

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 in 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	3/24 9:47 ~ 9:55	3/24 17:46 ~ 17:54		
	Manner of Collection	Collecting dust by monitoring cars	Collecting dust by monitoring cars		
	Wind direction & speed	-	-		
Measurement of sample	Date	3/24 10:39 ~	3/25 0:40 ~		
	Measuring method	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis		
	Measuring time	500 s	500 s		

2 . Result

(Data are collected on March 25th)

	Nuclide	Collected on March 24th -			Collected on March 24th -							Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm ³)
		Radioactivity density (Bq/cm ³)	Detection limit density (Bq/cm ³)	Ratio to density limit in the air (/)	Radioactivity density (Bq/cm ³)	Detection limit density (Bq/cm ³)	Ratio to density limit in the air (/)					
Volatile characteristics	Co-58	ND	-	-	ND	-	-					1.0E-02
	I-131	1.9E-04	1.5E-05	0.19	1.7E-04	1.4E-05	0.17					1.0E-03
	I-132	3.0E-04	2.5E-05	0.004	ND	-	-					7.0E-02
	I-133	ND	-	-	ND	-	-					5.0E-03
	Cs-134	2.8E-05	1.3E-05	0.01	1.6E-05	1.2E-05	0.01					2.0E-03
	Cs-137	3.0E-05	1.2E-05	0.01	2.9E-05	1.1E-05	0.01					3.0E-03
Particulate characteristics	Co-58	ND	-	-	ND	-	-					1.0E-02
	I-131	1.1E-04	7.3E-06	0.11	6.4E-05	2.1E-05	0.06					1.0E-03
	I-132	1.7E-04	1.0E-05	0.002	ND	-	-					7.0E-02
	Cs-134	2.1E-05	6.7E-06	0.01	ND	-	-					2.0E-03
	Cs-136	ND	-	-	ND	-	-					1.0E-02
	Cs-137	2.0E-05	6.6E-06	0.01	2.1E-05	1.7E-05	0.01					3.0E-03
Other detected nuclide	Ru-106	ND	-	-	ND	-	-					6.0E-04
	Te-129	7.6E-04	1.3E-04	0.002	1.4E-02	9.5E-03	0.04					4.0E-01
	Te-129m	5.7E-04	1.7E-04	0.14	4.6E-04	2.8E-04	0.11					4.0E-03
	Te-132	5.6E-04	5.7E-06	0.08	3.5E-04	1.1E-05	0.05					7.0E-03

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

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 in the site of Fukushima Daini Nuclear Power Station is as follows.

1. Conditions of collection and measurement

Collection of sample	Place	Fukushima Daini MP-2	Fukushima Daini MP-2	Fukushima Daini MP-2	Fukushima Daini MP-2
	Date	3/22 10:02~10:10	3/22 16:43~16:51	3/23 9:40~9:48	3/23 16:06~16:14
	Manner of Collection	Collecting dust by monitoring cars	Collecting dust by monitoring cars	Collecting dust by monitoring cars	Collecting dust by monitoring cars
	Wind direction & speed	-	-	-	-
Measurement of sample	Date	3/22 11:53~	3/22 17:32~	3/23 14:17~	3/23 17:38~
	Measuring method	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis
	Measuring time	500 s	500 s	500 s	500 s

2. Result

	Nuclide	Collected on March 22nd - ①			Collected on March 22nd - ②			Collected on March 23rd - ①			Collected on March 23rd - ②			③Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm3)※
		①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	
Volatile characteristics	Co-58	ND	—	—	ND	—	—	ND	—	—	1.5E-05	1.4E-05	0.00	1.0E-02
	I-131	1.4E-04	2.3E-05	0.14	1.3E-04	2.2E-05	0.13	2.7E-04	3.9E-05	0.27	2.1E-04	1.4E-05	0.21	1.0E-03
	I-132	ND	—	—	ND	—	—	2.8E-04	2.2E-04	0.00	2.8E-04	2.8E-05	0.00	7.0E-02
	I-133	ND	—	—	ND	—	—	ND	—	—	ND	—	—	5.0E-03
	Cs-134	2.6E-05	1.6E-05	0.01	1.9E-05	1.7E-05	0.01	4.3E-05	3.0E-05	0.02	2.3E-05	1.2E-05	0.01	2.0E-03
	Cs-137	2.3E-05	1.7E-05	0.01	2.1E-05	1.7E-05	0.01	ND	—	—	2.0E-05	1.3E-05	0.01	3.0E-03
Particulate characteristics	Co-58	ND	—	—	ND	—	—	ND	—	—	ND	—	—	1.0E-02
	I-131	6.9E-05	1.2E-05	0.07	7.9E-05	1.2E-05	0.08	1.5E-04	2.1E-05	0.15	8.2E-05	7.9E-06	0.08	1.0E-03
	I-132	ND	—	—	4.2E-05	3.4E-05	0.00	ND	—	—	2.6E-04	1.5E-05	0.00	7.0E-02
	Cs-134	1.3E-05	9.5E-06	0.01	1.4E-05	9.8E-06	0.01	ND	—	—	1.7E-05	8.5E-06	0.01	2.0E-03
	Cs-136	ND	—	—	ND	—	—	ND	—	—	ND	—	—	1.0E-02
	Cs-137	1.0E-05	8.8E-06	0.00	1.4E-05	8.4E-06	0.00	ND	—	—	1.7E-05	6.9E-06	0.01	3.0E-03
Other detected nuclide	Ru-106	ND	—	—	ND	—	—	ND	—	—	8.2E-05	5.7E-05	0.14	6.0E-04
	Te-129	2.3E-03	1.8E-03	0.01	ND	—	—	ND	—	—	9.3E-04	2.6E-04	0.00	4.0E-01
	Te-132	2.2E-05	1.6E-05	0.00	ND	—	—	1.6E-04	2.2E-05	0.02	7.1E-04	6.5E-06	0.10	7.0E-03

※ Statutory density limit to the 3-month average density of radioactive nuclide contained in the air that humans breathe

※ X.XE—X means $X.X \times 10^{-x}$

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 in 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	3/21 10:40~10:50	3/21 18:11~18:19		
	Manner of Collection	Collecting dust by monitoring cars	Collecting dust by monitoring cars		
	Wind direction & speed	-	-		
Measurement of sample	Date	3/21 12:15~	3/21 19:00~		
	Measuring method	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis		
	Measuring time	500 s	500 s		

2. Result

	Nuclide	Collected on March 21st - ①			Collected on March 21st- ②							③Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm3) ※
		①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)					
Volatile characteristics	Co-58	ND	-	-	2.9E-05	2.1E-05	0.00					4.0E-01
	I-131	2.3E-04	1.7E-05	0.23	1.6E-04	1.9E-05	0.16					1.0E-03
	I-132	2.4E-04	2.4E-05	0.003	8.1E-04	1.9E-05	0.01					7.0E-02
	I-133	ND	-	-	ND	-	-					5.0E-03
	Cs-134	ND	-	-	1.7E-05	1.7E-05	0.01					2.0E-03
	Cs-137	1.8E-05	1.3E-05	0.01	ND	-	-					3.0E-03
Particulate characteristics	Co-58	ND	-	-	1.3E-05	9.9E-06	0.00					1.0E-02
	I-131	1.5E-04	9.6E-06	0.151	1.2E-04	1.0E-05	0.12					1.0E-03
	I-132	2.5E-04	1.3E-05	0.004	3.9E-04	1.6E-05	0.01					7.0E-02
	Cs-134	4.4E-05	9.3E-06	0.02	3.0E-05	1.0E-05	0.02					2.0E-03
	Cs-136	ND	-	-	ND	-	-					1.0E-02
	Cs-137	4.7E-05	8.0E-06	0.02	3.3E-05	9.7E-06	0.01					3.0E-03
Other detected nuclide	Ru-105	ND	-	-	1.2E-04	8.6E-05	0.00					8.0E-02
	Ru-106	ND	-	-	1.4E-04	7.6E-05	0.24					6.0E-04
	Te-129	4.5E-04	2.9E-04	0.00	9.3E-04	2.2E-04	0.00					4.0E-01
	Te-129m	6.4E-04	2.0E-04	0.16	ND	-	-					4.0E-03
	Te-132	7.6E-04	6.6E-04	0.11	1.4E-03	6.8E-06	0.21					7.0E-03

※ Statutory density limit to the 3-month average density of radioactive nuclide contained in the air that humans breathe

※ X.XE-X means $X.X \times 10^{-x}$

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1. Conditions of collection and measurement

Collection of sample	Place	Fukushima Daini MP-1	Fukushima Daini MP-1	Fukushima Daini MP-1	Fukushima Daini MP-1
	Date	3/19 9:15~9:25	3/19 18:18~18:28	3/20 11:27~11:37	3/20 17:10~17:20
	Manner of Collection	Collecting dust by monitoring cars	Collecting dust by monitoring cars	Collecting dust by monitoring cars	Collecting dust by monitoring cars
	Wind direction & speed	-	-	-	-
Measurement of sample	Date	3/19 10:39~	3/19 19:08~	3/20 16:17~	3/20 21:11~
	Measuring method	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis	Germanium semi-conductor type nuclide analysis
	Measuring time	500 s	500 s	500 s	500 s

2. Result

	Nuclide	Collected on March 19th - ①			Collected on March 19th - ②			Collected on March 20th - ①			Collected on March 20th - ②			③Density limit in the air to workers engaged in tasks associated with radiation (Bq/cm3)※
		①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	①Radioactivity density (Bq/cm3)	②Detection limit density (Bq/cm3)	Ratio to density limit in the air (①/③)	
Volatile characteristics	I-131	2.7E-04	5.6E-05	0.27	2.5E-04	5.7E-05	0.25	5.3E-05	1.2E-05	0.05	2.2E-04	4.3E-05	0.22	1.0E-03
	I-132	2.4E-04	1.7E-04	0.00	1.2E-04	1.2E-04	0.00	ND	—	—	2.6E-04	2.5E-04	0.00	7.0E-02
	I-133	ND	—	—	ND	—	—	ND	—	—	ND	—	—	5.0E-03
	Cs-134	6.3E-05	5.9E-05	1.06	ND	—	—	ND	—	—	ND	—	—	2.0E-03
	Cs-136	ND	—	—	1.7E-04	1.6E-04	0.02	ND	—	—	ND	—	—	1.0E-02
Particulate characteristics	Co-58	ND	—	—	ND	—	—	ND	—	—	ND	—	—	1.0E-02
	I-131	1.4E-04	3.1E-05	0.14	1.3E-04	3.1E-05	0.13	2.6E-05	6.0E-06	0.03	ND	—	—	1.0E-03
	I-132	1.2E-04	9.0E-05	0.00	ND	—	—	ND	—	—	1.8E-03	8.9E-04	0.03	7.0E-02
	I-133	ND	—	—	2.4E-04	2.2E-04	0.05	ND	—	—	ND	—	—	5.0E-03
	Cs-134	ND	—	—	ND	—	—	ND	—	—	ND	—	—	2.0E-03
	Cs-136	ND	—	—	ND	—	—	ND	—	—	ND	—	—	1.0E-02
	Cs-137	ND	—	—	ND	—	—	ND	—	—	ND	—	—	3.0E-03
Other detected nuclide	Ru-105	ND	—	—	2.1E-04	2.0E-04	0.00	ND	—	—	ND	—	—	8.0E-02
	Te-132	ND	—	—	ND	—	—	4.2E-06	3.4E-06	0.00	ND	—	—	7.0E-03

※ 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}