## Definite Results of Nuclides Analysis at Fukushima Daiichi Nuclear Power Station (Announced on January 16 - 31, 2013)

< Legend >  $\cdot$  :  $\gamma$  nuclides except for the major 3 nuclides (I-131, Cs-134, Cs-137) were not detected. :  $\gamma$  nuclides other than the major 3 nuclides (I-131, Cs-134, Cs-137) were detected.

Please refer to the preliminary reports for the result of the major nuclides. Please refer to the following pages.

/ : Not applicable or cancelled due to the bad weather

Announcement Date of the Preliminary Report	January	y														
Sampling Point	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31
Nuclides Analysis Result of the Radioactive Materials in the Air at Fukushima Nuclear Power Stations	-	-	-	-	I	-	-	I	-	-	-	-	-	-	-	-
Nuclides Analysis Result of the Radioactive Materials in the Air at the Sea Side of Fukushima Nuclear Power Stations			_							-						
Nuclides Analysis Result of Radioactive Materials in the Seawater < Coast >				-	-	-	-	-	-	-	_	-	-	-	-	-
Nuclides Analysis Result of the Radioactive Materials in the Seawater < Offshore of Ibaraki Prefecture >							$\square$						$\square$	-		
Nuclides Analysis Result of the Radioactive Materials in the Seawater of the Port	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclides Analysis Result of the Sub-drain of Fukushima Daiichi NPS		-		-	$\square$	$\square$	-		-	$\square$	-		$\square$	-		-
Nuclides Analysis Result of the Sub-drain Water in the Surroundings of the Central Radioactive Waste Treatment Facility	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nuclide Analysis of the Radioactive Materials in the Fallouts obtained inside and outside of Fukushima Daiichi Nuclear Power Station	$\square$	$\square$			$\nearrow$	$\square$		-		$\checkmark$		$\square$	$\nearrow$	$\checkmark$		$\square$
Nuclide Analysis Results of Radioactive Materials in the Air above the Reactor Building at Fukushima Daiichi Power Station (Upper Part of Unit 1 Reactor Building)			-													
Nuclide Analysis Results of Radioactive Materials in the Air above the Reactor Building at Fukushima Daiichi Power Station (Upper Part of Unit 2 Reactor Building)																
Nuclide Analysis Results of Radioactive Materials in the Air above the Reactor Building at Fukushima Daiichi Power Station (Upper Part of Unit 3 Reactor Building)	$\square$		-	$\square$	$\square$			$\square$	$\square$	$\square$	$\square$		$\square$	$\square$		
Nuclides Analysis Results of the Radioactive Materials in the Air at the Opening of Buildings at Fukushima Daiichi NPS	$\square$		_	$\square$	$\square$	$\square$		_		$\square$		$\square$	$\square$			$\square$

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Place of Sampling	Buil	Unit 2 Reactor ding of the Blow-out Side Upper)	Buil (The Center	Unit 2 Reactor Iding of the Blow-out Side Lower)	Upper Part of Buil (The Center Panel, West	Density Limit in the Air for Workers		
Jan 12, 2013   10:25 AM - 12:25 PM				2, 2013 - 12:25 PM	Jan 12 1:15 PM	to Engage in Radiation Related		
Detected Nuclides (Half-life)	Density of Sample (Bq/cm <sup>3</sup> )	Scaling Factor ( / )	Density of Sample (Bq/cm <sup>3</sup> )	Scaling Factor ( / )	Density of Sample (Bq/cm <sup>3</sup> )	Scaling Factor ( / )	Tasks (Bq/cm <sup>3</sup> )*	
I-131 (Approx. 8 days)	ND	-	ND	-	ND	-	1E-03	
Cs-134 (Approx. 2 years)	1.1E-05	0.01	ND	-	ND	-	2E-03	
Cs-137 (Approx. 30 years)	2.0E-05	0.01	3.7E-06	0.00	ND	-	3E-03	
Nb-95 (Approx. 35 days)	ND	-	ND	-	ND	-	2E-02	
Tc-99m (Approx. 6 hrs)	ND	-	ND	-	ND	-	7E-01	
Ru-106 (Approx. 370 days)	ND	-	ND	-	ND	-	6E-04	
Ag-110m (Approx. 250 days)	5.7E-06	0.00	ND	-	ND	-	3E-03	
Sb-125 (Approx. 3 yrs)	6.1E-06	0.00	ND	-	ND	-	6E-03	
Te-129 (Approx. 70 mins)	ND	-	ND	-	ND	-	4E-01	
Te-129m (Approx. 34 days)	ND	-	ND	-	ND	-	4E-03	
I-132 (Approx. 2 hrs)	ND	-	ND	-	ND	-	7E-02	
Te-132 (Approx. 78 hrs)	ND	-	ND	-	ND	-	4E-03	
I-133 (Approx. 21 hrs)	ND	-	ND	-	ND	-	5E-03	
Cs-136 (Approx. 13 days)	ND	-	ND	-	ND	-	1E-02	
Ba-140 (Approx. 13 days)	ND	-	ND	-	ND	-	1E-02	
La-140 (Approx. 40 hrs)	ND	-	ND	-	ND	-	1E-02	

[Definite Report] Nuclides Analysis Result of the Radioactive Materials in the Air at the Upper Part of Unit 2 Reactor Building < 1/2 >

\* The radioactivity density is the sum of the volatile nuclides density and the particulate nuclides density.

\* O.OE - O is the same as O.O x  $10^{-0}$ 

\* 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.

The detection limits are as follows:

Volatile: I-131: Approx. 2E-6Bq/cm3, Cs-134: Approx. 5E-6Bq/cm3, Cs-137: Approx. 7E-6Bq/cm3

Particulate: I-131: Approx. 1E-6Bq/cm3, Cs-134: Approx. 3E-6Bq/cm3, Cs-137: Approx. 4E-6Bq/cm3

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

Place of Sampling	Buil	Unit 2 Reactor ding of the Blow-out Side Lower)					Density Limit in the Air for Workers
Time of Sampling		2, 2013 - 3:15 PM				to Engage in Radiation Related	
Detected Nuclides (Half-life)	Density of Sample (Bq/cm <sup>3</sup> )	Scaling Factor ( / )	Density of Sample (Bq/cm <sup>3</sup> )	Scaling Factor ( / )	Density of Sample (Bq/cm <sup>3</sup> )	Scaling Factor ( / )	Tasks (Bq/cm <sup>3</sup> )*
I-131 (Approx. 8 days)	ND	-					1E-03
Cs-134 (Approx. 2 years)	7.7E-06	0.00					2E-03
Cs-137 (Approx. 30 years)	1.2E-05	0.00					3E-03
Nb-95 (Approx. 35 days)	ND	-					2E-02
Tc-99m (Approx. 6 hrs)	ND	-					7E-01
Ru-106 (Approx. 370 days)	ND	-					6E-04
Ag-110m (Approx. 250 days)	6.6E-06	0.00					3E-03
Sb-125 (Approx. 3 yrs)	3.7E-05	0.01					6E-03
Te-129 (Approx. 70 mins)	ND	-					4E-01
Te-129m (Approx. 34 days)	ND	-					4E-03
I-132 (Approx. 2 hrs)	ND	-					7E-02
Te-132 ( Approx. 78 hrs )	ND	-					4E-03
l-133 (Approx. 21 hrs)	ND	-					5E-03
Cs-136 (Approx. 13 days)	ND	-	$\nearrow$				1E-02
Ba-140 (Approx. 13 days)	ND	-	$\nearrow$				1E-02
La-140 (Approx. 40 hrs)	ND	-	$\nearrow$				1E-02

[Definite Report] Nuclides Analysis Result of the Radioactive Materials in the Air at the Upper Part of Unit 2 Reactor Building < 2/2 >

\* The radioactivity density is the sum of the volatile nuclides density and the particulate nuclides density.

 $^{\star}$  O.OE - O is the same as O.O x 10  $^{\circ}$ 

\* 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.

The detection limits are as follows:

Volatile: I-131: Approx. 2E-6Bq/cm3, Cs-134: Approx. 5E-6Bq/cm3, Cs-137: Approx. 6E-6Bq/cm3 Particulate: I-131: Approx. 1E-6Bq/cm3

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