Information, May, 2025

To All Missions (Embassies, Consular posts and International Organizations in Japan)

Report on the discharge record and the seawater monitoring results at Fukushima Daiichi Nuclear Power Station during April

The Ministry of Foreign Affairs wishes to provide all international Missions in Japan with a report on the discharge record and seawater monitoring results with regard to groundwater pumped from the sub-drain and groundwater drain systems, as well as bypassing groundwater pumped during the month of April at Fukushima Daiichi Nuclear Power Station (NPS).

1. Sub-drain and Groundwater Drain Systems

In April purified groundwater pumped from the sub-drain and groundwater drain systems was discharged on the dates shown in Appendix 1. Prior to every discharge, an analysis on the quality of the purified groundwater to be discharged was conducted by Tokyo Electric Power Company (TEPCO) and the results were announced.

All the test results during the month of April have confirmed that the radiation levels of sampled water were substantially below the operational targets set by TEPCO (these operational targets are well below the density limit specified by the Reactor Regulation). The results of these analyses were also confirmed by third-party organization (Tohoku Ryokka Kankyohozen Co.).

In addition, TEPCO and Japan Atomic Energy Agency (JAEA), at the request of the Government of Japan, regularly conduct more detailed analyses on the purified groundwater. The results of JAEA's latest analyses confirmed that TEPCO's analyses were accurate and verified that the radiation levels of sampled groundwater was substantially below the operational target (see Appendix 2).

Moreover, TEPCO publishes the results of analyses conducted on seawater sampled during the discharge operation at the nearest seawater sampling post from the discharge point (see Appendix 3). The results show that the radiation levels of seawater remain lower than the density limit specified by the Reactor Regulation and significant change in the radioactivity has not been observed.

2. Groundwater Bypassing

In April, the pumped bypassing groundwater was discharged on the dates shown in Appendix 4. Prior to every discharge, an analysis on the quality of the groundwater to be discharged was conducted by TEPCO and the results were announced.

All the test results during the month of April have confirmed that the radiation levels of sampled water were substantially below the operational targets set by TEPCO (these operational targets are well below the density limit specified by the Reactor Regulation). The results of these analyses were also confirmed by Japan Chemical Analysis Center.

In addition, TEPCO and JAEA, at the request of the Government of Japan, regularly conduct more detailed analyses on the groundwater. The results of JAEA's latest analyses confirmed that TEPCO's analyses were accurate and verified that the radiation levels of the sampled groundwater were substantially below the operational target (see Appendix 5).

Moreover, TEPCO publishes analysis results on seawater sampled during the discharge operation at the nearest seawater sampling post from the discharge point (see Appendix 6). The result shows that the radiation levels in seawater remain lower than the density limit specified by the Reactor Regulation and significant change in the radioactivity has not been observed. The analysis had been conducted once a month until March 2017. Since April 2017, it is conducted four times a year because there has been no significant fluctuation in the concentration of radioactive materials in the sea water, and no influence on the surrounding environment has been confirmed.

The sampling process for analyses conducted this month is the same as the one conducted in the information disseminated last month. Results of the analyses are shown in the attached appendices:

(For further information, please contact TEPCO at (Tel: 03-6373-1111) or refer to the TEPCO's website:
http://www.tepco.co.jp/en/nu/fukushima-np/handouts/index-e.html)

Contact: International Nuclear Energy Cooperation Division,
Ministry of Foreign Affairs, Tel 03-5501-8227

Appendix 1

Results of analyses on the quality of the purified groundwater pumped from the sub-drain and groundwater drain systems at Fukushima Daiichi NPS (made available by TEPCO prior to discharge)

(Unit: Bq/L)

Date of sampling *Date of discharge	Detected nuclides	Analytical body	
		TEPCO	Third-party organization
April 25th, 2025 *Discharged on April 30th,2025	Cs-134	ND (0.73)	ND (0.64)
	Cs-137	ND (0.45)	ND (0.51)
	Gross β	ND (0.64)	ND (0.36)
	H-3	700	730
April 23rd, 2025 *Discharged on April 28th,2025	Cs-134	ND (0.75)	ND (0.57)
	Cs-137	ND (0.78)	ND (0.64)
	Gross β	ND (1.8)	0.39
	H-3	670	730
April 22nd, 2025 *Discharged on April 27th,2025	Cs-134	ND (0.86)	ND (0.72)
	Cs-137	ND (0.60)	ND (0.63)
	Gross β	ND (1.9)	ND (0.35)
	H-3	600	600
April 20th, 2025 *Discharged on April 25th,2025	Cs-134	ND (0.74)	ND (0.67)
	Cs-137	ND (0.66)	ND (0.60)
	Gross β	ND (1.6)	ND (0.31)
	H-3	570	610
April 19th, 2025 *Discharged on April 24th,2025	Cs-134	ND (0.67)	ND (0.69)
	Cs-137	ND (0.75)	ND (0.77)
	Gross β	ND (2.1)	ND (0.32)
	H-3	580	630
April 17th, 2025 *Discharged on April 22nd,2025	Cs-134	ND (0.81)	ND (0.69)
	Cs-137	ND (0.61)	ND (0.82)
	Gross β	ND (0.65)	ND (0.49)
	H-3	650	710
April 15th, 2025 *Discharged on April 20th,2025	Cs-134	ND (0.67)	ND (0.53)
	Cs-137	ND (0.75)	ND (0.69)
	Gross β	ND (2.0)	ND(0.35)
	H-3	600	650
April 13th, 2025 *Discharged on	Cs-134	ND (0.67)	ND (0.57)
	Cs-137	ND (0.91)	ND (0.57)
	Gross β	ND (1.9)	ND (0.30)

April 18th,2025	H-3	610	680
April 12th,2025 *Discharged on April 17th,2025	Cs-134	ND (0.82)	ND (0.67)
	Cs-137	ND (0.75)	ND (0.77)
	Gross β	ND (1.8)	ND (0.44)
	H-3	790	860
April 11th, 2025 *Discharged on April 16th,2025	Cs-134	ND (0.81)	ND (0.58)
	Cs-137	ND (0.47)	ND (0.59)
	Gross β	ND (0.59)	ND (0.34)
	H-3	840	850
April 10th, 2025 *Discharged on April 15th,2025	Cs-134	ND (0.92)	ND (0.47)
	Cs-137	ND (0.82)	ND (0.59)
	Gross β	ND (1.8)	ND (0.31)
	H-3	680	700
April 8th, 2025 *Discharged on April 13th,2025	Cs-134	ND (0.81)	ND (0.69)
	Cs-137	ND (0.82)	ND (0.60)
	Gross β	ND (2.1)	ND (0.34)
	H-3	570	620
April 7th, 2025 *Discharged on April 12th,2025	Cs-134	ND (0.58)	ND (0.49)
	Cs-137	ND (0.71)	ND (0.62)
	Gross β	ND (1.9)	ND (0.33)
	H-3	550	560
April 5th, 2025 *Discharged on April 10th,2025	Cs-134	ND (0.68)	ND (0.67)
	Cs-137	ND (0.62)	ND (0.62)
	Gross β	ND (2.0)	ND (0.30)
	H-3	700	750
April 4th, 2025 *Discharged on April 9th,2025	Cs-134	ND (0.87)	ND (0.56)
	Cs-137	ND (0.61)	ND (0.67)
	Gross β	ND (1.9)	ND (0.32)
	H-3	810	840
April 2nd, 2025 *Discharged on April 7th,2025	Cs-134	ND (0.67)	ND (0.64)
	Cs-137	ND (0.78)	ND (0.52)
	Gross β	ND (0.60)	ND (0.34)
	H-3	910	960
March 31st, 2025 *Discharged on April 5th,2025	Cs-134	ND (0.67)	ND (0.64)
	Cs-137	ND (0.66)	ND (0.68)
	Gross β	ND (1.5)	ND (0.31)
	H-3	820	870
March 30th, 2025 *Discharged on April 4th,2025	Cs-134	ND (0.66)	ND (0.60)
	Cs-137	ND (0.54)	ND (0.63)
	Gross β	ND (1.7)	ND (0.31)
	H-3	740	800

March 29th, 2025 *Discharged on April 3rd,2025	Cs-134	ND (0.75)	ND (0.69)
	Cs-137	ND (0.75)	ND (0.66)
	Gross β	ND (1.9)	ND (0.33)
	H-3	780	850

- * ND: represents a value below the detection limit; values in ( ) represent the detection limit.
- In order to ensure the results, third-party organizations have also conducted an analysis and verified the radiation level of the sampled water.
- Third-party organization : Tohoku Ryokka Kankyohozen Co., Ltd

Appendix 2

Result of detailed analyses conducted by TEPCO, JAEA, and Japan Chemical Analysis Center (In order to confirm the validity of analysis, the Government of Japan also requests JAEA; and TEPCO requests Japan Chemical Analysis Center to conduct independent analyses)

(Unit: Bq/L)

Date of sampling	Detected nuclides	Analytical body		
		JAEA	TEPCO	Japan Chemical Analysis Center
March 1st,2025	Cs-134	ND (0.0030)	ND (0.0049)	ND (0.0051)
	Cs-137	ND (0.0019)	ND (0.0036)	ND (0.0053)
	Gross α	ND (0.53)	ND (2.3)	ND (2.0)
	Gross β	ND (0.39)	ND (0.73)	ND (0.46)
	H-3	890 ±1.7	830	860
	Sr-90	0.0018±0.00042	ND (0.0012)	ND (0.0059)

* ND: represents a value below the detection limit; values in ( ) represent the detection limit.

(Reference) (Unit: Bq/L)

Radionuclides	Operational Targets	Density Limit specified by the Reactor Regulation	World Health Organization (WHO) Guidelines for Drinking Water Quality
Cs-134	1	60	10
Cs-137	1	90	10
Gross α	—	—	—
Gross β	3 (1) ※	—	—
H-3	1,500	60,000	10,000
Sr-90	—	30	10

※ The operational target of Gross β is 1 Bq/L in the survey which is conducted once every ten days.

※ The reference table shows the values of operational targets before discharge. Since the values after discharge contain natural radioactive materials in seawater, there will be differences between the values and the operational targets values.

Appendix 3

Results of analysis on the seawater sampled near the discharge point (North side of Units 5 and 6 discharge channel)

(Unit: Bq/L)

Date of sampling	Detected nuclides	Sampling point (South discharge channel)
March 31st, 2025 *Sampled before discharge of purified groundwater.	Cs-134	ND (0.78)
	Cs-137	ND (0.60)
	Gross β	12
	H-3	0.39

Appendix 4

Results of analyses on the water quality of the groundwater pumped up for bypassing at Fukushima Daiichi NPS (made available by TEPCO prior to discharge)

(Unit: Bq/L)

Date of sampling *Date of discharge	Detected nuclides	Analytical body	
		TEPCO	Third-party organization
April 25th, 2025 *Discharged on May 1st,2025	Cs-134	ND (0.88)	ND (0.72)
	Cs-137	ND (0.69)	ND (0.63)
	Gross β	ND (0.58)	ND (0.34)
	H-3	50	51
April 18th, 2025 *Discharged on April 24th,2025	Cs-134	ND (0.82)	ND (0.55)
	Cs-137	ND (0.86)	ND (0.69)
	Gross β	ND (0.66)	ND (0.54)
	H-3	46	53
April 11th, 2025 *Discharged on April 17th,2025	Cs-134	ND (0.65)	ND (0.57)
	Cs-137	ND (0.66)	ND (0.82)
	Gross β	ND (0.64)	ND (0.31)
	H-3	51	51
April 4th, 2025 *Discharged on April 11th,2025	Cs-134	ND (0.68)	ND (0.58)
	Cs-137	ND (0.62)	ND (0.62)
	Gross β	ND (0.60)	ND (0.31)
	H-3	51	57
March 28th, 2025 *Discharged on April 3rd,2025	Cs-134	ND (0.97)	ND (0.77)
	Cs-137	ND (0.74)	ND (0.73)
	Gross β	ND (0.66)	ND (0.28)
	H-3	50	54

- * ND: represents a value below the detection limit; values in ( ) represent the detection limit
- In order to ensure the results, third-party organizations have also conducted an analysis and verified the radiation level of the sampled water.
- Third-party organization: Tohoku Ryokka Kankyohozen Co., Ltd

Result of detailed analyses conducted by TEPCO, JAEA, and Japan Chemical Analysis Center (In order to confirm the validity of analysis, the Government of Japan also requests JAEA; and TEPCO requests Japan Chemical Analysis Center to conduct independent analyses)

(Unit: Bq/L)

Date of sampling	Detected nuclides	Analytical body		
		JAEA	TEPCO	Japan Chemical Analysis Center
March 1st, 2025	Cs-134	ND (0.0028)	ND (0.0044)	ND (0.0061)
	Cs-137	ND (0.0020)	ND (0.0067)	ND (0.0045)
	Gross α	ND (0.71)	ND (2.3)	ND (2.0)
	Gross β	ND (0.38)	ND (0.67)	ND (0.59)
	H-3	50 ±0.45	49	50
	Sr-90	0.0017 ± 0.00042	ND (0.0012)	ND (0.0058)

* ND: represents a value below the detection limit; values in ( ) represent the detection limit.

(Reference) (Unit: Bq/L)

Radionuclides	Operational Targets	Density Limit specified by the Reactor Regulation	World Health Organization (WHO) Guidelines for Drinking Water Quality
Cs-134	1	60	10
Cs-137	1	90	10
Gross α	—	—	—
Gross β	5 (1) ※	—	—
H-3	1,500	60,000	10,000
Sr-90	—	30	10

※ The operational target of Gross β is 1 Bq/L in the survey which is conducted once every ten days.

※ The reference table shows the values of operational targets before discharge. Since the values after discharge contain natural radioactive materials in seawater, there will be differences between the values and the operational targets values.

Appendix 6

Results of analyses on the seawater sampled near the discharge point (Around South Discharge Channel)

(Unit: Bq/L)

Date of sampling ※conducted four times a year	Detected nuclides	Sampling point (South discharge channel)
March 13th, 2025	Cs-134	ND (0.82)
	Cs-137	ND (0.90)
	Gross β	12
	H-3	ND (0.26)