

“Detection of radioactive materials in the soil in Fukushima Daiichi Nuclear Power Station (21st release)” (released on July 7th, 2011)

(Attachment 1)

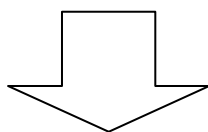
Wrong

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	Sampling date/Analyzed organization	U-234	U-235	U-238
Playground (west-northwest approx. 500m)	June 6 Japan	8.0+0.41	0.38±0.072	8.8±0.44
Near the industrial waste disposal plant (south-southwest approx. 500m)	Chemical Analysis Center	5.9±0.36	0.29±0.070	5.7±0.35
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



Wrong: + → Correct: ±

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Correct

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2. Evaluation

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

- Radioactive densities of U-234 and U-238 are same in the sampling and , where Uranium in nature forms radioactive balance (same radioactivity density between U-234 and U-238).

- U-235 abundance ratio of the sampling and is almost same as the natural U-235 abundance ratio, which is $U-235/U-238 = 0.0073$.

U-235 of the sampling : $4.7 \times 10^{-6}g$ (0.38Bq/kg Dry soil)

U-238 of the sampling : $7.1 \times 10^{-4}g$ (8.8Bq/kg Dry soil)

$U-235/U-238=0.0067^*$

U-235 of the sampling : $3.6 \times 10^{-6}g$ (0.29Bq/kg Dry soil)

U-238 of the sampling : $4.6 \times 10^{-4}g$ (5.7Bq/kg Dry soil)

$U-235/U-238=0.0079^*$

* The above values may not match the calculation due to the rounding off.

END