Information (17:15), March 1, 2016

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

Report on the discharge record and the sea water monitoring results at Fukushima Daiichi NPS during February

The Ministry of Foreign Affairs wishes to provide all Missions with a report on the discharge record and the sea water monitoring results with regard to the discharge of groundwater pumped up from the subdrain and groundwater drain systems during February as well as groundwater pumped up for bypassing in February at Fukushima Daiichi Nuclear Power Station (NPS).

1. Subdrain and Groundwater Drain Systems

In February, purified groundwater pumped up from the subdrain and groundwater drain systems was discharged on the dates shown in Sheet 1. Each time in advance of the discharge, an analysis on the quality of the purified groundwater to be discharged is conducted by TEPCO and the result is announced.

All the results have confirmed that the radiation level of sampled water have been substantially below the operational targets set by TEPCO (these operational targets are set at very low level compared to the legal discharge limits).

In addition, TEPCO and JAEA (on the request of the Government of Japan) regularly conduct a more detailed analysis on the purified groundwater. The results of JAEA's latest analysis confirmed that TEPCO's analysis was accurate and verified that the radiation level of sampled groundwater is substantially below the operational target (see Sheet 2).

Moreover, TEPCO publishes the result of analysis on seawater sampled during the operation at the nearest seawater sampling post from the discharge point (see Sheet 3). The result shows that the radiation level of seawater remains low enough compared to the density limit specified by the Reactor Regulation and no significant change in the radioactivity has been observed.

2. Groundwater Bypassing

In February, groundwater pumped up for by-passing was discharged on the dates shown in Sheet 4. Each time in advance of the discharge, an analysis on the quality of the groundwater to be discharged is conducted by TEPCO and the result is announced.

All the results have confirmed that the radiation level of sampled water have been substantially below the operational targets set by TEPCO (these operational targets are set at very low level compared to the legal discharge limits).

The results of the analysis were also confirmed by Japan Chemical Analysis Center.

In addition, TEPCO and JAEA (on the request of the Government of Japan) regularly conduct a more detailed analysis on the groundwater. The results of JAEA's latest analysis confirmed that TEPCO's analysis was accurate and verified that the radiation level of sampled groundwater is substantially below the operational target (see Sheet 5).

Moreover, TEPCO publishes its analysis on seawater sampled during the operation at the nearest seawater sampling post from the discharge point (see Sheet 6). The result shows that the radiation level in seawater remains low enough compared to the density limit specified by the Reactor Regulation and no significant change in the radioactivity has been observed.

This process is the same as the one announced in the Information last month. Results of the analysis are shown as follows:

(For further information, please contact TEPCO (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 analysis on the quality of the purified groundwater having been pumped up 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	Mitsubishi Nuclear Fuel Co., Ltd.
February 22nd, 2016 *Discharged on February 28th	Cs-134	ND (0.65)	ND (0.43)
	Cs-137	ND (0.64)	ND (0.45)
	Gross β	ND (1.8)	ND (0.64)
	H-3	700	690
February 21st, 2016 *Discharged on February 27th	Cs-134	ND (0.80)	ND (0.59)
	Cs-137	ND (0.64)	ND (0.56)
	Gross β	ND (2.0)	ND (0.51)
	H-3	630	690
February 20th, 2016 *Discharged on February 26th	Cs-134	ND (0.59)	ND (0.47)
	Cs-137	ND (0.66)	ND (0.46)
	Gross β	ND (2.1)	ND (0.64)
	H-3	620	640
February 18th, 2016 *Discharged on February 25th	Cs-134	ND (0.74)	ND (0.65)
	Cs-137	ND (0.46)	ND (0.58)
	Gross β	ND (2.0)	ND (0.50)
	H-3	670	750
February 17th, 2016 *Discharged on February 24th	Cs-134	ND (0.58)	ND (0.47)
	Cs-137	ND (0.58)	ND (0.50)
	Gross β	ND (0.74)	ND (0.65)
	H-3	680	670
February 15th, 2016 *Discharged on February 21st	Cs-134	ND (0.72)	ND (0.54)
	Cs-137	ND (0.52)	ND (0.59)
	Gross β	ND (2.0)	ND (0.49)
	H-3	610	700
February 13th, 2016 *Discharged on February 20th	Cs-134	ND (0.73)	ND (0.47)
	Cs-137	ND (0.57)	ND (0.46)
	Gross β	ND (2.0)	ND (0.64)
	H-3	710	720
February 12th, 2016 *Discharged on February 19th	Cs-134	ND (0.85)	ND (0.50)
	Cs-137	ND (0.62)	ND (0.59)
	Gross β	ND (2.0)	1.2
	H-3	700	770

February 10th, 2016 *Discharged on February 18th	Cs-134	ND (0.46)	ND (0.42)
	Cs-137	ND (0.53)	ND (0.47)
	Gross β	ND (2.1)	ND (0.64)
	H-3	540	530
February 9th, 2016 *Discharged on February 17th	Cs-134	ND (0.67)	ND (0.47)
	Cs-137	ND (0.63)	ND (0.50)
	Gross β	ND (0.70)	ND (0.49)
	H-3	610	660
February 8th, 2016 *Discharged on February 14th	Cs-134	ND (0.53)	ND (0.39)
	Cs-137	ND (0.59)	ND (0.44)
	Gross β	ND (2.4)	ND (0.66)
	H-3	640	620
February 7th, 2016 *Discharged on February 12th	Cs-134	ND (0.79)	ND (0.59)
	Cs-137	ND (0.59)	ND (0.47)
	Gross β	ND (2.2)	ND (0.50)
	H-3	520	570
February 4th, 2016 *Discharged on February 11th	Cs-134	ND (0.75)	ND (0.42)
	Cs-137	ND (0.59)	ND (0.53)
	Gross β	ND (2.1)	ND (0.66)
	H-3	480	500
February 3rd, 2015 *Discharged on February 10th	Cs-134	ND (0.65)	ND (0.50)
	Cs-137	ND (0.53)	ND (0.42)
	Gross β	ND (2.2)	ND (0.50)
	H-3	520	530
February 2nd, 2015 *Discharged on February 8th	Cs-134	ND (0.43)	ND (0.45)
	Cs-137	ND (0.68)	ND (0.52)
	Gross β	ND (2.2)	ND (0.66)
	H-3	570	580
February 1st, 2015 *Discharged on February 7th	Cs-134	ND (0.74)	ND (0.66)
	Cs-137	ND (0.78)	ND (0.47)
	Gross β	ND (0.71)	ND (0.51)
	H-3	540	610
January 30th, 2015 *Discharged on February 6th	Cs-134	ND (0.73)	ND (0.45)
	Cs-137	ND (0.72)	ND (0.51)
	Gross β	ND (2.1)	ND (0.65)
	H-3	460	480
January 28th, 2015 *Discharged on February 4th	Cs-134	ND (0.54)	ND (0.54)
	Cs-137	ND (0.63)	ND (0.47)
	Gross β	ND (2.2)	ND (0.50)
	H-3	450	480

January 27th, 2015 *Discharged on February 3rd	Cs-134	ND (0.59)	ND (0.51)
	Cs-137	ND (0.58)	ND (0.43)
	Gross β	ND (2.1)	ND (0.64)
	H-3	440	440
January 25th, 2015 *Discharged on February 1st	Cs-134	ND (0.66)	ND (0.42)
	Cs-137	ND (0.75)	ND (0.42)
	Gross β	ND (2.2)	ND (0.50)
	H-3	400	450

* 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.

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

(Unit: Bq/L)

Date of sampling	Detected nuclides	Analytical body		
		JAEA	TEPCO	Japan Chemical Analysis Center
January 1st,2016	Cs-134	ND (0.0037)	ND (0.0042)	ND (0.0056)
	Cs-137	0.0029	ND (0.0038)	ND (0.0051)
	Gross α	ND (0.54)	ND (2.5)	ND (2.9)
	Gross β	ND (0.46)	ND (0.74)	ND (0.51)
	H-3	210	190	200
	Sr-90	0.0019	ND (0.0012)	ND (0.0053)

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)
February 1st, 2016 *During discharge	Cs-134	ND (0.80)
	Cs-137	ND (0.69)
	Gross β	7.8
	H-3	ND (1.9)

(Reference)

(Unit: Bq/L)

Radionuclides	Operational targets	Legal discharge limit (Density limit by the Reactor Regulation)	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 analysis on the water quality of the groundwater having been pumped up for by-passing 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
February 10th, 2016 *Discharged on February 23rd	Cs-134	ND (0.65)	ND (0.71)
	Cs-137	ND (0.58)	ND (0.64)
	Gross β	ND (0.70)	ND (0.51)
	H-3	180	190
February 3rd, 2016 *Discharged on February 16th	Cs-134	ND (0.62)	ND (0.81)
	Cs-137	ND (0.54)	ND (0.68)
	Gross β	ND (0.74)	ND (0.46)
	H-3	180	180
January 28th, 2015 *Discharged on February 9th	Cs-134	ND (0.55)	ND (0.73)
	Cs-137	ND (0.81)	ND (0.48)
	Gross β	ND (0.70)	ND (0.50)
	H-3	150	150
January 21st, 2015 *Discharged on February 6th	Cs-134	ND (0.50)	ND (0.58)
	Cs-137	ND (0.80)	ND (0.72)
	Gross β	ND (0.79)	ND (0.59)
	H-3	120	130

∗ 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 analysis conducted by TEPCO, JAEA and Japan Chemical Analysis Center (In order to confirm the validity of analysis, the Government of Japan also requests JAEA to conduct the analysis, while TEPCO requests Japan Chemical Analysis Center by itself.)

(Unit: Bq/L)

Date of sampling	Detected nuclides	Analytical body		
		JAEA	TEPCO	Japan Chemical Analysis Center
January 7th, 2016	Cs-134	ND (0.0038)	ND (0.0047)	ND (0.0054)
	Cs-137	0.0052	0.0055	ND (0.0051)
	Gross α	ND (0.59)	ND (2.6)	ND (2.8)
	Gross β	ND (0.46)	ND (0.78)	ND (0.52)
	H-3	150	140	140
	Sr-90	0.0030	ND (0.0014)	ND (0.0051)

Results of analysis 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)
February 2nd, 2016 *During discharge	Cs-134	ND (0.63)
	Cs-137	ND (0.63)
	Gross β	17
	H-3	ND (1.8)

(Reference) (Unit: Bq/L)

Radionuclides	Operational targets	Legal discharge limit (Density limit by the Reactor Regulation)	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.