

## Decommissioning, Decontamination, and Reutilization

The American Nuclear Society's Decommissioning, Decontamination and Reutilization (DD&R) Division was formed in the early 1990s in the wake of early shutdowns and the beginning of decommissioning of several U.S. nuclear power plants, not to mention the start of decommissioning and cleanup of several major U.S. defense facilities after the end of the Cold War in the late 1980s. Former weapons factories were shut down, and the U.S. Department of Energy and its contractors were just beginning to get a handle on the complexities of cleaning up these properties.

In this issue, we try to cover the gamut of the current DD&R world. We have an article from France on the decommissioning work that has been ongoing for several years on the UP1 spent fuel reprocessing plant at Marcoule (see page 16). From the U.K., we have a photo essay on the recent demolition of the Chapelcross cooling towers in Scotland (see page 28).

Closer to home, we have another photo essay on the transport of the LaCrosse BWR's reactor pressure vessel from Wisconsin to Barnwell (see page 30). The LaCrosse BWR has been shut down for some 20 years, but because the Barnwell site will be closed to out-of-Atlantic-Compact waste in the middle of next year, the owner/operator of the plant, Dairyland Power Cooperative, made a special effort to get the reactor vessel out of the containment and into disposal before the Barnwell site would be closed to the Wisconsin plant.

Sometimes the "R" in DD&R gets lost in the shuffle, but in this issue we have a whole article devoted to that R—*reutilization*. After the Fernald closure ceremony last January, I

thought *Radwaste Solutions* had run its last article on the Fernald site. However, it turns out there was much more to say. The various pieces of equipment used at the Fernald decommissioning and cleanup work are finding new homes around the DOE complex, as well as around the neighborhood in southern Ohio (see page 34). From railcars, excavators, and fire trucks to survey instruments, computers, and office chairs, Fernald equipment is now probably being used at a site near you.

Looking beyond today to some 60 years in the future, this issue includes an article on the many things that new reactor designers should take into account to make the next generation of commercial nuclear power plants easier to decommission (see page 40). The nuclear industry would be wise to incorporate the lessons learned from the decommissioning of the current generation of plants into the new designs.

DOE decommissioning work is covered by an article on a movable shelter to enable workers to retrieve waste material buried in old burial grounds on the Hanford reservation (see page 47). The desert Hanford site is known for very hot summers, strong winds, and variable winters, making outdoor work a challenge. That task is made easier by an enclosure that protects both the worksite and the workers.

Perhaps less directly related to D&D is the article on canister containment after accidental drop events (see page 51). Much has been written about the DOE's proposed TAD (transport/aging/disposal) canisters for commercial spent fuel. But the DOE has other spent fuel canisters



### Covering the world of DD&R

for its own spent fuel. And the DOE will be unable to complete D&D of its sites until it has moved its spent fuel to a national repository. The article describes a testing program for the DOE spent fuel canisters and the testing results.

Finally, this issue features a meeting report from the 2008 American Nuclear Society Annual Meeting (see page 57). As is typical of these meeting reports, included is an update on commercial D&D progress around the country, this time featuring a table on page 58 that puts the U.S. commercial D&D picture in a nutshell. Happy reading!—Nancy J. Zacha