

Influence of counting loss by analysis of β

<Reference>
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Tokyo Electric Power Company

- On February 6, 2014, we fixed and announced the 13 radiation density of strontium, for we came to a conclusion that the results of strontium analyses in Environment Management Building had no abnormalities, as a result of a further investigation into what caused the Sr-90 density to exceed the Gross- β density.
- In 2 out of 13 results of strontium analyses, the Gross- β radiation density was lower than the strontium radiation density. We estimated this was caused by 'counting loss' efficacy due to having measured samples with high density.
- Since October 2, 2013, we established and have adopted a revised procedural manual by the measuring, in order to avoid 'counting loss' efficacy.
- 'Counting loss' efficacy occurs only in high density samples. We therefore concluded that it has no influence on sea water or low density samples.
- Hereafter, we make utmost effort to 1) figure out influence of 'counting loss' efficacy, and 2) avoid reoccurrence.

What is 'counting loss' efficacy?

*The "Dead time" was corrected to "Resolving time" as of February 25.

When radiation enters sensing status, a period of time where the following radiation cannot be detected will arise → resolving time

Phenomenon that radiation are not counted during "Resolving time" → counting loss

'Higher' radiation density = 'More' enumerated data → 'Longer' resolving time = 'More' counting loss

