

Information (15:50), June 1, 2016

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 May

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 subdrain and groundwater drain systems, as well as, bypassing groundwater pumped during the month of May 2016 at Fukushima Daiichi Nuclear Power Station (NPS).

1. Subdrain and Groundwater Drain Systems

In May, purified groundwater pumped from the subdrain 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 May 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).

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 is 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 May, 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 May 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 are 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 sampling process for analyses conducted this month is the same as the one announced in the information disseminated last month. Results of the analysis 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

Results of analyses on the quality of the purified groundwater pumped from the subdrain 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
May 24 th , 2016 *Discharged on May 30 th	Cs-134	ND* (0.66)	ND (0.68)
	Cs-137	ND (0.78)	ND (0.64)
	Gross β	ND (2.4)	ND (0.38)
	H-3	650	680
May 22 nd , 2016 *Discharged on May 28 th	Cs-134	ND (0.79)	ND (0.64)
	Cs-137	ND (0.53)	ND (0.61)
	Gross β	ND (2.2)	ND (0.37)
	H-3	670	710
May 21 st , 2016 *Discharged on May 27 th	Cs-134	ND (0.71)	ND (0.75)
	Cs-137	ND (0.65)	ND (0.70)
	Gross β	ND (2.3)	0.46
	H-3	530	570
May 19 th , 2016 *Discharged on May 26 th	Cs-134	ND (0.75)	ND (0.79)
	Cs-137	ND (0.61)	ND (0.79)
	Gross β	ND (0.75)	ND (0.38)
	H-3	520	560
May 18 th , 2016 *Discharged on May 25 th	Cs-134	ND (0.78)	ND (0.73)
	Cs-137	ND (0.61)	ND (0.70)
	Gross β	ND (2.1)	ND (0.39)
	H-3	590	590
May 16 th , 2016 *Discharged on May 22 nd	Cs-134	ND (0.74)	ND (0.69)
	Cs-137	ND (0.78)	ND (0.65)
	Gross β	ND (2.0)	0.37
	H-3	650	700
May 15 th , 2016 *Discharged on May 21 st	Cs-134	ND (0.87)	ND (0.66)
	Cs-137	ND (0.61)	ND (0.64)
	Gross β	ND (2.2)	ND (0.34)
	H-3	640	670
May 13 th , 2016 *Discharged on May 20 th	Cs-134	ND (0.95)	ND (0.73)
	Cs-137	ND (0.73)	ND (0.70)
	Gross β	ND (2.2)	ND (0.35)
	H-3	640	680

May 12 th , 2016 *Discharged on May 19 th	Cs-134	ND (0.78)	ND (0.79)
	Cs-137	ND (0.73)	ND (0.65)
	Gross β	ND (2.0)	ND (0.40)
	H-3	600	630
May 11 th , 2016 *Discharged on May 18 th	Cs-134	ND (0.40)	ND (0.67)
	Cs-137	ND (0.58)	ND (0.74)
	Gross β	ND (0.82)	ND (0.41)
	H-3	530	570
May 9 th , 2016 *Discharged on May 16 th	Cs-134	ND (0.62)	ND (0.67)
	Cs-137	ND (0.60)	ND (0.65)
	Gross β	ND (2.1)	ND (0.40)
	H-3	580	610
May 8 th , 2016 *Discharged on May 15 th	Cs-134	ND (0.67)	ND (0.59)
	Cs-137	ND (0.67)	ND (0.66)
	Gross β	ND (2.0)	ND (0.36)
	H-3	570	610
May 6 th , 2016 *Discharged on May 13 th	Cs-134	ND (0.62)	ND (0.60)
	Cs-137	ND (0.65)	ND (0.78)
	Gross β	ND (2.0)	ND (0.38)
	H-3	640	680
May 4 th , 2016 *Discharged on May 12 th	Cs-134	ND (0.66)	ND (0.66)
	Cs-137	ND (0.58)	ND (0.64)
	Gross β	ND (2.2)	ND (0.35)
	H-3	670	700
May 3 rd , 2016 *Discharged on May 9 th	Cs-134	ND (0.74)	ND (0.73)
	Cs-137	ND (0.58)	ND (0.82)
	Gross β	ND (2.2)	ND (0.34)
	H-3	630	680
May 2 nd , 2016 *Discharged on May 8 th	Cs-134	ND (0.65)	ND (0.76)
	Cs-137	ND (0.53)	ND (0.61)
	Gross β	ND (0.78)	ND (0.36)
	H-3	650	680
April 30 th , 2016 *Discharged on May 7 th	Cs-134	ND (0.63)	ND (0.69)
	Cs-137	ND (0.58)	ND (0.41)
	Gross β	ND (2.0)	ND (0.31)
	H-3	630	670
April 28 th , 2016 *Discharged on May 5 th	Cs-134	ND (0.71)	ND (0.74)
	Cs-137	ND (0.67)	ND (0.62)
	Gross β	ND (2.0)	ND (0.33)
	H-3	620	670

April 27 th , 2016 *Discharged on May 4 th	Cs-134	ND (0.87)	ND (0.66)
	Cs-137	ND (0.73)	ND (0.85)
	Gross β	ND (0.68)	ND (0.32)
	H-3	630	660
April 25 th , 2016 *Discharged on May 2 nd	Cs-134	ND (0.71)	ND (0.70)
	Cs-137	ND (0.60)	ND (0.61)
	Gross β	ND (2.1)	ND (0.34)
	H-3	700	730

- * * ND: represents a value below the detection limit; values in () represent the detection limit.
- * In order to ensure the results, Mitsubishi Nuclear Fuel, a third-party organization, has 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
April 1 st ,2016	Cs-134	ND (0.0033)	ND* (0.0043)	ND (0.0060)
	Cs-137	0.0026	0.0040	ND (0.0043)
	Gross α	ND (0.55)	ND (3.2)	ND (2.7)
	Gross β	ND (0.45)	ND (0.68)	ND (0.60)
	H-3	1,000	970	1,000
	Sr-90	0.0020	ND (0.0015)	ND (0.0049)

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

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)
May 9 th , 2016 *During discharge	Cs-134	ND (0.71)
	Cs-137	ND (0.69)
	Gross β	14
	H-3	ND (1.6)

(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.

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	Japan Chemical Analysis Center
May 18 th , 2016 *Discharged on May 31 st	Cs-134	ND* (0.76)	ND (0.58)
	Cs-137	ND (0.64)	ND (0.65)
	Gross β	ND (0.60)	ND (0.54)
	H-3	180	180
May 11 th , 2016 *Discharged on May 24 th	Cs-134	ND (0.74)	ND (0.58)
	Cs-137	ND (0.75)	ND (0.48)
	Gross β	ND (0.66)	ND (0.52)
	H-3	170	180
May 4 th , 2016 *Discharged on May 17 th	Cs-134	ND (0.59)	ND (0.58)
	Cs-137	ND (0.68)	ND (0.56)
	Gross β	ND (0.72)	ND (0.44)
	H-3	190	160
April 27 th , 2016 *Discharged on May 10 th	Cs-134	ND (0.64)	ND (0.73)
	Cs-137	ND (0.52)	ND (0.60)
	Gross β	ND (0.79)	ND (0.54)
	H-3	180	170
April 20 th , 2016 *Discharged on May 3 rd	Cs-134	ND (0.50)	ND (0.58)
	Cs-137	ND (0.57)	ND (0.48)
	Gross β	ND (0.64)	ND (0.54)
	H-3	170	180

- * * ND: represents a value below the detection limit; values in () represent the detection limit
- * In order to ensure the results, Japan Chemical Analysis Center, a third-party organization, has also conducted an analysis and verified the radiation level of the sampled water.

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
April 6 th , 2016	Cs-134	ND (0.0033)	ND (0.0047)	ND (0.0060)
	Cs-137	0.0063	0.0084	0.0050
	Gross α	ND (0.56)	ND (2.6)	ND (2.5)
	Gross β	ND (0.45)	ND (0.66)	ND (0.58)
	H-3	190	170	180
	Sr-90	0.0027	ND (0.0014)	ND (0.0064)

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

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

(Unit: Bq/L)

Date of sampling	Detected nuclides	Sampling point (South discharge channel)
May 10 th , 2016 *During discharge	Cs-134	ND (0.87)
	Cs-137	ND (0.76)
	Gross β	14
	H-3	ND (1.5)

(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.