

Transportation Safety

Q: **Have actual casks been tested under real-life conditions?**

DOE's National Laboratories have conducted a variety of cask tests simulating real-life conditions.

Sandia National Laboratories in New Mexico performed the following tests:

- A flatbed truck loaded with a full-scale cask driven into a 700-ton concrete wall at 80 miles per hour
- A rail car loaded with a full-scale cask driven into a 700-ton concrete wall at 80 miles per hour
- A cask broad-sided by a 120-ton locomotive traveling 80 miles per hour
- A transportation cask dropped 2,000 feet onto soil as hard as concrete — traveling 235 miles per hour at impact

In all of the Sandia National Laboratories crash tests, the casks survived intact and would have safely protected their contents with no release of radiation.

In Great Britain, an independent test by the Central Electricity Generating Board consisted of ramming a spent fuel cask with an unmanned locomotive at 100 miles per hour. The cask – which met international design standards that are essentially the same as U.S. standards – survived the test with only superficial damage.

