

The result of the nuclide analysis of radioactive materials in the air at the site of Fukushima Daini Nuclear Power Station

The result of the nuclide analysis of radioactive materials in the air at the site of Fukushima Daini Nuclear Power Station is as follows.

1. Conditions of collection and measurement

Collection of sample	Place	Fukushima Daini MP-1	Fukushima Daini MP-1		
	Date	3/30 9:27~9:35	3/30 18:30~18:38		
	Manner of Collection	Collecting dust by monitoring cars	Collecting dust by monitoring cars		
	Wind direction & speed	—	—		
Measurement of sample	Date	3/30 10:42~	3/30 20:05~		
	Measuring method	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis		
	Measuring time	1000s	1000s		

2. Result

Data collected on Mar 31st 2011

	Nuclide	①Radioactivity density (Bq/cm ³)	②Detection limit density (Bq/cm ³)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm ³)	②Detection limit density (Bq/cm ³)	Ratio to density limit in the air (①/③)								③Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm ³)※
Volatile characteristics		ND	—	—	ND	—	—								
	I-131	8.1E-04	1.0E-05	0.81	2.4E-04	8.7E-06	0.24								1E-03
	I-132	3.3E-04	1.5E-05	0.00	7.5E-05	1.1E-05	0.00								7E-02
	I-133	ND	—	—	ND	—	—								5E-03
	Cs-134	8.2E-05	8.5E-06	0.04	7.1E-05	7.1E-06	0.04								2E-03
	Cs-136	6.2E-06	5.8E-06	0.00	6.5E-06	4.3E-06	0.00								1E-02
	Cs-137	7.4E-05	8.2E-06	0.02	7.5E-05	7.0E-06	0.03								3E-03
Particulate characteristics	Co-58	ND	—	—	ND	—	—								1E-02
	I-131	6.8E-04	8.6E-06	0.68	1.5E-04	4.5E-06	0.15								1E-03
	I-132	2.3E-04	9.4E-06	0.00	3.7E-05	5.9E-06	0.00								7E-02
	Cs-134	8.7E-04	9.0E-06	0.43	5.2E-05	4.2E-06	0.03								2E-03
	Cs-136	3.8E-05	6.2E-06	0.00	3.0E-06	2.1E-06	0.00								1E-02
	Cs-137	8.2E-04	7.3E-06	0.27	4.9E-05	3.3E-06	0.02								3E-03
Other detected nuclide	Tc-99m	5.3E-05	4.7E-06	0.00	ND	—	—								7E-01
	Ag-110m	9.8E-06	6.5E-06	0.00	ND	—	—								3E-03
	Sn-113	2.2E-05	1.1E-05	0.00	ND	—	—								1E-02
	Te-129	1.0E-03	2.1E-04	0.00	6.9E-04	1.2E-04	0.00								4E-01
	Te-129m	6.6E-04	1.8E-04	0.17	3.3E-04	6.8E-05	0.08								4E-03
	Te-132	2.0E-04	5.4E-06	0.03	1.0E-04	2.5E-06	0.01								7E-03
	La-140	3.4E-06	2.6E-06	0.00	ND	—	—								1E-02

※ Statutory density limit to the 3-month average density of radioactive nuclide contained in the air that humans breathe
 ※ X.XE—X means X.X x 10^{-x}