

## Result of gamma ray nuclide analysis of soil

1.Result of measurement: The results of gamma ray nuclide analysis from the samples taken in the power station are as follows.  
Analysis was conducted on all samples on which we conducted plutonium analysis.

2. Evaluation: The result of gamma ray nuclide analysis of soil conducted by Fukushima Prefecture in FY 2009 is shown below.  
Compared to this, higher radioactivity density has been detected.

<Results of the soil analysis conducted by Fukushima Prefecture in FY 2009>  
Cs-137: ND ~ 21Bq/kg·dry soil, Others: ND

(Unit : Bq/kg·wet soil)

Sampling spot	[Fixed point ]*1 Playground (west-northwest approx. 500m) *2		[Fixed point ]*1 Forest of wild birds (west approx. 500m) *2		[Fixed point ]*1 Adjacent to industrial waste disposal facility (south-southwest approx. 500m) *2	
Date of sampling	5/9	5/12	5/9	5/12	5/9	5/12
Analyses Organization	JCAC *3	JAEA	JCAC *3	JAEA	JCAC *3	JAEA
Date of analysis	5/11	5/13	5/11	5/13	5/11	5/13
Nuclide						
I-131(approx. 8 days)	9.4E+04	9.4E+04	2.0E+04	9.9E+03	9.1E+04	1.1E+05
(Half-life)						
I-132(approx. 2 hours)	ND	ND	ND	ND	ND	ND
Cs-134(approx. 2 years)	5.0E+05	5.0E+05	3.8E+04	1.4E+04	1.1E+05	1.4E+06
Cs-136(approx. 13 days)	5.3E+03	5.4E+03	5.7E+02	1.9E+02	8.6E+03	1.5E+04
Cs-137(approx. 30 years)	5.0E+05	5.2E+05	4.0E+04	1.5E+04	1.1E+06	1.4E+06
Te-129m(approx. 34 days)	1.2E+05	1.3E+05	7.0E+04	3.9E+03	2.7E+05	4.3E+05
Te-132(approx. 3 days)	ND	ND	ND	ND	ND	ND
Ba-140(approx. 13 days)	ND	ND	ND	ND	ND	ND
Nb-95(approx. 35 days)	ND	1.3E+03	ND	ND	ND	1.2E+03
Ru-106(approx. 370 days)	ND	ND	ND	ND	ND	ND
Mo-99(approx. 66 hours)	ND	ND	ND	ND	ND	ND
Tc-99m(approx. 6 hours)	ND	ND	ND	ND	ND	ND
La-140(approx. 2 days)	ND	ND	ND	ND	ND	ND
Be-7(aapprox. 53 days)	ND	ND	ND	ND	ND	ND
Ag-110m(approx. 250 days)	ND	ND	ND	ND	ND	3.3E+03

\*1 In regard to fixed points "playground" and "Adjacent to industrial waste disposal facility", sampling was conducted alongside the previous sampling point in order to avoid overlap. In regard to fixed point "forest of wild birds", sampling was conducted on the same sampling point but in deeper direction.

\*2 Distance from the stack of Unit 1, 2

\*3 The half-life correction until the date of sampling is not give to the analysis results by Japan Chemical Analysis Center.

\*4 In case that parent nuclide and daughter nuclides are well balanced, both of radioactive concentrations are checked. When they are equivalent (the difference is within one order of magnitude), both are described in the table. In case that the daughter nuclide (esp. short half-life nuclide) is much larger than the parent nuclide (more than 2 orders of magnitude), the parent nuclide is written in the table. I-132 and La-140 are evaluated by their parent nuclides of Te-132 and Ba-140.