Information (20:10), February 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 January

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 January as well as groundwater pumped up for bypassing in January at Fukushima Daiichi Nuclear Power Station (NPS).

1. Subdrain and Groundwater Drain Systems

In January, 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 January, 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.
January 23rd, 2016 *Discharged on January 31st	Cs-134	ND (0.71)	ND (0.52)
	Cs-137	ND (0.75)	ND (0.40)
	Gross β	ND (0.76)	ND (0.65)
	H-3	420	410
January 22nd, 2016 *Discharged on January 30th	Cs-134	ND (0.79)	ND (0.50)
	Cs-137	ND (0.63)	ND (0.71)
	Gross β	ND (2.3)	ND (0.65)
	H-3	370	380
January 21st, 2016 *Discharged on January 29th	Cs-134	ND (0.62)	ND (0.45)
	Cs-137	ND (0.75)	ND (0.52)
	Gross β	ND (2.2)	ND (0.50)
	H-3	400	430
January 19nd, 2016 *Discharged on January 27th	Cs-134	ND (0.64)	ND (0.42)
	Cs-137	ND (0.66)	ND (0.49)
	Gross β	ND (2.2)	ND (0.66)
	H-3	360	380
January 17nd, 2016 *Discharged on January 25th	Cs-134	ND (0.72)	ND (0.58)
	Cs-137	ND (0.72)	ND (0.56)
	Gross β	ND (1.9)	ND (0.52)
	H-3	370	400
January 15nd, 2016 *Discharged on January 23rd	Cs-134	ND (0.75)	ND (0.49)
	Cs-137	ND (0.63)	ND (0.54)
	Gross β	ND (0.71)	ND (0.52)
	H-3	340	380
January 13th, 2016 *Discharged on January 22nd	Cs-134	ND (0.70)	ND (0.47)
	Cs-137	ND (0.58)	ND (0.64)
	Gross β	ND (2.2)	ND (0.50)
	H-3	350	390
January 12th, 2016 *Discharged on January 21st	Cs-134	ND (0.63)	ND (0.51)
	Cs-137	ND (0.68)	ND (0.52)
	Gross β	ND (2.0)	ND (0.51)
	H-3	350	430

January 11th, 2016 *Discharged on January 19th	Cs-134	ND (0.72)	ND (0.35)
	Cs-137	ND (0.53)	ND (0.39)
	Gross β	ND (1.8)	ND (0.49)
	H-3	200	260
January 7th, 2016 *Discharged on January 18th	Cs-134	ND (0.56)	ND (0.48)
	Cs-137	ND (0.81)	ND (0.56)
	Gross β	ND (0.64)	ND (0.49)
	H-3	200	250
January 5th, 2016 *Discharged on January 17th	Cs-134	ND (0.73)	ND (0.57)
	Cs-137	ND (0.73)	ND (0.61)
	Gross β	ND (2.2)	ND (0.50)
	H-3	200	260
January 3rd, 2016 *Discharged on January 14th	Cs-134	ND (0.74)	ND (0.57)
	Cs-137	ND (0.68)	ND (0.64)
	Gross β	ND (2.2)	ND (0.49)
	H-3	180	270
January 1st, 2016 *Discharged on January 12th	Cs-134	ND (0.74)	ND (0.41)
	Cs-137	ND (0.68)	ND (0.56)
	Gross β	ND (0.74)	ND (0.51)
	H-3	180	270
December 30th, 2015 *Discharged on January 11th	Cs-134	ND (0.65)	ND (0.44)
	Cs-137	ND (0.68)	ND (0.47)
	Gross β	ND (2.2)	ND (0.49)
	H-3	190	270
December 28th, 2015 *Discharged on January 10th	Cs-134	ND (0.56)	ND (0.50)
	Cs-137	ND (0.64)	ND (0.52)
	Gross β	ND (2.0)	ND (0.50)
	H-3	200	270
December 27th, 2015 *Discharged on January 9th	Cs-134	ND (0.58)	ND (0.68)
	Cs-137	ND (0.68)	ND (0.45)
	Gross β	ND (0.74)	ND (0.49)
	H-3	200	280
December 26th, 2015 *Discharged on January 4th	Cs-134	ND (0.68)	ND (0.48)
	Cs-137	ND (0.58)	ND (0.59)
	Gross β	ND (2.4)	ND (0.49)
	H-3	220	300
December 22nd, 2015 *Discharged on January 3rd	Cs-134	ND (0.56)	ND (0.49)
	Cs-137	ND (0.68)	ND (0.50)
	Gross β	ND (2.0)	ND (0.50)
	H-3	230	320

* 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
December 2nd,2015	Cs-134	ND (0.0039)	ND (0.0048)	ND (0.0065)
	Cs-137	0.0052	ND (0.0038)	ND (0.0041)
	Gross α	ND (0.56)	ND (2.5)	ND (3.2)
	Gross β	ND (0.46)	ND (0.76)	ND (0.51)
	H-3	250	240	240
	Sr-90	0.0020	ND (0.0014)	ND (0.0057)

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)
January 4th, 2016 *During discharge	Cs-134	ND (0.66)
	Cs-137	ND (0.67)
	Gross β	10
	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	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
January 16th, 2016 *Discharged on January 27th	Cs-134	ND (0.68)	ND (0.76)
	Cs-137	ND (0.65)	ND (0.79)
	Gross β	ND (0.60)	ND (0.51)
	H-3	130	130
January 7th, 2016 *Discharged on January 19th	Cs-134	ND (0.63)	ND (0.63)
	Cs-137	ND (0.71)	ND (0.62)
	Gross β	ND (0.78)	ND (0.56)
	H-3	140	150
December 31st, 2015 *Discharged on January 13th	Cs-134	ND (0.60)	ND (0.64)
	Cs-137	ND (0.68)	ND (0.56)
	Gross β	ND (0.68)	ND (0.61)
	H-3	140	150
December 24th, 2015 *Discharged on January 6th	Cs-134	ND (0.43)	ND (0.71)
	Cs-137	ND (0.68)	ND (0.66)
	Gross β	ND (0.72)	ND (0.50)
	H-3	160	150

∗ 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
December 3rd, 2015	Cs-134	ND (0.0052)	ND (0.0042)	ND (0.0067)
	Cs-137	ND (0.0038)	ND (0.0041)	ND (0.0046)
	Gross α	ND (0.61)	ND (2.5)	ND (3.2)
	Gross β	ND (0.46)	ND (0.74)	ND (0.52)
	H-3	170	170	170
	Sr-90	0.0034	ND (0.0014)	ND (0.0060)

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)
January 6th, 2016 *During discharge	Cs-134	ND (0.67)
	Cs-137	ND (0.67)
	Gross β	13
	H-3	ND (1.6)

(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.