

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

1. Analysis result

(Unit: Bq/kg· Dry soil)

Sampling spot (): Distance from the stack of Unit 1, 2	Date of sampling/ Analyses organization	U-234	U-235	U-238
Playground (west-northwest approx. 500m)	April 25/ Japan Chemical Analysis Center	12 ± 0.60	0.55 ± 0.093	12 ± 0.60
Natural Uranium specific radioactivity (Bq/g)		1.2×10^4	5.7×10^2	1.2×10^4
Natural Uranium abundance ratio (wt%)		0.0054	0.72	99.3

2. Valuation

Uranium detected for this analysis is valued as the same level as in the natural condition for following reasons.

- Radioactive densities of U-234 and U-238 are same in all the samples, where Uranium in nature forms radioactive balance (same density between U-234 and U-238).
- U-235 abundance ratio is almost same as the natural U-235 abundance ratio, which is $U-235/U-238 = 0.0073$.

U-235: $6.9 \times 10^{-6}g(0.55Bq/kg \text{ Dry soil})$

U-238: $9.6 \times 10^{-4}g(12Bq/kg \text{ Dry soil})$

$U-235/U-238=0.0072 \quad 0.0073$

End