

## Nuclides Analysis Result of the Gamma Rays in the Soil of Fukushima Daiichi NPS (1/3)

(Data summarized on Nov 28)

1. Measurement Result: The following is the analysis result of  $\gamma$  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		Jul 7, 2014	Jul 7, 2014	Jul 7, 2014
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)	1.3E+04	8.1E+03	2.7E+04
	Cs-136 (Approx. 13 days)	ND	ND	ND
	Cs-137 (Approx. 30 years)	4.4E+04	2.7E+04	8.7E+04
	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  $\gamma$  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

## Nuclides Analysis Result of the Gamma Rays in the Soil of Fukushima Daiichi NPS (2/3)

(Data summarized on Nov 28)

1. Measurement Result: The following is the analysis result of  $\gamma$  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		Aug 14, 2014	Aug 14, 2014	Aug 14, 2014
Analyzed by		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)	3.1E+04	8.1E+04	1.0E+05
	Cs-136 (Approx. 13 days)	ND	ND	ND
	Cs-137 (Approx. 30 years)	1.0E+05	2.7E+05	3.3E+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  $\gamma$  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

## Nuclides Analysis Result of the Gamma Rays in the Soil of Fukushima Daiichi NPS (3/3)

(Data summarized on Nov 28)

1. Measurement Result: The following is the analysis result of  $\gamma$  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		Sep 8, 2014	Sep 8, 2014	Sep 8, 2014
Analyzed by		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)	4.7E+04	2.9E+04	9.8E+04
	Cs-136 (Approx. 13 days)	ND	ND	ND
	Cs-137 (Approx. 30 years)	1.6E+05	9.8E+04	3.4E+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  $\gamma$  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

## Result of Sr nuclide analysis in the soil Fukushima Daiichi Nuclear Power Station<1/4>

(Data summarized on Nov 28)

### 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) <sup>*1</sup>	Dec 10, 2012	N.D.	$(1.0 \pm 0.052) \times 10^2$
(2) Yachounomori (W approx. 500m) <sup>*1</sup>		N.D.	$(7.8 \pm 0.44) \times 10^1$
(3) Around industrial waste treatment facility (SSW approx. 500m) <sup>*1</sup>		N.D.	$(2.1 \pm 0.060) \times 10^2$
The range of the past measurement results (FY1999 - FY2008) <sup>*2</sup>		-	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 (FY2009)", Committee on the safety technology of Nuclear Power Plants in Fukushima.

### 2. 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

Result of Sr nuclide analysis in the soil Fukushima Daiichi Nuclear Power Station<2/4>

(Data summarized on Nov 28)

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) <sup>*1</sup>	Jan 21, 2013	N.D.	$(7.4 \pm 0.45) \times 10^1$
(2) Yachounomori (W approx. 500m) <sup>*1</sup>		N.D.	ND
(3) Around industrial waste treatment facility (SSW approx. 500m) <sup>*1</sup>		N.D.	$(1.0 \pm 0.45) \times 10^2$
The range of the past measurement results (FY1999 - FY2008) <sup>*2</sup>		-	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 (FY2009)", Committee on the safety technology of Nuclear Power Plants in Fukushima.

2. 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

## Result of Sr nuclide analysis in the soil Fukushima Daiichi Nuclear Power Station<3/4>

(Data summarized on Nov 28)

### 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) <sup>*1</sup>	Feb 11, 2013	N.D.	$(5.2 \pm 0.39) \times 10^1$
(2) Yachounomori (W approx. 500m) <sup>*1</sup>		N.D.	N.D.
(3) Around industrial waste treatment facility (SSW approx. 500m) <sup>*1</sup>		N.D.	$(1.2 \pm 0.047) \times 10^2$
The range of the past measurement results (FY1999 - FY2008) <sup>*2</sup>		-	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 (FY2009)", Committee on the safety technology of Nuclear Power Plants in Fukushima.

### 2. 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

## Result of Sr nuclide analysis in the soil Fukushima Daiichi Nuclear Power Station<4/4>

(Data summarized on Nov 28)

### 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) <sup>*1</sup>	Mar 11, 2013	N.D.	N,D
(2) Yachounomori (W approx. 500m) <sup>*1</sup>		N.D.	$(6.4 \pm 0.53) \times 10^1$
(3) Around industrial waste treatment facility (SSW approx. 500m) <sup>*1</sup>		N.D.	$(1.7 \pm 0.085) \times 10^2$
The range of the past measurement results (FY1999 - FY2008) <sup>*2</sup>		-	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 (FY2009)", Committee on the safety technology of Nuclear Power Plants in Fukushima.

### 2. 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