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Absolute Method for Characterization of Disused Depleted Uranium Containers

Depleted Uranium (DU) is usually used for various applications as radiation shielding in industrial containers to transport radioactive materials. Disused containers of depleted uranium used to transport Ir-192 source have been characterized. That characterization was carried out by gamma spectrometer (NaI detector) in combination with MCNP method. MCNP method has been used for modeling the assayed container samples, the experimental setup and the measuring system to calculate the absolute efficiency of the detector at energies lines 185.71 kev and 1001.3 kev which specific for 235U and 238U respectively. The calculated absolute efficiencies have been used with experimental work results to estimate the masses of 235U and 238U. The samples depletion has been estimated by calculating the masses of 235U and 238U using the absolute method, and compared with declared values.

Which ”Key Question” does your Abstract address?

TEC1.1

Topics

TEC1

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