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NOT Thinking About Yucca Mountain

Right now, like everyone else in this industry, I am waiting for the U.S. Senate to make its pronouncement on the fate of Yucca Mountain. By the time you read this editorial, the vote probably will have already taken place, and we will all "know how it ends." At this writing, the numbers look promising, but nothing is certain, especially not in the arena of the politics of nuclear waste.

Anyhow, with the vote due by the time this magazine hits the street, so to speak, it would be foolish of me to spend any time pontificating about legislative responsibility and all that. So, I will *not* think about Yucca Mountain and instead will use this space to tell you about what's inside this issue.

Decommissioning, Decontamination, and Reutilization. Many of this country's nuclear sites have outlived their mission and, once cleanup has been completed, will be reverting to other uses, whether as wildlife preserves (Rocky Flats) or municipal properties (Mound) or something else. Some sites, however, primarily the largest, have missions that will extend long into the future, regardless of the cleanup levels achieved. At these sites, it makes sense to look at reuse of some of the facilities, rather than bringing each building down to a pile of rubble.

At Oak Ridge National Laboratory, Building 7602, which was built in the 1960s as a reactor service building for the Experimental Gas-Cooled Reactor, was later used for separation process studies and equipment development for the Consolidated Fuel Reprocessing Program. The building was contaminated with traces of natural and depleted uranium, nitric acid, and organic solvents used in the project. As described in the article beginning on p. 12, this building was cleaned up, spruced up, remodeled as needed, and is ready for use by the Spallation Neutron Source project.

Even when a site will eventually be completely shut down, reutilization of facilities can make sense. The article beginning on p. 21 describes the decontamination of a spent-fuel storage pool at the West Valley Demonstration Project. As noted in the article, there are many potential uses for this now-clean pool.

Transmutation. Really don't want to think about Yucca Mountain? Looking for an alternative? What about transmutation? Would it solve all the waste problems? Probably not, notes an article beginning on p. 40. As stated in the article, "Transmutation is not considered a substitute for a geologic repository, but it could help reduce the mass and/or radiotoxicity of waste that needs to be placed in a repository." Still, it's a concept with promise. How would it work? The article will tell you.

Every Milestone Met Is Important. Some cleanup projects (the Hanford site comes to mind) are so massive that it's hard for us mere humans to get much of a handle on them. However, if you divide the job up into discrete elements, then at least you have some achievable goals. And when you meet those goals, you have reason to celebrate. Two such achievements are outlined in this issue, in photo essays on p. 30 ("Hanford Pu Process Vessels out the Door—A Year Ahead of Schedule") and p. 50 ("The U is Outta Here!").

And all the rest. In the rest of the magazine are articles about a new way of dealing with glovebox cleanup at Rocky Flats (p. 26), community relations with a NASA twist (p. 34), and trust instruments as a way of providing financial assurance for long-term stewardship (p. 45). There's also a session report from the recent 2002 American Nuclear Society annual meeting (p. 54). In all, a lot of things to read while you are trying *not* to think about Yucca Mountain.—*Nancy J. Zacha, Editor* ■

Leafing Through These Pages