

## Radioactivity Density of the Seawater in the Port of Fukushima Daiichi NPS &lt; 1/2 &gt;

(Data summarized on July 30)

Place of Sampling	Shallow Draft Quay at Fukushima Daiichi NPS*				Inside Unit 1-4 Water Intake Canal (North) at Fukushima Daiichi NPS (North side of the East Seawall Break)		Unit 1 Water Intake Canal at Fukushima Daiichi NPS (In front of Impermeable Wall)		Unit 2 Water Intake Canal at Fukushima Daiichi NPS (In front of Impermeable Wall)		Seawater at Unit 4 Screen		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
	Time of Sampling	Jul 29, 2014 6:55 AM	N/A		Jul 29, 2014 6:25 AM	Jul 29, 2014 6:48 AM	Jul 29, 2014 6:45 AM	Jul 29, 2014 6:30 AM					
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 (Approx. 8 days)	ND	-	-	-	ND	-	ND	-	ND	-	ND	-	40
Cs-134 (Approx. 2 years)	ND	-	-	-	6.2	0.10	8.6	0.14	8.1	0.14	18	0.30	60
Cs-137 (Approx. 30 years)	2.4	0.03	-	-	22	0.24	23	0.26	22	0.24	51	0.57	90

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

\* Data of other nuclides is under evaluation.

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

\* "ND" indicates that the measurement result is below the detection limit.

I-131: Approx. 3Bq/L, Cs-134: Approx. 2Bq/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.

\* The sampling will be performed after opening and closing of the silt fence.

Radioactivity Density of the Seawater in the Port of Fukushima Daiichi NPS < 2/2 >

(Data summarized on July 30)

Place of Sampling	Inside Unit 1-4 Water Intake Canal (South) at Fukushima Daiichi NPS (in front of Impermeable)		Port Entrance of Fukushima Daiichi NPS*				In Front of Unit 6* Water Intake Canal at Fukushima Daiichi NPS						② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
	Time of Sampling	Jul 29, 2014 6:32 AM	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 (Approx. 8 days)	ND	-	-	-	-	-	-	-					40
Cs-134 (Approx. 2 years)	7.4	0.12	-	-	-	-	-	-					60
Cs-137 (Approx. 30 years)	20	0.22	-	-	-	-	-	-					90

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

\* Data of other nuclides is under evaluation.

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

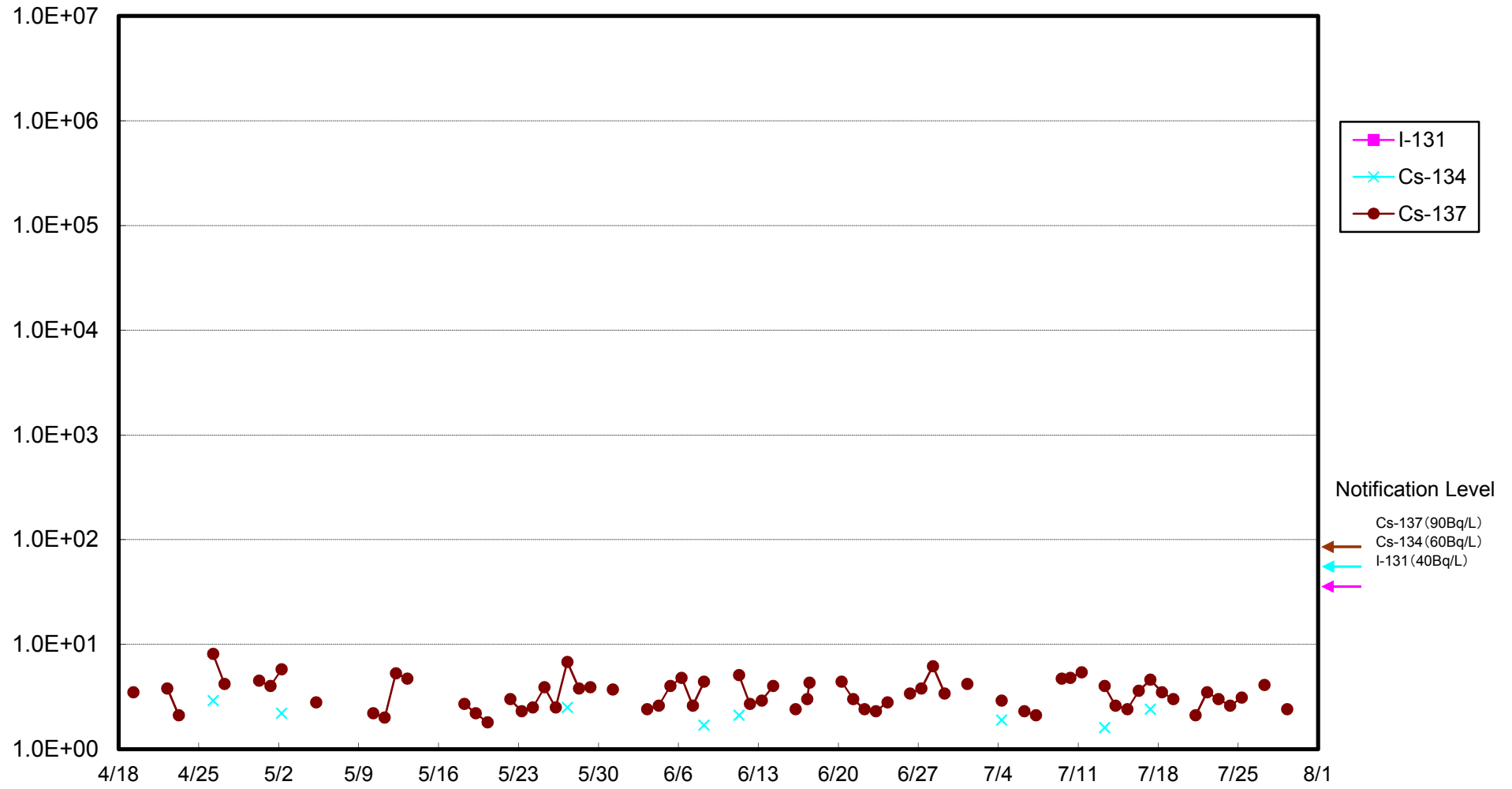
\* "ND" indicates that the measurement result is below the detection limit.

I-131: Approx. 2Bq/L

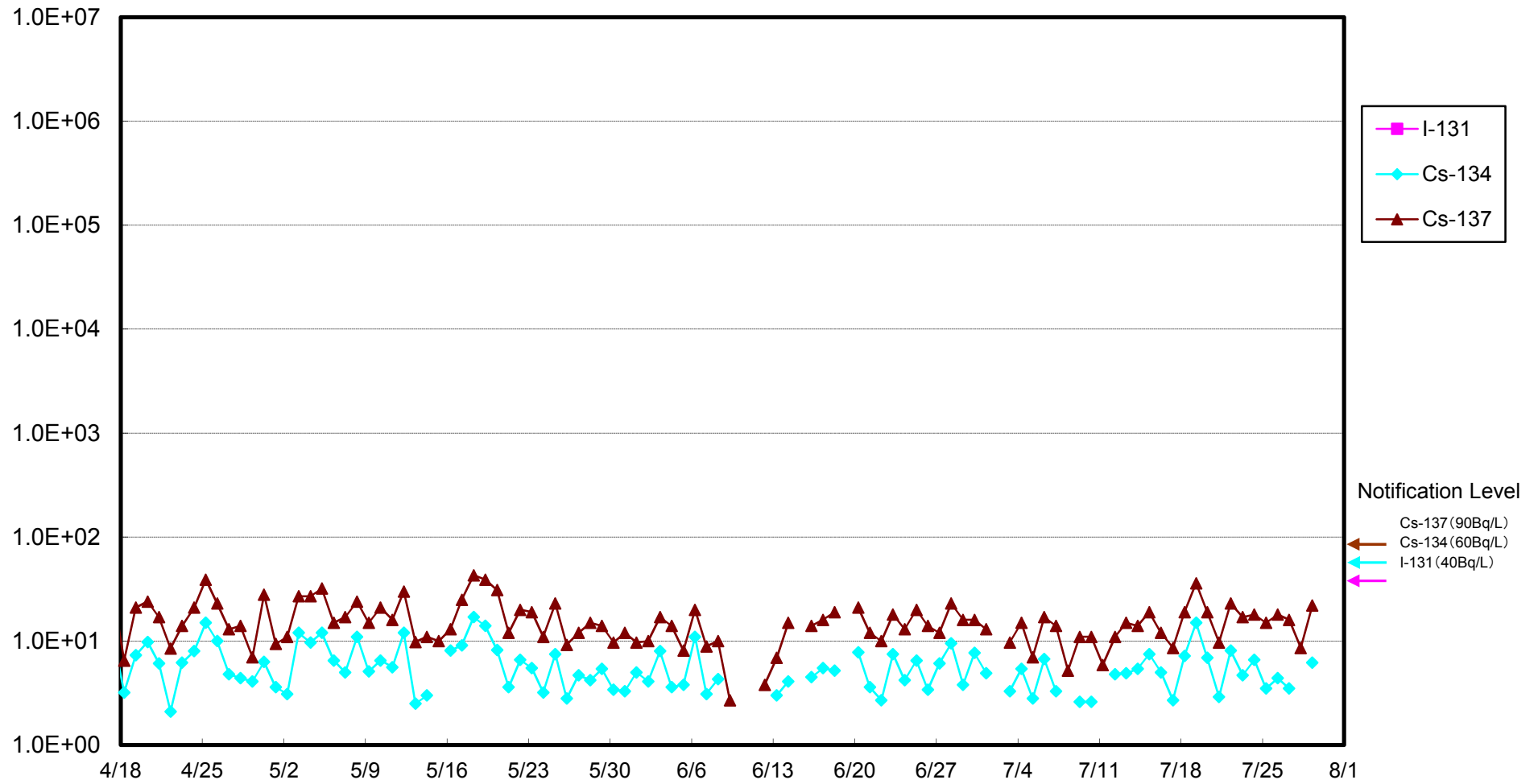
As the detection limit may vary depending on the detectors and sample properties, there are cases where nuclides below the detection limit are detected.

\* The sampling will be performed after opening and closing of the silt fence.

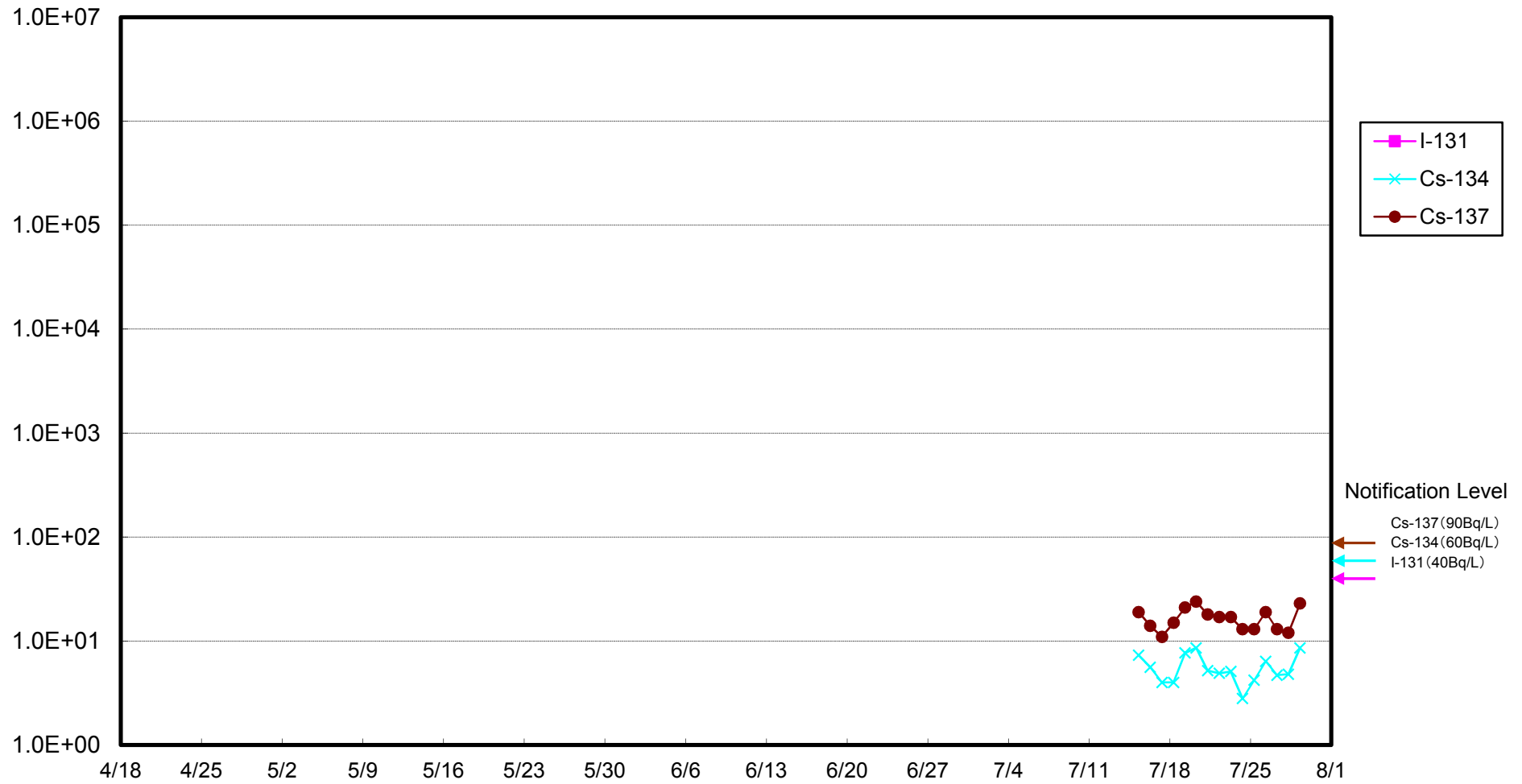
Radioactivity Density of the Seawater in Front of the Shallow Draft Quay at 1F (Bq/L)



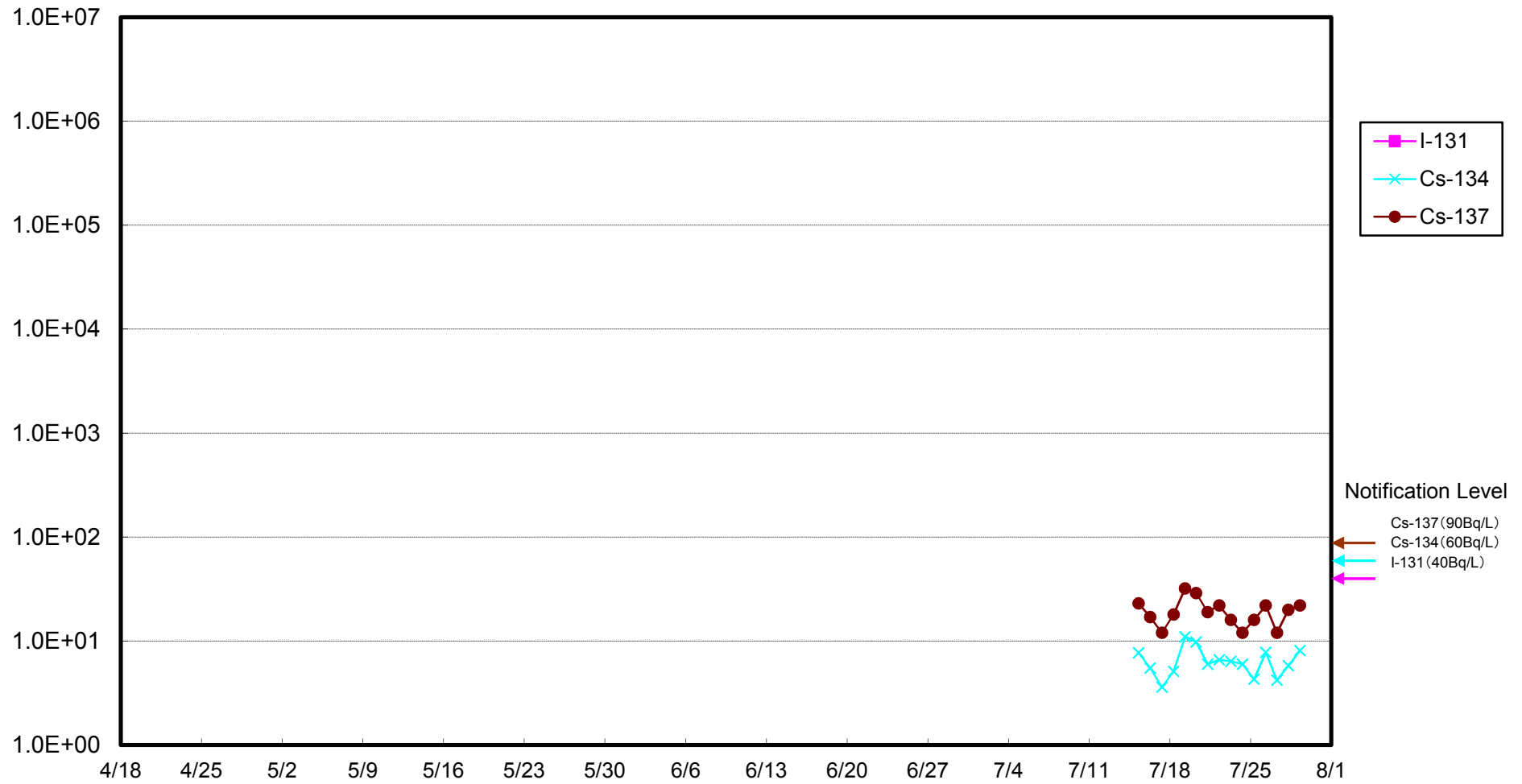
Radioactivity Density of the Seawater at the North of Unit 1-4 Water Intake (North of East Seawater Break of Fukushima Daiichi NPS (Bq/ L)



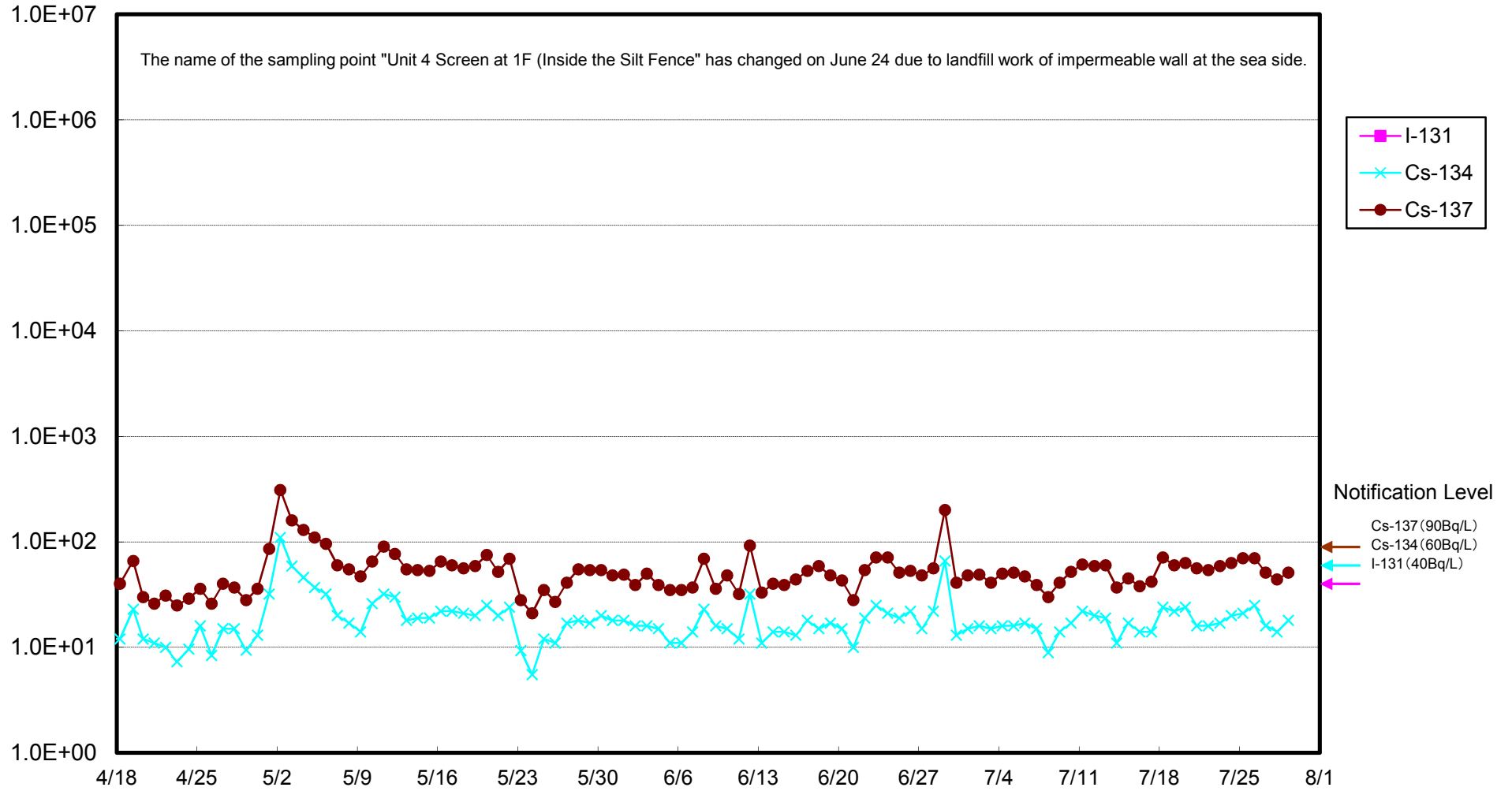
Radioactivity Density of the Seawater of Unit 1 Water Intake Canal at Fukushima Daiichi NPS (In front of Impermeable Wall) (Bq/L)



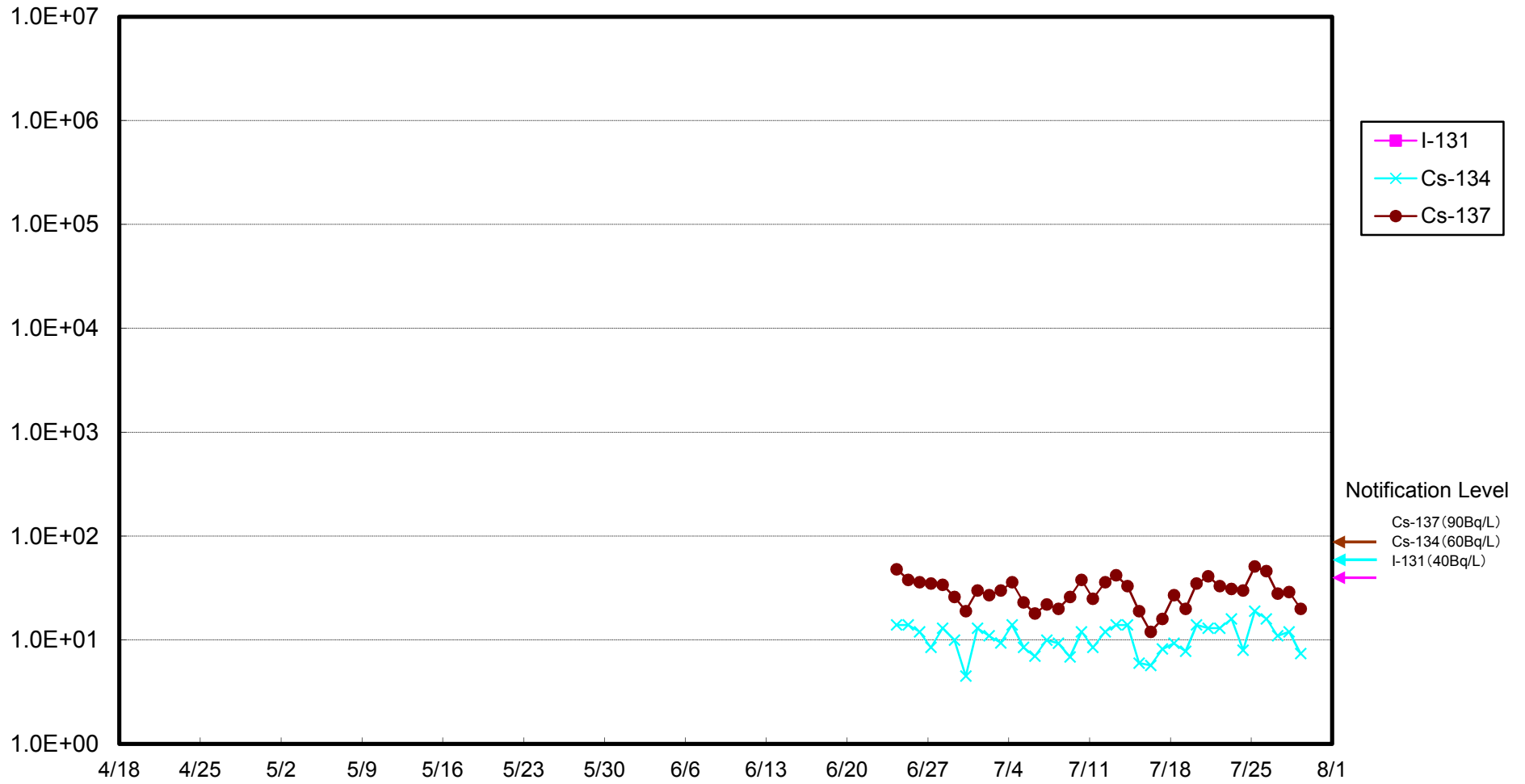
Radioactivity Density of the Seawater of Unit 2 Water Intake Canal at Fukushima Daiichi NPS (In front of Impermeable Wall) (Bq/L)



# Radioactivity Density of the Seawater at Unit 4 Screen at Fukushima Daiichi NPS (Bq/L)



Radioactivity Density of the Seawater at the South of Unit 1-4 Water Intake (in front of Impermeable Wall)  
at Fukushima Daiichi NPS (Bq/L)





Revised Version

Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <1/7>

(Data summarized on June 20)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Sep 22, 2013		
Detected Nuclides (Half-life)	①Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	46	0.77	60
Cs-137 (Approx. 30 years)	94	1.0	90
H-3 (approx. 12yrs)	3000	0.05	60,000
Gross α	ND	—	—
Gross β	810	—	—
Sr-90 (Approx. 29 years)	720	24	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on September 23, 2013. H-3 was announced on September 25, 2013. Sr-90 was announced on January 15, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 4.1Bq/L, Gross α: Approx. 2.6Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.13Bq/L to 2.6Bq/L.

(Evaluation)

H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident.

## Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <2/7>

(Data summarized on June 20)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Oct 20, 2013		
Detected Nuclides (Half-life)	① Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	36	0.60	60
Cs-137 (Approx. 30 years)	65	0.72	90
H-3 (approx. 12yrs)	1,600	0.03	60,000
Gross α	ND	—	—
Gross β	590	—	—
Sr-90 (Approx. 29 years)	480	16	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on October 21, 2013. H-3 was announced on October 23, 2013. Sr-90 was announced on January 15, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 3.3Bq/L, Gross α: Approx. 2.6Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.13Bq/L to 2.6Bq/L.

(Evaluation)

H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident.

## Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <3/7>

(Data summarized on June 20)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Nov 17, 2013		
Detected Nuclides (Half-life)	① Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	25	0.42	60
Cs-137 (Approx. 30 years)	48	0.53	90
H-3 (approx. 12yrs)	1,100	0.02	60,000
Gross α	ND	—	—
Gross β	400	—	—
Sr-90 (Approx. 29 years)	330	11	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on November 18, 2013. H-3 was announced on November 21, 2013. Sr-90 was announced on May 28, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 3.3Bq/L, Gross α: Approx. 2.7Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.13Bq/L to 2.7Bq/L.

(Evaluation)

H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident.

## Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <4/7>

(Data summarized on June 20)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Dec 22, 2013		
Detected Nuclides (Half-life)	① Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	46	0.77	60
Cs-137 (Approx. 30 years)	110	1.2	90
H-3 (approx. 12yrs)	620	0.01	60,000
Gross α	ND	—	—
Gross β	280	—	—
Sr-90 (Approx. 29 years)	220	7.3	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on December 23, 2013. H-3 was announced on December 25, 2013. Sr-90 was announced on May 28, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 4.4Bq/L, Gross α: Approx. 2.5Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.12Bq/L to 2.5Bq/L.

(Evaluation)

H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident.

## Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <5/7>

(Data summarized on July 2)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Jan 19, 2014		
Detected Nuclides (Half-life)	① Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	18	0.30	60
Cs-137 (Approx. 30 years)	48	0.53	90
H-3 (approx. 12yrs)	990	0.02	60,000
Gross α	ND	—	—
Gross β	440	—	—
Sr-90 (Approx. 29 years)	400	13	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on January 20, 2014. H-3 was announced on January 22, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 2.2Bq/L, Gross α: Approx. 2.2Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.11Bq/L to 2.2Bq/L.

(Evaluation)

Although H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident, H-3 is less than the density limit in the water which is specified by the announcement.

## Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <6/7>

(Data summarized on July 2)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Feb 18, 2014		
Detected Nuclides (Half-life)	① Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	20	0.33	60
Cs-137 (Approx. 30 years)	57	0.63	90
H-3 (approx. 12yrs)	1,100	0.02	60,000
Gross α	ND	—	—
Gross β	380	—	—
Sr-90 (Approx. 29 years)	330	11	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on February 19, 2014. H-3 was announced on February 21, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 3.5Bq/L, Gross α: Approx. 2.4Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.12Bq/L to 2.4Bq/L.

(Evaluation)

Although H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident, H-3 is less than the density limit in the water which is specified by the announcement.

## Nuclides Analysis Result of Radioactive Materials in the Unit 1-4 Water Intake <7/7>

(Data summarized on July 18)

Place of Sampling	North of Unit 1-4 Water Intake at Fukushima Daiichi NPS		② Density Limit Specified by the Reactor Regulation (Bq/L) (The density limit in the water outside the surrounding monitored areas is provided in section 6 of Appendix 2.)
Date of Sampling	Mar 18, 2014		
Detected Nuclides (Half-life)	① Density of Sample (Bq/L)	Scaling Factor (①/②)	
I-131 (Approx. 8 days)	ND	—	40
Cs-134 (Approx. 2 years)	11	0.18	60
Cs-137 (Approx. 30 years)	26	0.29	90
H-3 (approx. 12yrs)	600	0.01	60,000
Gross α	ND	—	—
Gross β	250	—	—
Sr-90 (Approx. 29 years)	260	8.7	30

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

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

\* Nuclide analysis results of I-131, Cs-134, Cs-137, and Gross β was announced on March 19, 2014. H-3 was announced on March 21, 2014.

\* When the measurement value is below the detection limit, "ND" is marked. The detection limits are as follows.

I-131: Approx. 2.0Bq/L, Gross α: Approx. 2.4Bq/L<sup>\*1</sup>

\*1 The detection limit of Gross α was corrected from approx. 0.12Bq/L to 2.4Bq/L.

(Evaluation)

Although H-3, Gross β, and Sr-90 were detected supposedly as a result of this accident, H-3 is less than the density limit in the water which is specified by the announcement.