

Laboratory Stabilization and Solidification of Surrogate Oak Ridge Tank Sludges

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Surrogate sludge samples representing sets of ORNL waste tanks were treated using a combination of cement, ground granulated blast furnace slag, and other additives. The approach hydrates sludge water and immobilizes RCRA and radionuclide contaminants. Results were collected on this approach for the Department of Energy to determine formulations compliant with Land Disposal Restrictions and Waste Acceptance Criteria for comparison with alternative treatments. Successes and failures, as determined by the Toxicity Characteristic Leach Procedure (TCLP) performance tests, will be shown for radioactive sludges.