



Designation: C 1133 – 9603

Standard Test Method for Nondestructive Assay of Special Nuclear Material in Low-Density Scrap and Waste by Segmented Passive Gamma-Ray Scanning¹

This standard is issued under the fixed designation C 1133; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

1. Scope

1.1 This test method covers the transmission-corrected nondestructive assay (NDA) of gamma-ray emitting special nuclear materials (SNMs), most commonly ²³⁵U, ²³⁹Pu, and ²⁴¹Am, in low-density scrap or waste, packaged in cylindrical containers. The method can also be applied to NDA of other gamma-emitting nuclides including fission products. High-resolution gamma-ray spectroscopy is used to detect and measure the nuclides of interest and to measure and correct for gamma-ray attenuation in ~~the~~ a series of horizontal segments (collimated gamma detector views) of the container. Corrections are also made for counting losses

¹ This test method is under the jurisdiction of ASTM Committee C-26 on Nuclear Fuel Cycle and is the direct responsibility of Subcommittee C26.10 on Nondestructive Assay.

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