ALPS Treated Water Discharge Status Update



August 28, 2025

Tokyo Electric Power Company Holdings, Inc.

Report contents



- 1. Performance of the discharge of ALPS treated water (Management number* : 25-2-13 and 25-3-14)
- 2. Reevaluation of nuclides targeted for measurement/assessment
- 3. Status of the dismantling of the J8/J9 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, "25-2-13" indicates that the data is for the second discharge of 2025, which is the thirteenth discharge to date.

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Overview



- We are planning to conduct the discharge of ALPS treated water (management number: 25-2-13 and 25-3-14) as follows.
- On the next page, we will explain that there was no abnormality in parameters and sea area monitoring as of August 25, 2025.

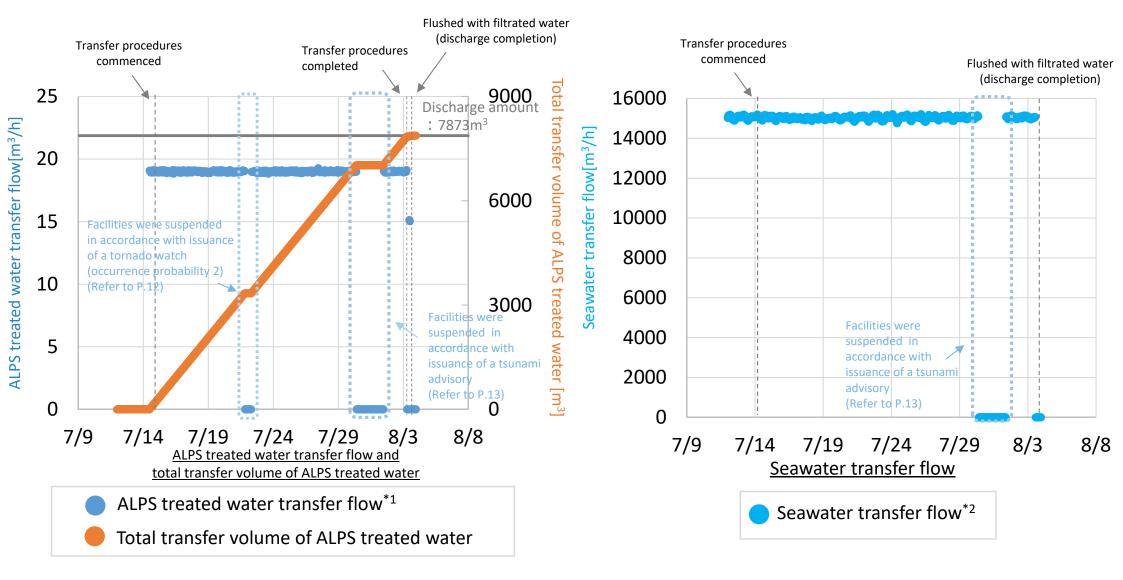
FY2025

Management number	Tank group	Tritium Concentration	Commenced	Completed	Amount of discharge	Amount of tritium radioactivity
25-1-12	Group A	37x 10 ⁴ Bq/liter	Apr 10, 2025	Apr 28, 2025	7,853m³	Approx. 2.9 trillion Bq
25-2-13	Group C	25x 10 ⁴ Bq/liter	July 14, 2025	Aug 3, 2025	7,873m³	Approx. 2.0 trillion Bq
25-3-14	Group A	38x 10 ⁴ Bq/liter	August 7, 2025	Aug 25, 2025	7,908m³	Approx. 3.0 trillion Bq

1-1. Operating parameter records during the discharge (1/3) (Management number: 25-2-13)



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



^{*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) (Management number: 25-2-13)



Emergency

Isolation valve-2

AO

Emergency

Isolation valve-2

Seawater

pipe

header

Emergency

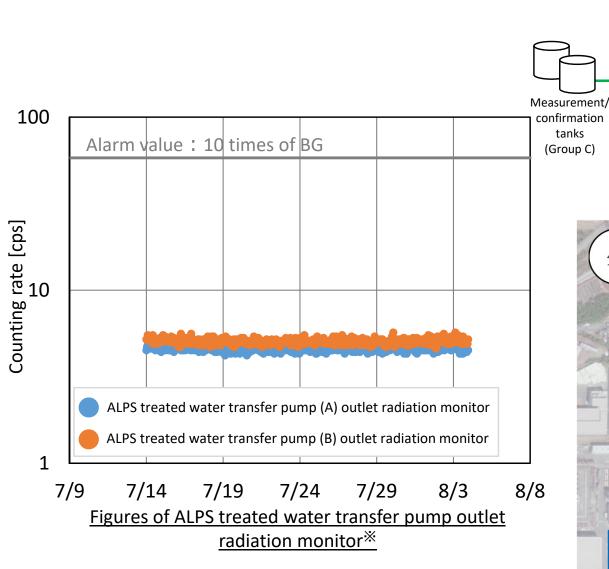
Isolation valve-1

MO

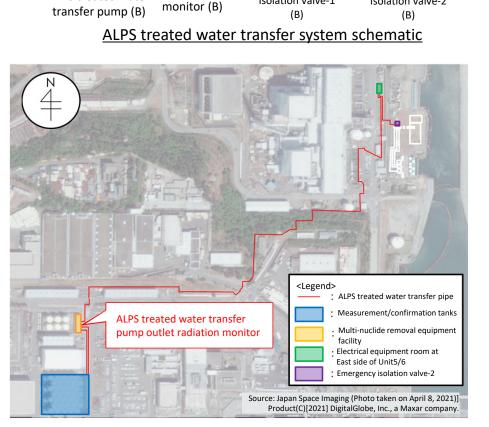
Emergency

Isolation valve-1

■ No abnormalities are 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)



RE

Radiation

monitor (A)

RE

Radiation

ALPS treated water

transfer pump (A)

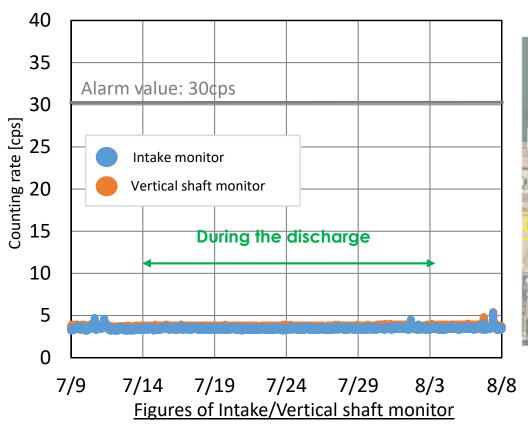
ALPS treated water

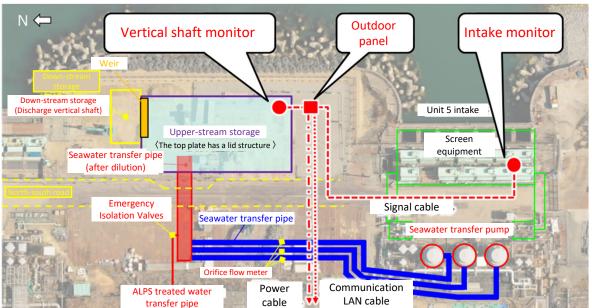
Overview of ALPS treated water dilution/discharge facility

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

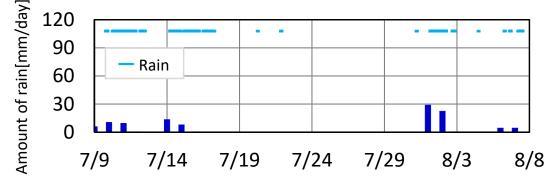


Temporary increase in values, possibly due to rain is observed, but no abnormalities are seen in the readings.





Overview of Intake/Vertical shaft monitor

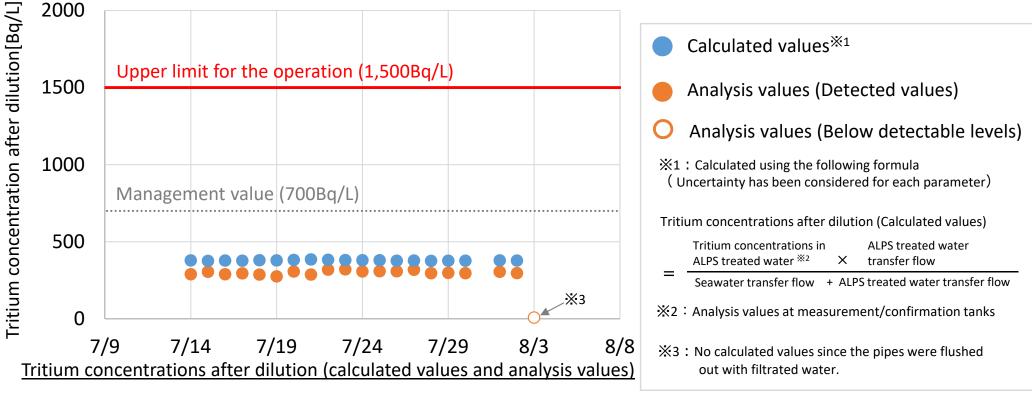


It is assumed that the temporary increases during rainfall were caused by the runoff of fallout from onshore areas and precipitation of natural radionuclides (such as daughter nuclide of radon, etc.).

1-1. Tritium concentrations after dilution during the discharge (Management number: 25-2-13)



- 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



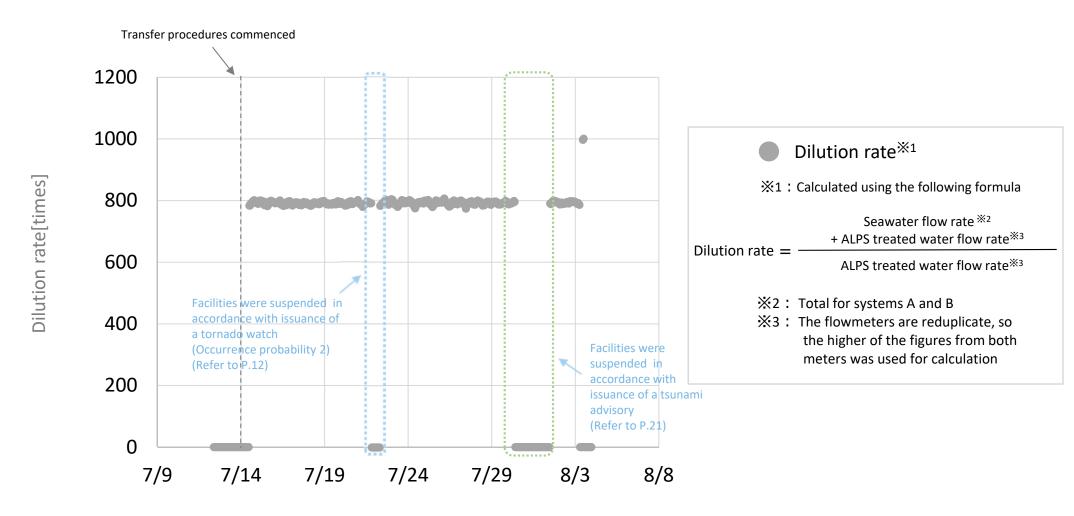
	7/14	7/15 ~ 8/2 ^{※4}	8/3
Calculated value: Time of data acquisition	14:00	7:00 , 8:00 ^{*5} ,12:00 ^{*6}	-
Analysis value: Time of specimen sampling	13:45	6:00~9:00	12:21

- *4: No data since the discharge was suspended following the issuance of a tsunami advisory.
- *5 : Due to the suspension/resumption of discharge following the issuance of a tornado watch (occurrence probability 2), data was extracted only at 8:00AM on July 22nd.
- ※6: Due to the suspension/resumption of discharge following the tsunami advisory, data was extracted only at 12:00PM on August 1st.

[Reference] Dilution rate of ALPS treated water



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



Dilution rate of ALPS treated water

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



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)

							July	2025				
	Sampling location*3	Frequency	3	7	14 *4	15	16	17	18	19	20	21
	T-1	Twice a week*1	_	<8.2	<6.6	_	<6.8	<6.2	_	_	_	<7.4
	T-2	Twice a week*1	1	<8.2	<6.6	1	<6.8	<6.2	1	1	1	<7.4
	T-0-1	Once a day*2	1	<9.2	— *5	— *5	— *5	<7.4	<8.0	<8.0	<8.2	<5.7
	T-0-1A	Once a day*2	1	<9.2	— *5	— *5	— *5	<7.4	31	18	29	<8.2
In the vicinity	T-0-2	Once a day*2	1	<9.3	— *5	— *5	— *5	<7.4	<8.0	<8.1	<8.3	<5.6
of the discharge outlet	T-0-3A	Twice a week*1	1	<9.4	— *5	— *5	— *5	<6.3	1	1	1	<8.1
	T-0-3	Twice a week*1	1	<9.2	— *5	— *5	— *5	<7.4	1	1	1	<7.1
	T-A1	Twice a week*1	1	<9.4	— *5	— *5	— *5	<6.2	1	1	1	<8.1
	T-A2	Once a day*2	-	<9.4	_ *5	_ *5	_ *5	<6.2	<7.0	<5.4	<7.1	<8.2
	T-A3	Twice a week*1	-	<9.5	_ *5	_ *5	_ *5	<6.3	-	-	-	<8.0
0	T-D5	Once a week	ı	<8.2	_	ı	_	<6.2	ı	ı	ı	<7.9
Outside the vicinity of the	T-S3	Once a month	<7.5	_	_	ı	_	ı	ı	_	_	_
discharge outlet	T-S4	Once a month	<7.5	_	_	ı	_	ı	ı	_	1	_
Juliet	T-S8	Once a month	<7.5	_	_	-	_	_	<6.8	-	_	_

^{*:} 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: 25-2-13)

^{*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"

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



(Unit: Bq/L)

	C1:1:*3	F					July	2025				
	Sampling location*3	Frequency	22	23	24	25	26	27	28	29	30	31
	T-1	Twice a week*1	_	_	<4. 2	_	_	_	<6.7	_	_	_*4
	T-2	Twice a week*1	_	_	<7.5	_	_	_	<6.9	_	-	_*4
	T-0-1	Once a day*2	<7.2	<6.6	<6.8	<7.3	<6.7	<6.8	<7.0	<6.4	<7.4	_*4
	T-0-1A	Once a day*2	<7.2	<6.6	<6.7	<7.0	<6.7	<6.8	<7.0	<4.7	<7.4	_*4
In the vicinity of the	T-0-2	Once a day*2	<7.3	<6.7	<6.9	<7.2	<6.5	<6.9	<7.0	<4.9	<7.5	_*4
discharge outlet	T-0-3A	Twice a week*1	_	_	<7.6	_	_	_	<8.3	_	_	_*4
outiet	T-0-3	Twice a week*1	_	_	<6.9	_	_	_	<6.9	_	-	_*4
	T-A1	Twice a week*1	_	_	<7.6	_	_	_	<8.1	_	-	_*4
	T-A2	Once a day*2	<7.2	<6.5	<7.5	<7.0	<5.4	<7.2	<8.1	<7.8	<6.4	_*4
	T-A3	Twice a week*1	_	_	<7.5	-	_	_	<8.1	_	1	_*4
	T-D5	Once a week	_	_	_	_	_	_	<6.7	_	-	-
Outside the vicinity of the	T-S3	Once a month	<7.3	_	_	1	_	1	1	-	-	_
discharge outlet	T-S4	Once a month	<7.4	_		1			1			_
	T-S8	Once a month	1	_	_	1	_	1	1	_	_	_

X: 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: 25-2-13)

^{*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:} Sampling suspended due to issuance of a tsunami advisory

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



(Unit: Bq/L)

	C** *3	F	Д	ugust 202	5
	Sampling location*3	Frequency	1	2	3
	T-1	Twice a week*1	<7.8	_	_
	T-2	Twice a week*1	<7.8	_	_
	T-0-1	Once a day*2	<5.9	_*4	<7.6
	T-0-1A	Once a day*2	<5.9	_*4	<5.1
In the vicinity of the	T-0-2	Once a day*2	<5.9	_*4	<5.2
discharge outlet	T-0-3A	Twice a week*1	<6.2	_	_
Oddiet	T-0-3	Twice a week*1	<5.9	_	_
	T-A1	Twice a week*1	<6.2	_	_
	T-A2	Once a day*2	<6.2	*4	<8.5
	T-A3	Twice a week*1	<6.2	_	_
	T-D5	Once a week	-	_	_
Outside the vicinity of the	T-S3	Once a month	_	_	_
discharge outlet	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 (Management number: 25-2-13)

^{*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:} Sampling suspended due to bad weather condition

[Reference] Handling of issuance of a tornado watch (occurrence probability 2) T = CO

- July 21, 2025
 - > 7:05 PM: issuance of a tornado watch (occurrence probability 2) issued for Okuma town and Futaba town.
 - > 7:07 PM: General announcement is made on-site for all TEPCO employees and contractor workers instructing them to evacuate in a secure structure, etc.
 - > 7:13 PM: In accordance with predetermined procedures, ALPS treated water dilution/discharge facilities are manually suspended*
 - > 8:26 PM: The issuance of a tornado watch (occurrence probability 2) for Okuma town and Futaba town is lifted. The order for all TEPCO employees and contractor workers to take refuge in a secure structure, etc., is also lifted.
- July 22, 2025
 - > 7:04 AM: Field patrols inspections that there are no abnormalities with facilities and, we resumed the discharge into the sea.

*Refer to P.14

[Reference] Handling of issuance of a tsunami advisory/warning



- July 30, 2025
 - 8:37 AM: The issuance of a tsunami advisory in Fukushima Prefecture
 - > 8:51 AM: General announcement is made on-site for all TEPCO employees and contractor workers instructing them to evacuate from sea-side area.
 - ➤ 9:05 AM: In accordance with predetermined procedures, ALPS treated water dilution/discharge facilities are manually suspended*. (The seawater transfer pumps were gradually suspended)
 - 9:40 AM: The issuance of a tsunami warning in Fukushima Prefecture
 - 8:45 PM: The tsunami warning issued in Fukushima Prefecture was changed to a tsunami advisory.
- July 31, 2025
 - 4:30 PM: The issuance of a tsunami advisory in Fukushima Prefecture is lifted.
- August 1, 2025
 - > 10:59 AM: Field patrols inspections that there are no abnormalities with facilities and, we resumed the discharge into the sea.

[Reference] Natural phenomena that warrant the suspension of discharge into the sea



■ In the event of the following natural phenomena, etc., operators will manually suspend the discharge.

Earthquake with a seismic intensity of a lower 5 or higher	 In order to minimize the impact of the loss of equipment function due to an earthquake.
Tsunami advisory	 Because a tsunami may damage equipment located 2.5m above sea level.
Tornado watch	Because a tornado may damage equipment.
Storm surge warning	 Because the difference in water level between the discharge shaft and the sea surface may hinder normal discharge.
Miscellaneous	 If the Shift Supervisor deems that suspension is necessary due to any other symptoms of abnormalities not mentioned above.

1-2. Outline of the Fourteenth discharge of ALPS treated water into the sea (Management number: 25-3-14)



	Outlir	ne of discharge for group K4-A		
Attrib	Concentration of the 29 types of radionuclides (excluding tritium) in scope of measurement/evaluation	Within regulatory requirements (the sum of the ration concentrations of radioactive substances is less that (sum of the ratios of concentration: 0.12)		
utes (Tritium concentration	38 x 10 ⁴ Bq/L	(details on p2 of the link)	
Attributes of the treated water	Concentration of the 39 significant types of radionuclides measured voluntarily	No significant radionuclides identified	(details on p3 of the link)	
ıted w	Status of water quality assessment	Within government and prefectural requirements	(details on p4 of the link)	
/ater	Water temperature	Same as outdoor temperature. After diluted to 740 times (design dilution factor), the same as plant's thermal discharge)	same as sea water tempe	rature (not
Actual vo	lume of treated water discharge	7,908m³		
Treated w	vater flow rate	Approximately 460m³/day (set not to exceed designed maximum on 500m³/d	lay)	
Dilution s	ea water flow rate	Approximately 340,000m³/day (same speed as walking in the tunnel [approximate	ed 1m/second])	
Actual am	nount of tritium radioactivity	Approximately 3.0 trillion Bq		
Actual co	ncentration of tritium after dilution	388-460 Bq/L		
Actual ter	rm of discharge	August 7, 2025 – August 25, 2025		

From the discharge of Management number: 25-3-14 nuclides targeted for measurement/assessment has been changed from 30 to 29 types. For details, refer to page 32 onwards.

1-2. Analysis results of ALPS treated water in the measurement/confirmation tanks (Management number: 25-3-14)



- Pre-discharge analysis results for the samples taken from the measurement/confirmation tank (Group A) on June 17, 2025, were obtained. <u>It was confirmed that the water satisfies discharge</u> requirements (Table 1. Disclosed on August 5, 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 0.12, and it is confirmed to be less than 1.
 - Item 2: Analysis results of tritium concentration is $\frac{38 \times 10^4 \text{ Bg/L}}{\text{A}}$, 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)*1 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)

Table 1. Pre-discharge analysis results of water in the measurement/confirmation tank (Management number: 25-3-14)

	Items	Requirement basis	Operational Target	Analysis Results
1	Nuclide to be measured and assessed (29 nuclides)	Implementation	The sum of the ratios of the concentration of each radionuclide to the regulatory concentration, except for tritium, is less than 1	0.12 (< 1)
2	Tritium	plan	Tritium concentration is less than 1 million Bq/L	38 x 10 ⁴ Bq/liter (less than 1 million Bq/L)
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	None of the nuclides are present in significant consternation
4	General water quality: 44 criteria		Pre-check of water quality standards*2	All criteria satisfied

^{*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 T≣PCO (Management number: 25-3-14) (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 0.12, and it is confirmed to be less than 1.

Nuclides to be measured and assessed (29 nuclides)

Analysis results of radioactivity (Bq/L)

Ratios to Regulatory Concentration Limit

Sample Name	ALPS Treated V	Vater in the Meas	surement/Confirmation Tanks	Group A		Nuclides to be measured and assessed (29 nuclides) :	
Date and Time of Sampling	June 17, 2025	9:50			Summary	The sum of the ratios of the concentration of each	0.12
Storage Volume (m³)	8972					radionuclide to the regulatory concentration	(Confirmed to be less than 1)
Padioactivity Anal	veie: Nuclidae to h	ne measured and	accessed (20 nuclides)				

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

	Radioa	activity Ana	lysis: Nuclides to I	be measured and	assessed (29 nu	clides)						
					Analysis F	Results			Ratios to Regulato	y Concentration Limit	Regulatory	
	No.	Nuclide		TEPCO			KAKEN Co.,Ltd.				Concentration Limit	Analysis Method *4
+	1 140.	Nuclide	Analysis Value	Uncertainty *1	Detection Limit		Uncertainty *1	Detection Limit	TEPCO	KAKEN Co.,Ltd.	*2	Analysis Metriou 4
			(Bq/L)	(Bq/L)	(Bq/L)	(Bq/L)	(Bq/L)	(Bq/L)			(Bq/L)	
	1	C-14	4.7E+01	± 3.1E+00	1.6E+00	5.0E+01	± 2.5E+00	9.7E-01	2.4E-0	2.5E-02	2000	Measurement
	2	Mn-54	ND	_	2.5E-02	ND	_	1.7E-02	less than 2.5E-0	less than 1.7E-05	1000	Measurement
	3	Fe-55	ND	_	1.6E+01	ND	_	1.1E+01	less than 8.1E-03	less than 5.5E-03	2000	Measurement
	4	Co-60	1.4E-01	± 3.3E-02	2.5E-02	1.6E-01	± 2.6E-02	2.0E-02	7.1E-0	7.9E-04	200	Measurement
	5	Ni-63	ND	_	6.0E+00	ND	_	5.4E+00	less than 9.9E-04	less than 9.0E-04	6000	Measurement
	6	Se-79	ND	_	8.9E-01	ND	_	1.5E+00	less than 4.5E-03	less than 7.3E-03	200	Measurement
	7	Sr-90	1.1E+00	± 7.5E-02	3.5E-02	1.1E+00	± 1.4E-01	3.1E-02	3.6E-0	3.5E-02	30	Measurement
	8	Y-90	1.1E+00	_	3.5E-02	1.1E+00	_	3.1E-02	3.6E-0	3.5E-03	300	Sr-90/Y-90 Radioactive Equilibrium Assessment
	9	Tc-99	ND	_	3.0E-01	1.2E-01	± 4.5E-02	6.3E-02	less than 3.0E-04	1.2E-04	1000	Measurement
	10	Ru-106	ND	_	2.2E-01	ND	_	1.7E-01	less than 2.2E-03	less than 1.7E-03	100	Measurement
	11	Cd-113m	ND	_	7.9E-02	ND	_	4.9E-02	less than 2.0E-03	less than 1.2E-03	40	Measurement
	12	Sb-125	2.5E-01	± 7.1E-02	8.0E-02	1.5E-01	± 5.5E-02	7.6E-02	3.1E-04	1.9E-04	800	Measurement
	13	Te-125m	9.2E-02	_	3.0E-02	5.7E-02	_	2.8F-02	1.0E-0	6.3E-05	900	Sb-125/Te-125m Radioactive Equilibrium Assessment
	14	I-129	2.3E-01	± 1.9E-02	4.2E-02	3.0E-01	+ 5 45 02	1.3E-02	2.5E-0	3.3E-02	9	Measurement
	15	Cs-134	ND	_	2.9E-02	INU	_	2.0E-02	less than 4.9E-04	less than 3.4E-04	60	Measurement
	16	Cs-137	1.5E-01	± 3.5F-02	5.2E-02	1.4E-01	± 2.4E-02	2.1E-02	1.7E-0	1.6E-03	90	Measurement
	17	Pm-147	ND	_	3.2E-01	ND	_	2.4E-01	less than 1.1E-04	less than 8.0E-05	3000	Eu-154 Relative Ratio Assessment
	18	Cm 151	ND	_	1.2E-02	ND	_	9.2E-03	less than 1.6E-0	less than 1.2E-06	8000	Eu-154 Relative Ratio Assessment
十	19	Eu-154	ND	_	7.3E-02	ND	_	5.4E-02	less than 1.8E-04	less than 1.4E-04		Measurement
	20	Eu-155	ND	_	2.9E-01	ND	_	1.9E-01	less than 9.7E-0	less than 6.3E-05	3000	Measurement
	21	U-234									20	Gross Alpha
	22	U-238									20	Gross Alpha
	23	Np-237									9	Gross Alpha
	24	Pu-238	ND	_	3.5E-02	ND	_	2.4E-02	less than 8.7F-0	less than 6.0E-03	4	Gross Alpha
	25	Pu-239			5.52 02			2.12.02			4	Gross Alpha
	26	Pu-240							*3	*3	4	Gross Alpha
	27	Am-241									5	Gross Alpha
	28	Cm-244									7	Gross Alpha
	29	Pu-241	ND	_	9.6E-01	ND	_	6.6E-01	less than 4.8E-03	less than 3.3E-03	200	Pu-238 Relative Ratio Assessment
			of the concentration of			entration (sum of th	e ratios to regulator	concentration limit)	less than 1.2E-0	less than 1.3E-01		
-	ND in	dicates that	analysis result is less	than the detection li	mit.					_		

For example, "3.1E+01" means "3.1×101" and equals 31. Similarly, "3.1E+00" means "3.1×100" and equals 3.1, and "3.1E-01" means "3.1×101" and equals 0.31.

^{*1 &}quot;Uncertainty" refers to the accuracy of analysis data.

[&]quot;Uncertainty" is calculated using "Expanded Uncertainty: Coverage Factor k=2".

^{*2} 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 Bg/cm3 has been converted into Bg/L])

^{*3} 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.

[Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation (Management number: 25-3-14) (2/4)

Analysis results of <u>tritium concentration is 38 x 10⁴ Bq/liter</u>.

Tritium Concentration (Bq/L)

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

Summary 38 x 10⁴ Bq/L (confirmed to be less than 1 million Bq/L)

Radioactivity Analysis: Tr

				Analysis	Results				
No.	Nuclide		TEPCO	V3.	12. 19. 12.703 19.	KAKEN Co., Ltd.		Analysis Objective	Analysis Method *3
140.	Nuclide	Analysis Value (Bq/L)	Uncertainty *1 (Bq/L)	Detection Limit (Bq/L)	Analysis Value (Bq/L)	Uncertainty *1 (Bq/L)	Detection Limit (Bq/L)	Analysis objective	Analysis Metriod 13
1	H-3	3.8E+05	± 2.8E+04	1.7E+01	3.8E+05	± 2.8E+04	2.1E+01	*2	Measurement

[·] Values are expressed in exponential notation.

For example, "3.1E+01" means "3.1×101" and equals 31. Similarly, "3.1E+00" means "3.1×100" and equals 3.1, and "3.1E-01" means "3.1×101" and equals 0.31.

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>

^{*1 &}quot;Uncertainty" refers to the accuracy of analysis data.

[&]quot;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:

[Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation (Management number: 25-3-14) (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 nuclide
adio	activity Analysi		ntarily checked to e		re not significantly	present (39 nuclides)
No.	Nuclide	Assessment *1	Detection Limit	Assessment *1	Detection Limit	Confirmation Method *2
		Assessment 1	(Bq/L)	Assessment 1	(Bq/L)	
1	Fe-59	0	5.4E-02	0	4.3E-02	
2	Co-58	0	2.5E-02	0	1.7E-02	
3	Zn-65	0	4.5E-02	0	3.7E-02	
4	Rb-86	0	2.6E-01	0	2.1E-01	
5	Sr-89	Û	6.3E-02	0	5.4E-02	7
6	Y-91	0	2.7E+00	0	2.2E+00	1
7	Nb-95	0	2.9E-02	0	2.9E-02]
8	Ru-103		2.9E-02	0	2.1E-02]
9	Aq-110m	0	2.4E-02	0	1.8E-02	1
0	Cd-115m	Ö	1E+00	0	9.1E-01	1
1	Sn-123	Ö	1.1E+30	Ô	8.4E-01	1
2	Sn-126	0	1.3E-01	Ö	1.1E-01	1
3	Sb-124	Ŏ	5.5E-02	Ŏ	4.4E-02	1
4	Te-123m	Ö	4.1E-02		3.6E-02	Measurement
5	Te-127	Ö	6.7E-01	Ö	6.0E-01	1
16	Te-129m	Ö	7.4E-01	ŏ	0.0E-01	1
17	Te-129	Ö	3.3E-01	Ö	3.1E-v	1
8	Cs-136	0	2.4E-02	0	2.1E-02	-
9	Ba-140	0	9.3E-02	0	1.0E-01	1
20	Ce-141	0	1.0E-01	0	9.6E-02	-
				0		_
21	Ce-144	0	3.1E-01		2.7E-01	-
2	Pm-146	0	5.75 02	0	5.4E-02	1
23	Pm-148m	0	2.5E-02	0	2.2E-02	-
4	Pm-148	0	1.1E-01	0	2.0E-01	-
25	Eu-152	0	1.1E-01	0	9.0E-02	-
6	Gd-153	Ő	1.3E-01	0	1.8E-01	-{
27	Tb-160	0	7.3E-02	0	5.7= 02	+
8	Am-243	0	3.5E-02	0	2.4E-02	accurament (substituted with succession)
9	Cm-242	0	3.5E-02	0	2.4E-02	recurrement (substituted with gross alph
0	Cm-243	0	3.5E-02	0	2.4E-02	
1	Rh-103m	0	2.9E-02	0	2.1E-02	Ru-103/Rh-103m Rac active Equilibrium Assessme
2	Rh-106	0	2.2E-01	0	1.7E-01	Ru-106/Rh-106 Radioactive E., "Ihrium Assessme
3	Sn-119m	0	4.9E-03	0	4.0E-03	Sn-126 Relative Ratio Assessment
4	Te-127m	0	6.8E-01	0	6.1E-01	Te-127 Relative Ratio Assessment
5	Cs-135	0	2.1E-07	Q	1.4E-07	Cs-137 Relative Ratio Assessment
6	Ba-137m	0	3.0E-02	0	2.0E-02	Cs-137/Ba-137m Radioactive Equilibrium Assessme
37	Pr-144m	0	4.7E-03	0	4.0E-03	Ce-144/Pr-144m Radioactive Equilibrium Assessme
38	Pr-144	0	3.1E-01	0	2.7E-01	Ce-144/Pr-144 Radioactive Equilibrium Assessme
39	Am-242m	0	2.4E-04	0	1.6E-04	Am-241 Relative Ratio Assessment

*1	"O" indicates that the absence of significant concentrations was confirmed by the following, and "x" indicates that significant concentrations of nuclide was confirmed.

⁻ 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	Assessifier	t values (bq/L)	Concentration Limit
Nuclide	TEPCO	KAKEN Co.,Ltd.	*3
Rh-103m	_	_	2.0E+05
Rh-106	_	_	3.0E+05
Sn-119m	_	-	2.0E+03
Te-127m	_	_	3.0E+02
Cs-135	1.0E-06	9.3E-07	6.0E+02
Ba-137m	1.4E-01	1.3E-01	8.0E+05
Pr-144m	_	_	4.0E+04
Pr-144	_	_	2.0E+04
Am-343m	_		E 0E : 00

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

<Excerpt from Treated Water Portal Site>

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

Assessment results

 $\ensuremath{\bigcirc}$: absence of significant concentration was confirmed

×: significant concentration was confirmed

Values are expressed in exponential notation.

For example, "3.1E+01" means "3.1×101" and equals 31. Similarly, "3.1E+00" means "3.1x100" and equals 3.1, and "3.1E-01" means "3.1x101" *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 nent (substituted with gross alpha) - The total amount of alpha-radionuclides in the specimen are calculated by directly measuring alpha rays.

^{*3} Regulatory concentration limits stipulated in the Regulations of the Safety and Physical Protection of Specific Nuclear Fuel Material at Fukushima Dajichi 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/cm³ has been converted into Bq/L])

[Reference] Pre-discharge analysis results of ALPS treated water in the measurement/confirmation (Management number: 25-3-14) (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 ALTS Treated Water in the Measurem (Confirmation Tanks (4/4)

			Summary	Criteria satisfied
Gene				no unusual water quality (44 criteria)
No.	Measurement Items	Unit	Analysis Result	Criteria *1
1	Hydrogen Ions (pH)	_	8.8	Sea Area $5.0\sim9.0$
2	Suspended Solids (SS)	mg/L	<1	Maximum: 70 or less Average: 50 or less
3	Chemical Oxygen Demand (COD)	mg/L	0.5	Maximum: 40 or less Average: 30 or less
4	Boron	mg/L	0.4	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	Trichlorethylene	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	100 of less
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.

<Excerpt from Treated Water Portal Site>

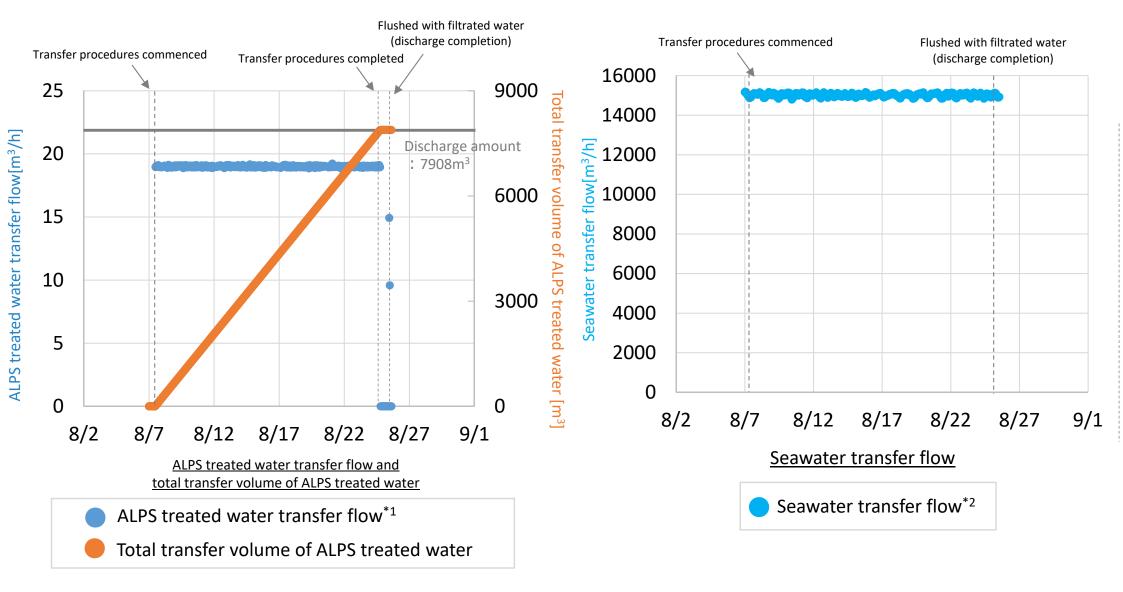
^{*1} In accordance with Fukushima Prefecture's "Ordinance on Discharge Standards Based on the Air Pollution Control Act and Wastewater Standards based on the Water Pollution Prevention Act (attached Chart 2) [大気汚染防止法に基づけ出土を導及び水質汚濁防止法に基づけれる基準を定める条例(別表策2)]", and "the Ordinance Enforcement Regulations 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(別表策5)]".

^{*2 &}quot;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 (列表第一)]", 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.

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



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



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

^{*2:} Total for systems A and B

1-2. Operating parameter records during the discharge (2/3) (Management number: 25-3-14)



Emergency

Isolation valve-2

AO

Emergency

Isolation valve-2

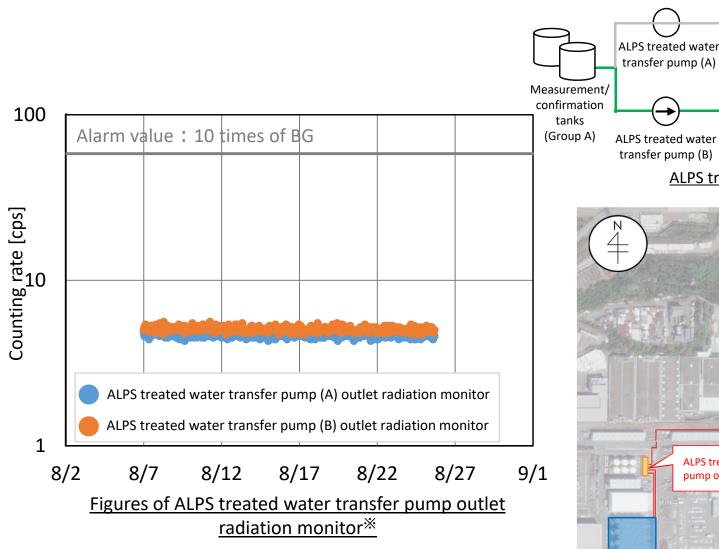
(B)

Seawater

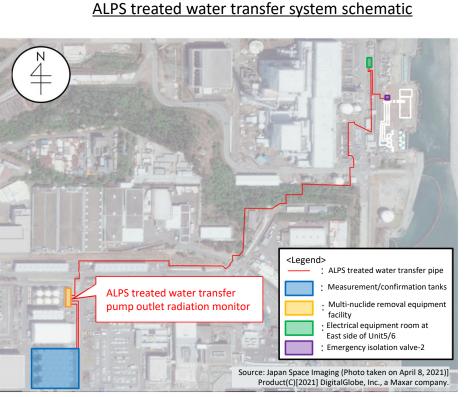
pipe

header

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 B. (System A was filled with filtrated water)



RE

Radiation

monitor (A)

RE

Radiation

monitor (B)

Emergency

Isolation valve-1

Emergency

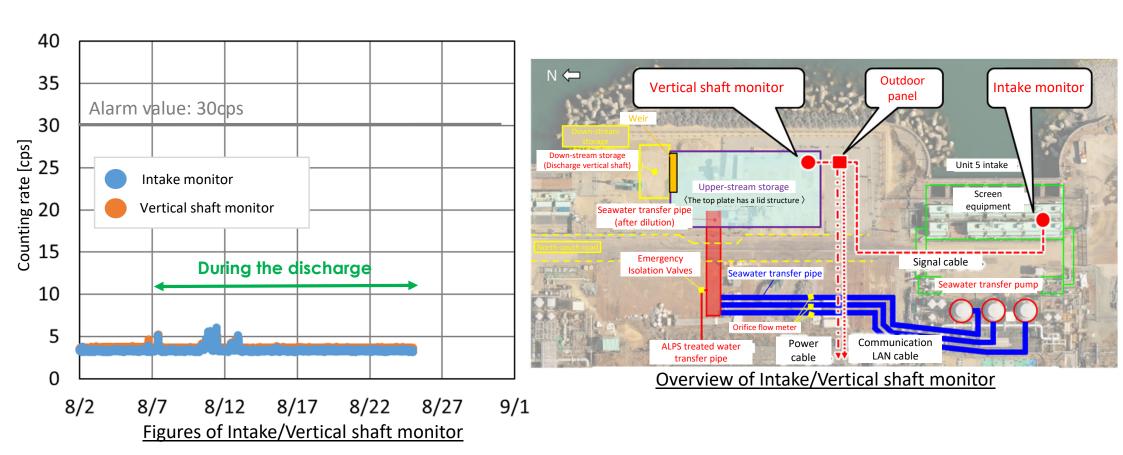
Isolation valve-1

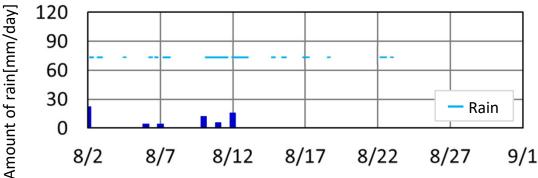
Overview of ALPS treated water dilution/discharge facility

1-2. Operating parameter records during the discharge (3/3) (Management number: 25-3-14)



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



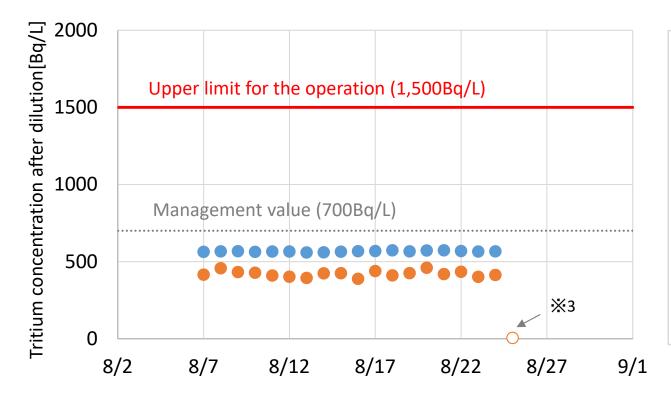


It is assumed that the temporary increases during rainfall were caused by the runoff of fallout from onshore areas and precipitation of natural radionuclides (such as daughter nuclide of radon, etc.).

1-2. Tritium concentrations after dilution during the discharge (Management number: 25-3-14)



- 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



Calculated values^{※1}
 Analysis values (Detected values)
 Analysis values (Below detectable levels)
 ※1: Calculated using the following formula (Uncertainty has been considered for each parameter)
 Tritium concentrations after dilution (Calculated values)
 Tritium concentrations in ALPS treated water ALPS treated water transfer flow
 Seawater transfer flow + ALPS treated water transfer flow
 ※2: Analysis values at measurement/confirmation tanks

Tritium concentrations after dilution (calculated values and analysis values)

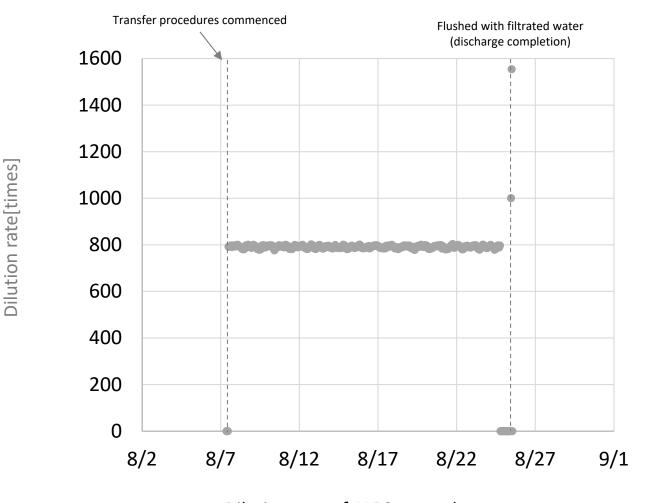
	8/7	8/8~8/24	8/25
Calculated value: Time of data acquisition	14:00	7:00	_
Analysis value: Time of specimen sampling	13:32	6:00~9:00	11:59

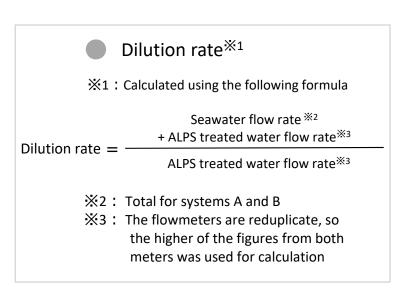
※3 : No calculated values due to implementation of filtered water replacement work

[Reference] Dilution rate of ALPS treated water



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





Dilution rate of ALPS treated water

1-2. 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)

				August 2025										
	Sampling location*3	Frequency	4	5	6	7 *4	8	9	10	11	12	13	14	
	T-1	Twice a week*1	<7.1	-	-	<6.6	-	-	_	<6.3	_	-	<5.5	
	T-2	Twice a week*1	<7.2	_	_	<6.6	1	_	1	<6.2	_	_	<5.5	
	T-0-1	Once a day*2	<7.4	<5.5	<7.5	<8.4	<8.4	<5.7	<7.2	<7.3	<6.3	<8.2	<5.5	
	T-0-1A	Once a day*2	<7.4	<5.5	<7.5	<8.4	<8.0	<6.5	<5.8	61	<6.8	<6.8	<6.5	
In the vicinity of the	T-0-2	Once a day*2	<7.4	<5.5	<7.5	<8.4	<8.5	<5.7	<7.1	<7.3	<6.2	<8.2	<6.5	
discharge outlet	T-0-3A	Twice a week*1	<6.7	_	_	_	<8.0	_	ı	<6.4	_	_	<7.1	
outlet	T-0-3	Twice a week*1	<7.4	_	_	_	<8.5	_	_	<7.3	_	_	<6.5	
	T-A1	Twice a week*1	<6.7	_	_	_	<5.8	_	1	<6.4	_	_	<7.1	
	T-A2	Once a day*2	<6.7	<5.5	<7.5	<8.4	<5.8	<6.5	<5.9	<6.4	<6.8	<6.8	<7.1	
	T-A3	Twice a week*1	<7.2	_	_	_	<5.9	_	ı	<6.4	_	_	<7.1	
Outside the	T-D5	Once a week	<7.1	_	_	_	<8.1	_	ı	<6.3	_	_	_	
Outside the vicinity of the	T-S3	Once a month	ı	_	_	_	ı	_	_	_	_	_	_	
discharge outlet	T-S4	Once a month	ı	_	_	_	ı	_	ı	_	_	_	_	
Juliet	T-S8	Once a month	ı	_	_	_	_	_	ı	_	_	_	_	

^{*:} 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: 25-2-13)

26

^{*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 after the commencement of discharge at 1PM

3-5. Sea area monitoring history (2/2)



(Unit: Bq/L)

	Sampling						Д	ugust 202	5				
	location*3	Frequency	15	16	17	18	19	20	21	22	23	24	25
	T-1	Twice a week*1	_	_	_	<6.3	_	_	<6.5	_	_	_	<5.2
	T-2	Twice a week*1	_	_	_	<6.2	_	_	<6.5	_	_	_	<5.2
	T-0-1	Once a day*2	<6.6	<6.2	<5.8	<7.5	<5.9	<8.3	<6.5	<8.2	<5.9	<8.6	<7.5
	T-0-1A	Once a day*2	<6.6	<6.0	<7.7	<7.6	<8.0	<6.1	<6.8	<5.7	<5.2	<5.1	<7.6
In the vicinity of the	T-0-2	Once a day*2	<6.6	<6.2	<5.8	<7.5	<5.9	<8.3	<6.8	<8.2	<5.9	<8.7	<7.6
discharge outlet	T-0-3A	Twice a week*1	_	_	_	<7.4	_	_	<6.8	_	_	_	<8.3
outlet	T-0-3	Twice a week*1	_	_	_	<7.6	_	_	<6.8	_	_	_	<7.6
	T-A1	Twice a week*1	_	_	_	<7.4	_	_	<8.4	_	_	_	<8.2
	T-A2	Once a day*2	<6.9	<6.0	<7.7	<7.4	<8.0	<6.1	<8.4	<5.7	<5.1	<5.1	<8.2
	T-A3	Twice a week*1	_	_	_	<7.4	_	_	<8.4	_	_	_	<8.2
	T-D5	Once a week	_	_	_	<6.2	_	_	_	_	_	_	<5.1
Outside the vicinity of the	T-S3	Once a month	_	_	-	<7.2	-	-	_	_	_	_	_
discharge	T-S4	Once a month	_	_	_	<7.2	_	_	_	_	_	_	_
outlet	T-S8	Once a month	_	_	_	<7.2	-	-	-	_	_	_	_

^{**:} 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: 25-2-13)

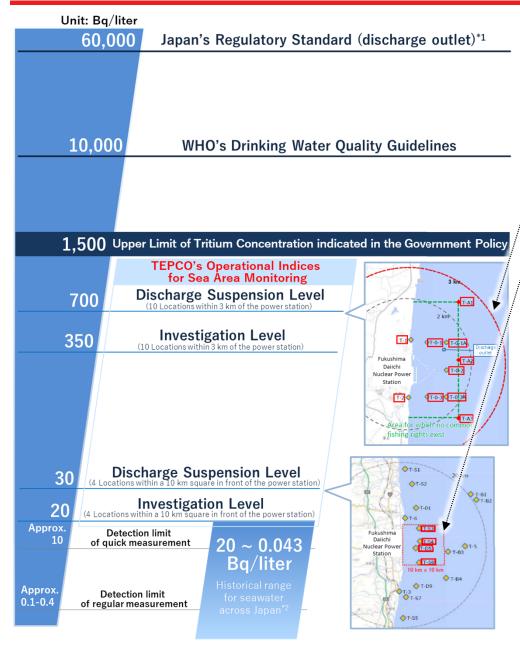
^{*1:} Conduct twice a week during the discharge period and for one week following the completion of discharge. Conduct once a month outside the discharge period, excluding the one week following the completion of discharge

^{*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





^{*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.

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.

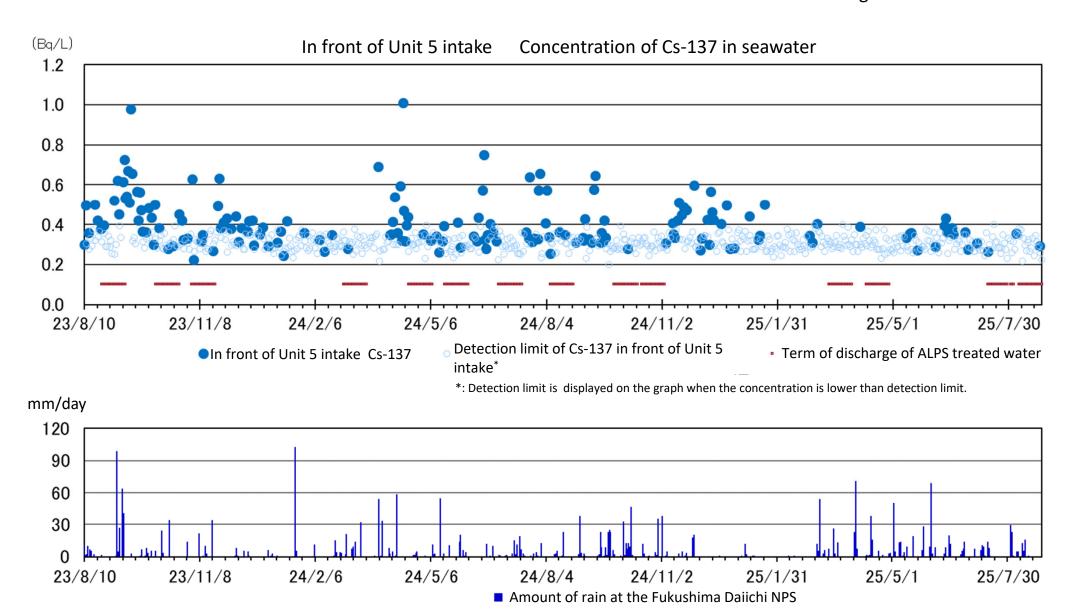
- Even if the tritium concentration exceeds indices (Discharge suspension level and Investigation level), the levels are well below the Japan's regulatory standard of 60,000 Bq/L and the WHO's drinking water quality guidelines of 10,000 Bq/L, and we assess that the surrounding sea areas are still safe.
- 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.

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

1-3. Unit 5 intake channel monitoring



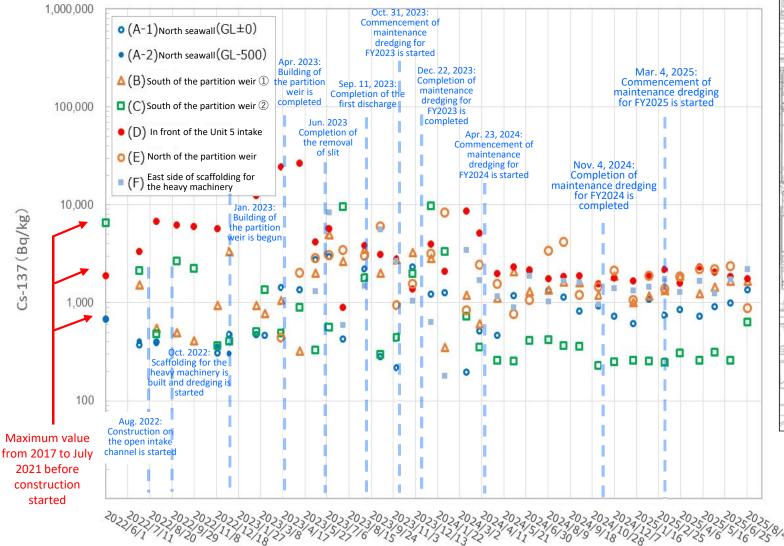
Sea water monitoring results at near the intake for seawater to be used for dilution during the discharge of ALPS treated water have confirmed that values are similar to those outside of the term of the discharge.

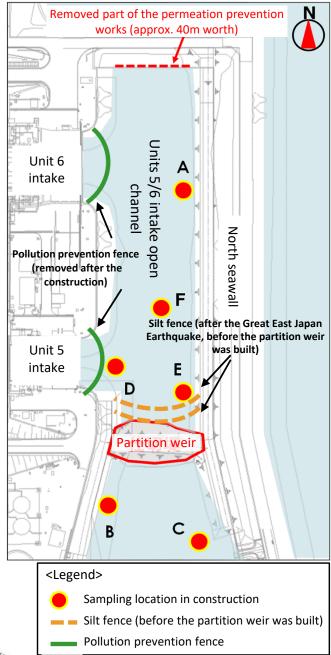


1-3. Monitoring results for seabed soil inside the Unit 5/6 intake open channel (1)



- 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.

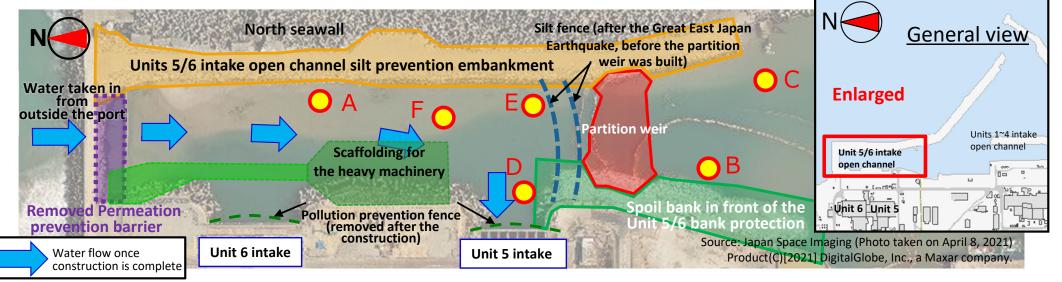




1-3. Monitoring results for seabed soil inside the Unit 5/6 intake open channel (2)



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



Camanlina mainta		Before construction	FY2022	2023						2024										7	2025			
Sampling points	<u></u>	2017 to July 2021	Aug. ~ Mar.	Apr. ~ Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.
A-1 North side of the Unit 5/6	Cs-134	4.4~52.3	31.5~39.8	32.0~69.5	44.5	51.1	34.6	34.4	34.8	53.6	51.4	40.4	59.0	64.5	38.1	57.6	37.4	45.4	38.7	45.0	51.3	47.3	46.7	92.3
open channel	Cs-137	163.6~678.6	303.2~468.1	216.7~2975.0	1,210.0	1,270.0	195.2	510.4	461.7	1,169.0	2,107.0	1,337.0	1,135.0	826.2	922.9	725.1	615.9	1,079.0	741.1	850.5	727.6	902.6	999.4	1,352.0
A-2 North side of the Unit 5/6 open channel	Cs-134	14.4~58.5	32.5~38.3	-						Only	campled	1 from th	ne surface	- (GI + /	Om) since	e sand w	as remo	wed duri	ng dred	ging				
(North side of the silt fence (GL-0.5m)	Cs-137	310.0~689.8	299.1~404.0	-				<u></u>	<u>. </u>		I	110111 tilk		. (OL – U L	111) SILICE	5anu wa	13 1611104		.g ureug L	,IIIB 	ь	ь		/
B South side of the partition weir	Cs-134	723.0	34.5~65.6	48.8~97.1	75.2	38.2	52.8	35.1	50.6	48.1	39.7	58.2	55.7	64.5	42.5	57.6	39.4	38.9	48.3	55.0	35.7	40.0	50.1	55.7
(① (South side of the silt fence)	Cs-137	6,475.0	412.8~3,331.0	323.8~4943.0	2,868.0	353.9	1,205.0	613.8	1,125.0	2,086.0	1,308.0	1,342.0	1,638.0	1,622.0	1,190.0	1,863.0	1,006.0	1,185.0	1,340.0	1,889.0	1,251.0	1,447.0	1,654.0	1,669.0
C South side of the partition weir	Cs-134	183.0	30.9~68.7	37.1~234.8	153.3	115.8	42.4	26.5	36.9	39.2	29.5	41.4	38.1	48.6	31.0	29.8	33.8	28.9	39.2	36.7	33.7	50.7	35.4	38.1
(② (South side of the silt fence)	Cs-137	1,893.0	360.8~2,671.0	295.9~9519.0	9,737.0	3,345.0	723.9	348.9	257.0	253.0	409.7	419.6	361.7	356.2	227.4	246.4	258.6	252.8	245.6	306.9	257.5	311.6	255.8	633.3
D Unit 5 intake	Cs-134	-	101.6~3,546.0	50.2~690.7	61.8	50.3	177.8	114.8	79.6	50.3	40.3	64.9	69.3	83.5	52.0	50.7	35.9	35.9	39.7	44.4	47.1	53.1	80.5	40.6
U Unit 5 intake	Cs-137	-	3,301.0~144,000.0	951.7~26400.0	3,981.0	2,069.0	8,661.0	5,140.0	1,970.0	2,305.0	2,166.0	1,763.0	1,834.0	1,866.0	1,563.0	1,773.0	1,656.0	1,898.0	2,175.0	1,587.0	2,306.0	2,064.0	1,852.0	1,757.0
North side of	Cs-134	-		35.6~147.0	64.4	161.2	46.4	40.4	38.3	37.0	41.6	55.0	50.1	55.7	33.1	42.7	38.4	59.7	30.0	44.4	47.4	82.8	38.9	47.3
the partition weir	Cs-137	· –		437.1~5795.0	3,145.0	8,371.0	829.4	2,427.0	1,551.0	764.6	1,066.0	3,371.0	4,154.0	1,191.0	1,460.0	2,118.0	1,060.0	1,878.0	1,388.0	1,834.0	2,202.0	2,196.0	2,344.0	882.6
<u> </u>	Cs-134	-		40.2~166.1	58.6	31.3	55.3	37.8	87.1	34.1	40.7	49.1	74.8	58.6	48.2	63.2	40.0	42.8	42.2	50.0	56.4	40.7	39.6	63.8
for the heavy machinery	Cs-137			592.4~8303.0	630.9	178.7	3,446.0	1,694.0	1,148.0	891.0	1,884.0	1,020.0	1,654.0	1,606.0	955.9	1,392.0	1,332.0	1,447.0	1,710.0	1,295.0	1,664.0	1,235.0	1,715.0	2,187.0

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

Report contents



1. Performance of the discharge of ALPS treated water (Management number* : 25-2-13 and 25-3-14)

2. Reevaluation of nuclides targeted for measurement/assessment

- 3. Status of the dismantling of the J8/J9 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, "25-2-13" indicates that the data is for the second discharge of 2025, which is the thirteenth discharge to date.

2. Reassessment of nuclides targeted for measurement/analysis during FY2025 TEPCO

- Prior to the discharge of ALPS treated water into the sea, we confirm that discharge standards (sum of the ratios of the regulatory concentration limits of radioactive nuclides, with the exception of tritium, is less than 1) are being met. We originally selected 29 nuclides for analysis as "nuclides targeted for measurement/assessment" based on the flow stipulated in the implementation plan.
- During FY2024, analysis of nuclides targeted for monitoring in contaminated water prior to ALPS treatment detected the presence of Cd-113m. In light of this result, and in consideration of the decay of the radioactive nuclide inventory, etc., we reassessed the nuclides targeted for measurement/assessment and added Cd-113m as a nuclide targeted for measurement/assessment (thereby raising the number of nuclides targeted for measurement/assessment to 30).
 - ⇒Put into effect from the fourth discharge in FY2024.
- During FY2025, when we reassessed the nuclides targeted for measurement/assessment after considering decay of the radioactive nuclide inventory, etc., it was decided to remove Ce-144 from the nuclides targeted for measurement/assessment (thereby lowering the number of nuclides targeted for measurement/assessment to 29 once again).
 - ⇒Put into effect from the third discharge in FY2025. Details are reported on the following pages.

2-1. Reevaluation of nuclides targeted for measurement/assessment during FY2025



- Prior to the discharge of ALPS treated water into the sea, we confirm that discharge standards have been met (the sum of the ratios of the regulatory concentration limits of radioactive nuclides, with the exception of tritium, is less than 1). The 30 nuclides have been analyzed for measurement/assessment.
- The nuclides targeted for measurement/assessment have been conservatively selected by assessing how the substances migrate into the water and half-life decay based on the flow stipulated in the implementation plan and whether they exist in significant concentrations in water prior to ALPS treatment (concentrations that exceed 1/100 of the regulatory concentration limit) or not.

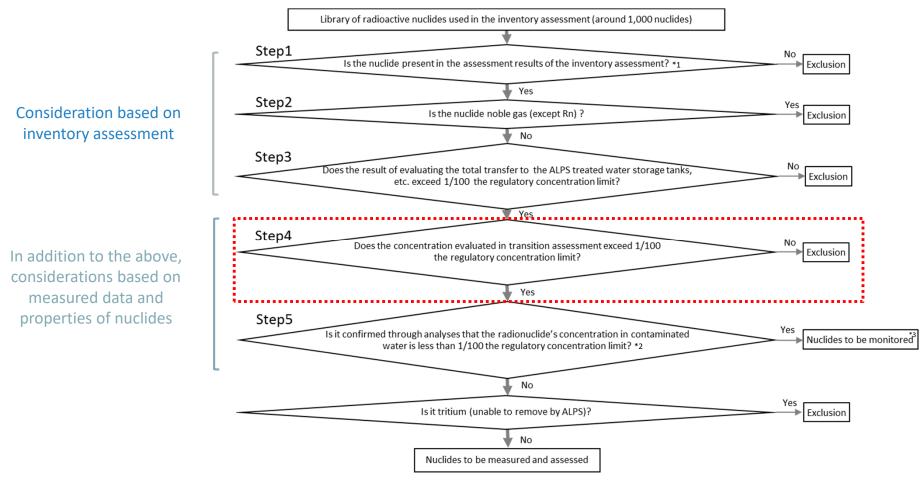
< Announced by August 1, 2024 >

- Nuclides targeted for measurement/assessment are selected while considering half-life decay. When the nuclides targeted for measurement/assessment were reevaluated based on the flow stipulated in the implementation plan and in consideration of the amount of time that has passed since the disaster (14 years), it was decided to exclude cerium 144 (half-life: approximately 285 days) from the nuclides targeted for measurement/assessment due to the decrease in inventory mass (radioactive substance mass) from decay. Accordingly, the number of nuclides targeted for measurement/assessment will decrease from 30 to 29 starting from the third discharge of FY2025 planned for August.
- Even after excluding cerium 144 from the nuclides targeted for measurement/assessment, we shall still voluntarily take measurements for the substance prior to discharges into the sea to confirm that it is below detectable levels.
- We will continue to remain vigilant to ensure the safe and stable discharge of ALPS treated water into the sea.

2-2. Flow chart for the selection of nuclides to be measured/assessed



- Nuclides to be measured/assessed are selected based on the following flowchart.
- The nuclides targeted for measurement/assessment are selected based on whether or not they might exist at significant concentrations in contaminated water by assessing how the substances migrate into the water while considering half-life decay.
- During the FY2025 assessment, it was confirmed that cerium 144 was excluded from the nuclides targeted for measurement/assessment through a step 4 of the selection flow.



^{*1:} The inventory assessment decay period has been set properly in accordance with when the selection results are used (initially set to be 2023 (12 years after the accident))

^{*2:} The maximum detection value is used for nuclides that have been detected in the past, and the minimum detection limit is used for nuclides that have never been detected

^{*3:} Nuclides that are continually measured to confirm that there are no significant concentrations in contaminated water

2-3. Changes to the nuclides to be measured/assessed



- By excluding cerium 144 from the nuclides targeted for measurement/assessment, the number of nuclides targeted for measurement/assessment will be 29, and the number of nuclides voluntarily measured but not targeted for measurement/assessment from amongst the nuclides removed by ALPS will be 39.
- Furthermore, even after excluding cerium 144 from the nuclides targeted for measurement/assessment, we shall still voluntarily take measurements for the substance prior to discharges into the sea to confirm that it is below detectable levels.

Measured every time

Nuclides targeted for measurement/assessment: 329 nuclides

C-14	Sr-90	Te-125m	Sm-151	Pu-238			
Carbon	Strontium	Tellurium	Samarium	Plutonium			
Mn-54	Y-90	I-129	Eu-154	Pu-239			
Manganese	Yttrium	Iodine	Europium	Plutonium			
Fe-55	Tc-99	Cs-134	Eu-155	Pu-240			
Iron	Technetium	Cesium	Europium				
Co-60	Ru-106	Cs-137	U-234	Pu-241			
Cobalt		Cesium	Uranium	Plutonium			
Ni-63	Cd-113m	Ce-144	U-238	Am-241			
Nickel	Cadmium	Cerium	Uranium	Americium			
Se-79	Sb-125	Pm-147	Np-237	Cm-244			
Selenium	Antimony	Promethium	Neptunium	Curium			

Assessed as the sum of the ratios of legally required concentrations to check that it is less than 1

H-3 Tritium Measured in order to determine that the volume of water with which to dilute the treated water so that the tritium concentration after dilution is less than 1,500 Bq/liter

Nuclides voluntarily measured but not targeted for measurement/assessment from amongst the nuclides removed by ALPS: 3839 nuclides

Fe-59 Iron	Rh-103m Rhodium	Te-123m Tellurium					
Co-58 Cobalt	Rh-106 Rhodium	Te-127 Tellurium					
Zn-65 ^{Zinc}	Ag-110m Silver	Te-127m Tellurium	Ce-144 Cerium	Tb-160 Terbium			
Rb-86	Cd-115m Cadmium	Te-129 Tellurium	Pr-144 Praseodymium	Am-242m Americium			
Sr-89 Strontium	Sn-119m Tin	Te-129m Tellurium	Pr-144m Praseodymium	Am-243 Americium			
Y-91 Yttrium	Sn-123	Cs-135 Cesium	Cm-242 Curium				
Nb-95 Niobium	Sn-126	Pm-148 Promethium	Cm-243				
Ru-103 Ruthenium	Sb-124 Antimony	Ba-137m Barium	Pm-148m Promethium				

Voluntarily measured to confirm that concentrations are below detectable levels

2-4. Concentrations of cerium 144 in discharged water to date



- The chart below shows the concentrations of cerium 144 in ALPS treated water that has been discharged to date. All measurements were below detectable levels (Not detected: ND).
 - Even if an analysis result of ND is obtained when confirming that discharge standards have been fulfilled prior to the discharge of ALPS treated water, the ratio of legally required concentrations is calculated conservatively assuming that these substances exist at concentrations equal to the detection limit, after which the sum of the ratio of legally required concentrations is calculated.
 - The ratio of legally required concentrations of cerium 144 has been between $0.0015 \sim 0.0026$ (1st~13th discharge), and contributes very little to the some of the ratios of the other required concentrations of nuclides targeted for measurement/assessment.

< Concentrations of cerium 144 in ALPS treated water discharged to date >

	Cerium 144 Legally required concentration [Bq/L]	Cerium 144 Analysis results [Bq/L]	Ratio of the legally required concentration of cerium 144	Some of the ratios of legally required concentrations of nuclides targeted for measurement/assessment
1 st discharge		ND(<0.36)	0.0018	0.28
2 nd discharge		ND(<0.36)	0.0018	0.25
3 rd discharge		ND(<0.40)	0.0020	0.25
4 th discharge		ND(<0.37)	0.0019	0.34
5 th discharge		ND(<0.38)	0.0019	0.31
6 th discharge		ND(<0.51)	0.0026	0.17
7 th discharge	200	ND(<0.38)	0.0019	0.18
8 th discharge		ND(<0.38)	0.0019	0.12
9 th discharge		ND(<0.37)	0.0019	0.078
10 th discharge		ND(<0.36)	0.0018	0.083
11 th discharge		ND(<0.34)	0.0017	0.076
12 th discharge		ND(<0.31)	0.0015	0.083
13 th discharge		ND(<0.31)	0.0015	0.11

Report contents



- 1. Performance of the discharge of ALPS treated water (Management number* : 25-2-13 and 25-3-14)
- 2. Reevaluation of nuclides targeted for measurement/assessment
- 3. Status of the dismantling of the J8/J9 area tanks
- 4. Transfer of ALPS treated water in preparation for the future discharges

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

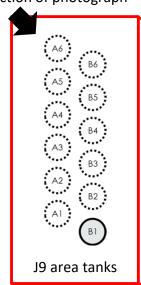
^{*} The management number is made up of the fiscal year, followed by the discharge number for that fiscal year, and the total number of discharges to date. For example, "25-2-13" indicates that the data is for the second discharge of 2025, which is the thirteenth discharge to date.

3-1. Status of the dismantling of the J9 area tanks

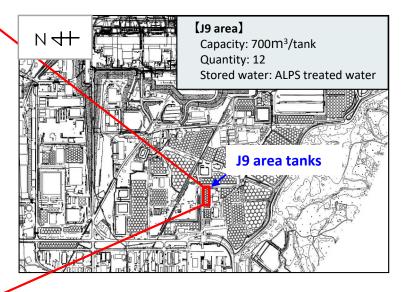


- On February 13, 2025 the J9 area tanks were taken out of service and dismantling began on February 14, 2025.
- Dismantling of the 11th tank was completed on July 30, 2025.

Direction of photograph



: Dismantling completed





Prior to dismantling (February 13)

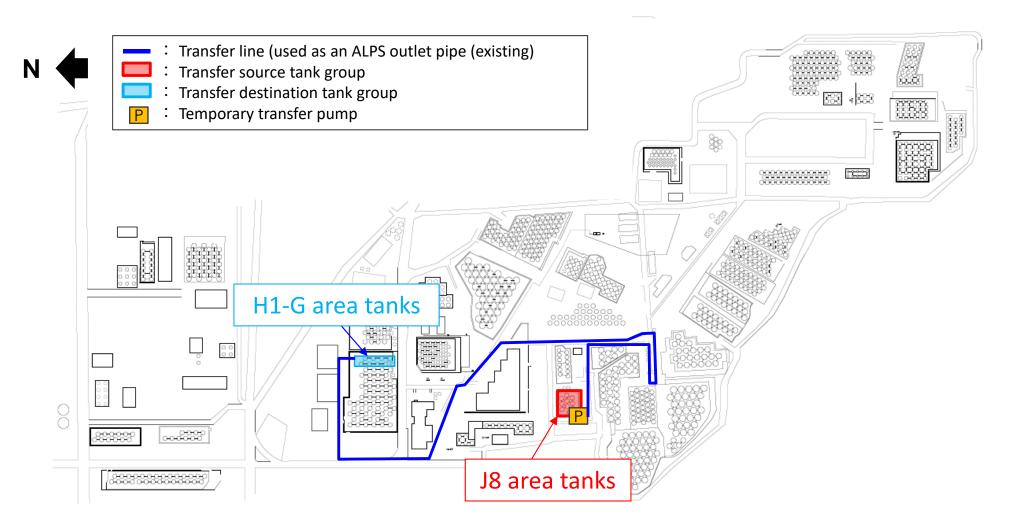
< Tank Dismantling Results >

Tank number	Dismantling completed date	Tank number	Dismantling completed date
A6	Mar 4, 2025	В6	Jun 10, 2025
A5	Mar 14, 2025	B5	Jun 19, 2025
A4	Mar 31, 2025	B4	Jul 1, 2025
А3	Apr 10, 2025	В3	Jul 11, 2025
A2	Apr 21, 2025	B2	Jul 30, 2025
A1	May 14, 2025	B1	_

[Reference] Transferring water in preparation for the dismantling of the J8 area tanks $\tau = 0$



- 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 should be completed around late September 2025.
- After the transfer has been completed, we will commence with the dismantling of the tanks in J8 area as soon as preparations have been completed.



Report contents



- 1. Performance of the discharge of ALPS treated water (Management number* : 25-2-13 and 25-3-14)
- 2. Reevaluation of nuclides targeted for measurement/assessment
- 3. Status of the dismantling of the J8/J9 area tanks
- 4. Transfer of ALPS treated water in preparation for the future discharges

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

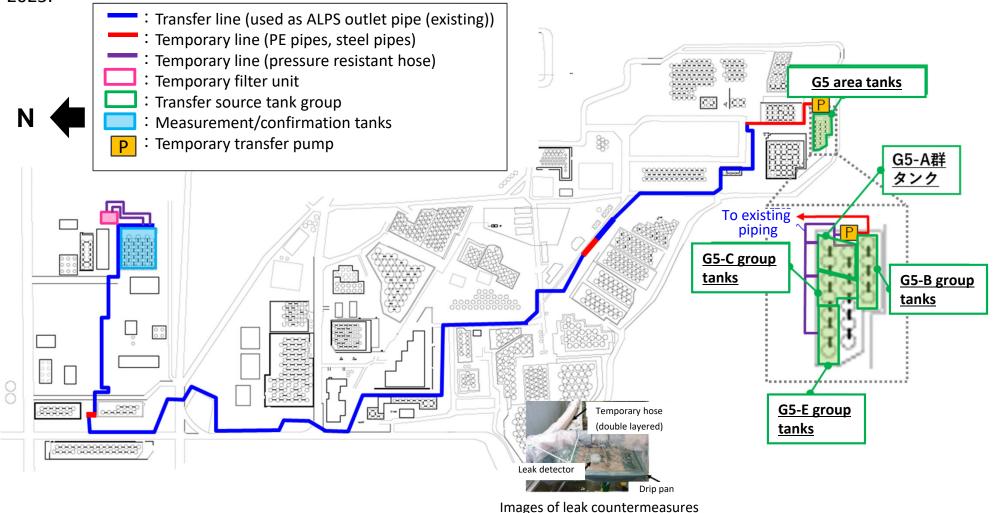
^{*} The management number is made up of the fiscal year, followed by the discharge number for that fiscal year, and the total number of discharges to date. For example, "25-2-13" indicates that the data is for the second discharge of 2025, which is the thirteenth discharge to date.

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



Transfer of ALPS treated water from G5 area Group E/C/B to measurement/confirmation facility tank group B in preparation for the discharge of Management number: 25-4-15 commenced on June 4, 2025 and completed on July 4, 2025. Circulation/agitation of the tanks commenced on July 10, 2025 and samples were taken on July 17, 2025. Samples are currently being analyzed.

Transfer of ALPS treated water from G5 area Group A/B to measurement/confirmation facility tank group C in preparation for the discharge of Management number: 25-5-16 commenced on August 5, 2025 and will be completed in late August 2025.



Report contents



- 1. Performance of the discharge of ALPS treated water (Management number* : 25-2-13 and 25-3-14)
- 2. Reevaluation of nuclides targeted for measurement/assessment
- 3. Status of the dismantling of the J8/J9 area tanks
- 4. Transfer of ALPS treated water in preparation for the future discharges

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

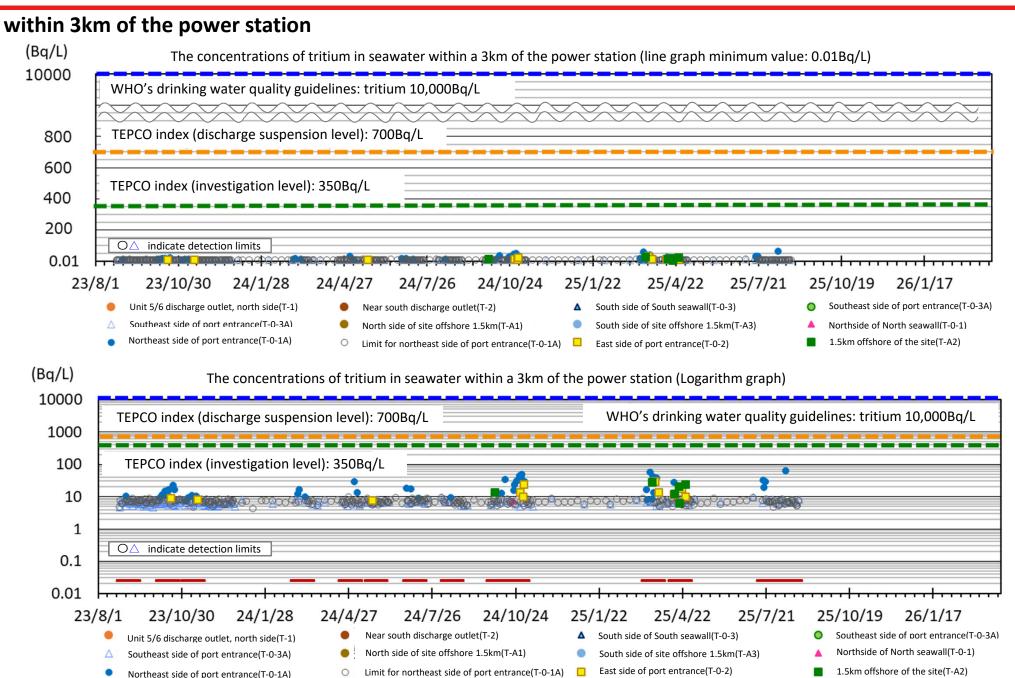
^{*} The management number is made up of the fiscal year, followed by the discharge number for that fiscal year, and the total number of discharges to date. For example, "25-2-13" indicates that the data is for the second discharge of 2025, which is the thirteenth discharge to date.

[Reference] Sea area monitoring results (1/2)

ALPS treated water discharge period

quick monitoring



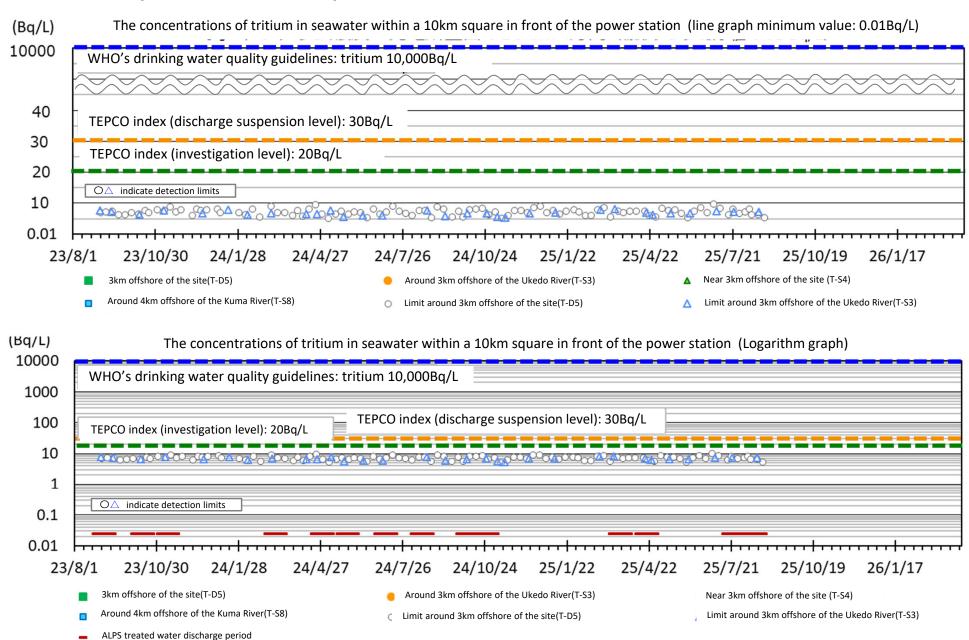


[Reference] Sea area monitoring results (2/2)

quick monitoring



within a 10km square in front of the power station

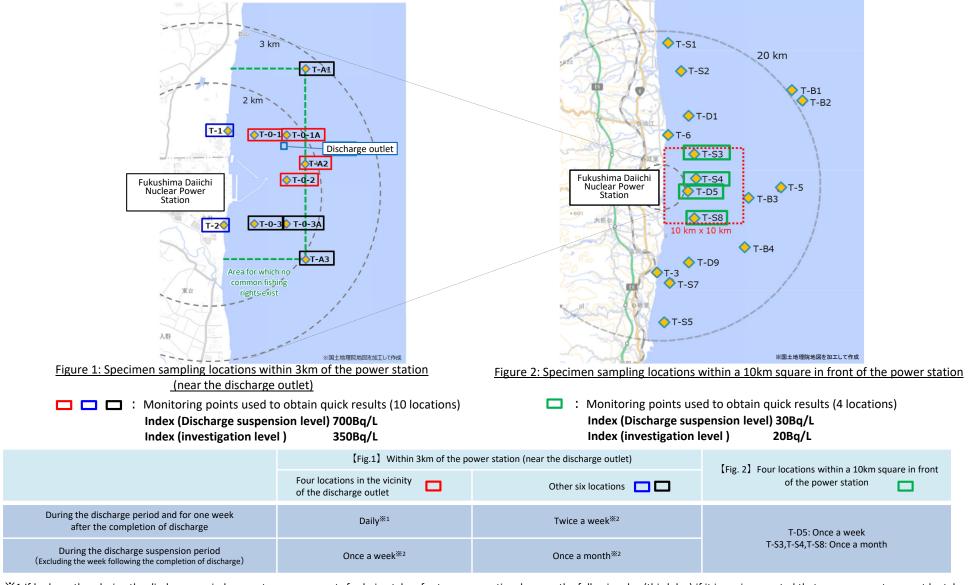


[Reference] Sea area monitoring plan

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.



^{**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)