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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THE ROLE OF VOLUNTARY NATIONAL CONSENSUS STANDARDS IN THE TRANSPORT OF SPENT NUCLEAR FUEL

In the United States, the American National Standards Institute (ANSI) facilitates the development of American National Standards by accrediting the procedures of standards developing organizations, also known as SDOs. Accredited Standards Committee (ASC) N14, "Packaging and Transport of Radioactive and Non-Nuclear Hazardous Materials," is the ANSI-accredited SDO that publishes standards for transport of radioactive materials in the United States. Four current N14 standards directly apply to spent fuel transport: N14.5 –Leakage Tests on Packages for Shipment, N14.6 –Special Lifting Devices for Shipping Containers Weighing 10,000 Pounds (4500 kg) or More for Nuclear Materials, N14.33 –Storage and Transport of Damaged Spent Fuel, and N14.36 –Measurement of Radiation Level and Surface Contamination for Packages and Conveyances. Additionally, several N14 standards were previously under development that were applicable to spent fuel transport; however, when the DOE Office of Civilian Radioactive Waste Management was shut down in 2010, work on these standards was abandoned, and those writing committees were disbanded. The United States also works closely with the International Organization for Standardization (ISO) Technical Committee 85, Subcommittee 5, Working Group 4 (ISO/TC85/SC5/WG4) – "Transportation of radioactive materials," in the development of international standards related to spent fuel transport.

As Chairman of ANSI N14 and the United States' voting member on the ISO/TC85/SC5/WG4, the author is in a unique position to offer perspectives on the development of standards related to spent fuel transport. This paper discusses the role of voluntary national consensus standards in the transport of spent fuel in the United States and internationally and looks to the future to describe ways in which new standards could facilitate these shipments while ensuring the safety and security of workers and the public at large.

Country/ int. organization

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