

## Nuclide Analysis Results of Seawater <Coast>

Reference

(Data summarized on November 19)

Place of Sampling	North of Discharge Channel of 5-6u of 1F (approx. 30m north of 5-6u discharge channel)		Around South Discharge Channel of 1F ( approx. 330m south of 1-4u Discharge Channel)		Around North Discharge Channel of 2F ( Around 3,4u Discharge Channel) ( approx. 10 km from 1F )		Around Iwasawa Shore of 2F ( approx. 7 km south of 1,2u Discharge Channel) ( approx. 16 km from 1F )		Density limit by the announcement of Reactor Regulation (Bq/L)  (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Nov 18, 2011 08:40 am		Nov 18, 2011 08:10 am		Nov 18, 2011 08:25 am		Nov 18, 2011 07:55 am		
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 ( / )	
I-131 (about 8 days)	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (about 2 years)	2.7	0.05	ND	-	1.3	0.02	ND	-	60
Cs-137 (about 30 years)	4.3	0.05	ND	-	1.2	0.01	ND	-	90

\* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm<sup>3</sup> to Bq/L.

\* Data of other nuclides are under evaluation.

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

\* "ND" means the sampled data is below measurable limit.

I-131: approx. 0.70Bq/L, Cs-134: approx. 0.98Bq/L, Cs-137: approx. 1.0Bq/L

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

## Results of Nuclide Analysis of Seawater <Offshore 1/2>

Reference

(Data summarized on November 19)

Place of Sampling	15 km offshore of Minami-Souma City Upper layer		15 km offshore of Minami-Souma City Lower 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		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	-	-	-	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	-	-	-	-	90

Place of Sampling	15 km offshore of Fukushima Daini Upper layer		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		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	-	-	-	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	-	-	-	-	90

\* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm<sup>3</sup> to Bq/L.

## Results of Nuclide Analysis of Seawater <Offshore 2/2>

Reference

(Data summarized on November 19)

Place of Sampling	3 km offshore of Souma City Upper layer		3 km offshore of Souma City Lower layer		5 km offshore of Souma City Upper layer		5 km offshore of Souma City Lower layer		5 km offshore of Kashima City Upper layer		5 km offshore of Kashima City Lower layer		② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	N/A		N/A		N/A		N/A		N/A		N/A		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	-	-	-	-	-	-	-	-	-	-	-	-	40
Cs-134 (about 2 years)	-	-	-	-	-	-	-	-	-	-	-	-	60
Cs-137 (about 30 years)	-	-	-	-	-	-	-	-	-	-	-	-	90

Place of Sampling	5km Offshore of Numanouchi Upper Layer		5km Offshore of Numanouchi Lower Layer										② Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Nov 17, 2011 (Not sampled)		Nov 17, 2011 (Not sampled)										
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (about 8 days)	-	-	-	-	/	/	/	/	/	/	/	/	40
Cs-134 (about 2 years)	-	-	-	-	/	/	/	/	/	/	/	/	60
Cs-137 (about 30 years)	-	-	-	-	/	/	/	/	/	/	/	/	90

\* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm<sup>3</sup> to Bq/L.

## Nuclide Analysis Results of Radioactive Materials in Seawater < offshore reanalysis >

Reference

(Data summarized on November 19)

Place of Sampling	15 km offshore of Fukushima Daichi Upper layer		15 km offshore of Fukushima Daini Upper layer		Density limit by the announcement of Reactor Regulation (Bq/L) (the density limit in the water outside of surrounding monitored areas in the section 6 of the appendix 2)
Time of Sampling	Nov 03, 2011 08:15 am		Nov 03, 2011 07:40 am		
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor ( / )	Density of Sample (Bq/L)	Scaling Factor ( / )	
I-131 (about 8 days)	ND	-	ND	-	40
Cs-134 (about 2 years)	ND	-	ND	-	60
Cs-137 (about 30 years)	ND	-	ND	-	90
Mn-54 (approx.310days)	ND	-	ND	-	1,000
Co-60 (approx.5yrs)	ND	-	ND	-	200
Ce-144 (about280days)	ND	-	ND	-	200

\* Density by the announcement of Reactor Regulation is stated with an amount converted from Bq/cm<sup>3</sup> to Bq/L.

\* Data of other nuclides are under evaluation.

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

\* "ND" means the sampled data is below measurable limit.

I-131: approx. 0.32Bq/L, Cs-134: approx. 0.27Bq/L, Cs-137: approx. 0.30Bq/L, Mn-54: approx. 0.10Bq/L, Co-60: approx. 0.10Bq/L, Ce-144: approx. 1.0Bq/L

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