#### A PUBLICATION OF THE AMERICAN NUCLEAR SOCIETY

# Radwaste Solutions

**Volume 19, Number 1** January–April 2012



#### **Features**

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

#### Spent Fuel Storage in a Post-Fukushima World

A look at the status of spent nuclear fuel storage in the United States in the wake of the accident at the Fukushima Daiichi nuclear power plant in Japan and the recommendations of the Blue Ribbon Commission on America's Nuclear Future.

#### Alternative Uses for the Yucca Mountain Site: A GAO Report

Potential alternative uses of the Yucca Mountain site face a number of physical, legal, and administrative challenges.

#### Comparing Hanford and Savannah River Site Tank Wastes

Two methods are used to compare the waste at Savannah River and Hanford.

#### The Added-Value Approach in Siting Nuclear Waste Facilities

A look at how incentives and compensation were applied in Finland and Sweden as a part of the siting process for a nuclear waste repository.

# The Arm from MARS: Robotic Arm Accelerates Waste Removal from Hanford's Underground Storage Tanks

The MARS arm was brought to life inside tank C-107 and began transferring waste to a nearby double-shell tank for safe storage.

# First Nuclear Fuel Movement in 50 Years Is a Decommissioning Milestone at Sellafield

Sellafield's Pile Fuel Storage Pond poses one of the most challenging decommissioning projects on the Sellafield Site.

#### Other Features

#### DOE, Fluor-B&W Portsmouth Clear Way for D&D in Piketon

Removing 1.3 million cubic feet of materials from the Portsmouth Gaseous Diffusion Plant site is a significant first step in preparing the former enrichment plant for D&D.

### Waste Management 2011 Best Oral Presentations

#### Further Development of Modified Monosodium Titanate, an Improved Sorbent for Pretreatment of High-Level Nuclear Waste at the Savannah River Site

Describing recent results from the development of an improved titanate material that exhibits increased removal kinetics and effective capacity for Sr-90 and alpha-emitting radionuclides.

# Advanced Remedial Methods for Metals and Radionuclides in Vadose Zone Environments

The results of an integrated laboratory-/intermediate-scale investigation to simulate, develop, demonstrate, and monitor foam-based delivery of remedial amendments to stabilize metals and radionuclides in vadose zone environments.

#### Meeting Reports

#### Entering a New Era for Radioactive Waste Management

A report from the Exchange Monitor Publications and Forums' Fifth Annual RadWaste Summit, held September 6–9, 2011, in Las Vegas, Nev.

#### ARRA, the BRC, and Radium Girls in the Spotlight at ANS Meeting

A report from the American Nuclear Society's 2011 Winter Meeting and Nuclear Technology Expo, held October 30–November 3, 2011, in Washington, D.C.



Salt deposits grow like mushrooms inside Hanford's single-shell storage tanks. An article beginning on page 32 compares the waste in Hanford tanks with that in Savannah River Site tanks.

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## On the Cover:

Articles in this issue focusing on spent fuel and high-level radioactive waste look at spent fuel storage in a post-Fukushima world, at alternative uses for Yucca Mountain, on the tank wastes at Hanford and Savannah River, on incentives and compensation in waste facility siting, and on spent fuel movement at Sellafield.

## Next Issue:

Decontamination and Decommissioning