

Original

Evaluation of Residual Radioactive Cs at Surfaces by Monitoring Surface Dose Rate and Surface Contamination Concentration

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Summary

Scatter plots based on the monitoring data (Sep, 2012 - Dec, 2014) showed that at the surfaces of paved roads, surface contamination concentration indicated high values even in the low surface dose rate circumstances. On the other hand, at the surfaces of forests and unpaved roads, surface contamination concentration indicated low values even in the high surface dose rate circumstances. "SRI value", which was defined to represent the residual radioactive Cs at surface of objects, referred that in the forests and unpaved roads, it was assumed that radioactive Cs had already penetrated toward the underground, after 1.5 years passed since the nuclear power plant accident. On the paved roads, SRI value set up the possibility that radioactive Cs still remained on the surfaces, until the end of monitoring term. SRI values didn't have enough accuracy to evaluate the detailed depth profile of radioactive Cs in forest soils with different vegetation. However, they could be effective to grasp the rough residual condition of radioactive Cs during decontamination activities.

Key Words: Residual radioactive substances, Surface dose rate, Surface contamination concentration,
Beta ray, Gamma ray
