

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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Experience of Cask Technology for SNF Management

A new technology of spent nuclear fuel (SNF) management at the back-end of the fuel cycle has been developed over the last twenty years. This technology is based on the concept of the shielded cask ensuring containment of its contents (SNF) and compliance with all other requirements for SNF storage and transport. Radiation protection and activity containment are ensured by physical barriers, viz. an all-metal or composite body, body linings, internal baskets for irradiated/'spent' fuel assemblies (SFAs) and lids with sealing systems. SFA residual heat is released to the environment by natural irradiation and natural convection of air around the cask.

This report considers the key issues associated with the creation of a family of dual purpose casks for SNF from naval and nuclear ice-breaker fleet activities, RBMK-1000 and BN-350 reactors as well as their structural peculiarities. The new development on cask for transportation of SNF VVER-1000 presents also.

Country/ int. organization

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