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# Radwaste Solutions

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# **Features**

## Cover Stories—High-Level Waste/Spent Fuel

What Now for Permanent Disposal	of Used Nuclear	Fuel and HLW	in the United
States?			2

Implementation of a permanent disposal solution for used fuel and HLW is no easy task, especially in light of competing stakeholder interests, unprecedented compliance periods, and general reluctance among the public to accept any radiological risks from disposal regardless of magnitude.

First Double-Shell Tank Leak D	iscovered at Hanford	4
Wasta has been found in the gat 1	astronom the immer and outer shalls of Hanford Tank	

Waste has been found in the gap between the inner and outer shells of Hanford Tank AY- 102.

# Sludge Retrieval Receives a Lift at Sellafield A look at one of the most technically challenging crane lifts ever performed on the Sel-

A look at one of the most technically challenging crane lifts ever performed on the Sellafield site.

#### Other Features

#### NNSS Waste Disposal Proves Vital Resource for DOE Complex

The NNSS is home to a state-of-the-art waste management facility, providing a permanent disposal option for a select group of LLW/MLLW generators whose programs have passed a rigorous approval process.

#### Innovative Mercury Treatment Benefits Stream, Fish

Mercury in the treated water in Tims Branch at the Savannah River Site has been reduced more than 95 percent, achieving water quality limits that focus on lowering mercury levels in fish to protect people and fisheries.

## Meeting Reports

#### Y-12's Mercury Problem

A report from the Sixth Annual RadWaste Summit, held September 4–7, 2012, in Las Vegas, Nev.

#### Managing Radwaste around the World

A report from the Sixth Annual RadWaste Summit, held September 4–7, 2012, in Las Vegas, Nev.

#### A New Entity to Manage Nuclear Fuel

A report from the American Nuclear Society's 2012 Winter Meeting, held November 11–15, 2012, in San Diego, Calif.

#### Waste Management 2012 Best Papers

# Technical and Policy Challenges in Deep Vadose Zone Remediation of Metals and Radionuclides

On how hydrogeologic and biogeochemcial processes may operate in the deep vadose zone and be used to meet remediation objectives.

# Impact Analyses and Tests of a Metal Cask in the Event of an Aircraft Engine Crash

The safety assessment of an aircraft crash into a dual-purpose metal cask under development in Korea is performed using numerical simulations and tests.



Gone fishing—but it's all for the public good. See article beginning on page 58 for details.

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## On the Cover:

A map of the United States, showing areas considered as potential hosts for a geologic repository under the NWPA or otherwise deemed as potentially suitable (granites and shales). As discussed in the article beginning on page 26, the U.S. does not face a shortage of geographically distributed, technically suitable candidate locations if a new site-selection campaign is instituted.

# Next Issue:

# Low-Level Waste