

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

(Data summarized on August 8)

Place of Sampling	North of Unit 5-6 Discharge Channel at 1F (Approx. 30m North of Unit 5-6 Discharge Channel)		Around 1F South Discharge Channel of 1F (Approx. 330m South of Unit 1-4 Discharge Channel)		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.)
	Aug 7, 2012 7:20 AM		Aug 7, 2012 7:00 AM		
Detected Nuclides (Half-life)	Density of Sample (Bq/L)	Scaling Factor (/)	Density of Sample (Bq/L)	Scaling Factor (/)	
I-131 (Approx. 8 days)	ND	-	ND	-	40
Cs-134 (Approx. 2 years)	ND	-	ND	-	60
Cs-137 (Approx. 30 years)	ND	-	ND	-	90

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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. 0.45Bq/L, Cs-134: Approx.1.1Bq/L, Cs-137: Approx.1.4Bq/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.

Nuclides Analysis Result of Radioactive Materials in the Seawater < 1/2 >

(Data summarized on August 8)

Place of Sampling (Place No.)	3km Offshore of Ukedo River (T-D1) Upper Layer		3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer		3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer		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	May 9, 2012		May 17, 2012		May 13, 2012		
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 (/)	
Cs-134 (Approx. 2 years)	0.28	0.00	0.11	0.00	0.045	0.00	60
Cs-137 (Approx. 30 years)	0.40	0.00	0.17	0.00	0.068	0.00	90
H-3 (approx. 12yrs)	ND	-	ND	-	ND	-	60,000
All α	ND	-	ND	-	ND	-	-
All β	ND	-	ND	-	ND	-	-
Sr-89 (about 51 days)	ND	-	ND	-	ND	-	300
Sr-90 (About 29 years)	0.15	0.01	0.11	0.00	0.017	0.00	30

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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 Cs-134 and Cs-137 were announced on June 6 and 12. Nuclide analysis results of H-3, all α and all β were announced on July 7.

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

H-3: Approx. 2.9Bq/L , All α: Approx. 3.2Bq/L , All β: Approx. 22Bq/L , Sr-89: Approx. 0.07Bq/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.

* Nuclides analysis was done by Japan Chemical Analysis Center.

(Evaluation)

Although Sr-90 was detected supposedly as a result of this accident, it is less than the density limit in the water which is specified by the announcement.

Nuclides Analysis Result of Radioactive Materials in the Seawater < 2/2 >

(Data summarized on August 8)

Place of Sampling (Place No.)	15km Offshore of Fukushima Daiichi NPS(T-5) Upper Layer						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	May 18, 2012						
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 (/)	
Cs-134 (Approx. 2 years)	0.014	0.00					60
Cs-137 (Approx. 30 years)	0.022	0.00					90
H-3 (approx. 12yrs)	ND	-					60,000
All α	ND	-					-
All β	ND	-					-
Sr-89 (about 51 days)	ND	-					300
Sr-90 (About 29 years)	ND	-					30

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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 Cs-134 and Cs-137 were announced on June 22. Nuclide analysis results of H-3, all α and all β were announced on July 7.

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

H-3: Approx. 2.9Bq/L , All α: Approx. 3.2Bq/L , All β: Approx. 22Bq/L , Sr-89: Approx. 0.02Bq/L , Sr-90: Approx. 0.007Bq/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.

* Nuclides analysis was done by Japan Chemical Analysis Center.

(Evaluation)

Sr-89 and Sr-90 were not detected in the sample collected this time.

Nuclides Analysis Result of Radioactive Materials in the Seawater < 1/2 >

(Data summarized on August 8)

Place of Sampling (Place No.)	3km Offshore of Ukedo River (T-D1) Upper Layer		3km Offshore of Fukushima Daiichi NPS (T-D5) Upper Layer		3km Offshore of Fukushima Daini NPS (T-D9) Upper Layer		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	Jun 5, 2012		Jun 14, 2012		Jun 25, 2012	
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 (/)	
Cs-134 (Approx. 2 years)	0.063	0.00	0.015	0.00	0.051	0.00	60
Cs-137 (Approx. 30 years)	0.094	0.00	0.018	0.00	0.075	0.00	90
H-3 (approx. 12yrs)	ND	-	ND	-	ND	-	60,000
All α	ND	-	ND	-	ND	-	-
All β	ND	-	ND	-	ND	-	-
Sr-89 (about 51 days)	ND	-	ND	-	ND	-	300
Sr-90 (About 29 years)	0.019	0.00	0.0091	0.00	0.018	0.00	30

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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 Cs-134 and Cs-137 were announced on June 29, July 6 and 26.

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

H-3: Approx. 2.9Bq/L , All α: Approx. 3.2Bq/L , All β: Approx. 21Bq/L , Sr-89: Approx. 0.03Bq/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.

* Nuclides analysis was done by Japan Chemical Analysis Center.

(Evaluation)

Although Sr-90 was detected supposedly as a result of this accident, it is less than the density limit in the water which is specified by the announcement.

Nuclides Analysis Result of Radioactive Materials in the Seawater < 2/2 >

(Data summarized on August 8)

Place of Sampling (Place No.)	15km Offshore of Fukushima Daiichi NPS(T-5) Upper Layer						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	Jun 12, 2012						
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 (/)	
Cs-134 (Approx. 2 years)	0.0055	0.00					60
Cs-137 (Approx. 30 years)	0.0079	0.00					90
H-3 (approx. 12yrs)	ND	-					60,000
All α	ND	-					-
All β	ND	-					-
Sr-89 (about 51 days)	ND	-					300
Sr-90 (About 29 years)	ND	-					30

* The density specified by the Reactor Regulation is converted from Bq/cm³ 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 Cs-134 and Cs-137 were announced on July 11.

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

H-3: Approx. 2.9Bq/L , All α: Approx. 3.2Bq/L , All β: Approx. 15Bq/L , Sr-89: Approx. 0.02Bq/L , Sr-90: Approx. 0.01Bq/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.

* Nuclides analysis was done by Japan Chemical Analysis Center.

(Evaluation)

H-3, all α, all β, Sr-89 and Sr-90 were not detected in the sample collected this time.

Analysis Result of Pu in the Seawater

1. Measurement Result

(Unit: Bq/L)

Place of Sampling	Date	Pu-238	Pu-239+Pu-240
15km Offshore of 1F Upper Layer	June 12	N.D. [$<5.1 \times 10^{-6}$]	N.D. [$<4.7 \times 10^{-6}$]
3km Offshore of Ukedo River Upper Layer	June 5	N.D. [$<4.8 \times 10^{-6}$]	N.D. [$<4.6 \times 10^{-6}$]
3km Offshore of 1F Upper Layer	June 14	N.D. [$<5.2 \times 10^{-6}$]	N.D. [$<4.8 \times 10^{-6}$]
3km Offshore of 2F Upper Layer	June 25	N.D. [$<5.2 \times 10^{-6}$]	N.D. [$<5.6 \times 10^{-6}$]
Range of Past Measurement Values in the Sea Area Near 1F and 2F (2001-2008)*		-	ND $\sim 1.3 \times 10^{-5}$

The detection limit is provided in parentheses.

* Source: "2009 Report on the Result of Radioactivity Measurement around Nuclear Power Plant (Fukushima Nuclear Power Station Coordinating Committee for Safety Technology)

2. Analytical Institution

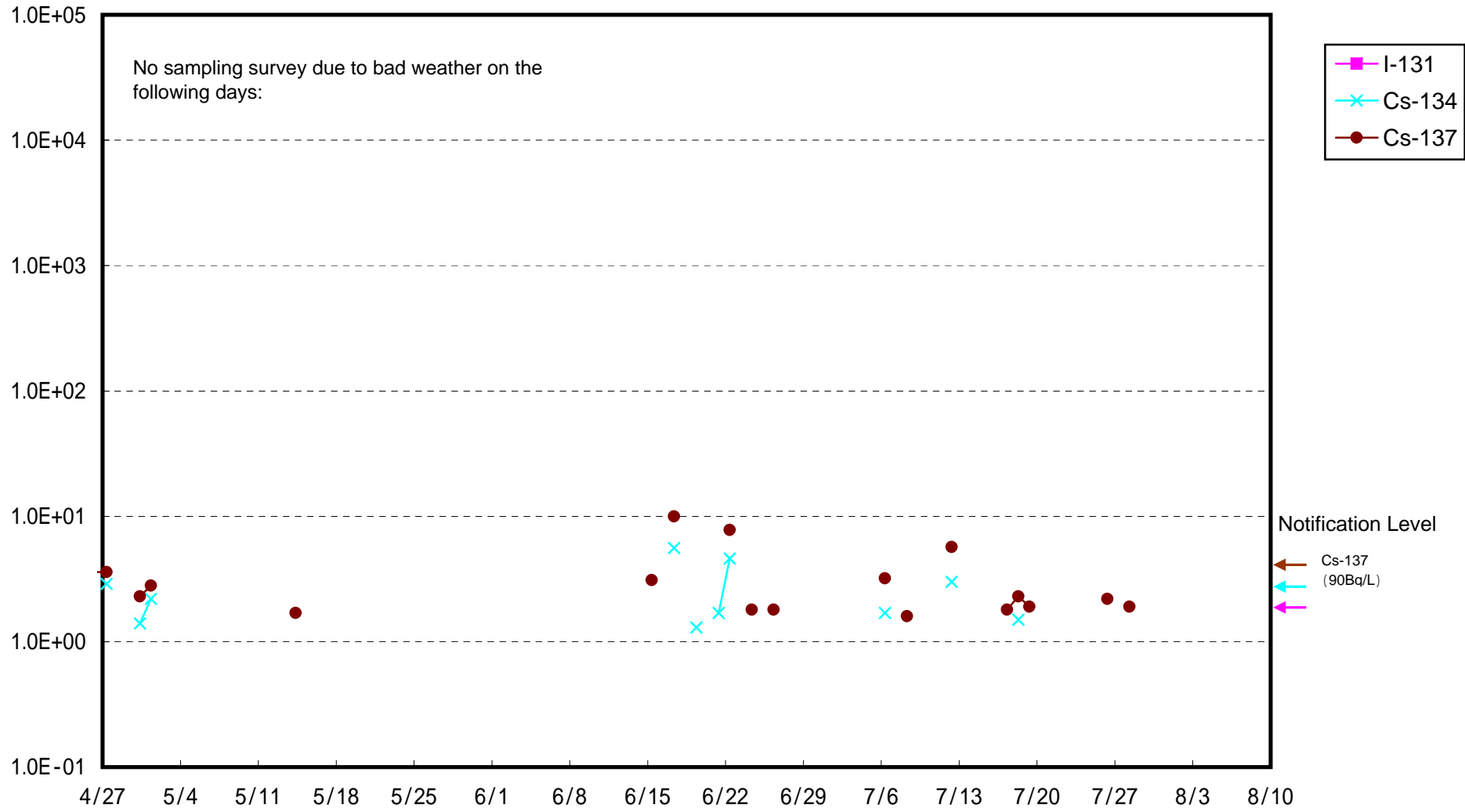
Japan Chemical Analysis Center (JCAC)

3. Evaluation

Pu-238 and Pu-239+Pu-240 were not detected in the sample collected this time.

End

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)

