Environmental Remediation

Low-Tech Meets High Tech: Remediating Two Basins Containing Radioactive Sludge at ORNL 11
A look at the remediation of two basins at ORNL containing more than 18,000 cubic feet of radioactive sludge using low-tech equipment with high-tech results.

Dedicated to Cleanup: Environmental Remediation at Hanford 17
The scope of environmental remediation efforts at Hanford includes planning, managing, integrating, and executing a range of activities to clean up groundwater, contaminated soils, and inactive nuclear facilities.

In Situ Redox Manipulation: Fierce Enemy of Groundwater VOCs and Heavy Metals 24
Researchers at PNNL have developed an innovative and promising cleanup technology specifically designed to treat underground contamination.

Other Features

A New Start for BNFL: Magnox Reactor Decommissioning Strategy 28
All of the U.K.’s Magnox reactors will be shut down by 2009. But with no radioactive waste disposal facility available for dismantled reactor components, BNFL is deferring most decommissioning activities well into the future.

Managing the DOE’s Weapons Program Legacy: The Role of the Efficient Separations and Processing Crosscutting Program in S&P Initiatives 35
Although many separations and processing technologies are available commercially, the vast majority cannot handle the DOE’s needs. The Efficient Separations and Processing Crosscutting Program works to fill the gap.

The Rocky Flats Challenge: Driving Worker Exposures As Low As Reasonably Achievable During Decommissioning 42
Between now and 2006, more nuclear decommissioning work will take place at Rocky Flats than anywhere else in the world. A unique challenge is limiting worker radiological exposures while completing this work.

Back to the Future 48
A report on the 9th International High-Level Radioactive Waste Management Conference.

Technology Note

MICROBasix Dry Active Radioactive Waste Reduction System 53

On the Cover:
Background: The Columbia River in southeast Washington State. See article beginning on page 24 on methods to prevent Hanford groundwater contamination from reaching the river. (Inset, top) Some of the 338 drums containing uranium oxide or depleted uranium shavings discovered in a Hanford burial ground. (Inset, bottom) Remediating Hanford’s 116-N-3 crib. See article beginning on page 17 on some of the environmental remediation efforts ongoing at the Hanford site.

Next Issue:
Decontamination and Decommissioning