

Original

Development and Performance Evaluation of Directional Monitoring Device on Air Dose Rate Measurement

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Summary

The directional monitoring device for radiation was developed to ensure the effective implementation of decontamination in high air dose rate areas. This device can identify the direction of radiation which is substantially contributing to high air dose rates at monitoring points. This paper includes the results of the following evaluations making use of this device: (1) Evaluation of directional contribution of radiation to air dose rate before and after decontamination of a reinforced concrete building, (2) Evaluation of directional contribution of radiation to air dose rate before and after decontamination of a wooden building and (3) Evaluation of radiation shielding performance of sandbags in temporary storage sites for contaminated waste. These results have proved the reliability of this device in quantitative evaluations of the effectiveness of decontamination and radiation shielding.

Key Words: Directional monitoring device, Air dose rate, Effects of decontamination and radiation shielding
