Reference

# Nuclides Analysis Result of the Radioactive Materials in the Seawater < Coast, Fukushima Daiichi Nuclear Power Station >

(Data summarized on September 13)

Place of Sampling	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel)		Around 1F South Discharge Channel of Fukushima Daiichi NPS (Appox. 330m South of Unit 1-4 Discharge Channel)		Density Limit Specified by the Reactor Regulation (Bq/L)
Time of Sampling	•	Sep 12, 2012 Sep 12, 2012 7:25 AM 7:05 AM			(The density limit in the water outside the surrounding monitored areas is provided
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	in section 6 of Appendix 2.)
I-131 (Approx. 8 days)	ND	-	ND	-	40
Cs-134 (Approx. 2 years)	ND	-	ND	-	60
Cs-137 (Approx. 30 years)	ND	-	ND	-	90

<sup>\*</sup> The density specified by the Reactor Regulation is converted from Bq/cm<sup>3</sup> to Bq/L.

I-131: Approx. 0.48Bq/L, Cs-134: Approx.1.1Bq/L, Cs-137: Approx.1.5Bq/L

As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

<sup>\*</sup> Data of other nuclides is under evaluation.

<sup>\*</sup> In the case of more than 2 nuclides, the sum of scaling factors to density limits is compared to 1.

 $<sup>\</sup>ensuremath{^{*}}$  "ND" indicates that the measurement result is below the detection limit.

## **Analysis Result of Pu in the Seawater**

#### 1. Measurement Result:

(Unit: Bq/L)

Place of Sampling	Date	Pu-238	Pu-239+Pu-240
1F, North of Unit 5-6 Discharge	April 25, 2012	N.D. [<5.1×10 <sup>-6</sup> ]	(5.1±1.6) ×10 <sup>-6</sup>
Channel	May 24, 2012	N.D. [<5.6×10 <sup>-6</sup> ]	(5.7±1.7) ×10 <sup>-6</sup>
1F, Around South Discharge	April 25, 2012	N.D. [<5.0×10 <sup>-6</sup> ]	(9.1±2.1) ×10 <sup>-6</sup>
Channel	May 24, 2012	N.D. [<4.8×10 <sup>-6</sup> ]	(6.3±1.8) ×10 <sup>-6</sup>
Around 3km Offshore of Ukedo	August 6, 2012	N.D. [<5.0×10 <sup>-6</sup> ]	N.D. [<5.4×10 <sup>-6</sup> ]
River, Upper Layer			
3km Offshore of Fukushima	August 17, 2012	N.D. [<4.9×10 <sup>-6</sup> ]	N.D. [<5.1×10 <sup>-6</sup> ]
Daiichi NPS, Upper Layer	7.agaot 17, 2012	insi[thoxio]	
3km Offshore of Fukushima	August 3, 2012	N.D. [<5.8×10 <sup>-6</sup> ]	N.D. [<5.5×10 <sup>-6</sup> ]
Daini NPS, Upper Layer	August 3, 2012	N.D. [<5.6x10 ]	
15km Offshore of Fukushima	August 7, 2012	N.D. [<6.0×10 <sup>-6</sup> ]	N.D. [<5.9×10 <sup>-6</sup> ]
Daiichi NPS, Upper Layer	August 7, 2012 August 7, 2012		N.D. [<3.9X10 ]
The range of the past measuremen	-	ND ~ 1.3×10 <sup>-5</sup>	
ocean near Fukushima Daiichi and Stations (FY2001 - FY2008)*			

[]shows lower detection limit.

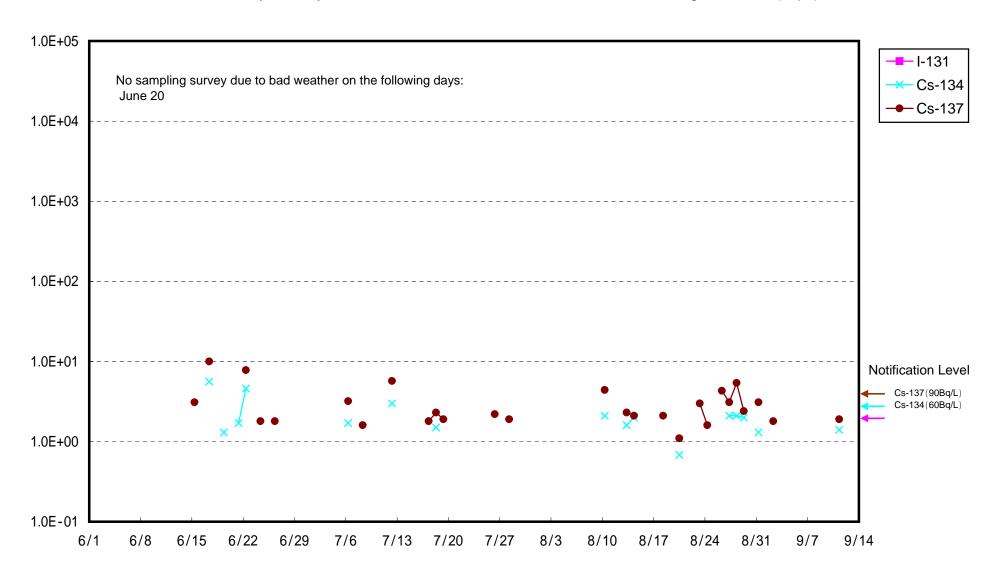
### 2. Analytical Institution: Japan Chemical Analysis Center

#### 3. Evaluation:

Given that the density levels of Pu-239+Pu-240 detected at north of Unit 5-6 discharge channel and around the south discharge channel of Fukushima Daiichi Nuclear Power Station on April 25 and May 24, 2012 are within the range of the past density measurements conducted along the seacoasts of 1F and 2F, it cannot be stated with absolute certainty that the presence of these particles is due to the accident.

<sup>\*:</sup> Source "Report on the environmental radioactivity measurement arround the Nuclear Power Plant (2008)", Committee on the safty technology of Nuclear Power Plants in Fukushima.

# Radioactivity Density of the Seawater at the North of 1F Unit 5-6 Discharge Channel (Bq/L)



## Radioactivity Density of the Seawater at 1F South Discharge Channel (Bq/L)

