

Detection of Pu in the soil in Fukushima Daiichi Nuclear Power Station

1. Result of Analysis

(Unit: Bq/kg·Dry soil)

Place of sampling Distance from 1, Unit 2 stack	Date of sampling Organization	Pu-238	Pu-239, Pu-240
Ground (West-northwest approx. 500m)	December 12 Japan Chemical Analysis Center	$(2.3 \pm 0.17) \times 10^{-1}$	$(9.2 \pm 1.0) \times 10^{-2}$
Wild birds' forest (West approx. 500m)		N.D. [ $<1.1 \times 10^{-2}$ ]	$(4.2 \pm 0.67) \times 10^{-2}$
Near the industrial waste disposal facility (South-southwest approx. 500m)		$(1.4 \pm 0.46) \times 10^{-2}$	$(2.3 \pm 0.54) \times 10^{-2}$
Domestic soil		N.D. $\sim 1.5 \times 10^{-1}$	N.D. $\sim 4.5$

Measurable limits are shown in [ ]

- : Ministry of Education, Culture, Sports, Science and Technology "Database of Environmental Radiation" 1978-2008
- : " Ground ", " Near the industrial waste disposal facility ". Collected at adjoining sites in order to avoid overlap with the past samplings.
- " Wild birds' forest " : Collected vertically at each site (collection continued at one site unless no more sample was able to be collected)

2. Evaluation

The density of Pu-238, Pu-239, and 240 detected on December 12 is in the same level of the density measured in the fallouts observed in Japan after the past atmospheric nuclear tests. However, there are possibilities that they originate from the accident this time, taking the previous analysis results into consideration.

Pu-238, Pu-239, and Pu-240 have been detected in the samples collected after March 21 at some places; however, there have been no major changes in the amounts.

End