### Nuclide Analysis Results of Radioactive Materials in Seawater < Coast>

Reference

(Data summarized on January 4)

Place of Sampling	North of Discharge Channel of 5-6u of 1F (approx. 30m north of 5-6u discharge channel)		Around South Channel ( appox. 330m Discharge (	of 1F south of 1-4u	Around North Channel ( Around 3,4u Chanr ( approx. 10 ki	of 2F I Discharge nel)	Around Iwasawa ( appox. 7 km s Discharge ( ( appox. 16 kr	south of 1,2u Channel)	Doncity limit by the
Time of Sampling	Jan 03, 2012 08:35 am		Jan 03, 08:15		Jan 03, 08:10		Jan 03, 2012 07:50 am		(the density limit in the water outside of surrounding monitored
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor ( / )	areas in the section 6 of the appendix 2)
I-131 (about 8 days)	ND	-	ND	-	ND		ND	-	40
Cs-134 (about 2 years)	1.1	0.02	1.9	0.03	1.3	0.02	0.98	0.02	60
Cs-137 (about 30 years)	1.7	0.02	3.6	0.04	1.7	0.02	1.2	0.01	90

<sup>\*</sup> Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

I-131: approx. 0.71Bq/L

Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

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

<sup>\*</sup> In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

<sup>\* &</sup>quot;ND" means the sampled data is below measurable limit.

#### Nuclide Analysis Results of Radioactive Materials in Seawater < Offshore>

Reference

(Data summarized on January 4)

Place of Sampling	15 km offsh Minami-So CityUpper	ouma	15 km offshore of Minami-Souma CityLower Layer		15 km offshore of Ukedo-gawa Upper Layer		15 km offshore of Ukedo-gawa Lower Layer		15 km offshore of Fukushima Daiichi Upper Layer		15 km offshore of Fukushima Daiichi Lower Layer		Density limit by the announcement of Reactor Regulation
Time of Sampling	N/A		N/A		Jan 02, 2 (Not sam		Jan 02, 2 (Not sam		Jan 02, 2 08:40 a		Jan 02, 2012 08:40 am		(Bq/L) (the density limit in the water outside of
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	surrounding monitored areas in the section 6 of the appendix 2)
I-131 (about 8 days)	-	-	-	-	-	-	-	-	ND	-	ND	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	ND	-	ND	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	ND	-	ND	-	90

Place of Sampling	15 km offsh Fukushima Da Layer	ini Upper	15 km offshore of Fukushima Daini Lower Layer		15 km offshore of Iwasawa Shore Upper Layer		15 km offshore of Iwasawa Shore Lower Layer		15 km offshore of Hirono-town Upper Layer		15 km offshore of Hirono-town Lower Layer		Density limit by the announcement of Reactor Regulation
Time of Sampling	Jan 02, 2 07:50 a		Jan 02, 2 07:50 a		N/A		N/A		N/A		N/A		(Bq/L) (the density limit in the water outside of
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	Density of Sample (Bq/L)	Scaling Factor	surrounding monitored areas in the section 6 of the appendix 2)
I-131 (about 8 days)	ND	-	ND	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	ND	-	ND	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	ND	-	ND	-	-	-	-	-	-	-	-	-	90

<sup>\*</sup> Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm3 to Bq/L.

Please note that these nuclides are sometimes detected even when they are below the limits, contingent on the detector or samples.

Partly not sampled due to bad weather

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

<sup>\*</sup> In the case that two or more kinds of nuclides exist, sum of each scaling factor to the density limit is compared with 1.

<sup>\* &</sup>quot;ND" means the sampled data is below measurable limit.

I-131: approx. 0.67Bq/L, Cs-134: approx. 0.92Bq/L, Cs-137: approx. 1.1Bq/L

#### The Result of analysis for Pu in the ocean

- Place of sampling: The Unit 5 and 6 North Discharge Channel of Fukushima Daiichi
   Around South Discharge Channel of Fukushima Daiichi
   Around 15 km Offshore (upper layer) of Fukushima Daiichi
   Around 15 km Offshore (upper layer) of Fukushima Daini
- 2. Analytical body: Japan Chemical Analysis Center (JCAC)
- 3. Sampling result:

(Unit: Bq/L)

Place of sampling	Date of sampling	Pu-238	Pu-239,Pu-240			
1F 5, 6 North Discharge Channel		N.D. [<4.7×10 <sup>-4</sup> ]	N.D. [<4.7×10 <sup>-4</sup> ]			
1F South Discharge Channel	12/10	N.D. [<5.1×10 <sup>-4</sup> ]	N.D. [<4.8×10 <sup>-4</sup> ]			
1F 15 km Offshore (upper layer)	12/10	N.D. [<6.1×10 <sup>-4</sup> ]	N.D. [<5.5×10 <sup>-4</sup> ]			
2F 15 km Offshore (upper layer)		N.D. [<5.3×10 <sup>-4</sup> ]	N.D. [<4.6×10 <sup>-4</sup> ]			

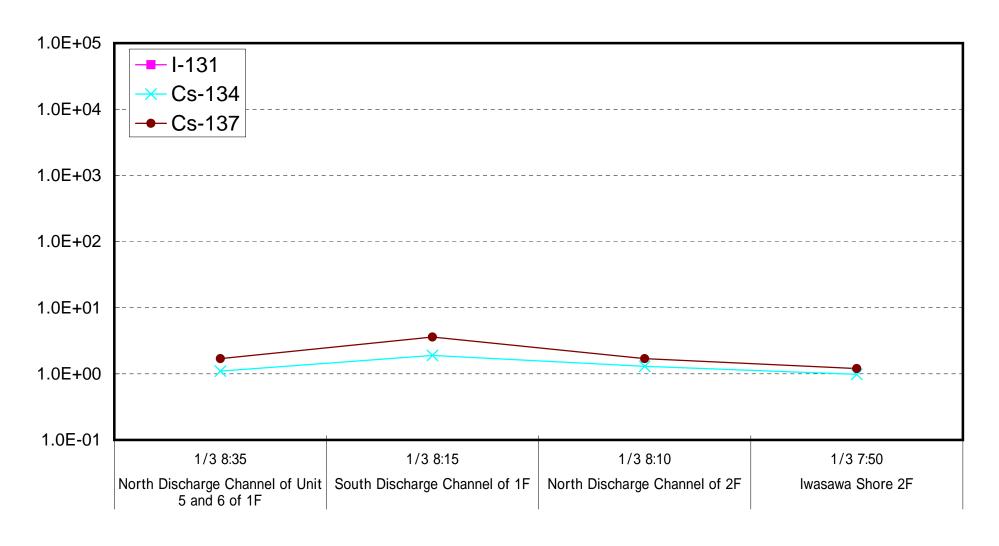
[ ]: Detection Limit

#### 4. Evaluation:

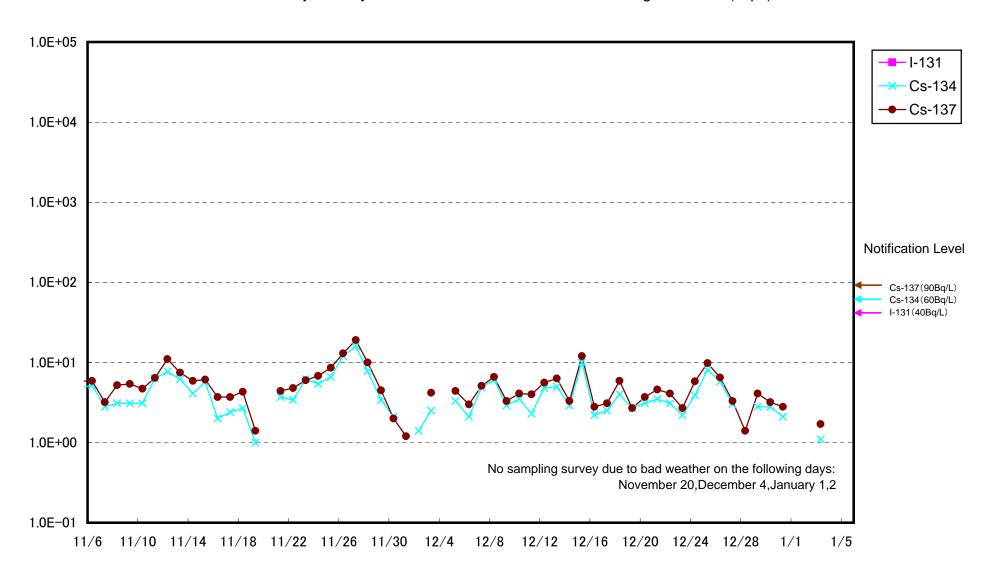
There is no detection of Pu-238, Pu-239 and Pu-240 from this sampling

**END** 

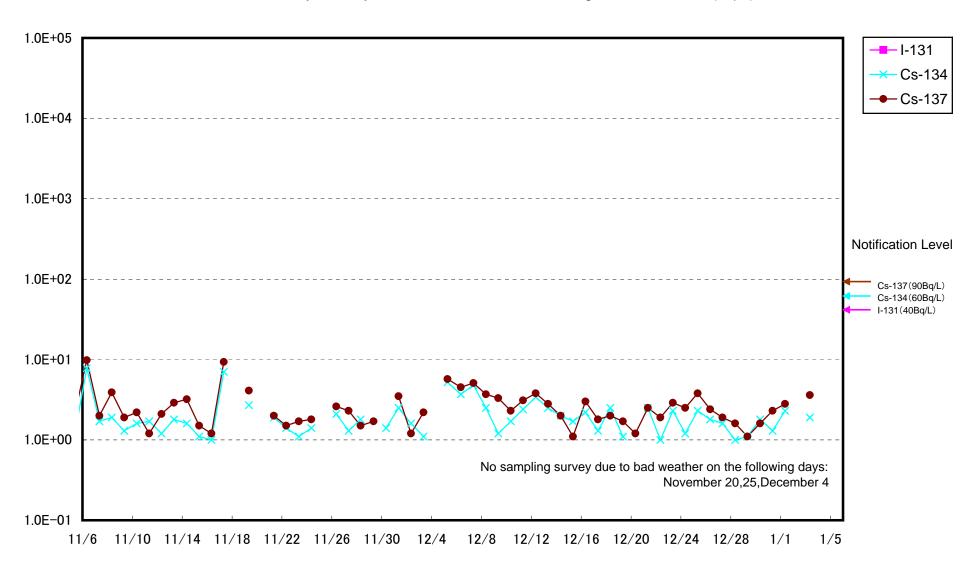
## Radioactivity Density of Seawater (Bq/L)



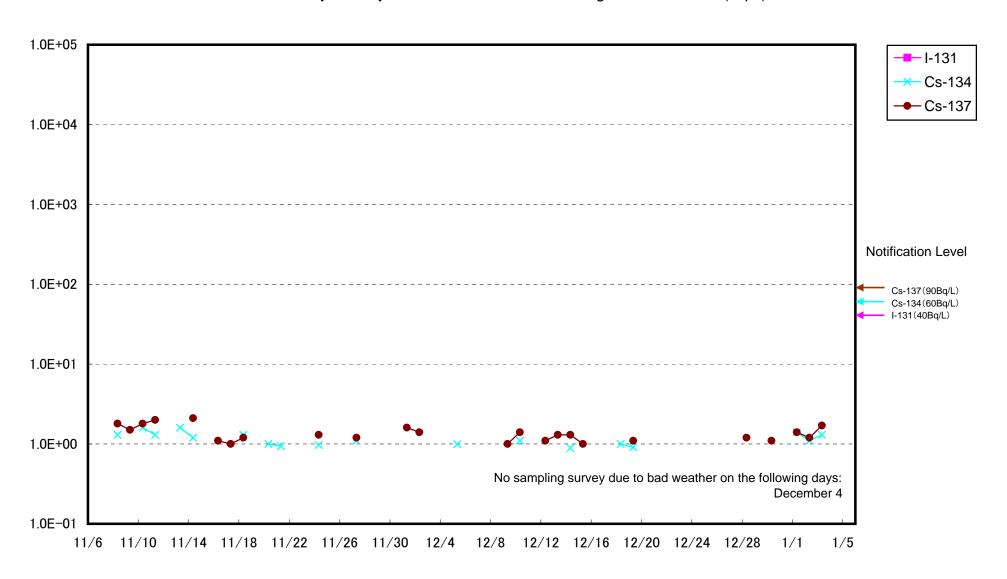
### Radioactivity Density of Seawater at North of 1F5-6 Discharge Channel (Bq/L)



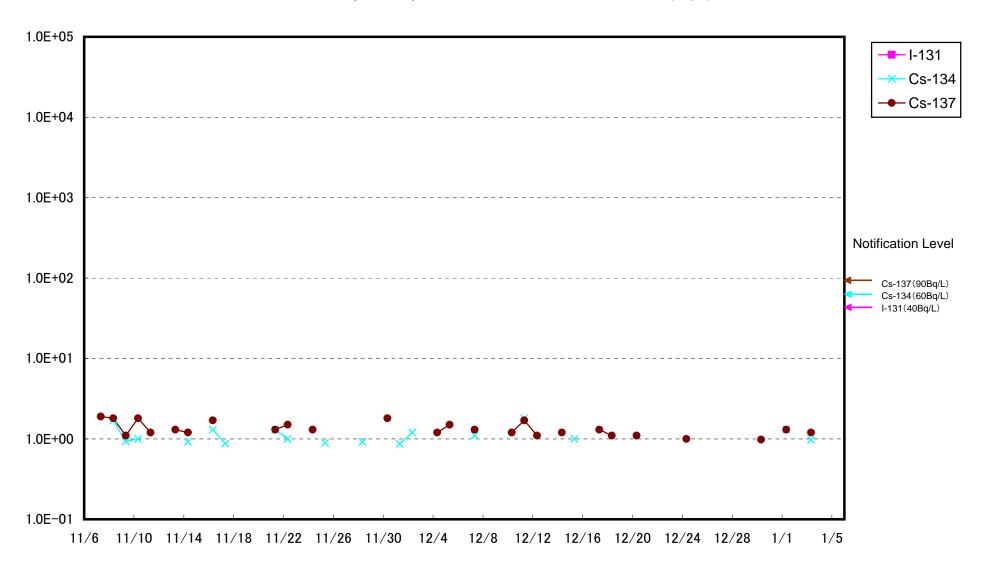
### Radioactivity Density of Seawater at South Discharge Channel of 1F (Bq/L)



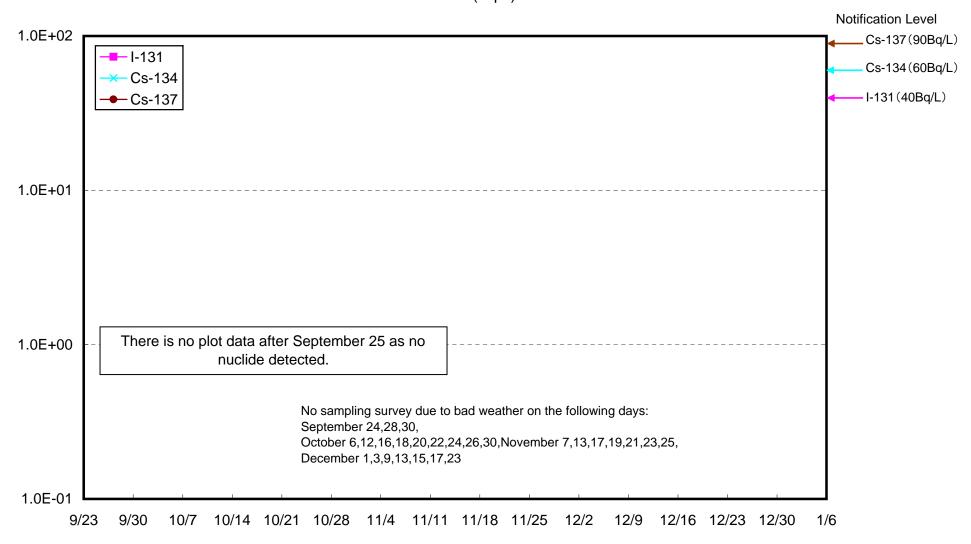
### Radioactivity Density of Seawater at North Discharge Channel of 2F (Bq/L)



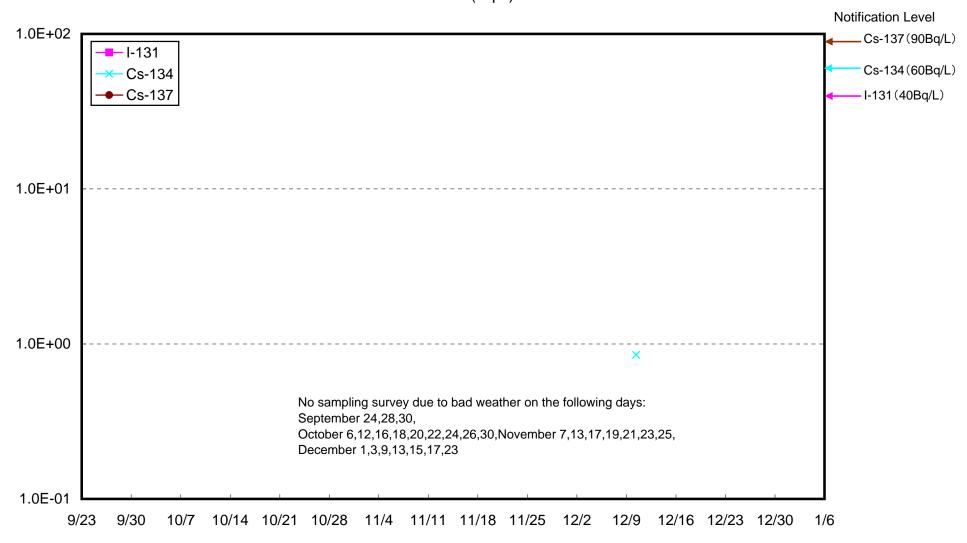
### Radioactivity Density of Seawater at Iwasawa Shore 2F (Bq/L)



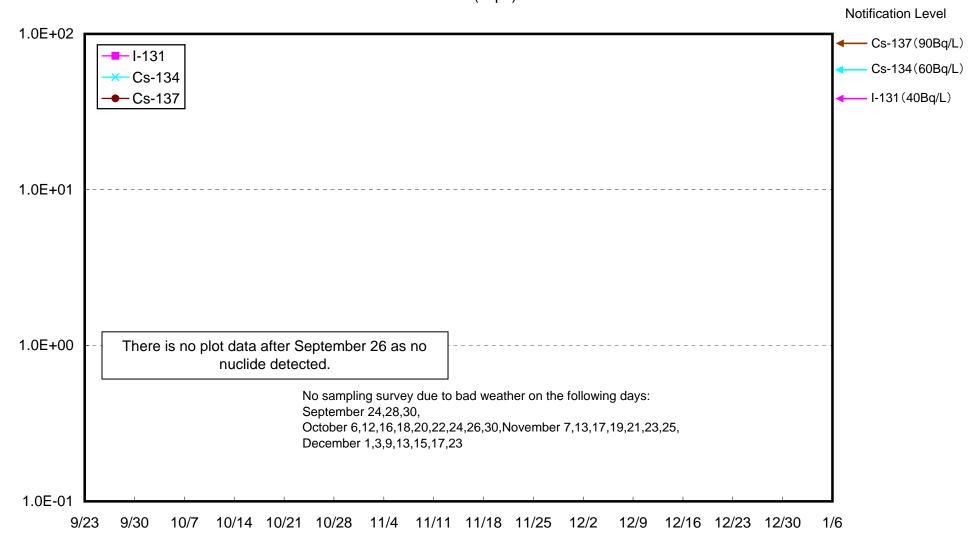
# Radioactivity Density of Seawater (upper layer) around approx. 15 km offshore of Fukushima Daiichi NPS (Bq/L)



Radioactivity Density of Seawater (lower layer) around approx. 15 km offshore of Fukushima Daiichi NPS (Bq/L)



# Radioactivity Density of Seawater (upper layer) around approx. 15 km offshore of Fukushima Daini NPS (Bq/L)



Radioactivity Density of Seawater (lower layer) around approx. 15 km offshore of Fukushima Daini NPS (Bq/L)

