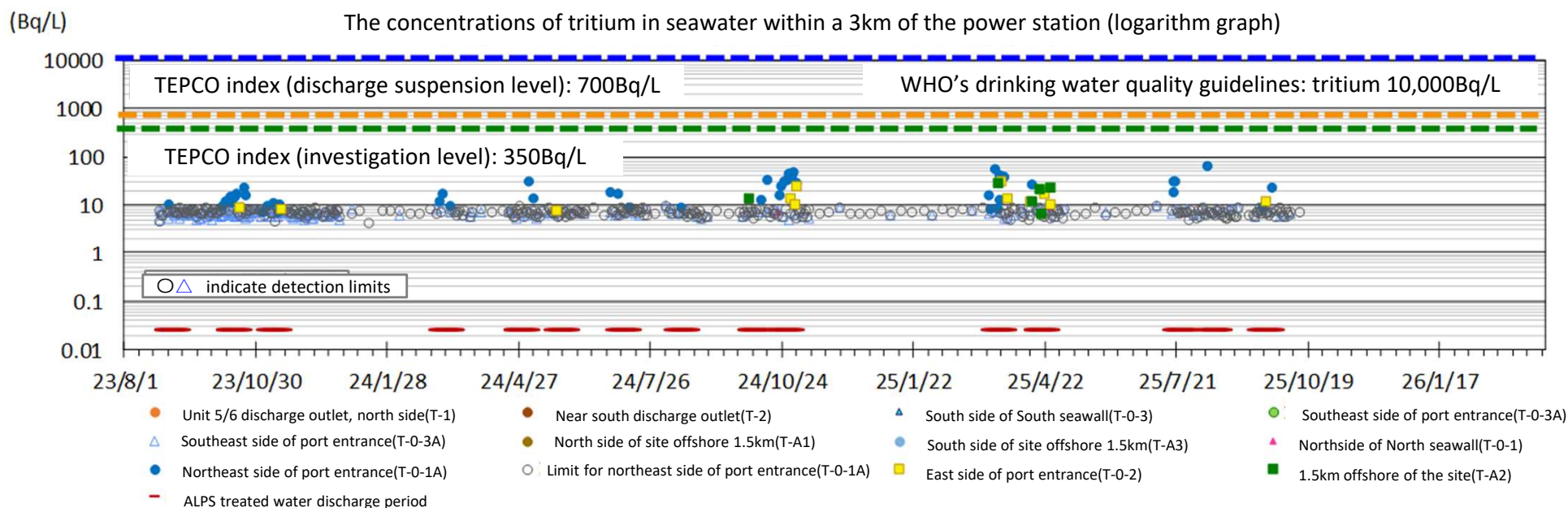
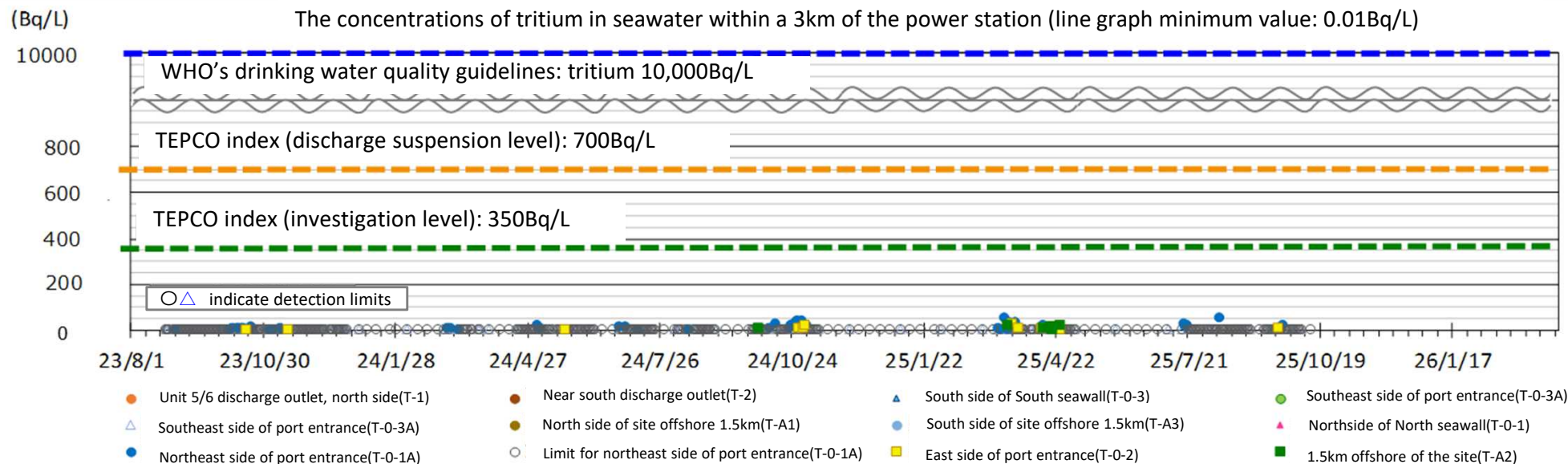
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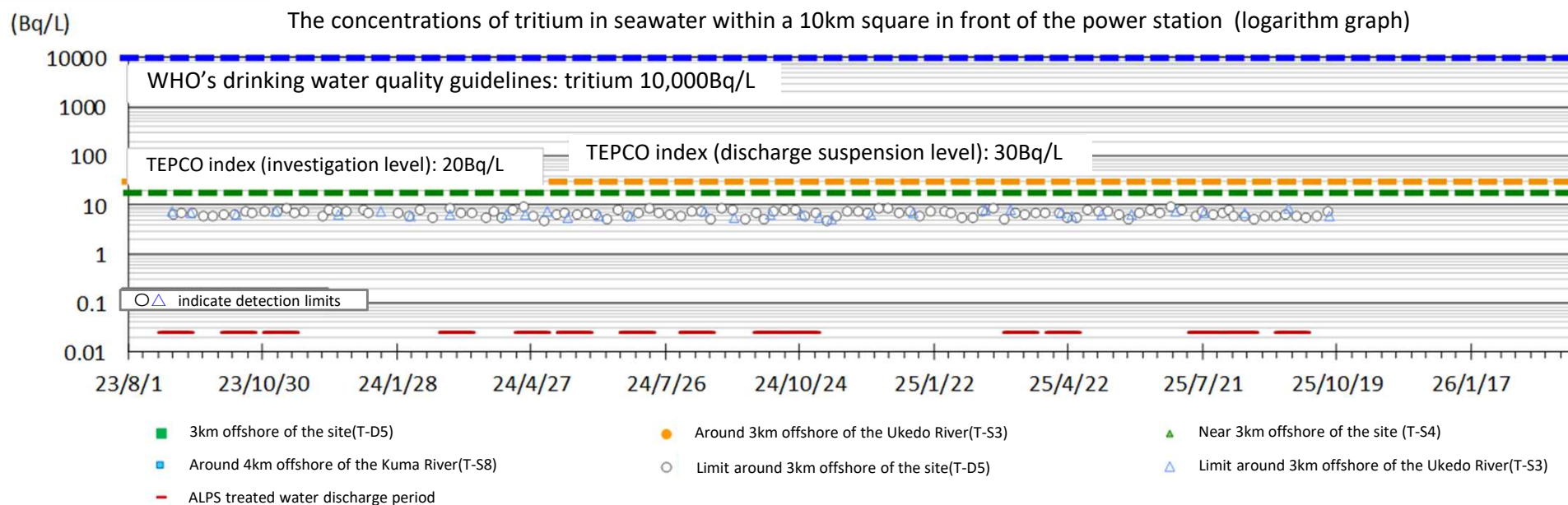
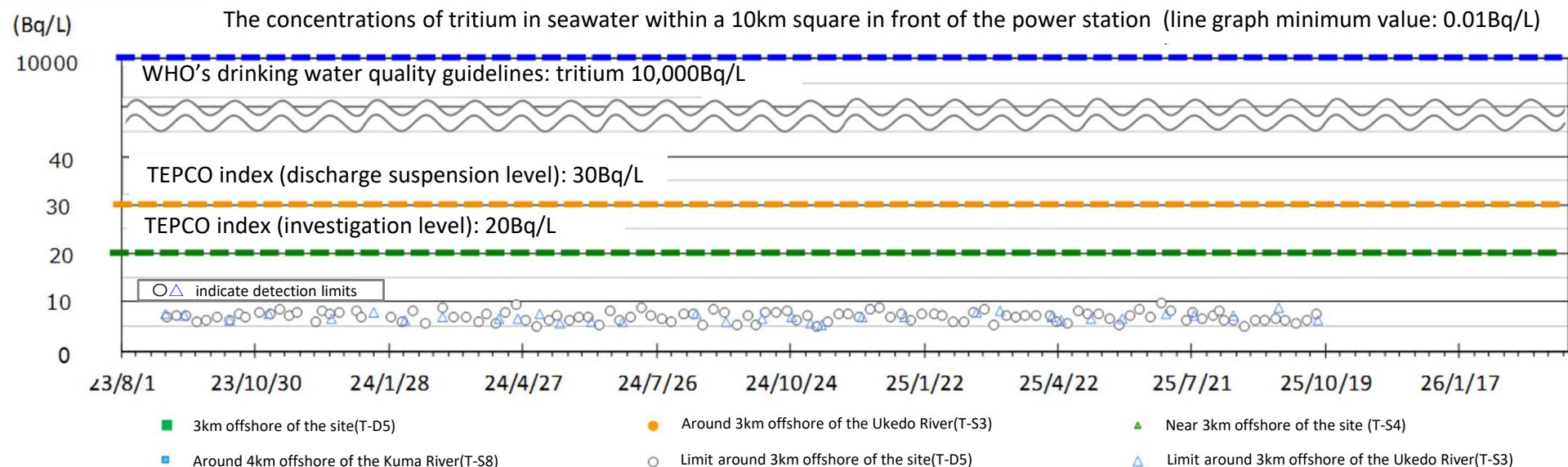
## **(Reference) Sea area monitoring history after the commencement of discharge**

\* 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, “25-4-15” indicates that the data is for the fourth discharge of 2025, which is the fifteenth discharge to date.

## Within a 3km of the power station



## Within a 10km square in front of the power station



# [Reference] Sea area monitoring plan

for obtaining quick measurements of the concentration of tritium in seawater



- We have engaged in monitoring to obtain quick measurements of the concentration of tritium in seawater with targeting the upper detection limit for 10Bq/liter, and index to determine discharge suspension (the discharge suspension level) was set.

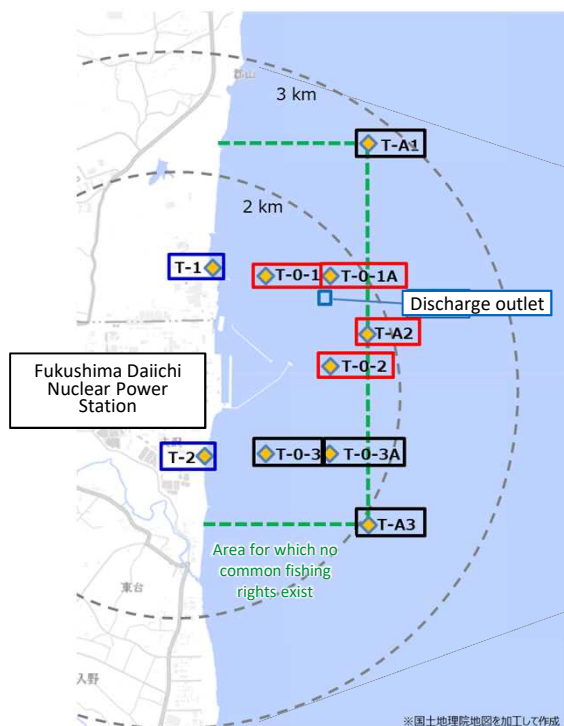


Figure 1: Specimen sampling locations within 3km of the power station (near the discharge outlet)

 
 
  : Monitoring points used to obtain quick results (10 locations)  
**Index (Discharge suspension level) 700Bq/L**  
**Index (investigation level) 350Bq/L**

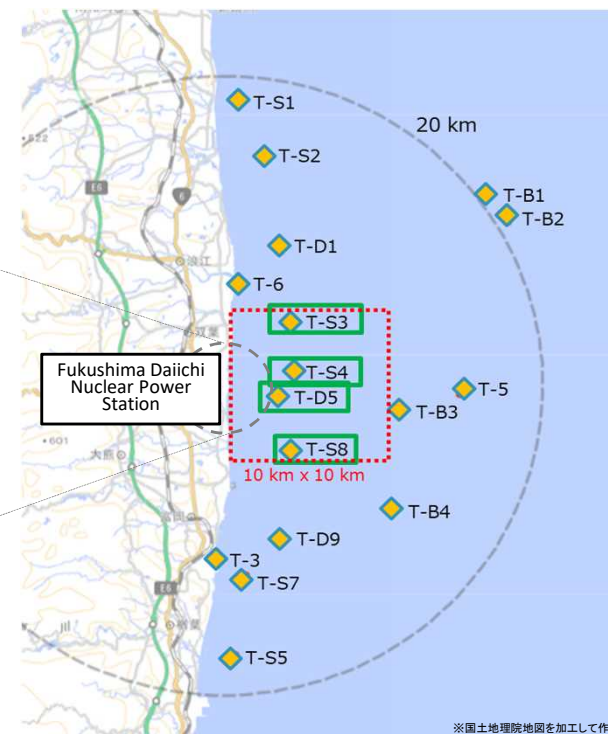


Figure 2: Specimen sampling locations within a 10km square in front of the power station

  : Monitoring points used to obtain quick results (4 locations)  
**Index (Discharge suspension level) 30Bq/L**  
**Index (investigation level) 20Bq/L**

|                                                                                                   | 【Fig.1】 Within a 3km of the power station (near the discharge outlet)                                              |                                                                                                                                                | 【Fig. 2】 Four locations within a 10km square in front of the power station <span style="border: 1px solid green; padding: 2px;"> </span> |
|---------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                                   | Four locations in the vicinity of the discharge outlet <span style="border: 1px solid red; padding: 2px;"> </span> | Other six locations <span style="border: 1px solid blue; padding: 2px;"> </span> <span style="border: 1px solid black; padding: 2px;"> </span> |                                                                                                                                          |
| During the discharge period and for one week after the completion of discharge                    | Daily <sup>※1</sup>                                                                                                | Twice a week <sup>※2</sup>                                                                                                                     | T-D5: Once a week<br>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 <sup>※2</sup>                                                                                          | Once a month <sup>※2</sup>                                                                                                                     |                                                                                                                                          |

※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](#))