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TRITIUM STORAGE BED DEVELOPMENT AT THE SAVANNAH RIVER NATIONAL LABORATORY

J. E. Klein
Savannah River National Laboratory, Aiken, SC 29808, U.S.A.
james.klein@srnl.doe.gov

Metal hydrides offer a compact and safe storage medium for hydrogen isotopes, including tritium. Bulk quantities of hydrogen isotopes may be absorbed and desorbed from hydride-based storage vessels through the efficient removal or addition of heat. At the Savannah River National Laboratory (SRNL), development testing on several generations of prototype storage beds has been conducted, with the principle goal of improved thermal management. Storage bed performance and development efforts for the latest generation storage bed will be presented.