





MATERIAL RECOVERY AND WASTE FORM DEVELOPMENT (FC-1) FC-1.5 Advanced Salt Waste Forms Kimberly Gray

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FC-1.5 Advanced Salt Waste Forms

Salt waste streams rich in alkali halides and/or alkaline earth halides may be generated from molten salt technologies. These salt waste streams contain fission products and actinides for potential recycle, and the waste must be treated to immobilize the radioactive components. Valuable CI-37 can also be recovered from chloride salt waste streams that contain enriched CI-37.

Proposals are requested for the following areas:

- New approaches for treating/partitioning chloride-based or fluoride-based salt streams for recycle of waste constitutes (e.g., CI, electrolyle salt) and methods for immobilizing the residual wastes in chemically durable waste forms.
- Waste form options for immobilizing chloride-based and/or fluoride-based salt streams in chemically durable forms.

The proposed effort should include the production of multiple, 20-gram monolithic waste form test samples that would be provided to the DOE National Laboratories for testing beginning no later than 12 months into the effort and continuing to be conclusion of the proposed effort. Samples of the proposed waste forms would be evaluated using the facilities and methods developed within the DOE National complex.

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