

# Box Encapsulation Plant

**Customer:** British Nuclear Group  
**Project:** Box Encapsulation Plant  
**Date:** 1997-2004  
**Services:** Design, Procurement, Construction & Commissioning  
**Value:** £180 million

## Scope of Work

Aker Kvaerner worked in Joint Venture with Carillion and AEA Technology to provide British Nuclear Group with a new Box Encapsulation Plant at Sellafield. The GC Works 1 contract was placed in 1997 following competitive tendering. Aker Kvaerner and British Nuclear Group have achieved a partnering approach to the contract, undertaking joint design reviews and value engineering exercises.

## Feature

The new works was designed to sort and encapsulate in cement a wide range of solid radioactive (ILW) waste from the Sellafield nuclear reprocessing site and export boxes of encapsulated product to a purpose built store for immediate storage pending the completion of the UK nuclear waste repository.

All equipment will be housed in a purpose built building.

The types of waste to be encapsulated includes redundant machines and pumps, uranium pieces, reactor furniture, magnesium, scrap metal, plate metal, containers and organics.

Plant features are remote mechanical handling (including manipulators) for sorting and size reduction, shielded cells for main process plant, cementing and grouting of waste in specially designed 3m<sup>3</sup> capacity high integrity box. Radioactive content assay by gamma spectrometer and passive neutron counter



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