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Originals

Accumulative Behavior of Radioactive Cesium during the Incineration of Municipal Solid Waste

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Summary

Understanding the long-term accumulation behavior of radioactive cesium (r-Cs) in municipal solid waste (MSW) incineration plants is important for safety management of them. In this study, first, not only air dose rate but also r-Cs activity in wall adhesion dust at different point in the inside of a MSW incineration plant were measured. The results showed that higher amounts of the Cs were observed in the surface layer of refractory and that higher air dose ratios were obtained in the upstream region in incineration process. However, the Cs content of adhered dust onto the surface material of incineration equipment was higher in downstream than upstream because of the decrease of flue gas temperature.

Key Words: Municipal solid waste incineration, Radioactive cesium, Accumulation behavior, Refractory, Air dose rate