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 (Northwest approx.		$(1.1 \pm 0.11) \times 10^{-1}$	$(5.5 \pm 0.75) \times 10^{-2}$
500m)	September		
Wild birds' forest (West	26	N.D. [<1.1 × 10 ⁻²]	N.D. [<1.1 × 10 ⁻²]
approx. 500m)	Japan	N.D. [< 1.1 x 10]	N.D. [< 1.1 x 10]
Near the industrial waste	Chemical		$(4.6 \pm 0.72) \times 10^{-2}$
disposal facility	Analysis	$(7.6 \pm 0.95) \times 10^{-2}$	
(South-southwest approx.	Center	(7.0±0.95) x 10	
500m)			
Domestic soil		N.D. ~ 1.5 × 10 ⁻¹	N.D. ~ 4.5

Measurable limits are shown in [

2. Evaluation

The density of Pu-238, Pu-239, and 240 detected on September 26 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.

[:] Ministry of Education, Culture, Sports, Science and Technology "Database of Environmental Radiation" 1978-2008

[:] Samples were collected at the places near [Ground] and [Near the industrial waste disposal facility], in order to avoide the same places analyzed in the past surveys. At [Wild birds' forest], samples were collected at the same place in the derection of the depth and the place is changed when no more samples can be collected.).