

Primary Containment Vessel of Unit 1 of Fukushima Daiichi Nuclear Power Station Sampling Result of the Gas Control System

January 13, 2012
Tokyo Electric Power Company

[Sampling time & date] January 12, 2012 (Thu) 11:02 – 11:43 (particulate filter)
11:02 – 11:43 (charcoal filter)

[Measurement result]

Nuclides		Density of sample (Bq/cm ³)	Detection limits (Bq/cm ³)	Half-life
particulate filter	I-131	Below measurable limit	7.6×10^{-7}	About 8 days
	Cs-134	Below measurable limit	2.0×10^{-6}	About 2 years
	Cs-137	3.2×10^{-6}	2.3×10^{-6}	About 30 years

核種		Density of sample (Bq/cm ³)	Detection limits (Bq/cm ³)	Half-life
charcoal filter	I-131	Below measurable limit	1.6×10^{-6}	About 8 days
	Cs-134	Below measurable limit	3.6×10^{-6}	About 2 years
	Cs-137	Below measurable limit	4.1×10^{-6}	About 30 years

This sampling is targeted for nuclide analysis of particulate and iodine, not for noble gas.

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[Sampling place] Intake of gas control system of Primary Containment Vessel of Unit 1

[Sampling time & date] January 12, 2012 (Thu) 12:21

[Measurement result]

Nuclides		Density of sample (Bq/cm ³)	Detection limits (Bq/cm ³)	Half-life
Gas vial container	I-131	Below measurable limit	1.2×10^{-1}	About 8 days
	Cs-134	4.8×10^{-1}	3.1×10^{-1}	About 2 years
	Cs-137	5.9×10^{-1}	3.7×10^{-1}	About 30 years
	Kr-85	Below measurable limit	2.8×10^1	About 11 years
	Xe-131m	Below measurable limit	2.8×10^0	About 12 days
	Xe-133	Below measurable limit	2.4×10^{-1}	About 5 days
	Xe-135	Below measurable limit	9.7×10^{-2}	About 9 hours

[Reference] Both of short-half-life Xe are below measurable limit.

Continuation of subcriticality is monitored by measuring the radiation density of Xe-135 directly by the radiation detector in the gas control system. (Safety regulation)