

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

(Data summarized on August 22)

Place of Sampling	North of Unit 5-6 Discharge Channel at Fukushima Daiichi NPS (Approx. 30m North of Unit 5-6 Discharge Channel)		Around South Discharge Channel of Fukushima Daiichi NPS (Approx. 1.3km South of Unit 1-4 Discharge Channel)		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	Aug 21, 2013 6:40 AM		Aug 21, 2013 5:10 AM		
Detected Nuclides (Half-life)	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	-	40
Cs-134 (Approx. 2 years)	1.4	0.02	ND	-	60
Cs-137 (Approx. 30 years)	3.4	0.04	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. 1.0Bq/L, Cs-134: Approx. 1.4Bq/L, Cs-137: Approx. 1.7Bq/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

(Data summarized on August 22)

Place of Sampling (Place No.)	15km Offshore of Fukushima Daiichi NPS (T-5) Upper Layer						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	Jul 3, 2013					
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)	
Cs-134 (Approx. 2 years)	0.0058	0.00					60
Cs-137 (Approx. 30 years)	0.013	0.00					90
H-3 (approx. 12yrs)	ND	—					60,000
All α	ND	—					—
All β	ND	—					—
Sr-89 (Approx. 51 days)	ND	—					300
Sr-90 (Approx. 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, Cs-137 were announced on August 22.

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

H-3: Approx. 0.38Bq/L, All α: Approx. 3.3Bq/L, All β: Approx. 18Bq/L, Sr-90: 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 of Sr-90 was done by Japan Chemical Analysis Center.

(Evaluation)

H-3, all α, all β 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
1F, North of Unit 5-6 Discharge Channel	Jul 9, 2013	N.D. [$<6.7 \times 10^{-6}$]	$(8.9 \pm 2.3) \times 10^{-6}$
1F, Around South Discharge Channel	Jul 9, 2013	N.D. [$<5.9 \times 10^{-6}$]	N.D. [$<5.9 \times 10^{-6}$]
15km Offshore of Fukushima Daiichi NPS, Upper Layer	Jul 3, 2013	N.D. [$<5.3 \times 10^{-6}$]	N.D. [$<5.4 \times 10^{-6}$]
Around 3km Offshore of Ukedo River, Upper Layer	Jul 2, 2013	N.D. [$<7.0 \times 10^{-6}$]	N.D. [$<7.0 \times 10^{-6}$]
3km Offshore of Fukushima Daiichi NPS, Upper Layer	Jul 2, 2013	N.D. [$<5.9 \times 10^{-6}$]	N.D. [$<5.9 \times 10^{-6}$]
3km Offshore of Fukushima Daini NPS, Upper Layer	Jul 3, 2013	N.D. [$<5.3 \times 10^{-6}$]	$(9.4 \pm 2.2) \times 10^{-6}$
The range of the past measurement results obtained in the ocean near Fukushima Daiichi and Daini Nuclear Power Stations (FY2001 - FY2008)*		—	$ND \sim 1.3 \times 10^{-5}$

[] shows below the detection limit.

*: Source "Report on the environmental radioactivity measurement around the Nuclear Power Plant (2008)", Committee on the safety technology of Nuclear Power Plants in Fukushima.

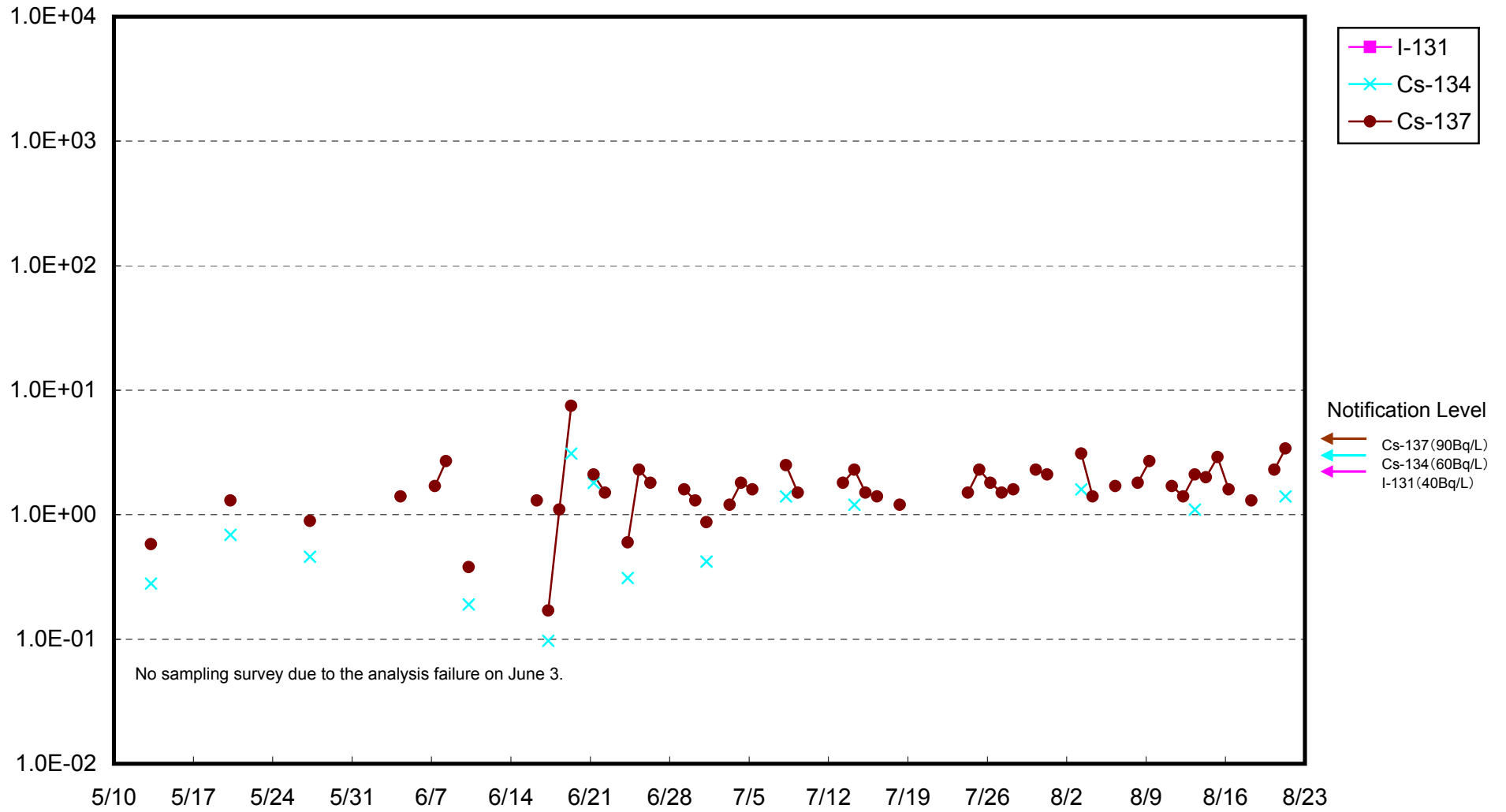
2. Analytical Institution: Japan Chemical Analysis Center

3. Evaluation:

Given that the density level of Pu-239+Pu-240 detected at 3km Offshore of Fukushima Daiichi NPS, Upper Layer on January 3 and 1F, North of Unit 5-6 Discharge Channel on January 9 is 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.

End

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



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

