Result of Pu nuclide analysis in the soil Fukushima Daiichi Nuclear Power Station

1. Measurement Result:

(Unit：Bq/kg･dry soil)

Place of Sampling The Distance from Unit 1-2 Stacks in parentheses.	Date	Pu-238	Pu-239+Pu-240
(1) Ground (WNW approx. 500m)*1	Nov 12, 2012	$(1.4\pm0.17)\times10^{-1}$	$(6.4\pm1.1)\times10^{-2}$
(2) Yachounomori (W approx. 500m)*1		N.D [$<3.8\times10^{-2}$]	$(5.6\pm1.4)\times10^{-2}$
(3) Around industrial waste treatment facility (SSW approx.		$(1.2\pm0.23)\times10^{-1}$	$(9.9\pm2.1)\times10^{-2}$
Domestic soil (1978 – 2008)*2		N.D. - 1.5×10^{-1}	N.D. - 4.5

[ ] shows below the detection limit.

*1 Sampling was conducted in the area adjacent to the past sampling location to avoid duplication.

*2 Source: "Environmental Radiation Database"
(Ministry of Education, Culture, Sports, Science and Technology)

2. Analytical Institution: KAKEN Inc.

3. Evaluation:

The densities of Pu-238, Pu-239 and Pu-240 detected on November 12 are the same level as those of the fallouts observed in Japan after the past atmospheric nuclear tests. However, there is a possibility that the higher densities originate from the accident this time, taking the previous analysis results into consideration.

End

Result of Sr nuclide analysis in the soil Fukushima Daiichi Nuclear Power Station

1. Measurement Result:

(Unit：Bq/kg･dry soil)

Place of Sampling The Distance from Unit 1-2 Stacks in parentheses.	Date	Sr-89	Sr-90
(1) Ground (WNW approx. 500m)*1	Aug 13, 2012	N.D.	$(1.4\pm0.020)\times10^{2}$
(2) Yachounomori (W approx. 500m)*1		N.D.	$(6.1\pm0.037)\times10^{2}$
(3) Around industrial waste treatment facility (SSW approx.		N.D.	$(3.3\pm0.027)\times10^{2}$
The range of the past measurement results (FY2001 - FY2008)*		-	N.D. - 4.3

*1 Sampling was conducted in the area adjacent to the past sampling location to avoid duplication.
*2 Source "Report on the environmental radioactivity measurement around the Nuclear Power Plant (2008)", Committee on the safety technology of Nuclear Power Plants in Fukushima.

2. Analytical Institution: KAKEN Inc.

3. Evaluation:
The densities of Sr-90 are higher than those of the fallouts observed in Japan after the past atmospheric nuclear tests. Therefore, there is a possibility that the higher densities originate from the accident this time.

End

Nuclides Analysis Result of the Gamma Rays in the Soil of Fukushima Daiichi NPS

1. Measurement Result: The following is the analysis result of γ ray nuclides in the soil measured at Fukushima Daiichi NPS

(Unit: Bq/kg・Dry Soil)

Place of Sampling		【Fixed Point ①】*1 Ground (Approx. 500m West-Northwest)*2	【Fixed Point ②】*1 Wild Birds' Forest (Approx. 500m West)*2	【Fixed Point ③】*1 Near the Industrial Waste Disposal Facility (Approx. 500m South-Southwest)*2
Date of Sampling		Dec 10, 2012	Dec 10, 2012	Dec 10, 2012
Analyzed by		KAKEN Inc.	KAKEN Inc.	KAKEN Inc.
Nuclides	I-131 (Approx. 8 days)	ND	ND	ND
	I-132 (Approx. 2 hours)	ND	ND	ND
	Cs-134 (Approx. 2 years)	4.3E+04	4.1E+03	1.8E+05
	Cs-136 (Approx. 13 days)	ND	ND	ND
	Cs-137 (Approx. 30 years)	8.7E+04	8.8E+03	3.6E+05
	Sb-125 (Approx. 3 years)	ND	ND	ND
	Te-129m (Approx. 34 days)	ND	ND	ND
	Te-132 (Approx. 78 hours)	ND	ND	ND
	Ba-140 (Approx. 13 days)	ND	ND	ND
	Nb-95 (Approx. 35 days)	ND	ND	ND
	Ru-106 (Approx. 370 days)	ND	ND	ND
	Mo-99 (Approx. 66 hours)	ND	ND	ND
	Tc-99m (Approx. 6 hours)	ND	ND	ND
	La-140 (Approx. 40 hours)	ND	ND	ND
	Ag-110m (Approx. 250 days)	ND	ND	ND

*1 Sampling was conducted in the area adjacent to the past sampling location to avoid duplication.

*2 The Distance from Unit 1-2 Stacks

2. Evaluation: The following is the analysis result of γ ray nuclides in the soil measured in Fukushima Prefecture in FY2009.
Radioactive materials of higher density are detected this time supposedly due to the accident.

< Soil Analysis Result Provided by Fukushima Prefecture in FY2009 >

Cs-137: ND - 21Bq/kg, Dry Soil, Others: ND