

Nuclide Analysis Results of Radioactive Materials in the Air
at the Sites of Fukushima Nuclear Power Stations <1/2>

Reference

(Data summarized on December 29)

Place of Sampling	West Gate of Fukushima Daiichi NPS		MP-1 of Fukushima Daini (Reference)				②Density limit by the announcement of Reactor Regulation (Bq/cm ³) (Density limit in the air to which radiation workers breathe in the section 4 of the appendix 2)	
	Time of Sampling		Time of Sampling					
Detected Nuclides (Half-life)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)		
	I-131 (about 8 days)	ND	-	ND	-			
Cs-134 (about 2 years)	ND	-	ND	-				2E-03
Cs-137 (about 30 years)	4.1E-07	0.00	ND	-			3E-03	

* The value of radioactivity density is the sum of the value of volatile nuclide's density and the value of particulate nuclide's density.

O.OE—O means O.O x 10-O

Data of other nuclides are under examination.

* 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.

Detection limits of 3 nuclides on the West Gate of Fukushima Daiichi are as follows:

Volatile: I-131: approx. 1E-7Bq/cm³, Cs-134: approx. 3E-7Bq/cm³ Particulate: I-131: approx. 6E-8Bq/cm³, Cs-134: approx. 2E-7Bq/cm³, Cs-137: approx. 2E-7Bq/cm³

Detection limits of 3 nuclides on MP-1 of Fukushima Daini are as follows:

Volatile: I-131: approx. 2E-6Bq/cm³, Cs-134: approx. 3E-6Bq/cm³, Cs-137: approx. 3E-6Bq/cm³ Particulate: I-131: approx. 9E-7Bq/cm³, Cs-134: approx. 2E-6Bq/cm³, Cs-137: approx. 1E-6Bq/cm³

Nuclide Analysis Results of Radioactive Materials in the Air
at the Sites of Fukushima Nuclear Power Stations <2/2>

Reference

(Data summarized on December 29)

Place of Sampling	Fukushima Daiichi Unit 1 North Side Slope		Fukushima Daiichi Unit 1 and Unit 2 West Side Slope		Fukushima Daiichi Unit 3 and Unit 4 West Side Slope		②Density limit by the announcement of Reactor Regulation (Bq/cm ³) (Density limit in the air to which radiation workers breathe in the section 4 of the appendix 2)
Time of Sampling	December 28, 2011 8:55 am ~ 1:55 pm		December 28, 2011 9:00 am ~ 2:00 pm		December 28, 2011 9:05 am ~ 2:05 pm		
Detected Nuclides (Half-life)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	
I-131 (about 8 days)	ND	-	ND	-	ND	-	1E-03
Cs-134 (about 2 years)	ND	-	ND	-	7.6E-05	0.04	2E-03
Cs-137 (about 30 years)	ND	-	ND	-	9.3E-05	0.03	3E-03

* The value of radioactivity density is the sum of the value of volatile nuclide's density and the value of particulate nuclide's density.

O.OE – O means O.O x 10-O

Data of other nuclides are under examination.

* 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.

The followings show the detection limits. Volatile: I-131: approx. 2E-6Bq/cm³, Cs-134: approx. 4E-6Bq/cm³, Cs-137: approx. 5E-6Bq/cm³

Particulate: I-131: approx. 2E-6Bq/cm³, Cs-134: approx. 3E-6Bq/cm³, Cs-137: approx. 3E-6Bq/cm³

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

Nuclide Analysis Results of Radioactive Materials in the Air at the seaside of the sites of Fukushima Nuclear Power Stations

Reference

(Data summarized on December 29)

Place of Sampling	Fukushima Daiichi Unit 1 to Unit 4 Nearby seaside						②Density limit by the announcement of Reactor Regulation (Bq/cm ³) (Density limit in the air to which radiation workers breathe in the section 4 of the appendix 2)
Time of Sampling	December 28, 2011 9:10 am ~ 2:10 pm						
Detected Nuclides (Half-life)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	①density of sample (Bq/cm ³)	Scaling Factor (①/②)	
I-131 (about 8 days)	ND	-					1E-03
Cs-134 (about 2 years)	7.8E-07	0.00					2E-03
Cs-137 (about 30 years)	4.1E-07	0.00					3E-03

* The value of radioactivity density is the sum of the value of volatile nuclide's density and the value of particulate nuclide's density.

O.OE – O means O.O x 10-O

Data of other nuclides are under examination.

* 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.

The followings show the detection limits. Volatile: I-131: approx. 2E-7Bq/cm³, Cs-137: approx. 5E-7Bq/cm³ Particulate: I-131: approx. 1E-7Bq/cm³

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

The Result of analysis for Pu in the air around Fukushima Daiichi

1. Place of sampling : The west gate of Fukushima Daiichi
2. Analytical body : Japan Chemical Analysis Center (JCAC)
3. Sampling result:

(Unit: Bq/cm³)

Sampling type	Date of sampling	Pu-238	Pu-239,Pu-240
Volatile	12/12	N.D. [$<6.3 \times 10^{-10}$]	N.D. [$<6.3 \times 10^{-10}$]
Particle		N.D. [$<8.0 \times 10^{-10}$]	N.D. [$<8.0 \times 10^{-10}$]

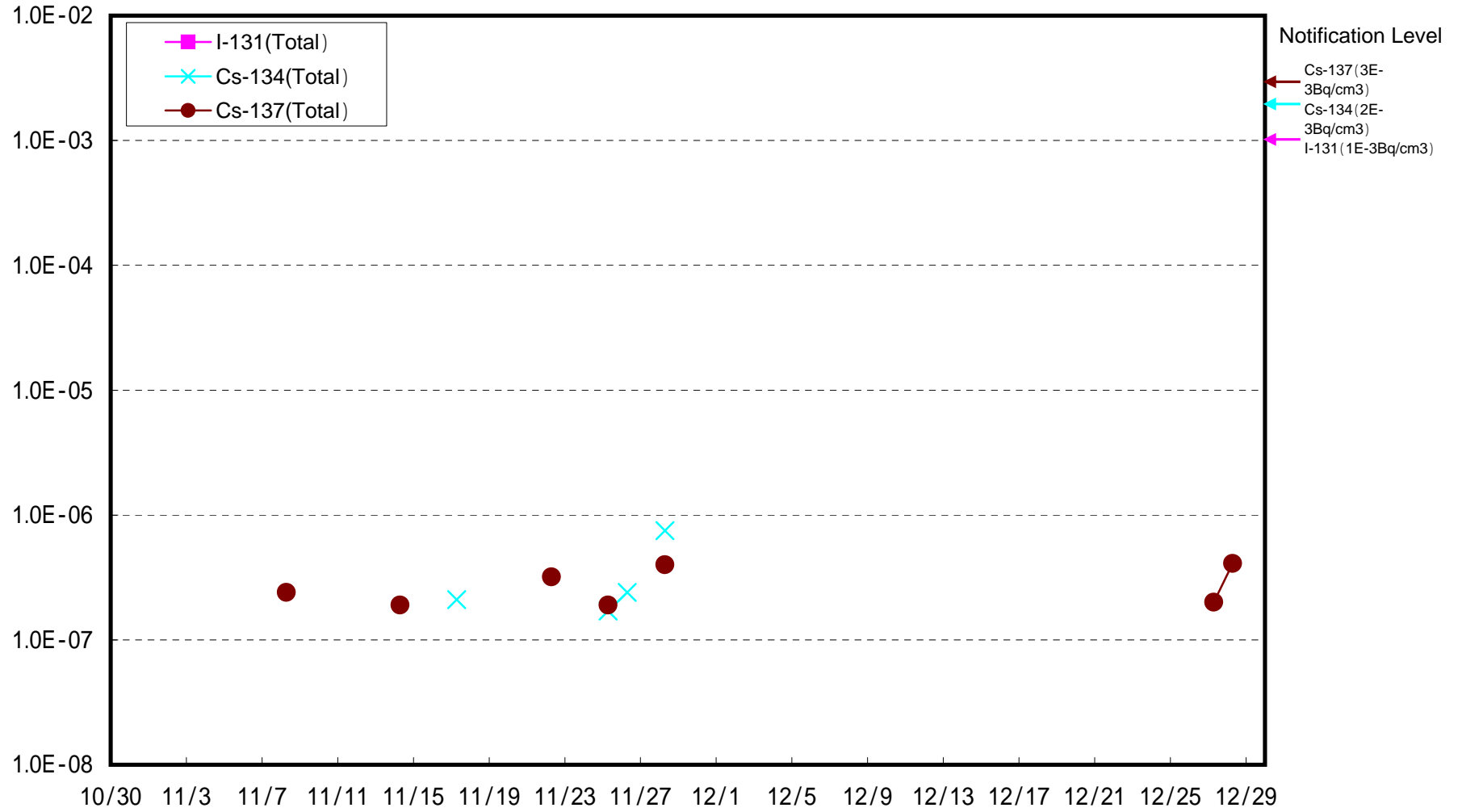
[] : Detection Limit

4. Evaluation:

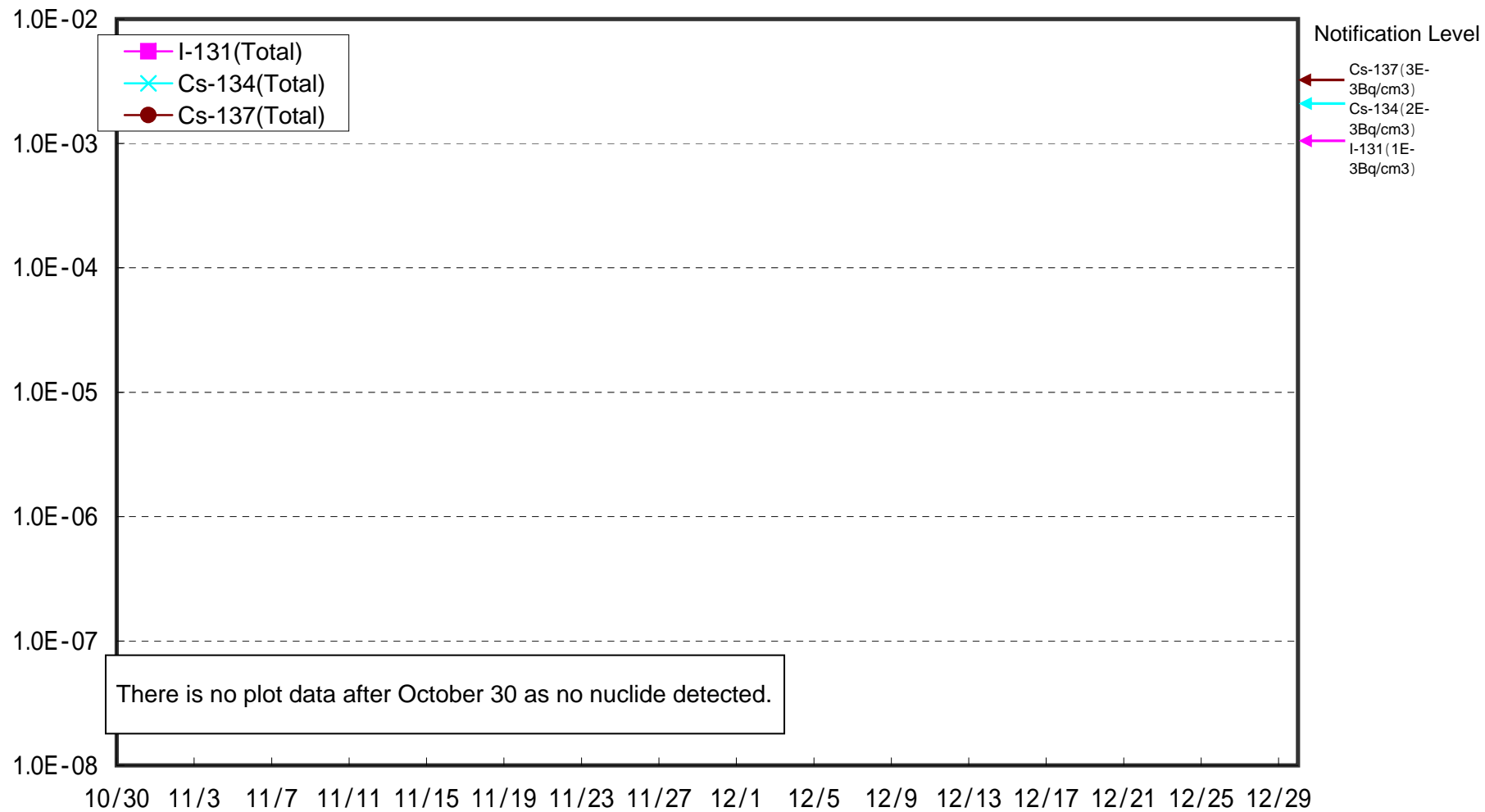
There is no detection of Pu-238, Pu-239 and Pu-240 from this sampling

END

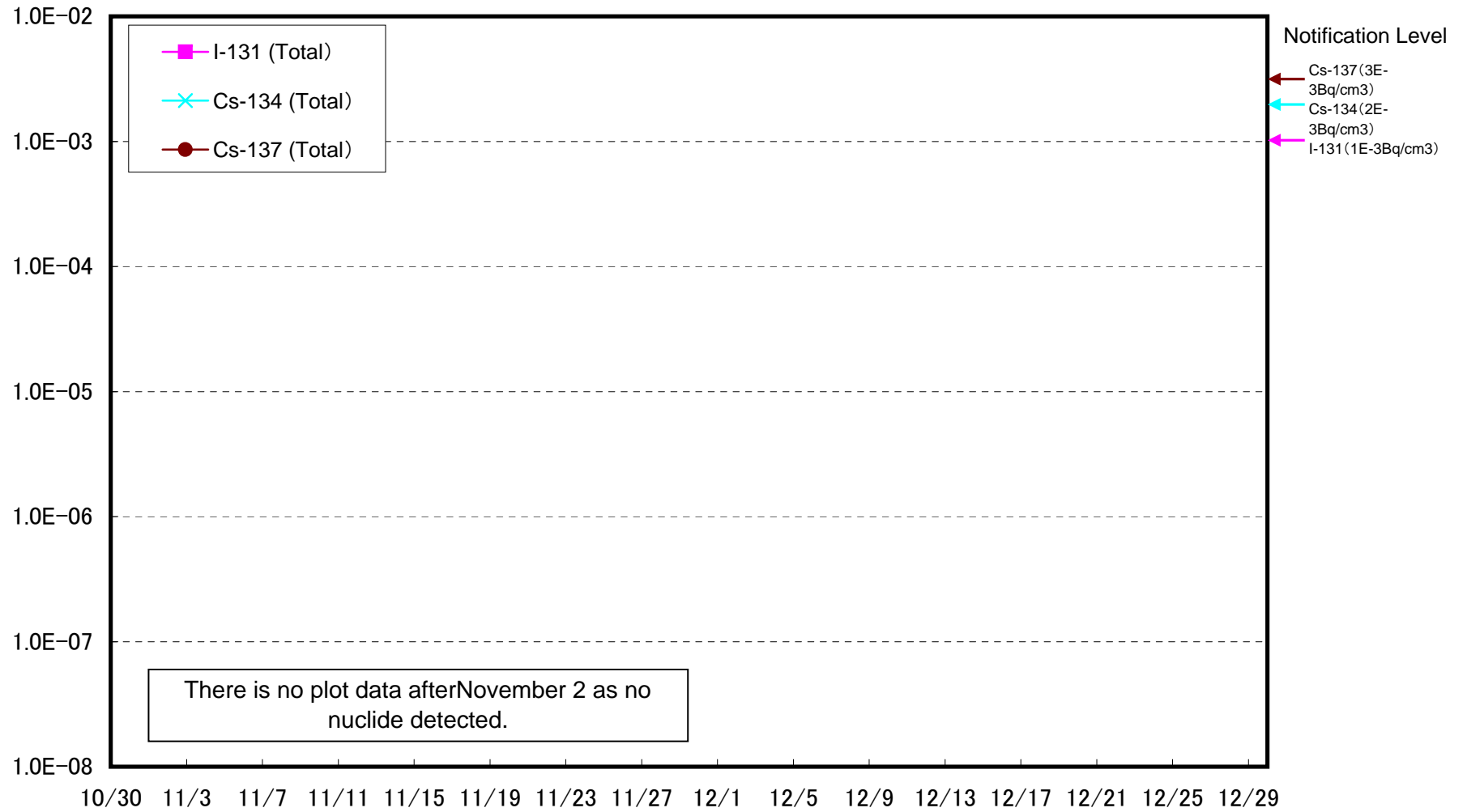
West Gate of Fukushima Daiichi Nuclear Power Station
Results of Dust Nuclide Analysis (Bq/cm³)



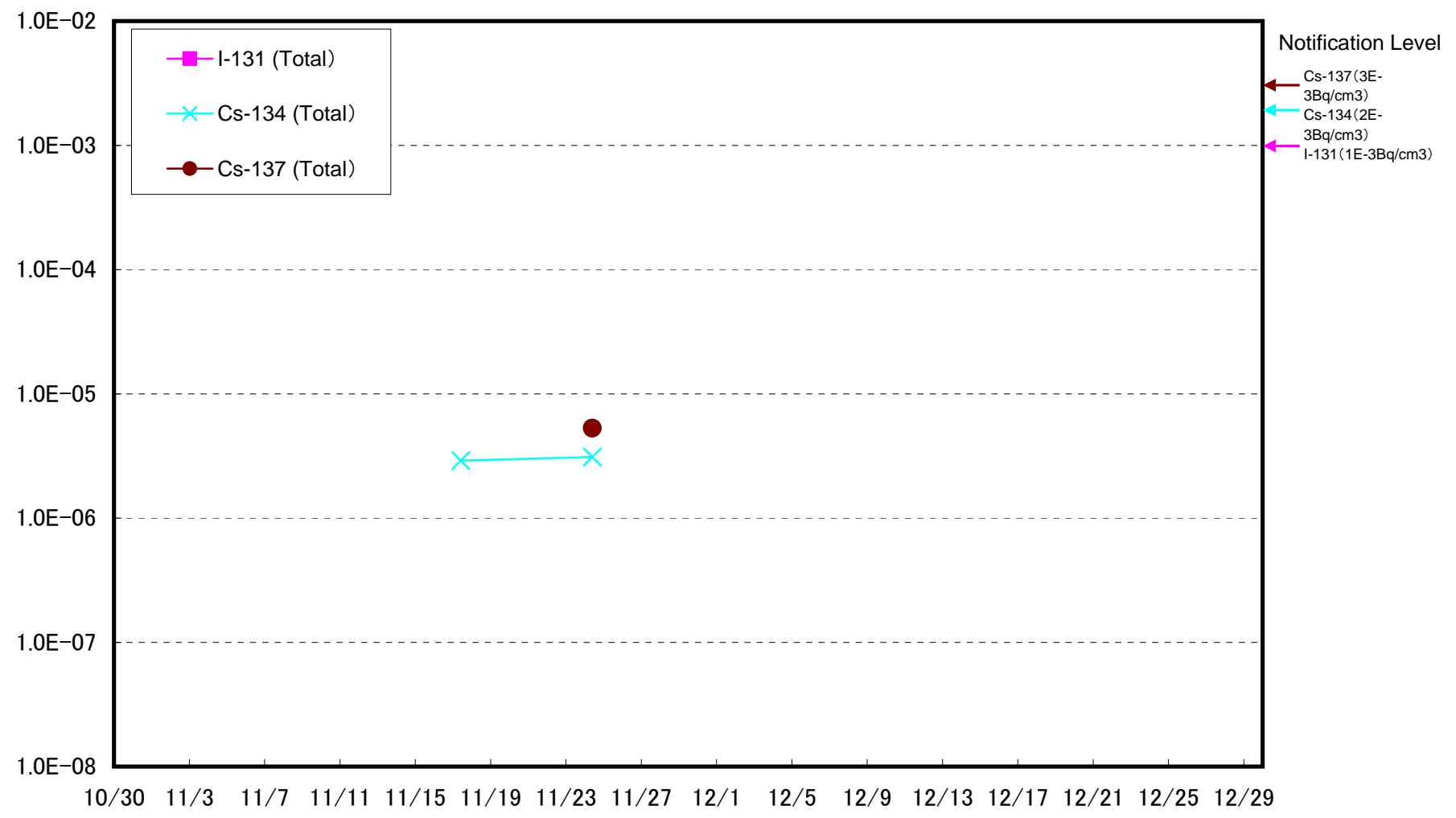
(Reference) Fukushima Daini MP-1
Results of Dust Nuclide Analysis (Bq/cm³)



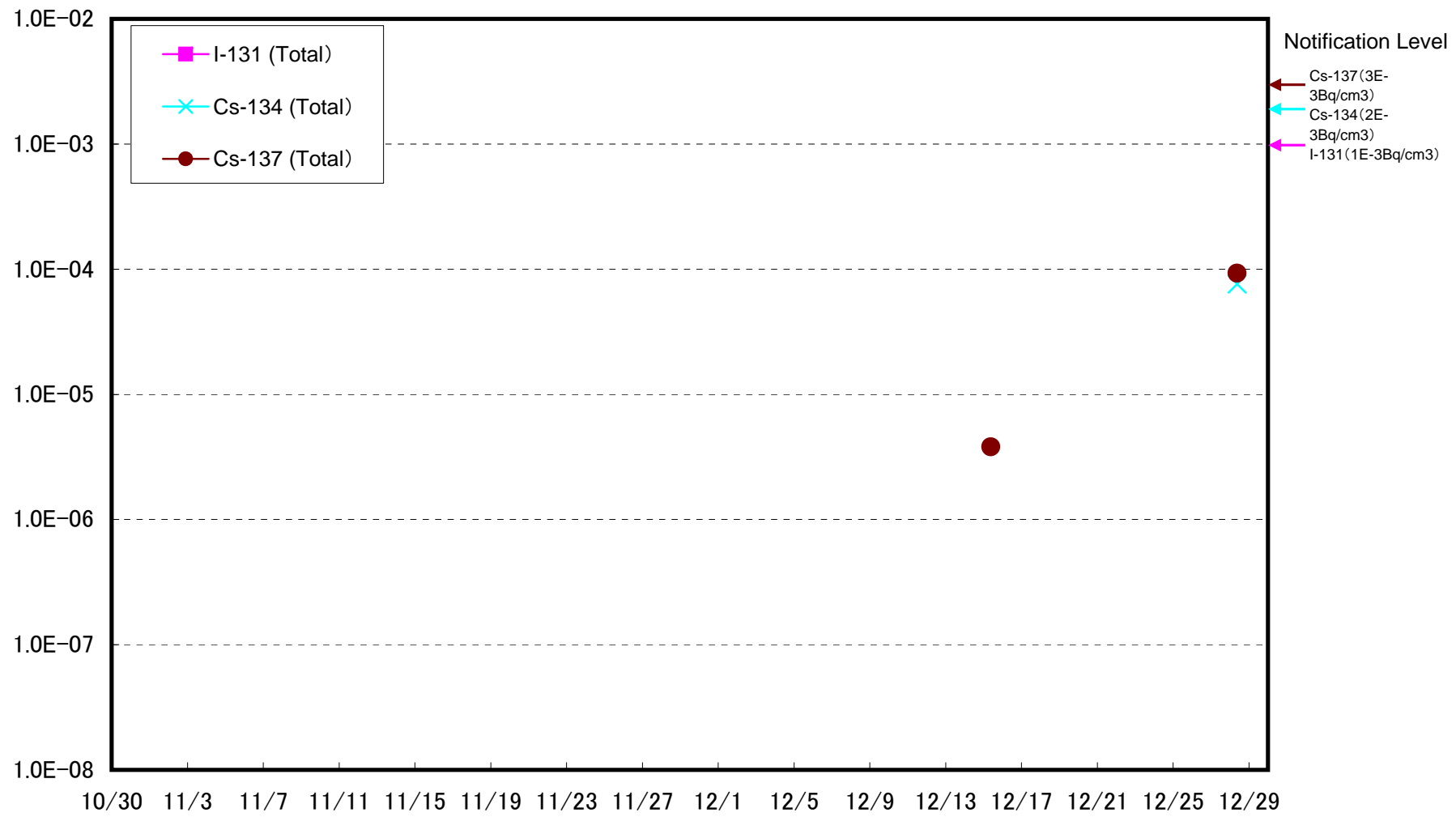
Fukushima Daiichi Unit 1 North Side Slope
Results of Dust Nuclide Analysis (Bq/cm³)



Fukushima Daiichi Unit 1 and Unit 2 West Side Slope
 Results of Dust Nuclide Analysis (Bq/cm³)



Fukushima Daiichi Unit 3 and Unit 4 West Side Slope
Results of Dust Nuclide Analysis (Bq/cm³)



Fukushima Daiichi Unit 1 -4 Sea Side
Results of Dust Nuclide Analysis (Bq/cm³)

