Kerma conversion factors for modern glass buildings in radioactively contaminated areas - DTU Orbit (25/07/2019)

Kerma conversion factors for modern glass buildings in radioactively contaminated areas

To improve the estimation of external gamma irradiation from deposited radioactivity in urban environments a model of a modern office or residential building with glass facades was set up with eleven different building heights. Kerma conversion factors for the floors inside the building from contamination on different types of surfaces were determined by using the Monte Carlo code MCNP6 for the primary gamma energies 0.3, 0.662 and 3.0 MeV and for three different environmental scenarios. The kerma conversion factors were expressed as formulas for each possible deposition area for contaminants. The importance of the determined factors was shown by comparing them to previously generally used factors for multistorey house blocks.

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