

# International Conference on Management of Spent Fuel from Nuclear Power Reactors: An Integrated Approach to the Back End of the Fuel Cycle



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## Safety tests of spent fuel storage systems in Korea

In preparation for the timely installation of interim storage facility for spent nuclear fuel (SF), Korea Radioactive Waste Agency (KORAD) is developing domestic models of SF storage systems, and the concrete storage cask is one of them. A concrete cask consists of a metallic canister, which confines SF with welded closure and a concrete overpack, which provides radiation shielding and physical protection to the canister. The safety requirements for a SF storage cask is well established in the US, and summarized in regulatory guides such as NUREG-1536. Korea Atomic Energy Research Institute (KAERI) has been performing tests of the concrete cask to demonstrate its safety and compliance to the regulatory requirements with high priority stipulated in NUREG-1536. The test program includes the structural performance tests under a tip-over and earthquake, and decay heat removal test under normal, off-normal, and accident conditions. In this paper, a brief introduction to the test program and test results are provided.

### Country/ int. organization

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