

Casks for Spent Fuel and HLW

GNS today looks back on more than 30 years of operational experience with dual-purpose casks. Following customer demands, GNS developed two different cask types for SNF – the CASTOR® and the CONSTOR® cask type. While the CASTOR® type is optimized for high thermal loads – which allows loading after extremely short cooling times and/or high burn-up of the SNF – the CONSTOR® type is cost-optimized for the cost-efficient storage of large quantities of cooler SNF.

As a first of its kind solution GNS developed a quiver-system to accommodate special or damaged fuel rods, which normally remain in the fuel pond until the final shut-down of the NPP. The quivers fit into the standard basket of the spent fuel casks, thus allowing the removal of all the spent fuel from the pool with the same type of transport and storage cask. More than 1,900 GNS-casks are in operation worldwide. Around 100 more casks are ready for loading at customers' sites, and over 200 additional casks have been ordered or are in production.

In Germany alone, more than 1,000 CASTOR® casks are stored with individual storage periods of up to 30 years. Taking into account the additional casks that have to be manufactured, loaded and stored during the final years of the German Nuclear Phase-Out, there will be 2,000 casks by GNS in operation worldwide.