### **ALPS Treated Water Discharge Status Update**



February 29, 2024

Tokyo Electric Power Company Holdings, Inc.



- 1. Facility inspections after the completion of the 3rd discharge
- 2. Status of work for the 4th discharge of ALPS treated water
- 3. Monitoring history regarding discharge
- 4. Sea area dispersion simulation
- 5. Transfer of ALPS treated water in preparation for the 5th and 6th discharges

(Reference) Sea monitoring history after the commencement of discharge



- 1. Facility inspections after the completion of the 3rd discharge
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(Reference) Sea monitoring history after the commencement of discharge

### 1-1. Facility inspections after the completion of the 3rd discharge TEPCO

After the completion of the 3rd discharge of ALPS treated water, we have performed inspections as follows and confirmed that there are no abnormalities.

Facility name	Patrol inspection details	Inspection after the 3rd discharge	Results
Measurement/ confirmation facility	External inspection (measurement/confirmation tanks) - Visual check for abnormalities	Inspection implemented in accordance with the long-term inspection plan (agitators/MO valves)  - Insulation resistance measurement, Check for leakage thorough the valve seat	No abnormalities
Transfer facility	External inspection (ALPS treated water transfer pumps/transfer pipes) - Visual check for abnormalities, Check for abnormal sounds using tool	External inspection (ALPS treated water transfer pumps/transfer pipes)  - Visual check for abnormalities  Others  - Strainer cleaning,  Check for leakage through MO valve seat	No abnormalities
Dilution facility	External inspection (seawater transfer pipes/seawater pipe header)  - Visual check for abnormalities, Check for abnormal sounds using tool  External inspection (discharge vertical shaft (upper-stream storage))  - Visual check for abnormalities	External inspection (seawater transfer pipes/seawater pipe header) - Visual check for abnormalities  External inspection (discharge vertical shaft (upper-stream storage)) - Draining of the storage, Follow-up observation and repair, Pressure resistance and leak tests  Others - Replacement of seawater transfer pumps gland packings, Flow meter inspection	No abnormalities
Discharge facility	External inspection (discharge vertical s - Visual check for abnormalities	haft (down-stream storage)/discharge tunnel)	No abnormalities <sup>*</sup>
Seawater intake facility	External inspection (partitioning weirs) - Visual check for abnormalities		No abnormalities

#### 1-2. Discharge tunnel and downstream storage inspection overview



An inspection of the discharge tunnel and submerged area of the down-stream storage was conducted between February 6-8 using a submersible ROV.

#### **(Objective of this inspection)**

- The integrity of the discharge tunnel and the down-stream storage was inspected now that approximately eight months have passed since they were injected with seawater (June 5, 2023). (100m of the discharge tunnel starting from the down-stream storage was inspected)
- > Other objectives of the inspection were to examine inspection methods and gain insights about issues, etc. when conducting inspection under water and inside the tunnel using an ROV.

#### [Inspection results]

Even though it has been approximately eight months since these areas were flooded with seawater (June 5, 2023) we found no abnormalities with the discharge tunnel or the down-stream storage. (Video (visible in real-time) was used to inspect conditions inside the inspection areas)

#### Inspection results (summary)

Inspection list	Results
Adhered marine organisms	Barnacles found (few in number)
Sediment	Almost none (some floating mud found)
Cross-sectional blockage (foreign matter, etc.)	None



ROV used for the inspection Dimensions:1,036mm $\times$ 720mm $\times$ 630mm

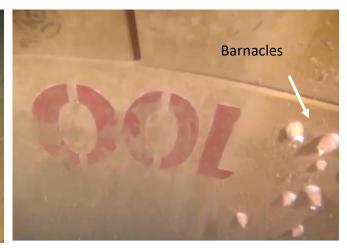
Mass: Approx. 75kg

Camera

Sonar







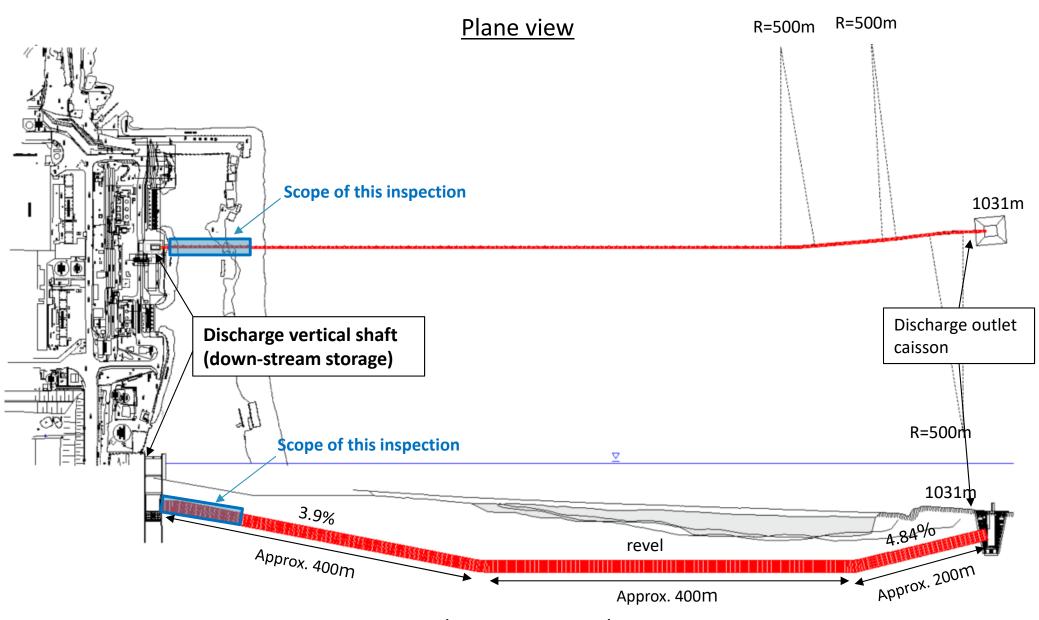
Inserting the submersible ROV

Conditions at the bottom of the tunnel

Top of tunnel approximately 100m from the downstream storage

#### [Reference] Scope of discharge tunnel inspection







- 1. Facility inspections after the completion of the 3rd discharge
- 2. Status of work for the 4th discharge of ALPS treated water
- 3. Monitoring history regarding discharge
- 4. Sea area dispersion simulation
- 5. Transfer of ALPS treated water in preparation for the 5th and 6th discharges

(Reference) Sea monitoring history after the commencement of discharge

### 2-1. Status of work for the 4th discharge of ALPS treated water TEPCO

- Transfer of ALPS treated water from the K4 area group E and K3 area group A to the measurement/confirmation facility group B was completed on December 11, 2023.
- Agitation/circulation commenced on December 15, and samples were taken on December 22.
- We confirmed that analysis results have met government's regulatory standards and commenced the discharge on February 28, 2024.

1st Discharge	Measurement/confirmation facility (K4 area) Group B:	Secondary treatment: No Tritium concentration: 140,000Bq/liter Total amount of tritium: 1.1 trillion Bq
2nd Discharge	Measurement/confirmation facility (K4 area) Group C:	Secondary treatment: No Tritium concentration: 140,000Bq/liter Total amount of tritium: 1.1 trillion Bq
3rd Discharge	Measurement/confirmation facility (K4 area) Group A:	Secondary treatment: No Tritium concentration: 130,000Bq/liter Total amount of tritium: 1.0 trillion Bq
4th 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):	Secondary treatment: No Tritium concentration: 170,000~210,000Bq/liter *1 Total amount of tritium: 1.4 trillion Bq *1
<b>\</b>	Total amount of tritium discharged during FY2023: Approx. 5 trillion Bq	*1 Average value of the tank group that was assessed taking into account the radioactive decay until July 1, 2023 *2 To be transferred to K4 area tank group B that will be

empty after the 1st discharge is completed

#### [Reference] Outline of the fourth discharge for Group K4-B



	Outline of discharge for group K4-B							
(excluding tritium) in scope of		Within regulatory requirements (sum of the ratios of loconcentrations of radioactive substances is less than 1 (sum of the ratios of concentration: 0.34*)						
Attributes	Tritium concentration	170,000Bq/liter*	(details on p1 of the link) (details on p2 of the link)					
of the	Concentration of the 39 significant types of radionuclides measured voluntarily	No significant radionuclides identified	(details on p3 of the link)					
Status of water quality assessment		Within government and prefectural requirements (details on p4 of the link)						
water	Water temperature	Same as outdoor temperature.  After diluted to approximately 740 times, same as sea water temperature  (not the same as plant's thermal discharge)						
Expected	volume of treated water discharge	Approximately 7,800m <sup>3</sup>						
Treated water flow rate		Approximately 460m³/day (set not to exceed designed maximum on 500m³/day)						
Dilution sea water flow rate		Approximately 340,000m³/day (same speed as walking in the tunnel [approximated 1m/second])						
Concentration of tritium after dilution		Approximated 230Bq/liter						
Term of d	ischarge	Approximately 17 days						



### [Reference] Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation Tanks (Group B) (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 0.34, 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 Water in the Measurement/Confirmation Tanks Group B  Date and Time of Sampling December 22, 2023 11:19  Storage Volume (m²) 8914  Storage Volume (m²) 8914  Nuclides to be measured and assessed (29 nuclides): The sum of the ratios of the concentration of each radionuclide to the regulatory concentration (Confirmed to be less than			1000000	,				
11.15	Sample Name	ALPS Treated V	Vater in the Meas	urement/Confirmation Tanks	Group B		Nuclides to be measured and assessed (29 nuclides):	
Storage Volume (m <sup>3</sup> ) 8914 radionuclide to the regulatory concentration (Confirmed to be less than	Date and Time of Sampling	December 22, 2023	11:19			Summary	The sum of the ratios of the concentration of each	0.34
	Storage Volume (m³)	8914					radionuclide to the regulatory concentration	(Confirmed to be less than 1)

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

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

Г			7313. Hudilacs to E	e incosorea aria					Dating to Dogulaton	Concentration Limit	Barristana.	I
				TERGO	Analysis F	Results	W. W. C. 11.		Ratios to Redulators	Concentration Limit		
- 1	No.	Nuclide	Analysis Value	TEPCO	Detection Limit	Annhusia Makua	KAKEN Co.,Ltd.	Detection Limit	TEPCO	KAKEN Co.,Ltd.	Concentration Limit *2	Analysis Method *4
			(Bq/L)			(Bq/L)			TEPCO	KAKEN CO.,LIU.	(Bq/L)	
ŀ		6.44	1.4E+01	(Bq/L)	(Bq/L)		(Bq/L)	(Bq/L)	7.45.03	7.45.03		Measurement
- 1	1	C-14	ND ND	± 1.9E+00	1.7E+00	1.4E+01	± 9.8E-01	9.7E-01	7.1E-03	7.1E-03	2000	Measurement
- }	2	Mn-54	ND ND		2.4E-02	ND		2.5E-02	less than 2.4E-05		1000	
- 1	3	Fe-55		_	1.4E+01	ND	_	1.1E+01		less than 5.4E-03	2000	Measurement
- 1	4	Co-60	3.4E-01	± 6.3E-02	2.3E-02	3.0E-01	± 4.7E-02	2.7E-02	1.7E-03	1.5E-03	200	Measurement
- 1	5	Ni-63	ND		9.7E+00	ND	_	5.9E+00		less than 9.9E-04	6000	Measurement
- 1	6	Se-79	ND	_	1.1E+00	ND	_	8.2E-01		less than 4.1E-03	200	Measurement
Į.	7	CHOO	3.1E-01	± 2.4E-02	3.9E-02	3.1E-01	± 5.2E-02	6.3E-02	1.0E-02	1.0E-02	30	Measurement
-i	8	Y-90	3.1E-01	_	3.9E-02	3.1E-01	_	6.3E-02	1.0E-03	1.0E-03	300	Sr-90/Y-90 Radioactive Equilibrium Assessment
[	9	Tc-99	3.4E+00	± 1.4E-01	8.4E-02	3.3E+00	± 3.9E-01	3.3E-03	3.4E-03	3.3E-03	1000	Measurement
	10	Ru-106	ND	_	2.5E-01	ND	_	2.7E-01	less than 2.5E-03	less than 2.7E-03	100	Measurement
[	11	Sb-125	1.1E-01	± 6.4E-02	9.2E-02	ND	_	1.1E-01	1.3E-04	less than 1.4E-04	800	Measurement
ſ	12	Te-125m	4.0E-02	_	3.4E-02	ND	_	4.1E-02	4.4E-05	less than 4.6E-05	900	Sb-125/Te-125m Radioactive Equilibrium Assessment
1	13	I-129	2.5E+00	± 2.2E-01	3.5E-02	2.5E+00	± 2.7E-01	6.5E-02	2.8E-01	2.8E-01	9	Measurement
1	14	Cs-134	ND	_	3.4E-02	ND	_	2.9E-02	less than 5.6E-04	less than 4.9E-04	60	Measurement
1	15	Cs-137	5.0E-01	± 9.0E-02	2.7E-02	5.2E-01	± 7.0F-02	2.9E-02	5.6E-03	5.7E-03	90	Measurement
1	16	Ce-144	ND	_	3.7E-01	ND		3.8E-01	less than 1.9E-03	less than 1.9E-03	200	Measurement
ı	17	Pm-147	ND	_	3.3F-01	ND	_	3.2E-01	less than 1.1E-04	less than 1.1E-04	3000	Eu-154 Relative Ratio Assessment
1	18	Sm-151	ND		1.3E-02	ND	_	1.2E-02		less than 1.5E-06	8000	Eu-154 Relative Ratio Assessment
ı	19	Eu-154	ND	_	7.4E-02	ND	_	7.2E-02	less than 1.9E-04	less than 1.8E-04	400	Measurement
ı	20	Eu-155	ND	_	2.0E-01	ND	_	2.0E-01		less than 6.5E-05	3000	Measurement
ŀ	77.7	U-234									20	Gross Alpha
	22	U-238									20	Gross Alpha
ı	23	Np-237									9	Gross Alpha
ı	24	Pu-238	ND		2 55 02	NID.		2 25 02	lace there   6 25 02	less than EQE 03	4	Gross Alpha
ı	25	Pu-239	ND	±	2.5E-02	ND	±	2.3E-02	less than 6.3E-03	less than 5.9E-03	4	Gross Alpha
ŀ	26	Pu-240							*3	*3	4	Gross Alpha
ı	27	Am-241									5	Gross Alpha
ŀ	28	Cm-244									7	Gross Alpha
ŀ	29	Pu-241	ND	_	7.0E-01	ND	_	6.4E-01	less than 3.5E-03	less than 3.2E-03	200	Pu-238 Relative Ratio Assessment
ŀ			or the concentration of	each radionuclide to			e ratios to regulatory			less than 3.3E-01	230	
	· ND in	dicates that a	nalysis result is less t	han the detection li	mit.	4			1033 G1G11 3.4E-01	1033 CHOIL 3.3E-01		

<sup>·</sup> ND indicates that analysis result is less than the detection limit.

Values are expressed in exponential notation.

For example, "3.1E+01" means "3.1×101" and equals 31. Similarly, "3.1E+00" means "3.1x100" and equals 3.1, and "3.1E-01" means "3.1x101" and equals 0.31.

<sup>\*1 &</sup>quot;Uncertainty" refers to the accuracy of analysis data.

<sup>&</sup>quot;Uncertainty" is calculated using "Expanded Uncertainty: Coverage Factor k=2".

<sup>\*2</sup> Regulatory concentration limits stipulated in the Regulations of the Safety and Physical Protection of Specific Nuclear Fuel Material at Fukushima Dailchi 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/L1)

<sup>\*3</sup> The ratio to regulatory concentration limit for alpha-radionuclides has been assessed using the lowest regulatory concentration limit for all the target nuclides.

<sup>\*4</sup> Analysis methods are as follows:

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

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

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

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

### [Reference] Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation Tanks (Group B) (2/4)



■ Analysis results of **tritium concentration is 17 x 10<sup>4</sup> Bq/liter**.

Tritium Concentration (Bq/liter)

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

Summary	17 x 10⁴ Bq/L	(confirmed to be less than 1 million Bq/L)
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	Radio	ictivity An	alysis: ritium							
					Analysis	Results				
	No. Nucli		Nuclide		KAKEN Co.,Ltd.			Analysis Objective	Analysis Method *3	
	140.	Nuclide	Analysis Value	Uncertainty *1	Detection Limit	Analysis Value	Uncertainty *1	Detection Limit	Analysis Objective	Analysis Metriod 5
L			(Bq/L)	(Bq/L)	(Bq/L)	(Bq/L)	(Bq/L)	(Bq/L)		
	1	H-3	1.7E+05	± 9.1E+03	1.7E+01	1.6E+05	± 1.2E+04	2.5E+02	*2	Measurement

<sup>·</sup> Values are expressed in exponential notation.

★Excerpt from Treated Water Portal Site

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.

<sup>\*1 &</sup>quot;Uncertainty" refers to the accuracy of analysis data.

<sup>&</sup>quot;Uncertainty" is calculated using "Expanded Uncertainty: Coverage Factor k=2".

<sup>\*2</sup> 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.

<sup>\*3</sup> Analysis method is as follows:

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

### [Reference] Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation Tanks (Group B) (3/4)



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

				[	Summary	No significant concentrations found of any of the nuclides
Radio	activity Analys			nsure that they ar	e not significantly	present (39 nuclides)
			EPCO	KAKEN	Co.,Ltd.	
No.	Nuclide	Assessment *1	Detection Limit	Assessment *1	Detection Limit	Confirmation Method *2
			(Bq/L)		(Bq/L)	
1	Fe-59	0	4.5E-02	0	5.2E-02	4
2	Co-58	0	2.5E-02	0	2.9E-02	-
3	Zn-65	0	5.0E-02	0	5.6E-02	-
4	Rb-86	0	3.0E-01	0	3.1E-01	-
5	Sr-89	0	6.0E-02	0	1.1E-01	-
6	Y-91	0	2.8E+00	0	2.1E+00	-
7	Nb-95	0	3.1E-02	0	3.5E-02	-
8	Ru-103	ŏ	3.3E-02	0	3.5E-02	-
9	Ag-110m		2.6E-02	0	2.6E-02	-
0	Cd-113m	0	8.8E-02	0	2.8E-02	-
1	Cd-115m	0	3E+00	0	1.6E+00	-
2	Sn-123	0	1.6E-30	0	1.0E+00	-
3	Sn-126	0	1.7E-01		1.6E-01	Measurement
4	Sb-124	0	5.9E-02	$\overline{}$	6.2E-02	- Heastrement
5	Te-123m Te-127	0	5.7E-02	0	5.7E-02	-
16 17		0	1.0E+00	0	6.7E-01	-
	Te-129m	0	8.4E-01	0	9.45.01	-
18	Te-129 Cs-136	0	3.7E-01	0	4.7E-01	
20	Ba-140	0	2.4E-02 1.1E-01	0	2.8E-02 1.6E-01	-
21	Ce-141	0	1.1E-01	0	1.0E-01	
22		0	4.3E-02	0	4.9E-02	
23	Pm-146 Pm-148m	0	4.3E-02	0	3.1E-02	
24	Pm-148	0	1.3E-01	0	1.7E-01	
25	Eu-152	0	1.3E-01	0	1.5E-01	1
_		0	2.5E-01		1.7E-01	-
2 <u>6</u> 27	Gd-153 Tb-160	0	8.7E-02	0	8.8E-02	1
28	Am-243	0	2.5E-02	0	2.5. 02	
9	Cm-242	0	2.5E-02	0	2.3E-02	Measurement (substituted with gross alpha
30	Cm-243	0	2.5E-02	0	2.3E-02	The state of the s
31	Rh-103m	0	3.3E-02	0	3.5E-02	Ru-103/Rh-10 Radioactive Equilibrium Assessmen
32	Rh-103m	Ö	2.5E-01	0	2.7E-01	Ru-106/Rh-106 Radio
33	Sn-119m	Ö	6.4E-03	0	5.9E-03	Sn-126 Relative Ratio
34	Te-127m	Ö	1.0E+00	0	6.9E-01	Te-127 Relative Ratio Assessment
35	Cs-135	0	1.7E-07	0	1.9E-07	Cs-137 Relative Ratio Assessment
36	Ba-137m	0	2.5E-02	0	2.7E-02	Cs-137 Relative Ratio Assessment Cs-137/Ba-137m Radioactive Equilibrium Assessmen
37	Pr-144m	Ö	5.6E-03	0	5.8E-03	Ce-144/Pr-144m Radioactive Equilibrium Assessmen
38	Pr-144III	Ö	3.7E-01	0	3.8E-01	Ce-144/Pr-144 Radioactive Equilibrium Assessmen
20	Am 242m	ŏ	1.75.04	0	1.65.04	Am 241 Polative Patie 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.
  - Concentration of nuclide measured was below detection limit
  - For nuclide that has been assessed using radioactive equilibrium, etc., if its target nuclide is detected and the assessment value of the target nuclide is extremely small compared to the regulatory concentration limit, or in other words, if it is less than 1/100 of the regulatory concentration limit which is the value get as the detection limit, then it shall be deemed to be below the detection limit.

Nuclide	Assessmen	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	3.3E-06	3.4E-06	6.0E+02
Ba-137m	4.8E-01	4.9E-01	8.0E+05
Pr-144m	_	_	4.0E+04
Pr-144	_	_	2.0E+04
Am. 242m			E 0E : 00

- A hyphen "-" indicates that the concentration of the target nuclide was below the detection limit
- · Values are expressed in exponential notation.

\*2 Analysis Methods are as follows:

2 Analysis Medious are as follows.

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

Measurement (substituted with gross alpha) - The total amount of alpha-radionuclides in the specimen are calculated by directly measuring alpha rays.

- Radioactive Equilibrium Assessment Calculated using a physical phenomenon in which the amount of radioactivity of one radionuclide and another radionuclide produced by the decay of that radionuclide exist in a certain ration Relative Ratio Assessment Calculated based on the assessment values of radionuclides that existed inside the reactor while considering radionuclide decay and migration into ALPS treated water.
- \*3 Regulatory concentration limits stipulated in the Regulations of the Safety and Physical Protection of Specific Nuclear Fuel Material at Fukushima Daiichi Nuclear Power Station of the Tokyo Electric Power Company, Incorporated.

attached Chart 1, Row 6: Concentration limits in the water outside of the environmental monitoring area [in this chart Bq/cm³ has been converted into Bq/L])

Excerpt from Treated Water Portal Site

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

#### Assessment results

O: absence of significant concentration was confirmed

×: significant concentration was confirmed

### [Reference] Pre-discharge Analysis Results of ALPS Treated Water in the Measurement/Confirmation Tanks (Group B) (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 \*\*1 satisfied.

\*\(\frac{1}{2}\) 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)

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

Summary Criteria satisfied

General Water Quality (44 criteria)

No.	Measurement Items	Unit	Analysis Result	Criteria *1
1	Hydrogen Ions (pH)	_	8.7	Sea Area 5.0∼9.0
2	Suspended Solids (SS)	mg/L	<1	Maximum: 70 or less Average: 50 or less
3	Chemical Oxygen Demand (COD)	mg/L	0.8	Maximum: 40 or less Average: 30 or less
4	Boron	mg/L	0.5	Sea Area 230 or less
5	Soluble Iron	mg/L	<0.1	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	2	Maximum: 40 or less Average: 30 or less
11	Coliform Count	pcs/cm <sup>3</sup>	0	3000 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

Analysis results

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	6	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.</li>

<sup>\*1</sup> 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、排出基準及び水質汚濁防止法に基づ、排水基準を定める条例(別表第2)]", and "the Ordinance Enforcement Regulations Pertaining to the Preservation of the Living Environment in Fukushima (attached Chart 5) [福島県生活環境の保全等に関する条例施行規則(別表第5)]".

<sup>\*2 &</sup>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 (別表第一)]", when the state of water pollution is assessed in discharged water using the methods established by the Minister of the Environment, the result is below the limit of quantification (Alkyl Mercury: 0.0005 mg/liter) of the assessment method.

- 1. Facility inspections after the completion of the 3rd discharge
- 2. Status of work for the 4th discharge of ALPS treated water
- 3. Monitoring history regarding discharge
- 4. Sea area dispersion simulation
- 5. Transfer of ALPS treated water in preparation for the 5th and 6th discharges

(Reference) Sea monitoring history after the commencement of discharge

#### 3-1. Monitoring history regarding discharge



- 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 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 placing importance on the discharge period from December 26, 2023, and have been continuing the monitoring.

(Unit: Bq/liter)

	Sampling							Februa	ry 2024					
	location	Frequency	7	7 Normal*1	12	12 Normal*1	13	13 Normal*1	19	19 Normal*2	21	21 Normal*2	26	26 Normal*2
	T-1	Twice a week*	_	_	_	being measured	_	_	_	being measured	_	_	_	being measured
	T-2	Twice a week*	_	_	_	being measured	_	_	_	being measured	_	_	-	being measured
	T-0-1	Once a day*	_	_	<7.0	being measured	_	_	<6.6	being measured	_	_	<7.9	being measured
In the vicinity of the discharge outlet	T-0-1A	Once a day*	_	_	<6.6	being measured	_	_	<6.4	being measured	_	_	<7.9	being measured
	T-0-2	Once a day*	_	_	<7.1	being measured	1	_	<6.5	being measured	_	_	<7.9	being measured
	T-0-3A	Twice a week*	_	_	_	being measured	_	_	_	being measured	_	_	_	being measured
	T-0-3	Twice a week*	_	_	_	being measured	1	_	_	being measured	_	_	-	being measured
	T-A1	Twice a week*	_	_	_	being measured	1	_	_	being measured	1	_	1	being measured
	T-A2	Once a day*	_	_	<6.7	being measured	1	_	<6.8	being measured	1	_	<7.9	being measured
	T-A3	Twice a week*	_	_	_	being measured	_	_	_	being measured	_	_	_	being measured
Outside	T-D5	Once a week	_	_	_	_	<8.1	being measured	_	_	<5.5	being measured	-	_
the vicinity of the discharge outlet	T-S3	Once a month	<6.2	being measured	_		_	_	_	_	_		1	
	T-S4	Once a month	<6.1	being measured	_		_	_	_	_	_	_	1	
	T-S8	Once a month	_	_	_	_	_	_	_	_	_	_	_*3	_*3

<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;

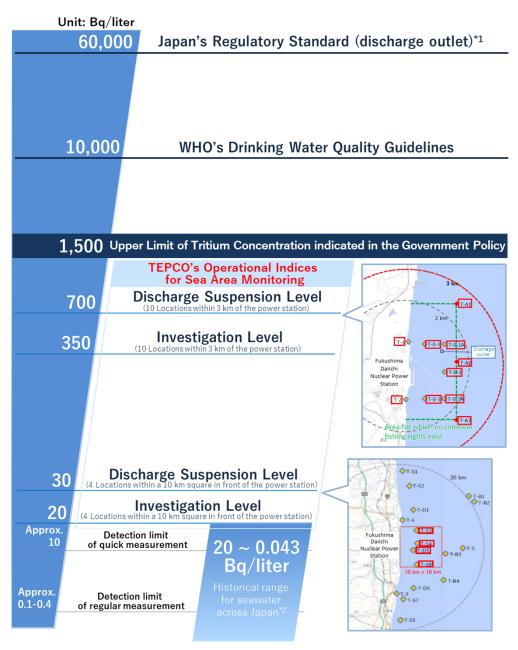
<sup>4</sup> locations in the vicinity of the discharge outlet: Conduct daily during the discharge period and for one week following the completion of discharge

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 of fluctuation identified through past seawater monitoring performed throughout the entirety of Japan.
- In the future, it is possible that concentrations of tritium in the seawater may be affected by the concentrations of tritium in the treated water that is discharged, and exceed those observed in the past.
- However, even if this occurs, sea dispersion simulation results for discharged water performed during the radiological impact assessment have shown that these fluctuations will be within predicted levels and below the investigation level.



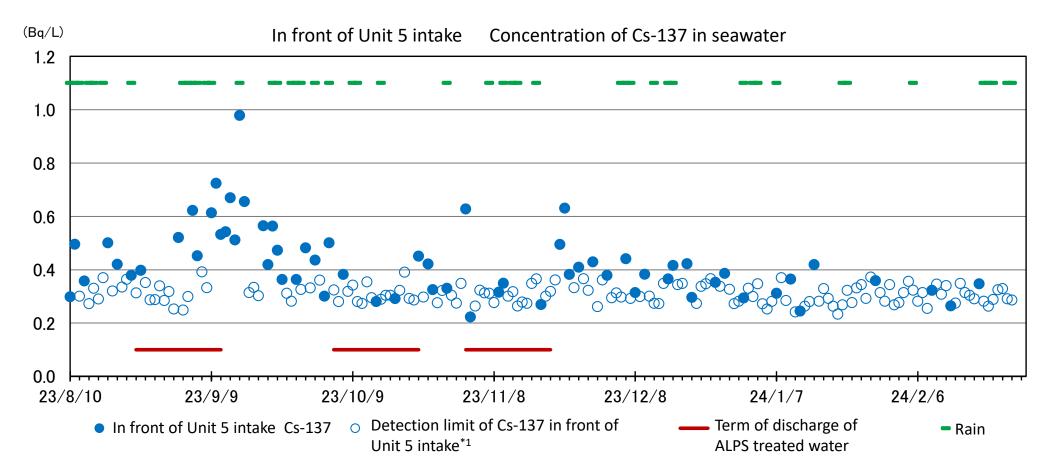
<sup>\*1:</sup> This standard has been stipulated based on the calculation that if a person were to drink approximately 2L of the water coming out of the discharge outlet of a nuclear facility every day for one year, his/her exposure would be 1mSv.

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

#### 3-2. 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.

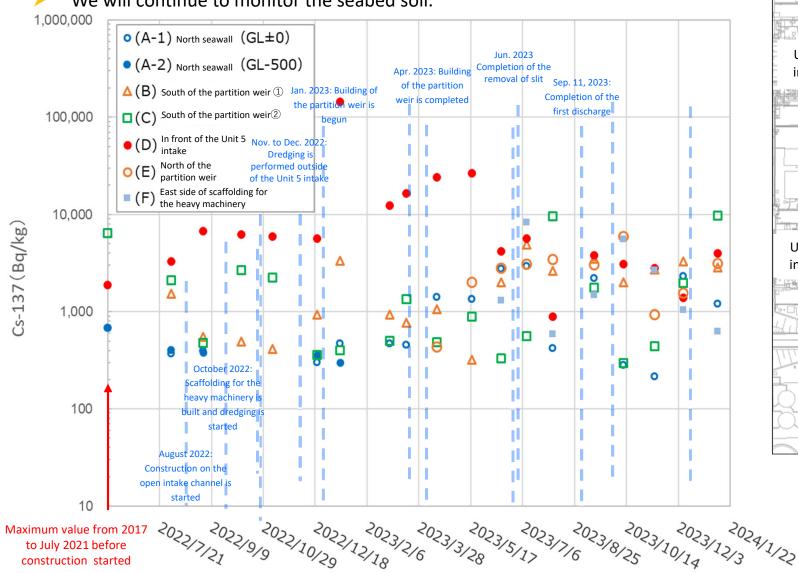
<sup>\*</sup>The location of seawater monitoring inside the Unit 5/6 intake open channel has been changed to the sampling location near the intake for seawater to be used for dilution (changed from "in front of the Unit 6 intake" to "in front of the Unit 5 intake").

# 3-3. 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.



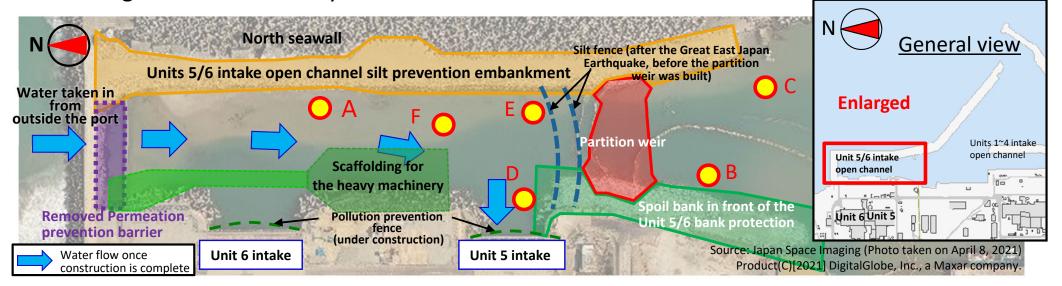
Removed part of the permeation prevention works (approx. 40m worth) Units 5/6 intake open Unit 6 intake channe North seawall Unit 5 intake Partition weir <Legend> Sampling location in construction Silt fence (before the partition weir was

: Pollution prevention fence

## 3-3. 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 January 2024.



Sampling points		Before construction	2022						2023											2024
Sampling points		2017 to July 2021	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Jan.
A-1 North side of the Unit 5/6 open	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	44.5
	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	1,210.0
A-2 North side of the Unit 5/6 open	Cs-134	14.4~58.5	33.6	32.5	-	-	38.3	33.4		$ imes$ Only sampled from the surface (GL $\pm$ 0m) since sand was removed during dredging										
North side of the silt fence (GL-0.5m)	Cs-137	310.0~689.8	404.0	383.2	-	-	356.4	299.1												
<b>B</b> South side of the partition weir 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	75.2
(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	2,868.0
C 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	153.3
(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	9,737.0
<b>D</b> Unit 5 intake	Cs-134	1	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	61.8
<b>D</b> Offit 3 fittake	Cs-137	ı	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	3,981.0
North side of	Cs-134	-									42.8	59.8	86.8	98.7	96.8	56.9	147.0	35.6	45.5	64.4
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	3,145.0
F East side of scaffolding for the heavy machinery	Cs-134	1		•			•						40.2	166.1	45.3	53.7	98.0	52.4	51.4	58.6
	Cs-137	_											1,312.0	8,303.0	592.4	1,481.0	5,569.0	2,676.0	1,049.0	630.9

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

- 1. Facility inspections after the completion of the 3rd discharge
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(Reference) Sea monitoring history after the commencement of discharge

#### 4-1. Validating the sea area dispersion simulation



- In order to verify the validity of the sea area dispersion simulation used for the radiological environmental impact assessment, tritium dispersion calculations estimated from actual tritium discharge volumes and meteorological /marine meteorological data are being compared/assessed with sea area monitoring data.
- We are currently calculating dispersion for the third discharge period (November 2 November 20).
- This is a provisional report on the results of the comparison between dispersion calculations and sea area monitoring data for the second discharge period (October 5 October 23).
- We will continue to compare and verify dispersion calculations with sea area monitoring results for third discharge periods, as well as verifying the first three discharged as a whole.

	August	September	October	November	December	January	February	March
1st Discharge			Data collection Divide the properties of the pro	spersion calculat	(disclosed c	al assessment on December 22) t		
2nd Discharge			Discha -	Data collect	ion Dispersion ca			assessment report)
3rd Discharge				Discharge	Data conection	Dispersion calcul		Assessmen essment

#### 2-2. Validation approach



Validity is being verified using the following approach.

- 10 locations near the discharge outlet (within a 3km radius from the power station) and 4 locations within the 10km square off the coast of the power station, which could detect the increase in concentrations, have been selected for comparison.
- Results of monitoring conducted by other organizations (Ministry of environment, Nuclear Regulation Authority, and Fukushima prefecture) in vicinity of the power station have also been selected for comparison.
- The results from normal measurement have been selected because they are thought to contain little uncertainty (quick measurements have been excluded).
- Since there is little sea area monitoring data, the simulation contains uncertainty, and the simulation cannot reproduce minute differences in concentrations at a certain location, validation is <u>not based on a comparison of numerical figures, but rather</u> <u>whether or not concentration increase trends (dispersion tendencies) are being</u> <u>reproduced.</u>

### 4-3. Overview of the dispersion simulation for the second discharge period



- Dispersion calculations for the second discharge period (October 5 October 23) were made based on the following conditions.
  - The dispersion model was the same model used for the radiological environmental impact assessment
  - Tritium discharge rate were calculated from the concentrations measured at the measurement/confirmation facility and the daily discharge flow volume, and these data were entered into the model

Calculation conditions for the second discharge period.

(The model is the same as that used for the radiological environmental impact assessment report)

Amount of tritium discharged

- 10/5 10:18 10/22 13:19 (Constant)
   Discharge rate = 2.66E+09Bq/hr (= 140,000Bq/L×456m3/day×1000L/m3÷24hr/day)
- 10/23 10:26 12:08

Discharge rate = 1.32E+09Bq/hr (=  $140,000Bq/L\times16m3\times1000L/m3\div102/60hr$ )

Meteorological/marine meteorological data

 Actual meteorological/marine meteorological data from the discharge period (Meteorological Agency, JAMSTEC, etc.)

#### Reference

Tritium discharge volume used for the dispersion simulation in the radiological environmental impact assessment

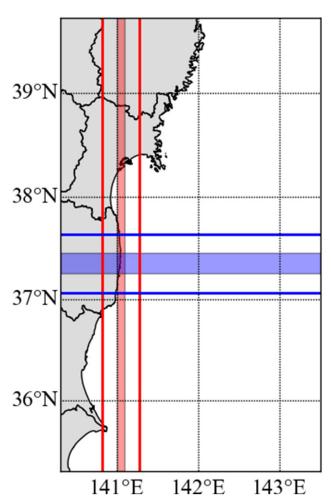
• Constant throughout the year

Discharge rate = 2.51 E+09 Bq/hr (=22 trillion Bq/year ÷ 8760hr/yr)

# [Reference] Overview of dispersion simulation (Regional Ocean Modeling System)



- We use a model that has been validated through dispersion calculations for cesium concentration in seawater after the Fukushima Daiichi Nuclear Accident.
- Furthermore, we calculate at a higher resolution to enable a highly detailed simulation of the sea area in the vicinity of the power station.



- The Regional Ocean Modeling System (ROMS) is applied to the area off the coast of Fukushima
- Sea area flow data
  - Use data<sup>[1]</sup> which interpolated Metrological Agency's short-term weather forecast data to the driving force of the sea surface
  - Use reanalyzed data of the sea (JCOPE2M<sup>[2][3]</sup>) as the source data for boundary conditions and data assimilation\* for open ocean
- Model scope: North latitude: 35.30 39.71 degrees、 East longitude: 140.30 143.50 degrees (490km×270km); gradually improve resolutions of sea area approx. 22.5km north-south x approx. 8.4km east-west around the power station

(The resolution for the area between the red/blue hatching and the red/blue lines in the figure to the left has been gradually reduced to the minimum assessment area size of approximately 200m<sup>2</sup>)

- Resolution (all area): Approx. 925m north-south x approx. 735m (approx. 1km) east-west, vertical direction: 30 layers
- Resolution (vicinity): Approx. 185m north-south x approx. 147m (approx. 200m) east-west, vertical direction: 30 layers
- Actual meteorological /marine meteorological data
  - Use meteorological/marine meteorological data from the discharge period

- [1] Atsushi HASHIMOTO, Hiromaru HIRAGUCHI, Yasushi TOYODA, Kou NAKAYA, "Predicting Japan's Climate Changes in conjunction with Global Warming (Vol.1), -Application to Weather Forecast/Analysis System NuWFAS's Long-Term Climate Forecasts-", Central Research Institute of Electric Power Industry Report, 2010.
- [2] Miyazawa, Y., A. Kuwano-Yoshida, T. Doi, H. Nishikawa, T. Narazaki, T. Fukuoka, and K. Sato, 2019: Temperature profiling measurements by sea turtles improve ocean state estimation in the Kuroshio-Oyashio Confluence region, Ocean Dynamics, 69, 267-282.
- [3] Miyazawa, Y., S. M. Varlamov, T. Miyama, X. Guo, T. Hihara, K. Kiyomatsu, M. Kachi, Y. Kurihara, and H. Murakami, 2017: Assimilation of high-resolution sea surface temperature data into an operational nowcast/forecast system around Japan using a multi-scale three dimensional variational scheme, Ocean Dynamics, 67, 713-728.

<sup>\*</sup>Data assimilation: Method for incorporating actual data into numerical simulations. Also referred to as "nudging."

## 4-4-1. Monitoring results from the second discharge period (Overview)



- The second discharge was performed from October 5 to October 23. Results from both quick tritium measurement and normal monitoring showed low concentration levels outside the vicinity of the discharge outlet, and we confirmed that tritium is dispersing.
- O The highest concentration detected during quick tritium measurement (target detection limit: less than 10 Bq/liter) was 22Bq/liter (T-0-1A, October 21), which is below are operational indices (discharge suspension level and control level)
- The highest concentrations detected during normal monitoring (target detection limit: less than 0.4Bq/liter or less than 0.1Bq/liter) were 14Bq/liter in the vicinity of the discharge outlet (within a 3km radius of the power station) (T-0-1A, October 16), and 0.065Bq/liter, outside of the area around the discharge outlet (within a 10km square off the coast of the power station) (T-S8, October 12) respectively.

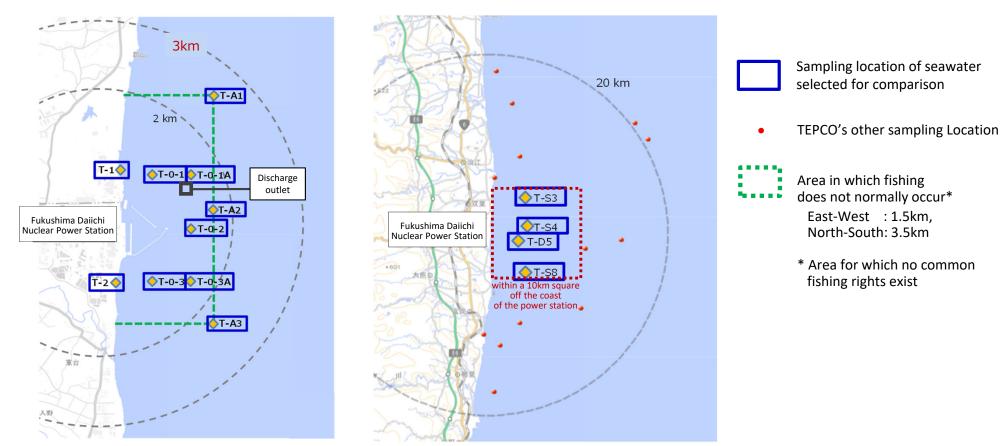


Fig. Sampling locations of seawater selected for comparison with dispersion simulation

#### 4-4-2. Monitoring results from the second discharge period $(1/3)T \equiv PCO$

- The following chart shows the sea area monitoring results for the second discharge period.
- Verification was based on tritium concentrations detected more than 0.1 Bg/liter through normal measurements on October 5 9, 16 and 23. (Indicated in the black boxes) (Unit: Ba/liter)

October 6 8 9 9 12 10 11 12 13 Sampling location Frequency Normal Normal Normal \*1 \*1,2 \*3 \*3 <7.2 <6.9 <6.5 < 6.3 T-1 Once a week\* < 5.8 < 0.31 < 5.8 < 5.8 0.40 < 6.1 < 6.5 < 6.3 T-2 Once a week\* < 5.7 < 0.31 < 5.7 < 5.8 < 6.1 < 7.1 0.77 < 6.9 < 6.6 < 6.5 < 0.31 < 7.0 <6.7 <8.2 < 7.9 T-0-1 Once a week\* < 7.8 1.4 < 7.3 < 7.3 < 7.3 \_\*4 Once a week\* < 7.6 < 8.2 < 7.3 T-0-1A 5.2 < 7.4 9.4 11 12 14 11 In the vicinity < 7.6 < 0.33 < 7.0 < 6.8 < 8.1 < 7.9 0.43 <7.3 < 7.3 < 7.3 T-0-2 Once a week\* of the <6.1 T-0-3A Once a week\* < 5.9 < 0.32 < 5.8 < 5.8 <7.2 < 0.072 <6.8 < 6.3 < 6.5 discharge outlet \_\*4 T-0-3 Once a week\* <7.7 < 0.32 < 6.4 <6.7 < 8.2 < 7.8 < 7.2 0.45 < 7.3 <7.2 <7.7 < 0.30 < 7.0 < 6.4 < 5.5 < 6.7 0.43 <6.8 <8.7 T-A1 Once a week\* < 8.6 T-A2 Once a week\* < 0.31 < 5.5 < 6.7 0.25 < 6.8 <7.7 < 7.0 < 5.9 < 8.6 < 8.6 < 7.6 < 0.30 <7.1 < 5.8 < 5.5 <6.8 < 0.073 <6.8 <8.6 T-A3 Once a week\* < 8.6 T-D5 Once a week < 6.4 < 0.070 Outside the vicinity T-S3 Once a month <6.4 < 0.071 of the T-S4 Once a month < 6.4 < 0.070 discharge outlet T-S8 <6.5 0.065 Once a month

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

<sup>:</sup> Discharge period of ALPS treated water (Second discharge)

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

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

<sup>\*1:</sup> Sampled after the commencement of discharge at 2PM

<sup>\*4:</sup> Sampling suspended due to bad weather condition

### 4-4-2. Monitoring results from the second discharge period (2/3)T = 2

(Unit: Bq/liter)

			October												
	Sampling location	Frequency	14	15	16	16 Normal *1	17	18	19	19 Normal *1	20	21	22	23	
In the vicinity of the discharge	T-1	Once a week*	<6.1	<5.5	<6.0	4.3	<6.5	<7.1	<7.2	_	<5.5	<5.6	<5.3	<6.5	
	T-2	Once a week*	<6.2	<5.5	<6.0	0.66	<6.5	<7.1	<7.1	_	<5.5	<5.6	<5.2	<6.5	
	T-0-1	Once a week*	<8.7	<7.3	<7.8	1.0	<6.7	<5.9	<8.3	_	<7.0	<6.8	<7.3	<6.7	
	T-0-1A	Once a week*	<8.7	14	16	14	<6.7	<5.8	<8.5	_	<7.0	22	16	<6.7	
	T-0-2	Once a week*	<8.7	<7.3	<7.8	1.2	<6.7	8.9	<8.4	_	<7.0	<6.8	<7.3	<6.7	
	T-0-3A	Once a week*	<6.1	<5.6	<6.0	0.74	<6.5	<7.1	<7.1	_	<5.5	<5.6	<5.3	<6.5	
outlet	T-0-3	Once a week*	<8.6	<7.3	<7.8	1.0	<6.7	<6.7	<8.4	_	<7.0	<6.8	<7.3	<6.7	
	T-A1	Once a week*	<6.2	<7.2	<7.2	0.50	<8.3	<7.2	<7.5	_	<7.5	<8.5	<5.7	<6.8	
	T-A2	Once a week*	<5.6	<7.2	<7.2	0.56	<8.3	<7.2	<7.5	_	<7.5	<8.4	<5.7	<6.9	
	T-A3	Once a week*	<5.7	<7.2	<7.2	0.80	<8.3	<7.2	<7.5	_	<7.5	<8.5	<5.7	<6.8	
Outside	T-D5	Once a week	ı	-	_	-	ı	1	<7.5	<0.34	ı	ı	ı	<6.9	
the vicinity of the discharge outlet	T-S3	Once a month	ı	_	_	-	_	_	_	_	_	_	ı	-	
	T-S4	Once a month	ı	_	_	-	ı	_	_	_	1	_	ı	-	
	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> Discharge period of ALPS treated water (Second discharge)

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

### 4-4-2. Monitoring results from the second discharge period (3/3)T = 7CO

(Unit: Bq/liter)

			October											
	Sampling location	Frequency	23 Normal *1,2	24	25	26	27	28	29	30	31			
	T-1	Once a week*	1.3	<6.5	<5.8	<6.5	<6.4	<7.2	<6.8	<6.4	<7.1			
	T-2	Once a week*	0.80	<6.5	<5.8	<6.6	<6.3	<7.2	<6.8	<6.4	<7.1			
	T-0-1	Once a week*	1.3	<7.8	<7.5	<7.6	<7.8	<8.3	<7.8	_*3	_*3			
In the vicinity of the discharge	T-0-1A	Once a week*	0.71	<7.7	<7.5	<7.7	<7.8	<8.3	<7.9	_*3	_*3			
	T-0-2	Once a week*	0.40	<7.7	<7.5	<7.6	<7.8	<8.3	<7.9	<b>_</b> *3	<b>_</b> *3			
	T-0-3A	Once a week*	<0.33	<6.5	<5.8	<6.6	<6.3	<7.3	<6.9	_*3	_*3			
outlet	T-0-3	Once a week*	1.0	<7.7	<7.5	<7.6	<7.8	<8.3	<7.9	_*3	_*3			
	T-A1	Once a week*	0.37	<7.5	<7.8	<6.2	<6.6	<6.6	<6.6	<b>_</b> *3	<b>_</b> *3			
	T-A2	Once a week*	<0.31	<7.5	<7.8	<6.2	<6.5	<6.6	<6.6	<b>_</b> *3	<b>_</b> *3			
	T-A3	Once a week*	<0.32	<7.5	<7.8	<6.2	<6.6	<6.6	<6.6	<b>_</b> *3	<b>_</b> *3			
Outside	T-D5	Once a week	<0.32	_	-	-	-	ı	-	1	_			
the vicinity of the	T-S3	Once a month	_	_	_	_	_	-	-	_	_			
discharge	T-S4	Once a month	_	_	_	ı	ı	-	ı	-	_			
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_	_			

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

<sup>:</sup> Discharge period of ALPS treated water (Second discharge)

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

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

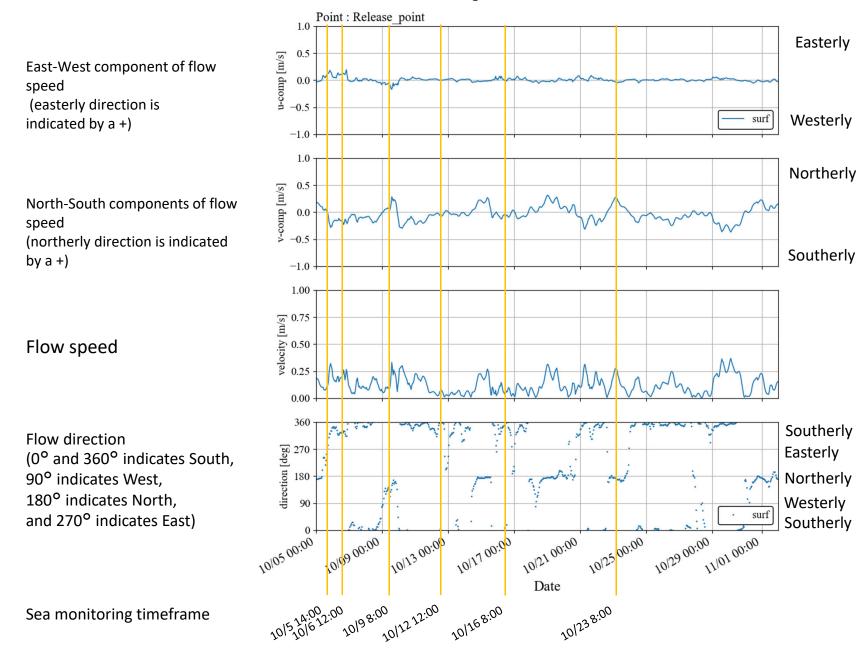
<sup>\*2:</sup> Sampled before 9AM, prior to the completion of the discharge

<sup>\*3:</sup> Sampling suspended due to bad weather condition

### 4-5-1. The direction and speed of currents in the surface layer of the sea above the discharge outlet (dispersion simulation results)



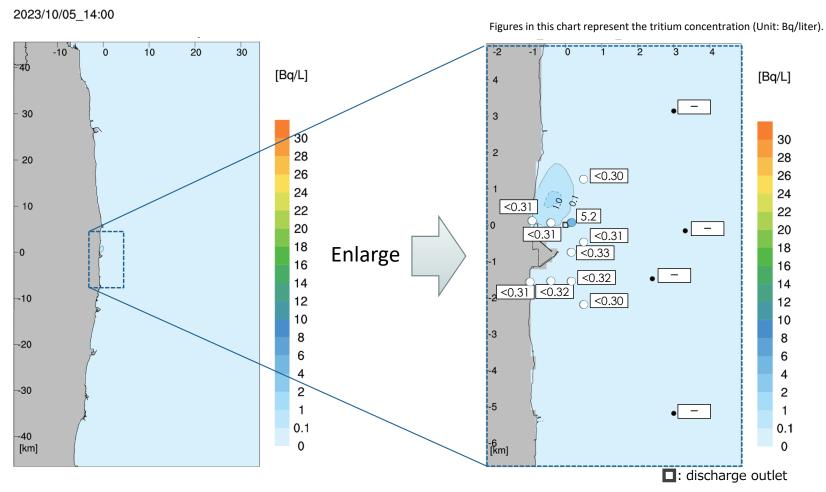
Sea condition observed after 12AM on October 5 when the discharge was commenced are shown as below



## 2-5-2. Comparison of dispersion calculation results and monitoring results (August 24, 4 PM)



- The following figures show the dispersion simulation results for 2PM on October 5, which is approximately four hours after the commencement of discharge, and the sea area monitoring results for the same timeframe.
- The simulation results show that ocean current is in the weak northerly direction and tritium tend to disperse to the north. The monitoring result was only detected at the northeastern side if the discharge outlet, on T-0-1A, This trend is generally consistent with monitoring results. (Refer to 4-5-1. Ocean current direction and flow speed of the surface layer by the discharge outlet (dispersion simulation results) for more details)

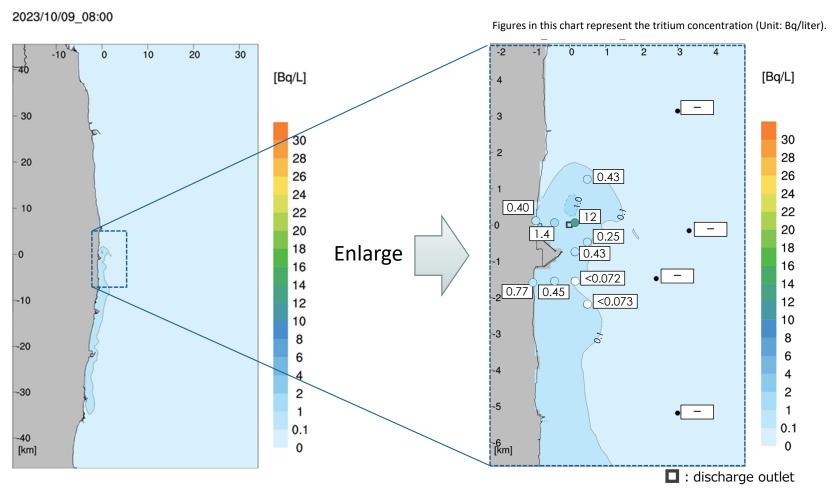


October 5, 2 PM dispersion calculation results (ocean surface concentration distribution map) and monitoring results comparison indicates monitoring result concentrations, white circles indicate ND. • indicate that no monitoring took place during this timeframe

### 4-5-2. Comparison of dispersion calculation results and monitoring results (October 9, 8 AM)



- The following figures show the dispersion simulation results for 8AM on October 9 and the sea area monitoring results for the same timeframe.
- The simulation results show the ocean currents right after they changed to north direction from south direction observed in the previous day. Overall dispersion is extending to the south, but trend extending to the south was observed. This trend is generally consistent with monitoring results.

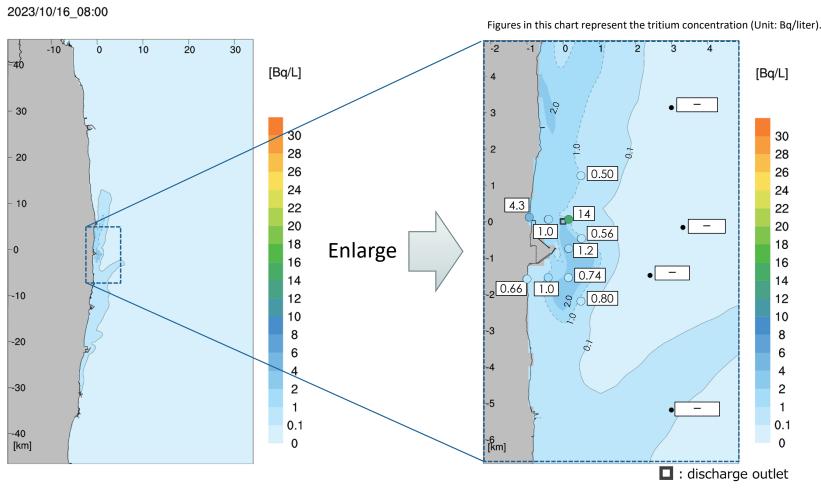


October 9, 8 AM dispersion calculation results (ocean surface concentration distribution map) and monitoring results comparison O indicates monitoring result concentrations, white circles indicate ND. • indicate that no monitoring took place during this timeframe

## 4-5-2. Comparison of dispersion calculation results and monitoring results (October 16, 8 AM)



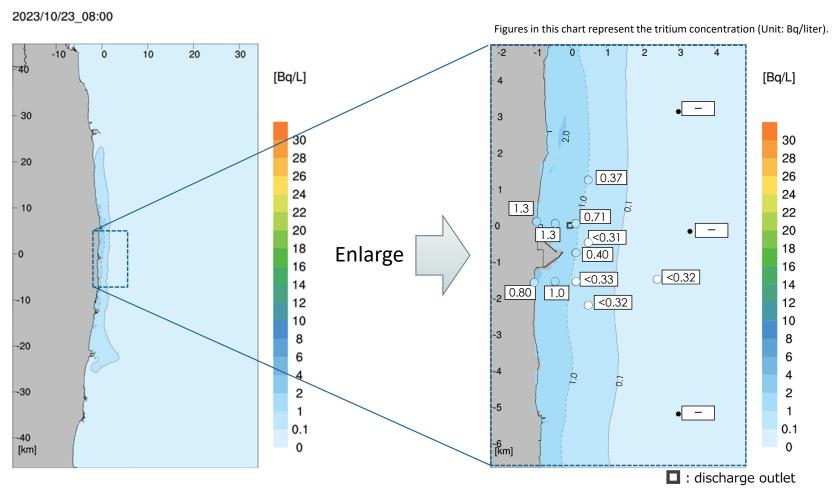
- The following figures show the dispersion simulation results for 8AM on October 16 and the sea area monitoring results for the same timeframe.
- The simulation results show that ocean currents changed from north direction to south direction on October 15, and the scope of dispersion extends to the north-south. This trend is generally consistent with monitoring results.



### 4-5-2. Comparison of dispersion calculation results and monitoring results (October 23, 8 AM)



- The following figures show the dispersion simulation results for 8AM on October 23 and the sea area monitoring results for the same timeframe.
- The simulation results show that ocean currents were in south direction from October 21 to 22 but changed to north direction on 23. The scope of dispersion extends to the north-south. This trend is generally consistent with monitoring results.

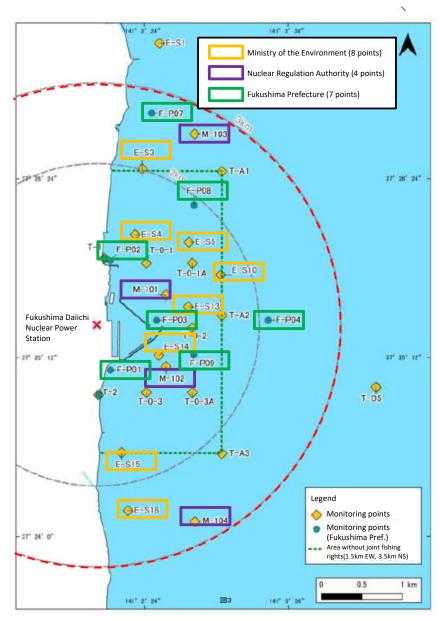


October 23, 8 AM dispersion calculation results (ocean surface concentration distribution map) and monitoring results comparison ○ indicates monitoring result concentrations, white circles indicate ND. ● indicate that no monitoring took place during this timeframe

### 4-6-1. Monitoring results from other agencies (for the second discharge period)



- Since monitoring during the period of discharge of ALPS treated water is performed within 3km of the power station by the Ministry of the Environment, the Nuclear Regulation Authority and Fukushima Prefecture in addition to TEPCO, the tritium analysis results from these agencies were also examined.
- The locations from which samples are taken by other agencies is shown on the map to the right.
- The following is a summary of the sea monitoring results from other agencies obtained during the second discharge (October 5 October 23, 2023)
- O The Ministry of Environment conducted monitoring from October 12 ti 13, 2023, and October 17 and 19. The samples are currently being analyzed.
- The Nuclear Regulation Authority performed monitoring on October 6. Since 1.1Bq/liter was detected at location M-103, this measurement result is reviewed.
- Fukushima Prefecture performed monitoring on October 12. Although detected tritium concentrations do not differ from those taken prior to the discharge of ALPS treated water, at several locations a concentration in excess of 0.1Bq/liter was found in the vicinity of the power station, so these measurements is reviewed.

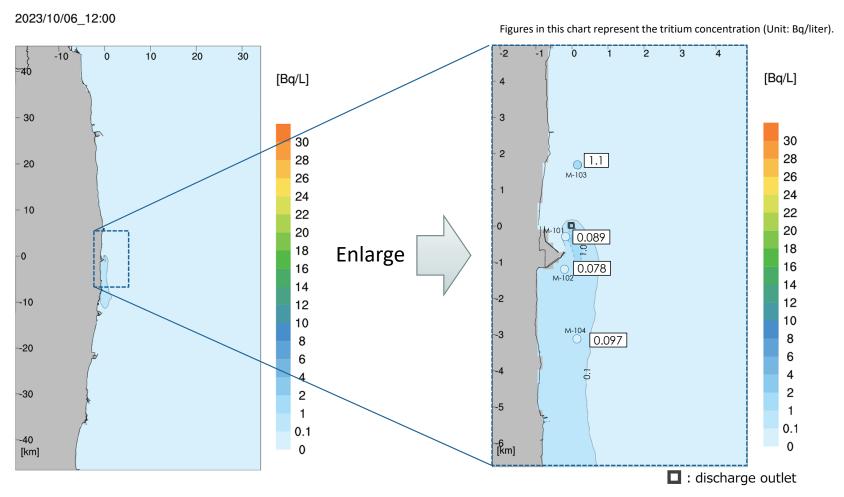


Locations of samples taken by other agencies within 3km of the power station

## 4-6-2. Comparison of dispersion calculation results and monitoring results (October 16, 12 PM)



- The following figures show the dispersion simulation results for 12PM on October 6 and the sea area monitoring results for the same timeframe.
- The simulation results show that ocean currents continued to be in south direction from the previous day.
  Although the scope of dispersion extends to south direction, the monitoring result of M-103 in the northern side was not consistent with simulation results.



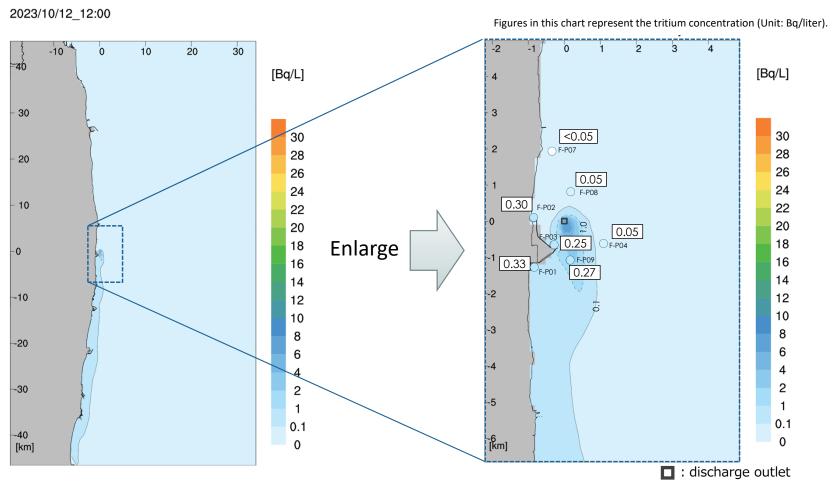
October 6, 12 PM dispersion calculation results (ocean surface concentration distribution map) and monitoring results comparison

○ indicates monitoring result concentrations, white circles indicate ND. ● indicate that no monitoring took place during this timeframe

### 4-6-2. Comparison of dispersion calculation results and monitoring results (October 12, 12 PM)



- The following figures show the dispersion simulation results for 12PM on October 12 and the sea area monitoring results for the same timeframe.
- The simulation results show that ocean currents continued to be in south direction since October 10. The scope of dispersion extends to the south This trend is generally consistent with monitoring results.



October 12, 12 PM dispersion calculation results (ocean surface concentration distribution map) and monitoring results comparison O indicates monitoring result concentrations, white circles indicate ND. • indicate that no monitoring took place during this timeframe

#### 4-7. Conclusion



- A comparison of the results of tritium concentration during the second discharge period with dispersion simulation results based on meteorological/marine meteorological data during the same period was performed.
- Sea area monitoring results from the 14 locations and external agencies have also shown that tritium is dispersing.
- As in the first discharge, the trends of the second discharge shown by dispersion simulation and sea area monitoring result are generally consistent.
- We will continue to compare and verify monitoring results and dispersion simulation results for the third discharge.

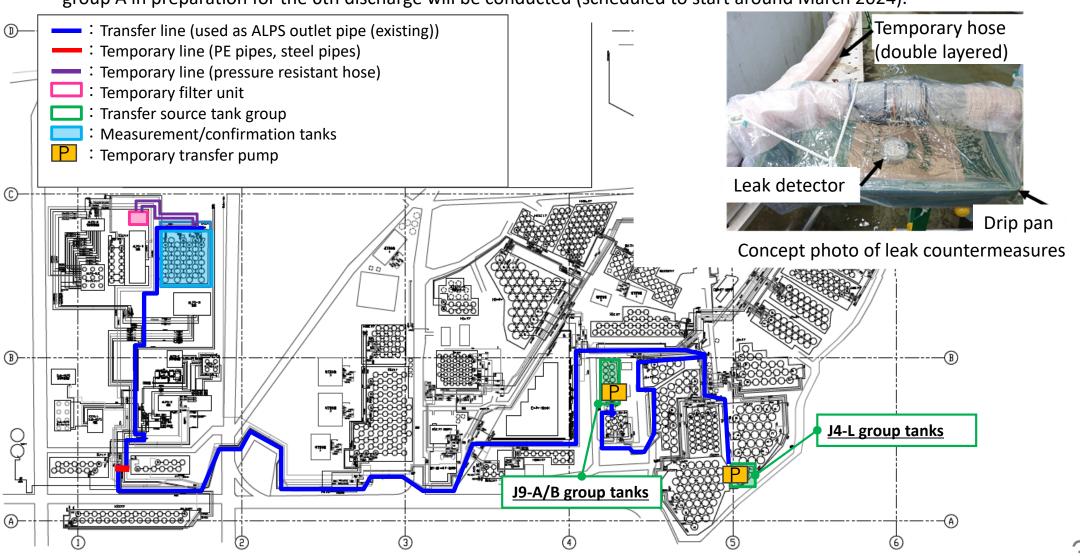
- 1. Facility inspections after the completion of the 3rd discharge
- 2. Status of work for the 4th discharge of ALPS treated water
- 3. Monitoring history regarding discharge
- 4. Sea area dispersion simulation
- 5. Transfer of ALPS treated water in preparation for the 5th and 6th discharges

(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).



- 1. Facility inspections after the completion of the 3rd discharge
- 2. Status of work for the 4th discharge of ALPS treated water
- 3. Monitoring history regarding discharge
- 4. Sea area dispersion simulation
- 5. Transfer of ALPS treated water in preparation for the 5th and 6th discharges

(Reference) Sea monitoring history after the commencement of discharge

#### Sea area monitoring history (1/17)



- 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 of the	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	_
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	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	I	_	-	-	-	ı	1	1	I	_	<6.8	0.59
the vicinity of the	T-S3	Once a month	ı	_	_	_	_	1	-	ı	<7.6	0.070	1	_
discharge	T-S4	Once a month	ı	_	_	-	_	ı	-	ı	<7.7	0.073	ı	_
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_	<7.7	0.062	ı	_

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

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

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

# Sea area monitoring history (2/17)



(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	-	_	_	_		_	_	_	_	_	_	_

<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> 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 (3/17)



(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 of the	T-S3	Once a month	ı	_	<7.1	<0.068	_	_	Ι	_	_	ı	_	_
discharge	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 (4/17)



(Unit: Bq/liter)

							9	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	ı	<6.1	<0.34	1	-	_	-	ı	_	I	<6.3	<0.35
the vicinity of the	T-S3	Once a month	-	_	_	-	1	_	_	1	_	_	_	_
discharge	T-S4	Once a month	-	_	_	-	_	_	_	_	_	_	_	_
outlet	T-S8	Once a month	-	_	_	_	_	_	_	_	_	_	_	_

<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 (5/17)



(Unit: Bq/liter)

			Sept	ember, 2	2023				Oct	ober, 20	023			
	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	1	1	ı	_	1	<6.8	<0.35	l	-	_
the vicinity of the	T-S3	Once a month	_	1	1	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

\*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 (6/17)



(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	-	-	_	_	_	_	<6.4	<0.070	_	-	-	_
the vicinity of the	T-S3	Once a month	1	_	_	_	_	_	<6.4	<0.071	_	_	1	_
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

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

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

#### Sea area monitoring history (7/17)



(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 (8/17)



					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	1	ı	1	ı	ı	ı	<7.9	<0.33	1	_	ı	_
the vicinity of the	T-S3	Once a month	-	-	_	_	_	_	_	_	_	_	-	_
discharge	T-S4	Once a month	-	-	_	_	_	_	_	_	_	_	-	_
outlet	T-S8	Once a month	ı	_	_	-	-	_	_	-	_	_	_	_

<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

 $<sup>{</sup>m *1:}$  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 (9/17)



								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	ı	ı	_	ı	ı	_	<7.5	<0.34	ı	ı	ı	_
the vicinity of the	T-S3	Once a month	ı	_	_	Ι	<7.7	0.12	١	_	_	_	_	_
discharge	T-S4	Once a month	ı		_	Ι	<7.7	0.10	١	_	ı	-	ı	_
outlet	T-S8	Once a month	-	_	_	-	<7.8	0.097	_	_	-	ı	_	-

<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 (10/17)



(Unit: Bq/liter)

								Novemb	er, 2023					
	Sampling location	Frequency	13 Normal *1	14	15	15 Normal *1	16	17	18	19	20 *3	20 Normal *3,4	21	21 Normal *4
	T-1	Once a week*	0.25	<5.8	<6.9	_	<8.8	<7.8	<9.3	<6.3	<7.0	1.7	<6.6	_
	T-2	Once a week*	0.25	<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	T-0-2	Once a week*	0.17	<6.5	<6.2	_	7.9	<7.8	_*2	<7.4	<8.1	0.77	<7.1	_
of the 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	0.12	_	_	_	_	-	_	<7.2	<0.33
the vicinity	T-S3	Once a month	_	_	_	_		_	_		_			_
of the discharge	T-S4	Once a month	_	_		_		_	_		1	_		_
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 (11/17)



(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 of the	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
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	_	ı	ı	_	ı	<7.8	<0.34	ı	ı	_	_	_
the vicinity of the	T-S3	Once a month	_	_	-	_	_	_	_	_	_	_	_	_
discharge	T-S4	Once a month	_	_	-	_	1	_	_	ı	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 0.4 Bq/liter

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

# Sea area monitoring history (12/17)



(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	ı	l	-	1	I	ı	_	1	<6.0	<0.34	ı	_
the vicinity	T-S3	Once a month	ı	ı	_	1	ı	1	_	1	ı	_	ı	_
of the discharge	T-S4	Once a month	ı	ı	_	1	ı	1	_	1	ı	_	ı	_
outlet	T-S8	Once a month	_	_	_	_	_	<6.6	being measured	_	_	_	_	_

<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 (13/17)



								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 measured         <7.0         <6.7         <6.7           Once a week*         being measured measured         <7.0	_	<5.9	<6.8	_*2	<5.8	<0.34	<8.2	_				
In the vicinity of the	T-0-1A	Once a week*	<0.073	_*2	_*2	<5.5	_	<5.8	<6.7	_*2	<5.9	<0.35	<8.2	_
	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*	<0.074	_*2	_*2	<6.7	_	<6.1	<6.9	_*2	<5.7	<0.34	al	_
outlet	T-0-3	Once a week*	<0.075	_*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	<5.7 <5.7 <8.2 <8.2 <8.2 <5.8 <8.2 <7.5 <7.5 <7.5 <7.5 <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	_	_	ı	<8.1	0.079	ı	_	ı	-	_	<7.5	<0.34
the vicinity of the	T-S3	Once a month	_	_	_	_	_	_	_	ı	_	_	<5.7 <5.7 <8.2 <8.2 <8.2 <5.8 <8.2 <7.5 <7.5 <7.5	_
discharge	T-S4	Once a month	_	_	_	_	_	1	_	ı	-	_	_	_
outlet	T-S8	Once a month	_	_	_	_	_	_	_	_		_	_	_

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

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

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

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

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

#### Sea area monitoring history (14/17)



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.

						Dec	ember, 2	.023				Jar	nuary, 20	)24
	Sampling location	Frequency	20	20 Normal *1	21	22	23	24	25	25 Normal *2	26	1	<6.5 <6.5 <8.1 <8.1 <8.2	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	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	ı	<0.33
	T-0-1	Once a week*	<7.5	_	<8.0	<7.1	<6.6	<7.3	<7.3	<0.27	<6.9	5 1  .0 <5.6 .9 <5.5 .9 -*3 < .8 -*3 < .8 -*3 < .0 -*3 < .0 -*3 < .2 -*3 < .2 -*3 < .2 -*3 <	<6.5	<0.27
In the	T-0-1A	Once a week*	<7.5	<7.5	<7.3	<0.34	<5.8	_*3	<6.5	<0.35				
vicinity of the	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
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	<0.34
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 <6.5 <6.5 <8.1 <6.5 <8.1 <8.2 -	<0.34
	T-A1	Once a week*	<6.5	_	<6.9	<6.1	<6.2	<7.3	<7.8	<0.36	<9.2	_*3		<0.37
	T-A2	Once a week*	<6.5	_	<6.9	<6.2	<6.2	<7.2	<7.9	<0.36	<9.2	_*3		<0.37
	T-A3	Once a week*	<6.5	_	<6.9	<6.2	<6.2	<7.2	<7.8	<0.36	<9.2	_*3	<8.2	<0.37
Outside	T-D5	Once a week	_	_	-	_	-	_	<7.9	<0.33	_	_	_	_
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. \*1: 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 (15/17)



								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	-77	17 Normal *2
	T-1	Twice a week*	_	_	-	being measured	_	_	_	-	_	<0.37	_	_
	T-2	Twice a week*	_	_	-	being measured	_	_	-	_	_	<0.37	_	_
	T-0-1	Once a day*	_	_	<6.5	being measured	_	_	ı	_	<6.2	<0.27	ı	_
In the	T-0-1A	Once a day*	_	_	<7.2	being measured	_	_	ı	_	<4.2	<0.33	ı	_
vicinity of the	T-0-2	Once a day*	_	_	<6.6	being measured	_	_	_	_	<6.2	<0.31	_	_
discharge	T-0-3A	Twice a week*	_	_	_	being measured	_	_	_	_	_	<0.33	_	_
outlet	T-0-3	Twice a week*	_	_	_	being measured	_	_	_	_	_	<0.33	1 – 3 – 3 – 5 –	_
	T-A1	Twice a week*	_	_	-	<0.071	_	_	1	_	_	<6.2 <0.31 - <0.33 - <0.33 - <0.36	ı	_
	T-A2	Once a day*	_	_	<7.6	0.11	-	_	-	_	<4.2	<0.36	-	_
	T-A3	Twice a week*	_	_	ı	0.079	ı	_	ı	_	_	<0.36	ı	_
Outside	T-D5	Once a week	<8.1	<0.35	1	_	<7.0	being measured	1	_	_	1	ı	_
the vicinity of the	T-S3	Once a month	_	_	_	_	_	_	1	_	_	_	<7.8	being measured
discharge	T-S4	Once a month	_	_	1	_	_	_	-	_	_	_	<7.7	being measured
outlet	T-S8	Once a month	_	_	_	_	_	_	<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>\*: 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

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

Other 6 locations: 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 one week following the completion of discharge

# Sea area monitoring history (16/17)



				January	, 2024					Februar	y, 2024			
	Sampling location	Frequency	24	24 Normal *1	29	29 Normal *1	5	5 Normal *1	7	7 Normal *2	12	12 Normal *2	13	13 Normal *2
	T-1	Twice a week*	-	<0.37	_	<0.34	<6.1	<0.33	_	_	_	being measured	_	_
	T-2	Twice a week*	_	<0.37	_	<0.35	<6.1	<0.33	_	_	_	being measured	_	_
	T-0-1	Once a day*	<7.8	<0.37	24 ormal value       29 Normal value       5 Normal value       7 Normal value         30.37 -        <0.34 <6.1 <0.33 -	_	<7.0	being measured	_	_				
In the vicinity of the	T-0-1A	Once a day*	<7.3	<0.34	<7.6	<0.33	<7.6	<0.32	_	_	<6.6	being measured	_	_
	T-0-2	Once a day*	<7.7	<0.32	<8.2	<0.38	<7.6	<0.36	_	_	<7.1	being measured	_	_
discharge	T-0-3A	Twice a week*	_	<0.33	_	<0.33	<6.0	<0.32	_	_	_	being measured	_	_
outlet	T-0-3	Twice a week*	_	<0.33	_	<0.33	<7.5	<0.34	_	_	_	being measured	_	_
	T-A1	Twice a week*	_	<0.37	_	<0.35	<7.0	being measured	_	_	_	being measured	rmal sured sured — seing — sured — — — — — — — — — — — — — — — — — — —	_
	T-A2	Once a day*	<7.3	<0.37	<7.6	<0.35	<6.8		_	_	<6.7	being measured		_
	T-A3	Twice a week*	_	<0.37	_	<0.35	<6.9	being measured	_	_	_	being measured	_	_
Outside	T-D5	Once a week	_	_	<6.9	being measured	<6.1		_	_	_	_	<8.1	being measured
the vicinity of the	T-S3	Once a month	_	_	_	_	_	_	<6.2	being measured	_	_	- - - - - - - - <8.1	_
discharge	T-S4	Once a month	_	_	_	_	_	_	<6.1	being measured	_	_	_	_
outlet	T-S8	Once a month	I	_	ı	_	_	_	ı	_	Ī	_	_	_

<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>\*: 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

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

Other 6 locations: 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 one week following the completion of discharge

# Sea area monitoring history (17/17)



			February, 2024								
	Sampling location	Frequency	19	19 Normal *1	21	21 Normal *1	26	26 Normal *1			
	T-1	Twice a week*	_	being measured	_	_	_	being measured			
	T-2	Twice a week*	_	being measured	_	_	_	being measured			
	T-0-1	Once a day*	<6.6	being measured  6.4 being measured  6.5 being measured  being measured  being	_	_	<7.9	being measured			
In the vicinity of the discharge	T-0-1A	Once a day*	<6.4		_	_	<7.9	being measured			
	T-0-2	Once a day*	<6.5		_	_	<7.9	being measured			
	T-0-3A	Twice a week*	_	being measured	_	_	_	being measured			
outlet	T-0-3	Twice a week*	_	being measured	_	_	- <7.9 me me me	being measured			
	T-A1	Twice a week*	_	being measured	_	_		being measured			
	T-A2	Once a day*	<6.8	being measured	_	_	<7.9	being measured			
	T-A3	Twice a week*	_	being measured	_	_	_	being measured			
Outside	T-D5	Once a week	_	_	<5.5	being measured	_	_			
the vicinity of the	T-S3	Once a month	_	_	_	_	_	_			
discharge	T-S4	Once a month	_	_	_	_	_	_			
outlet	T-S8	Once a month	_	_	_	_	_*2	_*2			

<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: Sampling suspended due to bad weather condition

<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

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

Other 6 locations: 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 one week following the completion of discharge