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TRANSACTIVE-20 ISO CONTAINER FOR TRANSPORTING LARGE
VOLUMES OF INTERMEDIATE LEVEL WASTE

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ABSTRACT

AEA Technology uses the Transactive-20 container to transport large quantities of intermediate level waste (ILW). The container was designed by RWE NUKEM and has a tubular stainless steel pressure vessel, 5.5m long x 1.9m diameter within an ISO freight container approximately 6m long x 2.4m wide x 2.6m high. The large cavity enables great flexibility in the payload type, for example:

- up to thirty standard 227 litre drums of contact-handled ILW (CHILW)
- up to five 500 litre drums of CHILW
- multiple packages of remote-handled ILW (RHILW).

A variety of other designs of internal furniture can be developed to accommodate inner containers to meet specific customer requirements such as pallets of bulk items, glovebox waste or drums of radioactive liquid.

The maximum laden weight is 26 tonnes with a maximum gross payload of 6.5 tonnes, which is equivalent in practice to about 4 tonnes of CHILW. The package is approved to IAEA Type B (U) F standards for transporting up to 3kg of fissile material.

This paper describes the design and operation of Transactive-20 and our experience of transporting more than twenty consignments of plutonium-contaminated material (PCM) and other fissile CHILW between UKAEA's Winfrith and Harwell sites. The loading system enables the container to remain on the transport vehicle during the whole of the load/transport/unload/transport cycle between the sites and therefore minimises turnaround time.

The paper also outlines our plans to use the container for remote-handled ILW (RHILW), for example, spent ^{60}Co or ^{137}Cs sources from medical, educational or industrial irradiators.