Information, February, 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 January

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 January at Fukushima Daiichi Nuclear Power Station (NPS).

1. Sub-drain and Groundwater Drain Systems

In January 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 January 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 January, 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 January 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
January 27th, 2025 *Discharged on February 1st,2025	Cs-134	ND (0.93)	ND (0.73)
	Cs-137	ND (0.76)	ND (0.56)
	Gross β	ND (1.8)	ND (0.39)
	H-3	830	900
January 24th, 2025 *Discharged on January 29th	Cs-134	ND (0.68)	ND (0.73)
	Cs-137	ND (0.86)	ND (0.70)
	Gross β	ND (0.68)	ND (0.39)
	H-3	900	930
January 21st, 2025 *Discharged on January 26th	Cs-134	ND (0.93)	ND (0.63)
	Cs-137	ND (0.78)	ND (0.61)
	Gross β	ND (2.1)	ND (0.34)
	H-3	830	870
January 19th, 2025 *Discharged on January 24th	Cs-134	ND (0.68)	ND (0.77)
	Cs-137	ND (0.78)	ND (0.66)
	Gross β	ND (1.8)	ND (0.35)
	H-3	840	910
January 16th, 2025 *Discharged on January 21st	Cs-134	ND (0.72)	ND (0.77)
	Cs-137	ND (0.55)	ND (0.66)
	Gross β	ND (0.70)	ND (0.36)
	H-3	840	860
January 13th, 2025 *Discharged on January 18th	Cs-134	ND (0.82)	ND (0.70)
	Cs-137	ND (0.63)	ND (0.61)
	Gross β	ND (1.8)	ND (0.35)
	H-3	910	940
January 11th, 2025 *Discharged on January 16th	Cs-134	ND (0.91)	ND (0.51)
	Cs-137	ND (0.69)	ND (0.63)
	Gross β	ND (1.9)	ND (0.35)
	H-3	800	860
January 9th, 2025 *Discharged on January 14th	Cs-134	ND (0.65)	ND (0.65)
	Cs-137	ND (0.61)	ND (0.66)
	Gross β	ND (0.57)	ND (0.34)

	H-3	780	820
January 7th,2025 *Discharged on January 12th	Cs-134	ND (0.91)	ND (0.62)
	Cs-137	ND (0.57)	ND (0.61)
	Gross β	ND (1.8)	ND (0.33)
	H-3	750	770
January 5th, 2025 *Discharged on January 10th	Cs-134	ND (1.0)	ND (0.64)
	Cs-137	ND (0.80)	ND (0.73)
	Gross β	ND (2.0)	ND (0.32)
	H-3	790	860
January 3rd, 2025 *Discharged on January 8th	Cs-134	ND (0.75)	ND (0.64)
	Cs-137	ND (0.86)	ND (0.66)
	Gross β	ND (1.9)	ND (0.34)
	H-3	900	930
January 1st, 2025 *Discharged on January 6th	Cs-134	ND (0.62)	ND (0.79)
	Cs-137	ND (0.65)	ND (0.63)
	Gross β	ND (0.57)	ND (0.35)
	H-3	880	940
December 30th, 2024 *Discharged on January 4th	Cs-134	ND (0.69)	ND (0.92)
	Cs-137	ND (0.63)	ND (0.60)
	Gross β	ND (2.0)	ND (0.35)
	H-3	820	900
December 28th, 2024 *Discharged on January 2nd	Cs-134	ND (0.74)	ND (0.71)
	Cs-137	ND (0.67)	ND (0.75)
	Gross β	ND (1.9)	ND (0.32)
	H-3	820	900

- * 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
December 1st,2024	Cs-134	ND (0.0032)	ND (0.0045)	ND (0.0060)
	Cs-137	0.0017±0.00052	ND (0.0041)	ND (0.0049)
	Gross α	ND (0.58)	ND (2.2)	ND (2.0)
	Gross β	ND (0.38)	ND (0.59)	ND (0.58)
	H-3	690 ±1.5	670	690
	Sr-90	0.0025±0.00040	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)
December 5th, 2024 *Sampled before discharge of purified groundwater.	Cs-134	ND (0.86)
	Cs-137	ND (0.62)
	Gross β	12
	H-3	ND (0.32)

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
January 24th, 2025 *Discharged on January 31st	Cs-134	ND (0.68)	ND (0.58)
	Cs-137	ND (0.69)	ND (0.80)
	Gross β	ND (0.61)	ND (0.36)
	H-3	52	56
January 17th, 2025 *Discharged on January 23rd	Cs-134	ND (0.65)	ND (0.54)
	Cs-137	ND (0.66)	ND (0.63)
	Gross β	ND (0.67)	ND (0.36)
	H-3	51	58
January 10th, 2025 *Discharged on January 16th	Cs-134	ND (0.61)	ND (0.57)
	Cs-137	ND (0.59)	ND (0.47)
	Gross β	ND (0.66)	ND (0.35)
	H-3	57	58
January 3rd, 2025 *Discharged on January 9th	Cs-134	ND (0.91)	ND (0.62)
	Cs-137	ND (0.74)	ND (0.69)
	Gross β	ND (0.60)	ND (0.34)
	H-3	51	55
December 27th, 2024 *Discharged on January 3rd	Cs-134	ND (0.68)	ND (0.61)
	Cs-137	ND (0.79)	ND (0.63)
	Gross β	ND (0.65)	ND (0.32)
	H-3	48	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
December 6th, 2024	Cs-134	ND (0.0032)	ND (0.0047)	ND (0.0059)
	Cs-137	ND (0.0019)	ND (0.0035)	ND (0.0052)
	Gross α	ND (0.47)	ND (2.2)	ND (2.0)
	Gross β	ND (0.38)	ND (0.69)	ND (0.58)
	H-3	34 ±0.38	33	33
	Sr-90	ND (0.0012)	ND (0.0013)	ND (0.0061)

* 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)
December 5th, 2024	Cs-134	ND (0.91)
	Cs-137	ND (0.69)
	Gross β	12
	H-3	ND (0.33)