

Fukushima Daiichi Nuclear Power Station: Plutonium analysis result in the soil

1. Analysis result

(Unit: Bq/kg· Dry soil)

Sampling spot (): Distance from the stack of Unit 1 and 2	Date of sampling/ Analyses organization	Pu-238	Pu-239,Pu-240
i)Playground (west-northwest approx. 500m)	Aug. 22/ Japan Chemical Analysis Center	$(1.3 \pm 0.13) \times 10^{-1}$	$(6.2 \pm 0.82) \times 10^{-2}$
ii) Forest of wild birds (west approx. 500m)		N.D. [$<1.2 \times 10^{-2}$]	$(1.3 \pm 0.37) \times 10^{-2}$
iii) Adjacent to industrial waste disposal facility (south-southwest approx. 500m)		$(3.1 \pm 0.64) \times 10^{-2}$	$(2.7 \pm 0.58) \times 10^{-2}$
i)Playground (west-northwest approx. 500m)	Aug. 29/ Japan Chemical Analysis Center	$(2.5 \pm 0.17) \times 10^{-1}$	$(1.2 \pm 0.11) \times 10^{-1}$
ii) Forest of wild birds (west approx. 500m)		N.D. [$<1.0 \times 10^{-2}$]	N.D. [$<1.1 \times 10^{-2}$]
iii) Adjacent to industrial waste disposal facility (south-southwest approx. 500m)		$(1.5 \pm 0.40) \times 10^{-2}$	$(3.1 \pm 0.58) \times 10^{-2}$
Soil in Japan*		N.D. $\sim 1.5 \times 10^{-1}$	N.D. ~ 4.5

[]: Lower detection limit

* Ministry of Education, Culture, Sports, Science and Technology “Environmental Radiation Database, 1978 - 2008”

* Avoiding duplicates, we collected samples from adjacent area for i) Playground and iii) Adjacent to industrial waste disposal facility.

We collected samples depth direction at same point for ii) Forest of wild birds. (In case we unable to collect samples at the same point, we will collect from new point.)

2. Evaluation

Detected density of Pu-238, Pu-239 and Pu-240 on August 22 and 29 are the same level as that of the measured fallouts in Japan in the cases of previous nuclear tests in the atmosphere. However, this can be considered to be caused by the nuclear accident of this time.

Meanwhile, although Pu-238, Pu-239, and Pu-240 are detected from the samples taken on and after March 21, those values have not been greatly changed.

End