# **ALPS Treated Water Discharge Status Update**



January 25, 2024

Tokyo Electric Power Company Holdings, Inc.

- 1. Monitoring history regarding discharge
- 2. Discharge vertical shaft (upper-stream storage) repairs
- 3. Status of work for the 4th discharge of ALPS treated water
- 4. Transfer of ALPS treated water in preparation for the 5th and 6th discharges
- 5. FY2024 ALPS Treated Water Discharge Plan (Draft)

(Reference) Sea monitoring history after the commencement of discharge

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### 1-1. Monitoring history regarding discharge (1/2)



- O 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) since the commencement of the first discharge on August 24, 2023, were all below indices (discharge suspension level and investigation level).
- O For quick tritium measurements taken in the vicinity of the discharge outlet, we changed the frequency in order to place importance on the discharge period from December 26, 2023, and have been continuing the monitoring.

  (Unit: Bq/liter)

						Dec	ember 2	023				Jai	nuary 20	24
	Sampling location	Frequency	20	20 Normal *1	21	22	23	24	25	25 Normal *2	26	1	3	3 Normal *2
	T-1	Once a week*	<6.7	ı	<7.2	<6.6	<7.0	<7.1	<6.1	<0.33	<5.0	<5.6	ı	<0.33
	T-2	Once a week*	<6.7	-	<7.1	<6.6	<7.0	<7.2	<6.1	<0.33	<4.9	<5.5	I	<0.33
	T-0-1	Once a week*	<7.5	ı	<8.0	<7.1	<6.6	<7.3	<7.3	Being measured	<6.9	_*3	<6.5	Being measured
In the	T-0-1A	Once a week*	<7.5	ı	<8.0	<7.1	<6.5	<7.3	<7.3	<0.34	<5.8	_*3	<6.5	Being measured
vicinity of the	T-0-2	Once a week*	<7.5	ı	<8.0	<7.1	<6.6	<7.3	<7.3	<0.31	<6.8	_*3	<6.5	<0.32
discharge	T-0-3A	Once a week*	<6.5	1	<7.3	<6.6	<7.0	<7.2	<6.1	<0.34	<5.0	_*3	<8.1	Being measured
outlet	T-0-3	Once a week*	<7.5	1	<8.1	<7.1	<6.5	<7.4	<7.4	<0.34	<7.0	_*3	<6.5	Being measured
	T-A1	Once a week*	<6.5	1	<6.9	<6.1	<6.2	<7.3	<7.8	<0.36	<9.2	_*3	<8.1	Being measured
	T-A2	Once a week*	<6.5	1	<6.9	<6.2	<6.2	<7.2	<7.9	<0.36	<9.2	_*3	<8.1	Being measured
	T-A3	Once a week*	<6.5	1	<6.9	<6.2	<6.2	<7.2	<7.8	<0.36	<9.2	_*3	<8.2	Being measured
Outside	T-D5	Once a week	1	1	I	I	I	I	<7.9	Being measured	1	1	I	_
the vicinity of the	T-S3	Once a month	<6.7	Being measured	ı	ı	1	ı	-	-	1	1	1	_
discharge	T-S4	Once a month	<6.7	Being measured	ı	ı	_	ı	-	_	1	_	_	_
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_	1	-	_	_

<sup>💥 :</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

Conduct once a month outside the discharge period, excluding one week following the completion of discharge

<sup>\*1:</sup> Detection limit 0.1 Bq/liter \*2: Detection limit 0.4 Bq/liter \*3: Sampling suspended due to rough seas

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge. In order to place importance on the discharge period, frequency of the measurement was changed from December 26, 2023 as follows;

<sup>4</sup> locations in the vicinity of the discharge outlet : Conduct daily during the discharge period and for one week following the completion of discharge

### 1-1. Monitoring history regarding discharge (2/2)



(Unit: Bq/liter)

													,	Dq/ iter/
								Januar	y 2024					
	Sampling location	Frequency	6	6 Normal *1	8	8 Normal *2	9	9 Normal *2	11	11 Normal *2	15	15 Normal *1	17	17 Normal *2
	T-1	Twice a week*	_	_	-	Being measured	-	_	_	_	_	Being measured	_	_
	T-2	Twice a week*	_	_	_	Being measured	_	_	-	_	-	Being measured	-	-
	T-0-1	Once a day*	_	_	<6.5	Being measured	_	_	_	_	<6.2	Being measured	_	_
In the	T-0-1A	Once a day*	_	_	<7.2	Being measured	_	_	_	_	<4.2	Being measured	_	_
vicinity of the	T-0-2	Once a day*	ı	_	<6.6	Being measured	ı	_	_	_	<6.2	Being measured	ı	_
discharge	T-0-3A	Twice a week*	_	_	_	Being measured	_	_	_	_	_	Being measured	_	_
outlet	T-0-3	Twice a week*	I	_	I	Being measured	l	_	_	_	1	Being measured	ı	_
	T-A1	Twice a week*	I	_	I	Being measured	l	_	_	_	1	Being measured	ı	_
	T-A2	Once a day*	I	_	<7.6	Being measured	l	_	_	_	<4.2	Being measured	ı	_
	T-A3	Twice a week*	I	_	I	Being measured	l	_	_	_	1	Being measured	ı	_
Outside	T-D5	Once a week	<8.1	Being measured	I	_	<7.0	Being measured	_	_	ı	_	ı	_
the vicinity of the	T-S3	Once a month	ı	_	ı	_	ı	_	_	_	_	_	<7.8	Being measured
discharge	T-S4	Once a month		_	_	_	_	_	_	_	_	_	<7.7	Being measured
outlet	T-S8	Once a month	-	_	_	_	_	_	<6.8	Being measured	_	_	_	_

<sup>💥:</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

<sup>\*1:</sup> Detection limit 0.4 Bq/liter \*2: Detection limit 0.1 Bq/liter

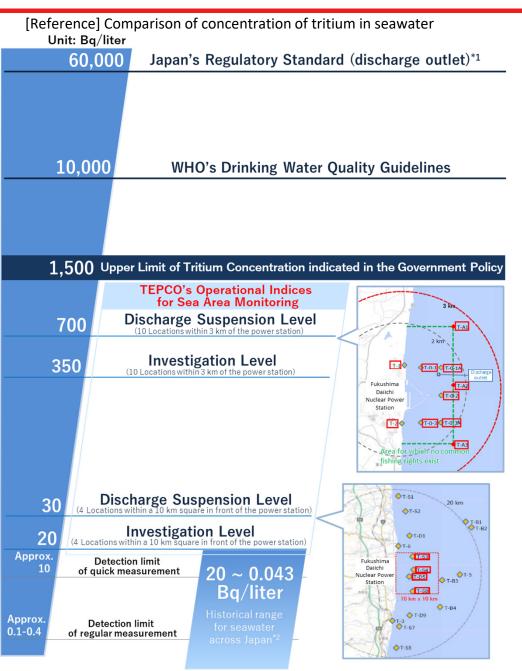
<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge. In order to place importance on the discharge period, frequency of the measurement was changed from December 26, 2023 as follows; 4 locations in the vicinity of the discharge outlet : Conduct daily during the discharge period and for one week following the completion of discharge

Conduct twice a week outside the discharge period, excluding one week following the completion of discharge

### [Reference] Comparison of tritium concentration in seawater



Tritium concentrations measured during sea area monitoring after the commencement of discharge are within the range observed in past seawater monitoring performed throughout the entirety of Japan.



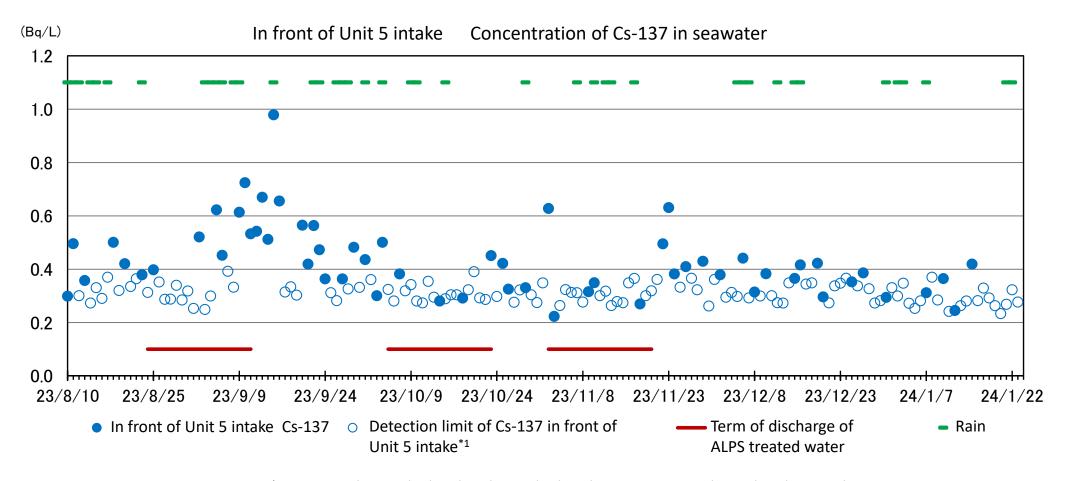
<sup>\*1:</sup> This standard has been stipulated based on the calculation that if a person were to drink approximately 2L of the water coming out of the discharge outlet of a nuclear facility every day for one year, his/her exposure would be 1mSv.

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

### 1-2. 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.



<sup>\*1:</sup> Detection limit is displayed on the graph when the concentration is lower than detection limit.

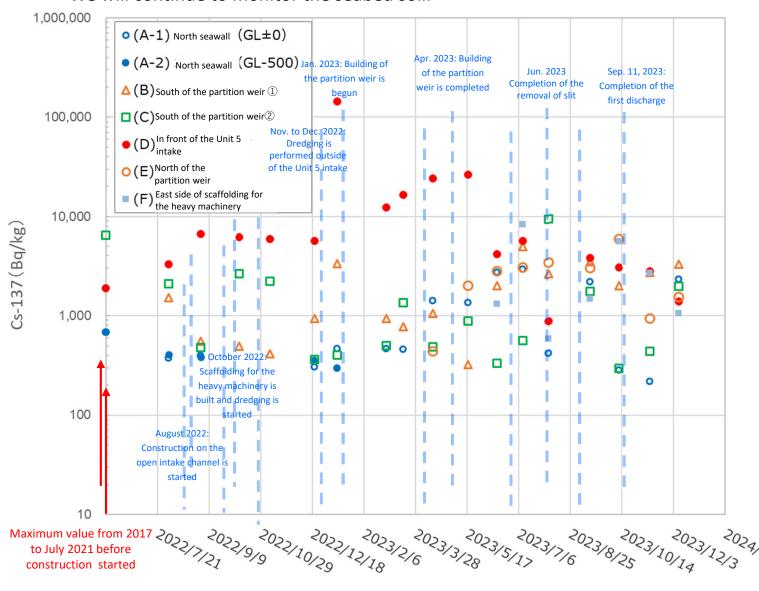
<sup>\*</sup>The location of seawater monitoring inside the Unit 5/6 intake open channel has been changed to the sampling location near the intake for seawater to be used for dilution (changed from "in front of the Unit 6 intake" to "in front of the Unit 5 intake").

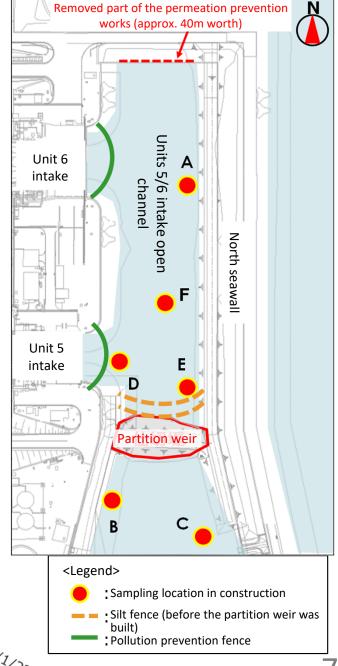
# 1-3. Monitoring results for seabed soil inside the Unit 5/6 intake open channel (1)



Monitoring results for seabed soil in front of Unit 5 intake did not show significant fluctuations from the beginning of construction 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.

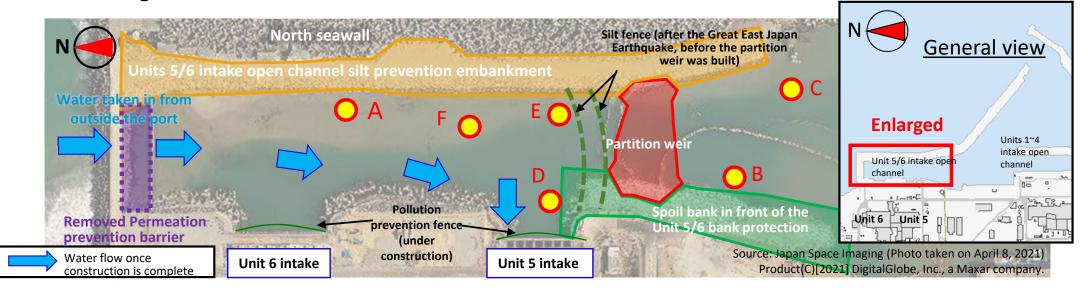




# 1-3. Monitoring results for seabed soil inside the Unit 5/6 intake open channel (2)



The following shows monitoring results for seabed soil inside the unit 5/6 intake open channel from August 2022 to November 2023.



Sampling points		Before construction			2022								2023	1					
Sampling points		2017 to July 2021	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
A-1 North side of the Unit 5/6	Cs-134	4.4~52.3	33.2	36.0	-	-	31.5	37.2	39.8	39.8	40.1	33.9	66.5	65.5	33.6	65.9	34.6	32.0	69.5
open channel North side of the silt fence (GL±0m)	Cs-137	163.6~678.6	371.6	398.8	-	-	303.2	468.1	460.2	460.2	1,414.0	1,360.0	2,752.0	2,957.0	422.3	2,195.0	281.8	216.7	2,322.0
A-2 North side of the Unit 5/6 open channel	Cs-134	14.4~58.5	33.6	32.5	-	1	38.3	33.4		.‱On	ly campled	from the s	urface (GI	+0m) since	a cand was	removed o	during drad	laina	
North side of the silt fence (GL-0.5m)	Cs-137	310.0~689.8	404.0	383.2	-	-	356.4	299.1		X OII	iy sairipieu	HOIH the 3	urrace (OL	— 0111) 31110	z sanu was	Temoveu (	auring ureu	igirig	. ]
<b>B</b> South side of the partition weir $\widehat{1}$	Cs-134	723.0	34.5	42.1	65.6	55.4	46.7	73.9	49.1	43.1	62.6	47.8	60.1	97.1	59.9	92.5	52.4	53.2	83.7
(South side of the silt fence )	Cs-137	6,475.0	1,528.0	553.9	492.4	412.8	936.0	3,331.0	936.1	777.0	1,061.0	323.8	2,008.0	4,943.0	2,649.0	3,528.0	2,004.0	2,732.0	3,287.0
<b>c</b> South side of the partition weir (2)	Cs-134	183.0	51.3	47.2	68.7	59.7	51.8	40.3	30.9	40.3	44.6	61.6	59.5	47.7	234.8	59.3	37.1	39.6	44.0
(South side of the silt fence )	Cs-137	1,893.0	2,114.0	476.0	2,671.0	2,242.0	360.8	400.5	503.5	1,356.0	485.9	886.9	330.5	560.6	9,519.0	1,773.0	295.9	441.2	1,970.0
D Unit 5 intake	Cs-134	_	101.6	184.0	213.7	160.4	108.7	3,546.0	167.4	472.0	690.7	586.2	63.7	141.4	64.5	75.2	70.7	50.2	50.5
<b>D</b> Office 3 filtake	Cs-137	_	3,301.0	6,714.0	6,198.0	5,941.0	5,678.0	144,000.0	12,290.0	16,972.0	24,760.7	26,400.0	4,189.0	5,699.0	951.7	3,876.2	3,085.0	2,810.0	1,387.0
North side of	Cs-134	_									42.8	59.8	86.8	98.7	96.8	56.9	147.0	35.6	45.5
the partition weir	Cs-137	_									437.1	2,022.0	2,822.0	3,069.0	3,438.0	3,022.0	5,975.0	936.5	1,546.0
East side of scaffolding for	Cs-134	_				·							40.2	166.1	45.3	53.7	98.0	52.4	51.4
the heavy machinery	Cs-137	_											1,312.0	8,303.0	592.4	1,481.0	5,569.0	2,676.0	1,049.0

X Unit: Bq/Liter, Figures in grey were below the detection limit.

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(Reference) Sea monitoring history after the commencement of discharge

### 2. Discharge vertical shaft (upper-stream storage) repairs



- To address the seepage of rainwater in through the top plate, which is the cause of the bubbled coatings, we have completed the additional application of waterproof coating to the entire top plate, and a safety path is being established on the top plate to limit walking route on the top plate.
- As part of preventive maintenance, bubbles found in the waterproof coatings on the inner side of the storage that are over 10cm wide, and the joints in the wall panels, have been repaired as shown in the following chart (photos can be found on the following page).
- In conjunction with the completion of these repairs, pressure resistance and leak tests on the inside of the storage will be implemented on January 30 and 31.

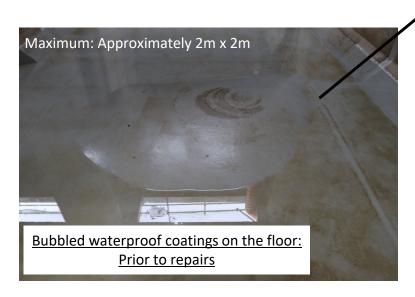
Repair locations	Repair method
Top plate	①Waterproof coating has been be applied to the entire top plate (polyurea) ②A safety path will be established to limit walking route
Bubbled waterproof coatings over 10cm in width	<ul><li>1 Cut the bubbles to drain the rainwater underneath the waterproof coating that caused the bubbles</li><li>2 Install a temporary weir around the cut area, treat the surface and apply waterproof coating(Polyurea)</li></ul>
Wall panel joints	<ul><li>①Cut the bubbles to drain the rainwater underneath the waterproof coating that caused the bubbles and cut out the coatings.</li><li>②Install a temporary weir around the cut area, leave the area to fully dry, treat the surface and apply waterproof coating(Polyurea)</li></ul>

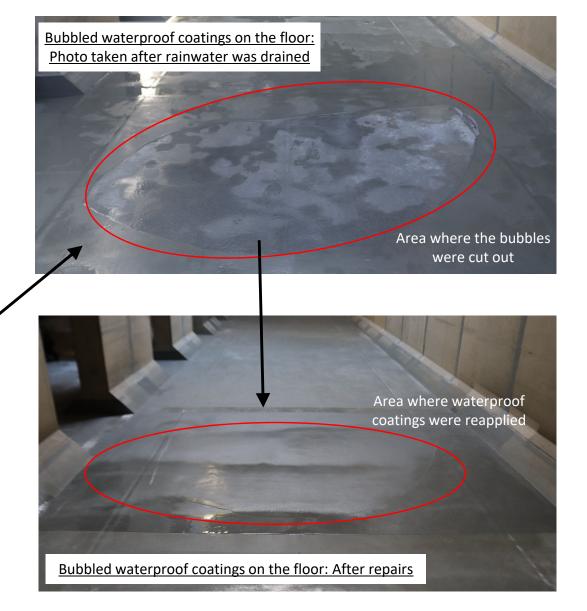
### 2. Discharge vertical shaft (upper-stream storage) repairs



Repairing bubbled waterproof coatings over 10cm in width and the wall panel joints







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Partially edited material from the 121th meeting of the Secretariat of the Team for the Countermeasures for Decommissioning and Contaminated Water Treatment

**TEPCO** 

- Transfer from the K4 area group E and K3 area group A to the measurement/confirmation facility group B was completed on December 11 in preparation for the 4th discharge.
- Agitation/circulation commenced on December 15 and samples were taken on December 22.

Total amount of tritium to be discharged during FY2023: Approx. 5 trillion Bq

■ The collected samples are currently being analyzed. The 4th discharge is scheduled to commence in late February 2024.

1 <sup>st</sup> discharge	Measurement/confirmation facility (K4 area) Group B:	Approx. 7,800m <sup>3</sup>	Secondary treatment: No Tritium concentration: 140,000Bq/liter Total amount of tritium: 1.1 trillion Bq	Completed
2 <sup>nd</sup> discharge	Measurement/confirmation facility (K4 area) Group C:	Approx. 7,800m <sup>3</sup>	Secondary treatment: No Tritium concentration: 140,000Bq/liter Total amount of tritium: 1.1 trillion Bq	Completed
3 <sup>rd</sup> discharge	Measurement/confirmation facility (K4 area) Group A:	Approx. 7,800m <sup>3</sup>	Secondary treatment: No Tritium concentration: 130,000Bq/liter Total amount of tritium: 1.0 trillion Bq	Completed
4 <sup>th</sup> discharge	K4 area Group E (Transferred to Measurement/confirmation facility group B **2):  K3 area Group A (Transferred to Measurement/confirmation facility group B **2):	Approx. 4,500m <sup>3</sup> Approx. 3,300m <sup>3</sup>	Secondary treatment: No Tritium concentration : 170,000~210,000Bq/liter **1 Total amount of tritium: 1.4 trillion Bq **1	
Takal	amount of twitium to be discharged during EV2022. Amore	E trillian Ra	※1 Average value of the tank group that was asse	ssed taking

into account the radioactive decay until July 1, 2023 \*\*2 Being transferred to K4 area tank group B that was empty after the 1st discharge was completed

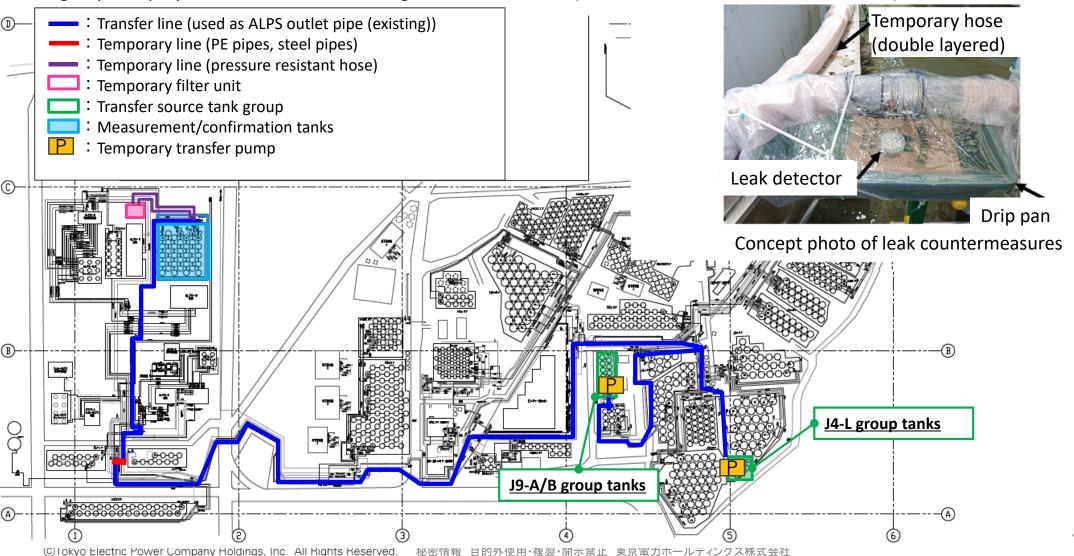
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(Reference) Sea monitoring history after the commencement of discharge

# 4. Transfer of ALPS treated water in preparation for the 5th and 6th discharges

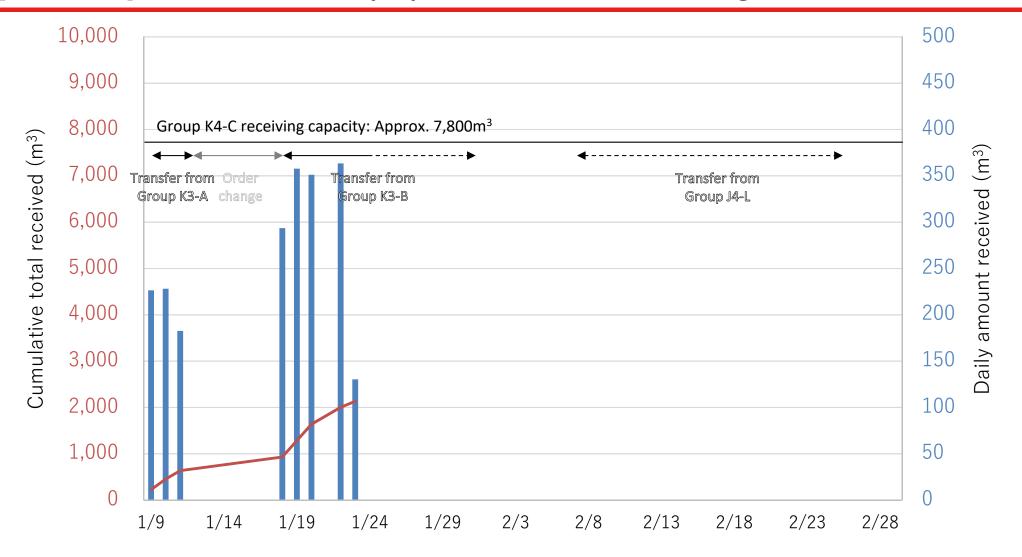


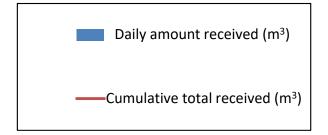
- Transfer of ALPS treated water from K3 area Group A/B and J4 area Group L to measurement/confirmation facility tank group C in preparation for the 5th discharge has been conducted (commenced on January 9, 2024, and scheduled to be completed around late February).
- Transfer of ALPS treated water from J4 area Group L and J9 area Group A/B to measurement/confirmation facility tank group A in preparation for the 6th discharge will be conducted (scheduled to start around March 2024).



### [Reference] Transfer records in preparation for the 5th discharge









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[Main points of FY2024 ALPS treated water discharge plan (draft)]

- Number of annual discharge: 7 times
- Annual amount of water to be discharged: Approx. 54,600m³
- Total amount of tritium to be discharged: Approx. 14 trillion Bq

(Reference) Sea monitoring history after the commencement of discharge

### 5. Discharge plan



- As a general rule, TEPCO will start by discharging water with a low concentration of tritium.
- Based on this general rule, TEPCO will create a discharge plan for the following fiscal year at the
  end of each fiscal year and disclose it to the public while considering tritium concentration,
  facilities required for decommissioning and the future management of storage tanks.
  - XIssues that will be considered when formulating the discharge plan
  - Based on tritium concentration trends in the water generated daily, we will decide whether to prioritize the amount of water being generated daily or in storage when discharging water during the next fiscal year in order to reduce the annual amount of tritium to be discharged while ensuring that the concentration of radioactive substances, with the exception of tritium, meet regulatory standards (sum of the ratios of the concentration of each radionuclide to the regulatory concentration limit is less than 1).
  - During the initial stage of discharge, TEPCO will discharge stored water that does not requires secondary treatment in order to keep the process smooth.
  - Water in tanks close to the measurement/confirmation facility will be discharged first, considering that TEPCO
     will need to transfer ALPS treated water there during the discharge process.

### 5. Considerations when deliberating the FY2024 discharge plan T=PCO

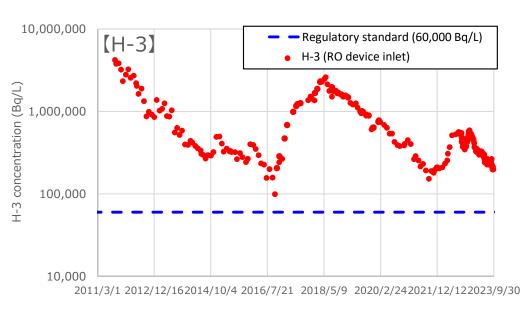
- As a general rule, water with low tritium concentration shall be discharged first, however when deliberating the ALPS treated water discharge plan, the following issues must be taken into consideration.
  - Estimates of the tritium concentrations in contaminated water generated in future

- 2 The amount of contaminated water generated in the future
- 3 Site usage

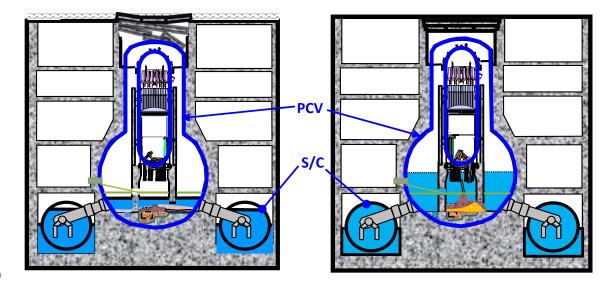
#### 5-1. Tritium concentrations in contaminated water



Although there is a decreasing trend in the tritium concentrations in contaminated water, considering the fact that going forward we will be handling water with high concentrations of tritium in the primary containment vessel, etc.\*, contaminated water generated during FY2024 (estimated to have concentrations of tritium that exceed 400,000Bq/liter) will be stored in tanks after treatment with ALPS.



Tritium concentrations in contaminated water (from RO system inlet)



Unit 1 Unit 3

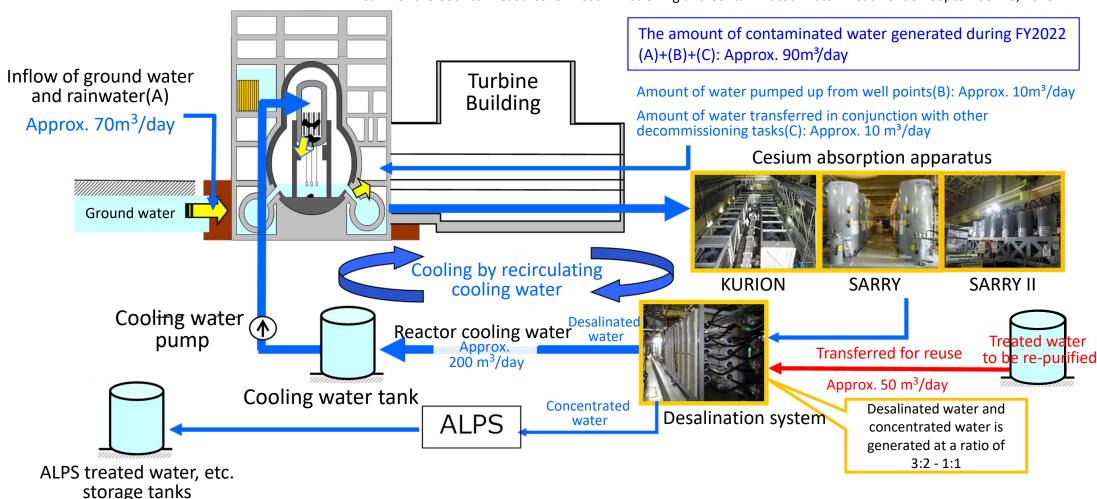
<sup>\*</sup> Includes water drained from equipment/pipes in conjunction with future decommissioning tasks

### 5-2. The amount of contaminated water generated



■ The amount of contaminated water generated during FY2022 fell to approximately 90m³/day. However, when creating the discharge plan, we have conservatively assumed that the amount of contaminated water generated during FY2024 will be 110m³/day\* in order to ensure that ALPS treated water can be stored amidst the lack of tanks.

\* This is the same assumption that was made for the discharge simulation presented to meetings of the Secretariat of the Team for the Countermeasures for Decommissioning and Contaminated Water Treatment on September 28, 2023



### 5-3. Site usage



#### <Facilities/equipment for stable discharges into the sea>

After contaminated water generated on a daily basis and treated water to be re-purified are purified with ALPS, but before this water is transferred to the measurement/confirmation facility (K4 area), it will be kept in relay tanks in order to measure the concentrations of the primary seven nuclides contained in the water after treatment so that contamination of the K4 area can be prevented. Tanks to be used as these relay tanks shall be selected/prepared going forward.

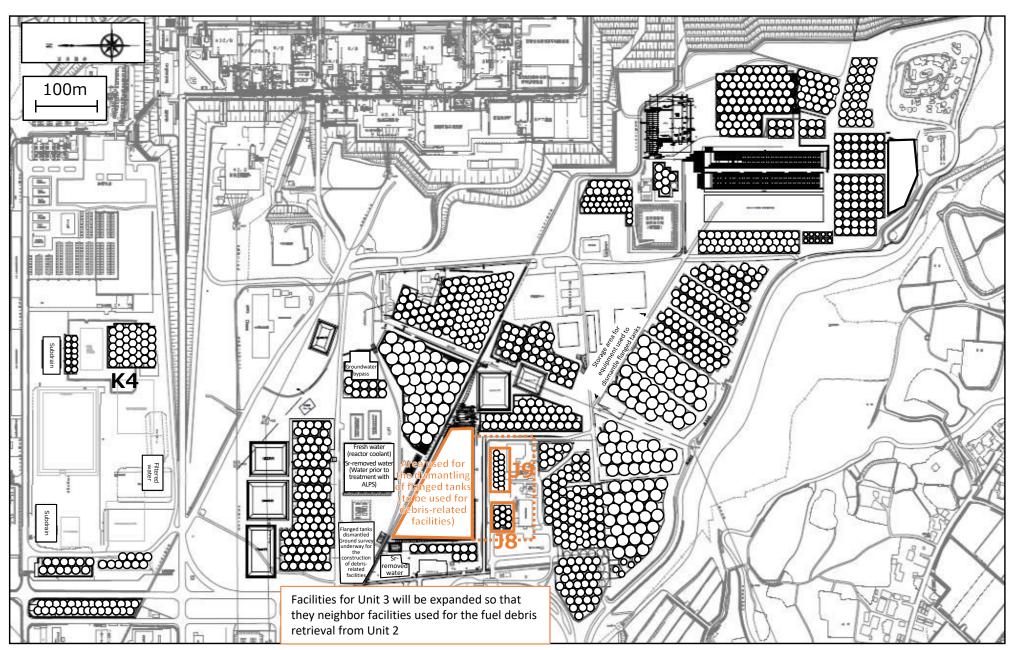
#### <Facility/equipment needed for fuel debris retrieval>

- In addition to the E area (currently being used for flanged tank dismantling), which will be the construction site for facilities needed for the retrieval of fuel debris from Unit 2, the J8<sup>※</sup> and J9 areas in the vicinity of the E area will also be the site of construction of facilities needed for the retrieval of fuel debris from Unit 3. So during FY2024, we shall start emptying and dismantling the tanks in these areas.
- We shall continue to deliberate discharge plans and dismantle tanks so that we can construct facilities/equipment required for decommissioning tasks, such as the retrieval of fuel debris and pool fuel removal, etc., according to plans.

<sup>\*</sup>Since the J8 area has tanks needed for secondary treatment, water will be transferred to tanks that were emptied in order to replenish fresh water.

### [Reference] Areas of dismantled tank groups





### 5-4. FY2024 discharge plan (draft) (1/2)



In light of the considerations mentioned on the aforementioned pages, the FY2024 discharge plan (draft) as of January 2024 is as follows: There will be seven discharges during the year that will result in an annual discharge of approximately 54,600m³ of treated water and an annual tritium discharge volume of approximately 14 trillion Bq.

ſ	Manageme number*				Discharge period
	24-1-5	K3 area Group A/B (Transferred to Measurement/confirmation facility group C):  J4 area Group L (Transferred to Measurement/confirmation facility group C):	Approx. 4,600m <sup>3</sup> Approx. 3,200m <sup>3</sup>	Secondary treatment: No Tritium concentration: 180,000-200,000 Bq/liter Total amount of tritium: 1.5 trillion Bq	April-May
		(management), communication, group of	<b>Прртол. 3,200</b> П		
	24-2-6	J4 area Group L (Transferred to Measurement/confirmation facility group A ):	Approx. 2,200m <sup>3</sup>	Secondary treatment: No Tritium concentration:	May-June
	_,_,	J9 area Group A/B (Transferred to Measurement/confirmation facility group A ):	Approx. 5,600m <sup>3</sup>	170,000-190,000 Bq/liter Total amount of tritium: 1.4 trillion Bq	may some
		IO area Craus A/D			
	24-3-7	J9 area Group A/B (Transferred to Measurement/confirmation facility group B ):	Approx. 2,100m <sup>3</sup>	Secondary treatment: No Tritium concentration:	June-July
	24-5-7	K1 area Group C/D (Transferred to Measurement/confirmation facility group B ):	Approx. 5,700m <sup>3</sup>	160,000-180,000 Bq/liter Total amount of tritium: 1.3 trillion Bq	Julie-July
	24-4-8	K1 area Group C/D (Transferred to Measurement/confirmation facility group C):	Approx. 5,100m <sup>3</sup>	Secondary treatment: No Tritium concentration	July-
		G4 south area Group C (Transferred to Measurement/confirmation facility group C):	Approx. 2,700m <sup>3</sup>	: 160,000~310,000 Bq/liter <sup>*1</sup> Total amount of tritium: 1.7 trillion Bq <sup>*1</sup>	August

#### Continues on next slide

<sup>\*1</sup> 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, "24-1-5" indicates that the data is for the first discharge of 2024, which is the fifth discharge to date.

<sup>\*2</sup> The tank group average considers the amount of decay that will have occurred as of April 1, 2024

### FY2024 discharge plan (draft) (2/2)



#### Continued from previous slide

Management number\*1

Discharge period

24-5-9

G4 south area Group C

(Transferred to Measurement/confirmation facility group A ): Approx. 7,300m<sup>3</sup>

Secondary treatment: No Tritium concentration

August-September

G4 south area Group A

(Transferred to Measurement/confirmation facility group A): Approx. 500m<sup>3</sup>

: 300,000~350,000 Bg/liter \*\*2 Total amount of tritium: 2.4 trillion Ba

24-6-10

G4 south area Group A

(Transferred to Measurement/confirmation facility group B): Approx. 7,800m<sup>3</sup>

Secondary treatment: No Tritium concentration

: 340,000~350,000 Bg/liter \*\*1

Total amount of tritium: 2.7 trillion Bg \*1

September-October

Inspection suspension (including full inspections of measurement/confirmation facility Group B)

24-7-11

G4 south area Group A

(Transferred to Measurement/confirmation facility group C): Approx. 1,700m<sup>3</sup>

Secondary treatment: No Tritium concentration

: 340,000~400,000 Bg/liter \*\*1

Total amount of tritium: 3.0 trillion Bq \*1

March

G4 south area Group B

(Transferred to Measurement/confirmation facility group C): Approx. 2,700m<sup>3</sup>

Total amount of tritium to be discharged during FY2024 : Approx. 14 trillion Bq

<sup>\*1</sup> 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, "24-1-5" indicates that the data is for the first discharge of 2024, which is the fifth discharge to date.

<sup>\*2</sup> The tank group average considers the amount of decay that will have occurred as of April 1, 2024

- 1. Monitoring history regarding discharge
- 2. Discharge vertical shaft (upper-stream storage) repairs
- 3. Status of work for the 4th discharge of ALPS treated water
- 4. Transfer of ALPS treated water in preparation for the 5th and 6th discharges
- 5. FY2024 ALPS Treated Water Discharge Plan (Draft)

(Reference) Sea monitoring history after the commencement of discharge

### Sea area monitoring history (1/15)



- O 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) since the commencement of the first discharge on August 24, 2023, were all below indices (discharge suspension level and investigation level).
- O For quick tritium measurements taken in the vicinity of the discharge outlet, we increased the frequency from once a week to daily after the commencement of the discharge, continuing until December 25, 2023, and promptly disclosed the results. (Unit: Ba/liter)

								August	, 2023					
	Sampling location	Frequency	24 *1	24 Normal *1,2	25	26	26 Normal *3	27	28	29	30	30 Normal *2,3	31	31 Normal *3
	T-1	Once a week*	<6.3	<0.34	<5.6	<6.6	0.97	<6.2	<7.3	<5.9	<6.4	1.0	<6.8	_
	T-2	Once a week*	<6.3	<0.33	<5.5	<6.5	1.1	<6.2	<7.3	<5.9	<6.3	1.3	<6.8	_
	T-0-1	Once a week*	<8.0	<0.34	<6.8	<6.1	0.66	<6.1	_*4	_*4	<6.8	<0.32	<8.2	_
In the	T-0-1A	Once a week*	<4.6	2.6	<7.6	<6.2	0.087	<6.1	_*4	_*4	<6.9	0.43	10	_
vicinity	T-0-2	Once a week*	<8.1	<0.35	<6.8	<6.1	0.92	<6.1	_*4	_*4	<6.8	1.4	<8.2	_
of the discharge	T-0-3A	Once a week*	<4.7	<0.33	<7.6	<6.8	<0.068	<6.8	_*4	_*4	<7.6	<0.32	<5.1	_
outlet	T-0-3	Once a week*	<8.0	<0.34	<6.9	<6.1	0.14	<6.1	_*4	_*4	<6.8	<0.31	<8.3	_
	T-A1	Once a week*	<6.6	<0.32	<7.6	<6.8	0.13	<6.8	_*4	_*4	<7.6	1.1	<5.1	_
	T-A2	Once a week*	<6.6	<0.32	<7.6	<6.8	0.065	<6.8	_*4	_*4	<7.7	1.5	<5.1	_
	T-A3	Once a week*	<6.6	<0.32	<6.9	<6.8	<0.072	<6.8	_*4	_*4	<7.6	1.1	<5.2	_
Outside	T-D5	Once a week	_	_	-	ı	_	-	ı	-	-	_	<6.8	0.59
Outside the vicinity of the	T-S3	Once a month	_	_	_	ı	_	_	_	_	<7.6	0.070	_	_
discharge	T-S4	Once a month	_	_	_	ı	_	_	_	_	<7.7	0.073	١	_
outlet	T-S8	Once a month	_	_	_	-	_	_	_	_	<7.7	0.062	_	_

<sup>※:</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

<sup>:</sup> Term of discharge of ALPS treated water (Group B)

<sup>\*1:</sup> Sampled after the commencement of discharge at 3PM \*2: Detection limit 0.4 Bq/liter

<sup>\*3:</sup> Detection limit 0.1 Bq/liter

<sup>\*4:</sup> Sampling suspended due to rough

# Sea area monitoring history (2/15)



(Unit: Bq/liter)

							Ç	Septemb	er, 2023	3				
	Sampling location	Frequency	1	2	3	4	4 Normal *1	5	6	6 Normal *1	7	8	9	10
	T-1	Once a week*	<7.2	<6.8	<5.8	<6.6	0.68	<7.1	<7.1	_	<6.1	<5.9	<6.0	<7.8
	T-2	Once a week*	<7.4	<6.8	<5.8	<6.6	0.90	<7.1	<7.1	_	<6.1	<5.9	<6.0	<7.8
	T-0-1	Once a week*	<7.3	<7.3	<6.8	<6.9	<0.34	<6.6	<6.6	_	<8.7	<6.9	<8.0	<7.0
In the	T-0-1A	Once a week*	<7.3	<8.2	<6.8	<6.9	<0.33	<7.0	<6.6	_	<8.7	<6.9	<8.0	<7.1
vicinity of the	T-0-2	Once a week*	<7.3	<7.3	<6.7	<7.0	0.74	<6.5	<6.6	_	<8.6	<6.8	<8.0	<7.0
discharge	T-0-3A	Once a week*	<7.0	<7.8	<6.5	<5.9	<0.33	<7.6	<6.3	_	<5.3	<7.4	<6.5	<6.5
outlet	T-0-3	Once a week*	<7.3	<8.2	<6.7	<6.8	<0.34	<7.8	<6.6	_	<8.7	<6.9	<8.0	<7.1
	T-A1	Once a week*	<7.1	<7.9	<6.5	<5.9	1.1	<7.6	<6.3	_	<5.3	<7.4	<6.4	<6.5
	T-A2	Once a week*	<7.1	<7.8	<6.5	<7.3	0.88	<7.6	<6.2	_	<5.3	<7.3	<6.6	<6.4
	T-A3	Once a week*	<7.1	<7.9	<6.5	<7.3	0.82	<7.6	<6.3	_	<5.3	<7.3	<6.5	<6.5
Outside	T-D5	Once a week	ı	ı	ı	ı	_	ı	<7.1	<0.34	_	ı	_	-
the vicinity of the	T-S3	Once a month	-	_	_	_	_	_	_	_	_	_	_	_
discharge	T-S4	Once a month	-	_	_	_	_	_	_	_	_	_	_	_
outlet	T-S8	Once a month	-	_	_	_		_	_	_	_	_	_	_

\*1: Detection limit 0.4 Bq/liter

<sup>:</sup> Term of discharge of ALPS treated water (Group B)

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (3/15)



(Unit: Bq/liter)

								Septemb	er, 2023	3				
	Sampling location	Frequency	11 *1	11 Normal *1,2	12	12 Normal *2	13	13 Normal *2	14	15	16	17	18	18 Normal *3
	T-1	Once a week*	<7.0	0.21	<7.2	_	<7.2	_	<6.5	<7.3	<6.7	<7.0	<7.6	<0.31
	T-2	Once a week*	<7.0	0.24	<7.2	-	<7.2	_	<6.5	<7.4	<6.8	<6.9	<7.6	<0.31
	T-0-1	Once a week*	<6.8	0.10	<7.7	_	<6.6	_	<7.5	<7.8	<7.6	<7.8	<7.4	<0.36
In the	T-0-1A	Once a week*	<6.8	0.12	<7.8	_	<6.5	_	<7.5	<7.7	<7.5	<7.7	<7.3	<0.34
vicinity of the	T-0-2	Once a week*	<6.8	0.13	<7.7	_	<6.5	_	<7.5	<7.7	<7.6	<7.7	<7.3	<0.31
discharge	T-0-3A	Once a week*	<6.2	0.10	<7.0	_	<5.9	_	<6.6	<7.4	<6.8	<6.9	<7.6	<0.35
outlet	T-0-3	Once a week*	<6.8	0.16	<7.8	_	<6.5	_	<7.5	<7.7	<7.5	<7.8	<7.3	<0.34
	T-A1	Once a week*	<7.0	0.078	<7.0	_	<5.9	_	<6.7	<5.5	<7.2	<5.5	<6.7	<0.31
	T-A2	Once a week*	<7.0	0.097	<7.0	_	<5.9	_	<6.7	<5.5	<7.3	<5.4	<6.7	<0.31
	T-A3	Once a week*	<7.0	0.16	<7.0	_	<5.9	_	<6.7	<5.5	<7.2	<5.5	<6.7	<0.31
Outside	T-D5	Once a week	ı	_	ı	_	<7.2	0.11	ı	ı	-	ı	-	_
the vicinity	T-S3	Once a month	ı	_	<7.1	<0.068	_	_	Ι	_	_	ı	_	_
	T-S4	Once a month	ı	_	<7.1	0.087	I	_	_	_	_	_	_	_
outlet	T-S8	Once a month	<6.2	0.098	_	_	_	_	_	_	_	_	_	_

<sup>※:</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

: Term of discharge of ALPS treated water (Group B)

<sup>\* :</sup> Monitored daily for the time being after the commencement of discharge

<sup>\*1:</sup> Sampled before 9AM, prior to the completion of the discharge

<sup>\*2:</sup> Detection limit 0.1 Bq/liter

<sup>\*3:</sup> Detection limit 0.4 Bq/liter

# Sea area monitoring history (4/15)



(Unit: Bq/liter)

							(	Septemb	er, 2023	3				
	Sampling location	Frequency	19	20	20 Normal *1	21	22	23	24	25	25 Normal *1	26	27	27 Normal *1
	T-1	Once a week*	<5.0	<6.9	_	<5.0	<5.3	<6.5	<6.7	<7.2	<0.31	<5.6	<6.2	_
	T-2	Once a week*	<5.0	<6.9	_	<5.0	<5.3	<6.5	<6.7	<7.2	<0.31	<5.6	<6.3	_
	T-0-1	Once a week*	<5.5	<7.9	_	<6.5	<6.3	<6.5	<7.6	<8.7	<0.35	<7.9	<6.2	_
In the	T-0-1A	Once a week*	<5.6	<8.2	-	<6.5	<6.3	<6.5	<7.5	<8.7	<0.35	<7.9	<6.2	-
vicinity of the	T-0-2	Once a week*	<5.6	<7.9	-	<6.5	<6.2	<6.5	<7.5	<8.7	<0.30	<7.9	<6.2	_
discharge	T-0-3A	Once a week*	<5.0	<6.1	-	<5.0	<5.3	<6.5	<6.7	<7.2	<0.35	<5.6	<6.2	-
outlet	T-0-3	Once a week*	<5.5	<7.9	_	<6.5	<6.3	<6.5	<7.5	<8.7	<0.35	<7.9	<6.2	_
	T-A1	Once a week*	<6.9	<5.9	_	<6.6	<7.0	<7.6	<5.1	<6.3	<0.30	<7.3	<6.6	-
	T-A2	Once a week*	<6.9	<5.9	-	<6.7	<7.0	<7.6	<5.1	<6.3	<0.30	<7.3	<6.7	
	T-A3	Once a week*	<7.0	<6.3	_	<6.6	<7.0	<7.6	<5.1	<6.3	<0.29	<7.3	<6.6	-
Outside	T-D5	Once a week	1	<6.1	<0.34	ı	ı	ı	ı	ı	_	ı	<6.3	<0.35
the vicinity	T-S3	Once a month	-	ı	_	ı	1	1	-	ı	_	1	-	_
of the discharge	T-S4	Once a month	_	ı	_	-	ı	-	_	_	_	ı	-	_
outlet	T-S8	Once a month	ı		_			_			_	ı	_	_

<sup>※ :</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

\*1: Detection limit 0.4 Bq/liter

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (5/15)



(Unit: Bq/liter)

			Sept	ember, 2	2023				Oct	ober, 20	)23			
	Sampling location	Frequency	28	29	30	1	2	2 Normal *1	3	4	4 Normal *1	5 *2	5 Normal *1,2	6
	T-1	Once a week*	<6.7	<4.9	<7.3	<6.0	<5.8	<0.34	<6.7	<6.9	_	<5.8	<0.31	<5.8
	T-2	Once a week*	<6.7	<4.7	<7.3	<6.0	<5.7	<0.33	<6.6	<6.8	_	<5.7	<0.31	<5.7
	T-0-1	Once a week*	<6.8	<6.8	<7.9	<8.3	<7.0	<0.35	<6.5	<7.3	_	<7.8	<0.31	<7.0
In the	T-0-1A	Once a week*	<6.8	<6.8	<7.9	<8.0	<6.9	<0.35	<6.4	<7.3	_	<7.6	5.2	<7.4
vicinity of the	T-0-2	Once a week*	<6.8	<6.9	<8.0	<8.4	<7.0	<0.36	<6.4	<7.2	_	<7.6	<0.33	<7.0
discharge	T-0-3A	Once a week*	<6.7	<4.7	<7.4	<6.2	<5.8	<0.35	<6.8	<6.9	-	<5.9	<0.32	<5.8
outlet	T-0-3	Once a week*	<6.8	<7.0	<7.7	<8.0	<7.0	<0.35	<6.4	<7.2	_	<7.7	<0.32	<6.4
	T-A1	Once a week*	<9.3	<7.8	<8.1	<8.0	<5.6	<0.30	<7.3	<7.5	_	<7.7	<0.30	<7.0
	T-A2	Once a week*	<5.5	<7.8	<8.0	<8.0	<5.7	<0.30	<7.5	<7.5	_	<7.7	<0.31	<7.0
	T-A3	Once a week*	<7.2	<7.6	<8.0	<8.1	<5.6	<0.30	<7.4	<7.4	_	<7.6	<0.30	<7.1
Outside	T-D5	Once a week	1	ı	ı	ı	I	_	1	<6.8	<0.35	ı	-	1
the vicinity of the	T-S3	Once a month	-	-	_	1	ı	_	_	_	_	-	_	-
discharge	T-S4	Once a month	-	_	_	1	_	_	_	_	_	_	_	_
outlet	T-S8	Once a month	ı	-	_	ı	_	_	_	_	_	_	-	-

💥: A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

: Term of discharge of ALPS treated water (Group C)

\*1: Detection limit 0.4 Bq/liter

\*2: Sampled after the commencement of discharge at 2PM

 $<sup>\ ^{*}</sup>$  : Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (6/15)



(Unit: Bq/liter)

								Octobe	r, 2023					
	Sampling location	Frequency	7	8	9	9 Normal *1	10	11	12	12 Normal *1	13	14	15	16
	T-1	Once a week*	<5.8	<6.1	<7.2	0.40	<6.9	<6.5	<6.3	_	<6.5	<6.1	<5.5	<6.0
	T-2	Once a week*	<5.8	<6.1	<7.1	being measured	<6.9	<6.6	<6.3	_	<6.5	<6.2	<5.5	<6.0
	T-0-1	Once a week*	<6.7	<8.2	<7.9	1.4	_*2	<7.3	<7.3	_	<7.3	<8.7	<7.3	<7.8
In the	T-0-1A	Once a week*	9.4	<8.2	11	12	_*2	<7.3	14	_	11	<8.7	14	16
vicinity of the	T-0-2	Once a week*	<6.8	<8.1	<7.9	0.43	_*2	<7.3	<7.3	_	<7.3	<8.7	<7.3	<7.8
discharge	T-0-3A	Once a week*	<5.8	<6.1	<7.2	<0.072	_*2	<6.8	<6.3	_	<6.5	<6.1	<5.6	<6.0
outlet	T-0-3	Once a week*	<6.7	<8.2	<7.8	0.45	_*2	<7.3	<7.2	_	<7.2	<8.6	<7.3	<7.8
	T-A1	Once a week*	<6.4	<5.5	<6.7	0.43	_*2	<6.8	<8.7	_	<8.6	<6.2	<7.2	<7.2
	T-A2	Once a week*	<5.9	<5.5	<6.7	0.25	_*2	<6.8	<8.6	_	<8.6	<5.6	<7.2	<7.2
	T-A3	Once a week*	<5.8	<5.5	<6.8	<0.073	_*2	<6.8	<8.6	_	<8.6	<5.7	<7.2	<7.2
Outside	T-D5	Once a week	ı	_	1	_	-	_	<6.4	<0.070	-	_	_	_
the vicinity of the	T-S3	Once a month	1	_	1	_	_	_	<6.4	<0.071	_	_	_	_
discharge	T-S4	Once a month	ı	_	_	_	_	_	<6.4	<0.070	-	_	_	_
outlet	T-S8	Once a month	_	_	_	_	_	_	<6.5	0.065	_	_	_	_

<sup>※ :</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

: Term of discharge of ALPS treated water (Group C)

\*1: Detection limit 0.1 Bq/liter

\*2 : Sampling suspended due to bad weather condition

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (7/15)



(Unit: Bq/liter)

								Octobe	r, 2023					
	Sampling location	Frequency	16 Normal *1	17	18	19	19 Normal *1	20	21	22	23 *2	23 Normal *1,2	24	25
	T-1	Once a week*	4.3	<6.5	<7.1	<7.2	_	<5.5	<5.6	<5.3	<6.5	1.3	<6.5	<5.8
	T-2	Once a week*	0.66	<6.5	<7.1	<7.1	_	<5.5	<5.6	<5.2	<6.5	0.80	<6.5	<5.8
	T-0-1	Once a week*	1.0	<6.7	<5.9	<8.3	_	<7.0	<6.8	<7.3	<6.7	1.3	<7.8	<7.5
In the	T-0-1A	Once a week*	14	<6.7	<5.8	<8.5	_	<7.0	22	16	<6.7	0.71	<7.7	<7.5
vicinity of the	T-0-2	Once a week*	1.2	<6.7	8.9	<8.4	_	<7.0	<6.8	<7.3	<6.7	0.40	<7.7	<7.5
discharge	T-0-3A	Once a week*	0.74	<6.5	<7.1	<7.1	_	<5.5	<5.6	<5.3	<6.5	<0.33	<6.5	<5.8
outlet	T-0-3	Once a week*	1.0	<6.7	<6.7	<8.4	-	<7.0	<6.8	<7.3	<6.7	1.0	<7.7	<7.5
	T-A1	Once a week*	0.50	<8.3	<7.2	<7.5	-	<7.5	<8.5	<5.7	<6.8	0.37	<7.5	<7.8
	T-A2	Once a week*	0.56	<8.3	<7.2	<7.5	-	<7.5	<8.4	<5.7	<6.9	<0.31	<7.5	<7.8
	T-A3	Once a week*	0.80	<8.3	<7.2	<7.5	-	<7.5	<8.5	<5.7	<6.8	<0.32	<7.5	<7.8
Outside	T-D5	Once a week	_	1	-	<7.5	<0.34	ı	_	1	<6.9	<0.32	ı	_
the vicinity of the	T-S3	Once a month	_	_	-	-	_	1	_	1	_	_	ı	_
discharge	T-S4	Once a month	_	_	_	_	_	_	_	_	_	_	-	_
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_	_	_	_	_

※: A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

: Term of discharge of ALPS treated water (Group C)

\*1: Detection limit 0.4 Bq/liter

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

<sup>\*2 :</sup> Sampled before 9AM, prior to the completion of the discharge

# Sea area monitoring history (8/15)



(Unit: Bq/liter)

					Octobe	r, 2023					Novemb	er, 2023		
	Sampling location	Frequency	26	27	28	29	30	31	1	1 Normal *2	2 *3	2 Normal *2,3	3	4
	T-1	Once a week*	<6.5	<6.4	<7.2	<6.8	<6.4	<7.1	<7.9	<0.32	<6.0	0.35	<8.1	<8.0
	T-2	Once a week*	<6.6	<6.3	<7.2	<6.8	<6.4	<7.1	<7.9	<0.33	<8.3	0.36	<8.1	<8.2
	T-0-1	Once a week*	<7.6	<7.8	<8.3	<7.8	_*1	_*1	<7.8	<0.35	<8.0	<0.36	<6.2	<6.3
In the	T-0-1A	Once a week*	<7.7	<7.8	<8.3	<7.9	_*1	_*1	<7.8	<0.34	<8.0	6.9	7.1	<6.2
vicinity of the	T-0-2	Once a week*	<7.6	<7.8	<8.3	<7.9	_*1	_*1	<7.8	<0.33	<8.1	<0.37	<6.2	<6.2
discharge	T-0-3A	Once a week*	<6.6	<6.3	<7.3	<6.9	_*1	_*1	<7.9	<0.32	<5.4	<0.26	<8.1	<8.2
outlet	T-0-3	Once a week*	<7.6	<7.8	<8.3	<7.9	_*1	_*1	<7.8	<0.34	<8.0	<0.36	<6.2	<6.2
	T-A1	Once a week*	<6.2	<6.6	<6.6	<6.6	_*1	_*1	<6.6	<0.31	<8.2	<0.31	<5.7	<9.2
	T-A2	Once a week*	<6.2	<6.5	<6.6	<6.6	_*1	_*1	<6.4	<0.31	<8.2	<0.30	<5.7	<9.2
	T-A3	Once a week*	<6.2	<6.6	<6.6	<6.6	_*1	_*1	<6.6	<0.32	<8.2	<0.31	<5.7	<9.2
Outside	T-D5	Once a week	ı	ı	ı	ı	1	I	<7.9	<0.33	ı	_	ı	-
the vicinity	T-S3	Once a month	-	-	_	_	_	_	_	_	_	_	ı	_
of the discharge	T-S4	Once a month	-	-	_	_	_	_	_	_	_	_	ı	_
outlet	T-S8	Once a month	1	_	_	-	-	-	_	_	_	_	-	_

<sup>💥:</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

<sup>:</sup> Term of discharge of ALPS treated water (Group A)

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

<sup>\*1 :</sup> Sampling suspended due to bad weather condition

<sup>\*2:</sup> Detection limit 0.4 Bq/liter

<sup>\*3:</sup> Sampled after the commencement of discharge at 2PM

# Sea area monitoring history (9/15)



(Unit: Bq/liter)

													•	- 47
								Novemb	er, 2023					
	Sampling location	Frequency	5	6	6 Normal *1	7	8	8 Normal *3	9	9 Normal *1	10	11	12	13
	T-1	Once a week*	<7.6	<5.6	<0.34	<6.9	<5.5	_	<5.5	_	<6.9	<5.8	<7.0	<6.3
	T-2	Once a week*	<7.5	<5.5	0.38	<6.9	<5.5	_	<5.5	_	<7.0	<5.8	<6.9	<6.3
	T-0-1	Once a week*	<7.5	<7.2	0.36	_*2	<6.7	_	<6.4	_	<8.1	_*2	<4.7	<9.0
In the	T-0-1A	Once a week*	<7.6	9.0	9.5	_*2	<6.8	_	<6.4	_	11	_*2	<4.6	<9.0
vicinity of the	T-0-2	Once a week*	<7.5	<7.1	<0.31	_*2	<6.7	_	<8.4	_	<8.1	_*2	<4.7	<8.9
discharge	T-0-3A	Once a week*	<7.6	<5.4	0.54	_*2	<5.5	_	<5.6	_	<7.0	_*2	<6.9	<6.3
outlet	T-0-3	Once a week*	<7.5	<7.1	<0.31	_*2	<6.7	_	<6.4	_	<8.1	_*2	<5.1	<9.0
	T-A1	Once a week*	<5.7	<6.5	<0.39	_*2	<7.2	_	<7.5	_	<6.9	_*2	<7.8	<7.6
	T-A2	Once a week*	<5.7	<6.5	<0.38	_*2	<7.2	_	<7.5	_	<6.9	_*2	<7.8	<7.6
	T-A3	Once a week*	<5.7	<6.5	<0.39	_*2	<7.2	_	<7.6	_	<6.8	_*2	<7.8	<7.6
Outside	T-D5	Once a week	1	1	_	ı	I	_	<7.5	<0.34	-	ı	ı	_
the vicinity of the	T-S3	Once a month	ı	_	_	ı	<7.7	being measured	_	_	_	_	ı	_
discharge	T-S4	Once a month	ı	_	_	1	<7.7	being measured	_	_	_		1	
outlet	T-S8	Once a month	_	_	_	1	<7.8	being measured	_	_	_	-	-	

<sup>※:</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

<sup>:</sup> Term of discharge of ALPS treated water (Group A)

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

<sup>\*1:</sup> Detection limit 0.4 Bq/liter

<sup>\*2:</sup> Sampling suspended due to bad weather condition

<sup>\*3:</sup> Detection limit 0.1 Bq/liter

# Sea area monitoring history (10/15)



(Unit: Bq/liter)

								Novemb	or 2022					
									er, 2023					
	Sampling location	Frequency	13	14	15	15	16	17	18	19	20	20	21	21
			Normal *1			Normal *1					*3	Normal *3,4		Normal *4
	T-1	Once a week*	being measured	<5.8	<6.9	_	<8.8	<7.8	<9.3	<6.3	<7.0	1.7	<6.6	_
	T-2	Once a week*	being measured	<5.9	<6.9	_	<8.6	<7.7	<9.3	<6.2	<7.1	0.60	<6.5	_
	T-0-1	Once a week*	0.15	<6.6	<6.2	_	<7.1	<7.9	_*2	<7.4	<8.1	1.2	<7.0	_
In the	T-0-1A	Once a week*	0.14	7.2	10	_	<7.3	<7.9	_*2	<7.4	<8.1	1.0	<7.0	_
vicinity of the	T-0-2	Once a week*	being measured	<6.5	<6.2	_	7.9	<7.8	_*2	<7.4	<8.1	0.77	<7.1	_
discharge	T-0-3A	Once a week*	0.49	<5.7	<6.9	_	<8.8	<8.0	_*2	<6.3	<7.0	0.87	<6.7	_
outlet	T-0-3	Once a week*	0.44	<6.6	<6.2	_	<7.3	<7.9	_*2	<7.3	<8.1	0.92	<7.2	_
	T-A1	Once a week*	0.082	<6.8	<8.6	_	<8.8	<5.5	_*2	<8.6	<7.3	1.5	<9.0	_
	T-A2	Once a week*	0.16	<6.8	<8.8	_	<8.6	<5.5	_*2	<8.8	<7.2	0.60	<8.9	_
	T-A3	Once a week*	0.15	<7.0	<8.6	_	<8.8	<5.5	_*2	<8.8	<7.2	0.37	<8.9	_
Outside	T-D5	Once a week	_	_	<8.6	being measured	_	_	_	_	_	_	<7.2	<0.33
the vicinity of the	T-S3	Once a month	_	_	_	_	_	_	_	_	_	_	_	_
discharge	T-S4	Once a month	_	_	_	_	_	_	_	_	_	_	_	_
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_	_	_	_	_

💥: A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

: Term of discharge of ALPS treated water (Group A)

\*1: Detection limit 0.1 Bq/liter

\*2 : Sampling suspended due to bad weather condition

\*3: Sampled before 8AM, prior to the completion of the discharge

\*4: Detection limit 0.4 Bq/liter

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (11/15)



(Unit: Bq/liter)

							Novemb	per, 202	3				Decemb	er, 2023
	Sampling location	Frequency	22	23	24	25	26	27	27 Normal *1	28	29	30	1	2
	T-1	Once a week*	<6.5	<5.5	<5.3	<6.3	<7.1	<5.7	<0.34	<5.5	<6.0	<7.4	<4.9	<5.5
	T-2	Once a week*	<6.4	<5.5	<5.2	<6.3	<7.1	<5.8	<0.34	<5.5	<6.0	<7.4	<4.9	<5.5
	T-0-1	Once a week*	<7.1	<6.4	<7.2	<7.3	<8.1	<6.4	0.38	<6.8	<5.9	<7.3	<7.3	<6.8
In the	T-0-1A	Once a week*	<7.0	<6.4	<7.2	<7.3	<8.2	<6.5	<0.33	<6.7	<5.8	<7.2	<7.2	<6.7
vicinity	T-0-2	Once a week*	<7.0	<6.5	<7.3	<7.3	<8.1	<6.5	<0.26	<6.7	<5.8	<7.3	<7.2	<6.7
of the discharge	T-0-3A	Once a week*	<6.6	<5.5	<5.2	<6.3	<7.1	<5.7	<0.33	<5.5	<6.0	<7.4	<4.9	<5.5
outlet	T-0-3	Once a week*	<7.1	<6.5	<7.3	<7.3	<8.2	<6.4	<0.33	<6.8	<5.9	<7.3	<7.2	<6.7
	T-A1	Once a week*	<7.4	<7.2	<5.7	<5.2	<5.7	<7.8	<0.36	<6.7	<5.9	<6.8	<8.8	<8.1
	T-A2	Once a week*	<7.7	<7.2	<5.7	<5.2	<5.6	<7.8	<0.36	<6.7	<5.9	<6.8	<8.8	<8.1
	T-A3	Once a week*	<7.6	<7.2	<5.6	<5.2	<5.7	<7.8	<0.36	<6.7	<5.9	<6.8	<8.8	<8.1
Outside	T-D5	Once a week	_	1	I	ı	ı	<7.8	<0.34	_	1	_	_	_
the vicinity of the discharge	T-S3	Once a month	_	-	1	_	_	_	_	-	ı	_	_	_
	T-S4	Once a month	_	_	_	_	_	_	_	_	_	_	_	_
outlet	T-S8	Once a month	_	_	_	_		_	_	_	_	_	_	_

💥 : A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

\*1: Detection limit 0.4 Bq/liter

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (12/15)



(Unit: Bq/liter)

								Decemb	er, 2023					
	Sampling location	Frequency	3	4	4 Normal *1	5	6	7	7 Normal *2	8	9	9 Normal *1	10	11
	T-1	Once a week*	<6.7	<6.0	<0.31	<6.3	<5.8	<5.0	_	<5.2	<6.1	_	<6.2	<6.3
	T-2	Once a week*	<6.7	<6.1	<0.31	<6.2	<5.7	<5.0	_	<5.2	<6.1	_	<6.3	<6.2
	T-0-1	Once a week*	<5.1	<5.8	<0.35	<7.5	<8.0	<7.3	_	<6.3	<8.3	_	<4.8	<6.5
In the	T-0-1A	Once a week*	<5.1	<5.8	<0.33	<7.5	<8.0	<7.3		<6.3	<8.4	_	<6.2	<6.5
vicinity of the	T-0-2	Once a week*	<5.1	<5.8	<0.30	<7.5	<7.9	<7.2		<6.3	<8.5	_	<4.9	<6.5
discharge	T-0-3A	Once a week*	<6.9	<6.0	<0.33	<6.2	<5.9	<5.0	_	<5.2	<6.0	_	<6.2	<6.3
outlet	T-0-3	Once a week*	<5.1	<5.8	<0.33	<7.4	<8.0	<7.2	_	<6.3	<8.3	_	<7.4	<6.5
	T-A1	Once a week*	<6.1	<8.1	<0.36	<8.4	<5.2	<6.5	_	<8.6	<7.9	_	<6.8	<5.2
	T-A2	Once a week*	<6.1	<8.1	<0.36	<8.3	<7.5	<6.5	_	<8.6	<7.8	_	<6.8	<5.3
	T-A3	Once a week*	<6.1	<8.1	<0.36	<8.3	<5.3	<6.5	_	<8.7	<7.9	_	<6.9	<5.3
Outside	T-D5	Once a week	1	l	-	1	I	ı	_	1	<6.0	<0.34	ı	-
the vicinity	T-S3	Once a month	-	ı	_	1	ı	-	_	1	ı	_	ı	_
of the discharge	T-S4	Once a month	-	ı	_	1	ı	-	_	1	ı	_	ı	_
outlet	T-S8	Once a month		_	_	_	_	<6.6	being measured	-	_	_	1	_

<sup>💥 :</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

\*1: Detection limit 0.4 Bq/liter

\*2: Detection limit 0.1 Bq/liter

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge

# Sea area monitoring history (13/15)



(Unit: Bq/liter)

								Decemb	er, 2023					
	Sampling location	Frequency	11 Normal *1	12	13	14	14 Normal *1	15	16	17	18	18 Normal *3	19	19 Normal *3
	T-1	Once a week*	being measured	<7.0	<6.7	<6.7	_	<6.1	<6.9	<6.5	<5.8	<0.36	<5.7	_
	T-2	Once a week*	being measured	<7.0	<6.7	<6.7	_	<6.1	<6.9	<6.5	<5.8	<0.36	<5.7	_
	T-0-1	Once a week*	being measured	_*2	_*2	<7.0	_	<5.9	<6.8	_*2	<5.8	<0.34	<8.2	_
In the	T-0-1A	Once a week*	being measured	_*2	_*2	<5.5	_	<5.8	<6.7	_*2	<5.9	<0.35	<8.2	_
vicinity of the	T-0-2	Once a week*	being measured	_*2	_*2	<5.9	_	<5.9	<6.8	_*2	<5.9	<0.33	<8.2	_
discharge	T-0-3A	Once a week*	being measured	_*2	_*2	<6.7	_	<6.1	<6.9	_*2	<5.7	<0.34	<5.8	_
outlet	T-0-3	Once a week*	being measured	_*2	_*2	<8.1	_	<5.9	<7.0	_*2	<5.9	<0.35	<8.2	_
	T-A1	Once a week*	0.095	_*2	_*2	<8.1	_	<6.5	<7.5	_*2	<6.8	<0.36	<7.5	_
	T-A2	Once a week*	0.081	_*2	_*2	<8.1	_	<6.5	<7.5	_*2	<6.8	<0.36	<7.5	_
	T-A3	Once a week*	0.13	_*2	_*2	<8.1	_	<6.5	<7.5	_*2	<6.8	<0.36	<7.5	_
Outside	T-D5	Once a week	_	_	_	<8.1	being measured	1	ı	_	_	-	<7.5	being measured
the vicinity of the	T-S3	Once a month	_	_	_	_	_	_	_	_	_	_	_	_
discharge	T-S4	Once a month	_	_	_	_	_	-	_	_	_	_	ı	_
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_	_	_	_	-

※: A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

\*1: Detection limit 0.1 Bq/liter

\*2: Sampling suspended due to bad weather condition

\*3: Detection limit 0.4 Bq/liter

 $<sup>\ ^{*}</sup>$  : Monitored daily for the time being after the commencement of discharge

### Sea area monitoring history (14/15)



O For quick tritium measurements taken in the vicinity of the discharge outlet, we changed the frequency in order to place importance on the discharge period from December 26, 2023, and have been continuing the monitoring.

(Unit: Bq/liter)

						Dec	ember, 2	2023				Jar	nuary, 20	024
	Sampling location	Frequency	20	20 Normal *1	21	22	23	24	25	25 Normal *2	26	1	3	3 Normal *2
	T-1	Once a week*	<6.7	_	<7.2	<6.6	<7.0	<7.1	<6.1	<0.33	<5.0	<5.6	_	<0.33
	T-2	Once a week*	<6.7	_	<7.1	<6.6	<7.0	<7.2	<6.1	<0.33	<4.9	<5.5	_	<0.33
	T-0-1	Once a week*	<7.5	_	<8.0	<7.1	<6.6	<7.3	<7.3	being measured	<6.9	_*3	<6.5	being measured
In the	T-0-1A	Once a week*	<7.5	_	<8.0	<7.1	<6.5	<7.3	<7.3	<0.34	<5.8	_*3	<6.5	being measured
vicinity	T-0-2	Once a week*	<7.5	_	<8.0	<7.1	<6.6	<7.3	<7.3	<0.31	<6.8	_*3	<6.5	<0.32
of the discharge	T-0-3A	Once a week*	<6.5	_	<7.3	<6.6	<7.0	<7.2	<6.1	<0.34	<5.0	_*3	<8.1	being measured
outlet	T-0-3	Once a week*	<7.5	_	<8.1	<7.1	<6.5	<7.4	<7.4	<0.34	<7.0	_*3	<6.5	being measured
	T-A1	Once a week*	<6.5	_	<6.9	<6.1	<6.2	<7.3	<7.8	<0.36	<9.2	_*3	<8.1	being measured
	T-A2	Once a week*	<6.5	_	<6.9	<6.2	<6.2	<7.2	<7.9	<0.36	<9.2	_*3	<8.1	being measured
	T-A3	Once a week*	<6.5	_	<6.9	<6.2	<6.2	<7.2	<7.8	<0.36	<9.2	_*3	<8.2	being measured
Outside	T-D5	Once a week	_	_	_	_	_	_	<7.9	being measured	_	_	_	_
the vicinity	T-S3	Once a month	<6.7	being measured	_	_	_	_	_	_	_	_	_	_
of the discharge	T-S4	Once a month	<6.7	being measured	_	_	_	_	_	_	_	_	_	_
outlet	T-S8	Once a month	-	_	_	_	_	_	_	_	_	_	_	_

<sup>※:</sup> A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

<sup>\*1:</sup> Detection limit 0.1 Bq/liter \*2: Detection limit 0.4 Bq/liter \*3: Sampling suspended due to bad weather condition

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge. In order to place importance on the discharge period, frequency of the measurement was changed from December 26, 2023 as follows; 4 locations in the vicinity of the discharge outlet (T-0-1, T-0-1A, T-0-2, T-A2): Conduct daily during the discharge period and for one week following the completion of discharge Conduct twice a week outside the discharge period, excluding one week following the completion of discharge

# Sea area monitoring history (15/15)



(Unit: Bq/liter)

								January	, 2024					
	Sampling location	Frequency	6	6 Normal *1	8	8 Normal *2	9	9 Normal *2	11	11 Normal *2	15	15 Normal *1	17	17 Normal *2
	T-1	Twice a week*	_	_	_	being measured	_	_	_	-	_	being measured	_	_
	T-2	Twice a week*	_	_	-	being measured	_	_	_	_	_	being measured	_	_
	T-0-1	Once a day*	ı	_	<6.5	being measured	ı	_	_	_	<6.2	being measured	_	_
In the	T-0-1A	Once a day*	_	_	<7.2	being measured	_	_	_	_	<4.2	being measured	_	_
vicinity of the	T-0-2	Once a day*	_	_	<6.6	being measured	_	_	_	_	<6.2	being measured	_	_
discharge	T-0-3A	Twice a week*	_	_	_	being measured	_	_	_	_	_	being measured	_	_
outlet	T-0-3	Twice a week*	ı	_	ı	being measured	_	_	_	_	_	being measured	_	_
	T-A1	Twice a week*	1	_	ı	being measured	_	_	_	_	_	being measured	_	_
	T-A2	Once a day*	ı	_	<7.6	being measured	_	-	_	_	<4.2	being measured	_	_
	T-A3	Twice a week*	ı	_	ı	being measured		_	_	_	_	being measured	_	_
Outside	T-D5	Once a week	<8.1	being measured	1	_	<7.0	being measured	-	_	1	_	-	_
the vicinity of the	T-S3	Once a month	ı	_	_	_	_	_	_	_	_	_	<7.8	being measured
discharge	T-S4	Once a month	-	_	_	_	_	_	_	_	_	_	<7.7	being measured
outlet	T-S8	Once a month	ı	_	_		_	_	<6.8	being measured		_	_	_

 $<sup>\</sup>divideontimes$ : A "less than" symbol (<) indicates that the analysis result was less than the detection limit.

<sup>\*1:</sup> Detection limit 0.4 Bq/liter \*2: Detection limit 0.1 Bq/liter

<sup>\*:</sup> Monitored daily for the time being after the commencement of discharge. In order to place importance on the discharge period, frequency of the measurement was changed from December 26, 2023 as follows; 4 locations in the vicinity of the discharge outlet : Conduct daily during the discharge period and for one week following the completion of discharge

Conduct twice a week outside the discharge period, excluding one week following the completion of discharge