

CHALLENGES OF CHARACTERIZATION OF RADIOACTIVE WASTE WITH HIGH COMPOSITION VARIABILITY AND THEIR CONSEQUENCES FOR MEASUREMENT METHODOLOGY

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Radioactive waste characterization is a key step in every nuclear decommissioning project. It normally relies on a combination of facility operational history with results of destructive and non-destructive analysis. A particularly challenging situation arises when historical waste from a nuclear research facility is to be characterized, meaning little or no radiological information is available and the composition of the waste is highly variable. The nuclide vector concept is of limited utility, resulting in increased requirements placed on both the extent and performance of destructive and non-destructive analysis. Specific challenges are illustrated on an example of the decommissioning project underway at the Joint Research Center of the European Commission in Ispra.