

Nuclear

Equipment and services supplier DAHER announces the NCS 45, an innovative type B(U)F-certified package for the safe transport of irradiated fuel rods to and from nuclear installations.

The NCS 45, developed by DAHER, the European equipment manufacturer, has already been certified in Germany Sweden and Switzerland, and, most recently, in France.

Paris, 30 November 2009 – DAHER developed the NCS 45, a package for the transport of undamaged, cracked or broken fuel rods, as well as sample rods. These containers enable material to be transported between nuclear installations (research centres, power stations and laboratories) and hot cells for expert analysis of the fuel.

The NCS 45 is designed to have a minimum 30-year working life. All the materials used in its construction meet the most demanding international standards and will maintain their properties throughout this period.

Developed by DAHER's German subsidiary NCS (*Nuclear Cargo + Service*), this innovative development relies on specialist knowledge in two areas:

- the design of packages for spent fuel and radioactive waste,
- DAHER's expertise in the transport of radioactive waste, fresh and spent fuel throughout the nuclear sector.

The NCS 45 obtained its type B(U)F certification after detailed tests carried out by the German nuclear safety authorities.

The NCS 45 Programme Director explained "Theoretical calculations were substantiated by practical tests carried out under realistic conditions, among which were 19 drop tests from various heights, including drops from 0.3 metres, corresponding to normal transport conditions, then from 9 metres onto an incompressible surface and, finally, from 1 metre onto a steel point, these last two corresponding to accidental transport conditions." He continued "The prototype successfully passed all these tests, thus confirming our preliminary theoretical calculations."

The NCS 45 has already been validated in Switzerland and Sweden and now, most recently, in France. It is currently being validated in Denmark, the UK and the USA. In addition, validations will be applied for in Spain, Belgium and the Netherlands.

Several nuclear industry players in Germany, Switzerland and Sweden are currently carrying out feasibility studies to include this package within their standard operating procedures, so as to be able to use them for transport to and from their nuclear installations throughout the world.

This development consolidates DAHER's leading position as a manufacturer, solutions integrator and service provider in its specialist sectors, now and in the future.

NCS 45 - Technical details

The NCS 45 container consists of an internal and external casing, both of stainless steel.

Between these two casings is a thick layer of lead to provide shielding. This guarantees strict adherence to the dose rate limits defined for the various modes of transport of dangerous goods.

A sealed, removable cover enables the package to be loaded in two different modes: horizontally, in dry conditions, by docking with a hot cell; vertically, in wet conditions, in the reactor pool.

A plug in the base enables the contents to be loaded or unloaded in the horizontal position.

The overall length of the container is 6,247 mm.

The internal cavity has an effective working length of 4,625 mm and an effective working diameter of 220 mm.

Gross weight when loaded:	22,660 kg
Tare weight:	19,650 kg
Weight of shock-absorbent supports:	2,660 kg
Maximum payload:	350 kg

About DAHER - www.daher.com

DAHER is a European integrated equipment and services supplier. DAHER specializes in the Aerospace, Nuclear, Defence and Industry sectors and is developing around three core activities: manufacturing, services and transport, which it builds into a global offer.

Founded in 1863, DAHER is an independent, international group. DAHER has more than 6,000 employees in twelve different countries: seven in Europe, two in North America, two in Africa and one in Australia. DAHER has tripled in size over five years and should reach an estimated annual turnover of some €800 million in 2009.

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