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GENII V.2 Software Validation of I-131 Dispersion from the Stack into the Environment by Using Direct and Indirect Methods

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The Research Organization for Nuclear Energy analyses the dispersion of radioactive air release by using GENII V.2 software. The calculation of GENII V.2 has never been validated with the results of measurements directly and indirectly in the field. The validation of the GENII calculation of I-131 activity concentration was carried out by comparing the results of the GENII calculation of the I-131 activity concentration with the concentration of direct and indirect measurements (charcoal) in the settlement. Measurement of I-131 in the outdoor air is portable and attached to the top of the car. A sampling of filter paper and gas was in the indirect method. The sampling tool of I-131 is a regulated vacuum pump at a flow rate of 25 lpm and is turned on every one hour to 24 hours. Filter paper and charcoal were counted by using a detector of NaI(Tl) in situ. Validation of I-131 activity concentration from the analysis of radioactive dispersion by using GENII software was closer to the measurement results of I-131 activity concentration with the direct measurement method than the concentration of I-131 activity with the indirect measurement method.

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Promotional text

Analysis of the dispersion of radioactive release from the stack to the environment is important.

Oral preference format

online live

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