

## **Abstract #516**

### **Characterising Waste for Transport Operations**

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Radioactive wastes from the manufacture of fuel for nuclear power reactors, and the decommissioning of redundant nuclear facilities vary greatly in their chemical, physical, radioactive and fissile properties. These wastes have to be processed, packaged, transported for storage and eventually transported for disposal.

In order to ensure that all these operations can be carried out safely and efficiently, it is essential that a detailed characterisation of the waste form is known at each stage.

Waste characterisation is the process which allows through a thorough and accurate assessment of the physical, chemical and radiological characteristics of the waste, to identify the properties of the material transported. Many techniques and methods are used to characterise and classify wastes, and to estimate radionuclide inventories.

This paper will review the work of the World Nuclear Transport Institute (WNTI), through its Back-End Transport Industry Working Group, on ways to characterise wastes, including qualitative characterisation of wastes, quantitative assaying techniques to provide basic data and the methodology and options for the preparation of safety cases to give cost effective solutions.