

Report

## Screening Measurement by Simple Dose-rate-meter for the Waste Water Including Radioactive Cesium

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### Summary

Decontamination work for taking off the radioactive materials is still performed in Fukushima prefecture. A waste fluid including radioactive materials comes out in decontamination work. The waste water quality standard of such waste fluid is indicated by the guideline issued by the Ministry of the Environment in Japan. We tried to measure concentration of radioactive cesium in the water by putting simple dose-rate meter in a waterproof case. As a result, we could get a correlation of the measure of the simple dose-rate meter ( $\mu$  Sv/h) and the concentration of the radioactive cesium in the water (Bq/L). Our system can measure the concentration of the radioactive cesium in the water by 10.3 Bq/L to 1140 Bq/L. It's enough to measure the waste water quality standard of the guideline because the detection lower limit is about 10.3 Bq/L. From these, the screening measurement of the treated waste water that is come out from a decontamination site became possible.

**Key Words:** Waste water including radioactive materials, Simple dose-rate meter,  
Guideline, Shielding effect with water

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