

the information that we've been gathering from our meetings [in Congress], with our contractors ... and just see where we are at that point," Kolb said, adding, "Don't expect anything on June 20." ■

DEFENSE BOARD SEES COMPLEX-WIDE LESSONS FROM IDAHO WASTE PROJECT

A project underway at the Idaho National Laboratory to address hundreds of thousands of gallons of radioactive waste offers a number of successful lessons in integrating safety concerns early in the design process. Defense Nuclear Facilities Safety Board member Joseph Bader said last week. The Department of Energy and INL cleanup contractor CH2M-WG Idaho are working to build an Integrated Waste Treatment Unit to help dispose of several hundred thousand gallons of liquid sodium-bearing waste remaining in the site's underground tank farm (*WC Monitor*, Vol. 17 No. 51). Among the lessons learned at the Idaho project, Bader said Feb. 21 at the Energy Facility Contractors Group meeting in Washington, D.C., was the use of a full-scale pilot facility to examine potential process and control unknowns. "They found some [process unknowns] that they would not have known ... had they not run that full-scale testing," Bader said. "Pilot plants are the best thing you can possibly do, in my judgement, on some of these ... one-of-a-kind technologies. You can't get there without them."

Other Facilities Could Have Used Pilot Plants

On the sidelines of the meeting, Bader told *WC Monitor* that additional pilot-scale testing should have been performed at two other cleanup projects that have grappled with the issue of integrating safety concerns into facility designs—the Hanford Waste Treatment Plant and the Savannah River Site's Salt Waste Processing Facility. "They did do some pilot ... but they could have used more," he said, noting that some pilot testing was performed on the vitrification process to be used at the WTP. "Some of it was done later, rather than sooner. The mantra keeps being 'early.'"

In recent years, the Energy Dept. and the DNFSB have worked to address safety concerns earlier in the design process for new nuclear facilities. The issue, which has been the subject of two Board meetings since late 2005 and a third scheduled for next month, has contributed to significant cost and schedule increases at the Hanford vitrification plant project (*WC Monitor*, Vol. 17 No. 30). It also has resulted in cost and schedule increases, though to a lesser degree, at the Savannah River SWPF project, which is intended to process millions of gallons of radioactive waste stored in the site's underground tank farm for eventual on-site disposal (*see related story*). Earlier this month, the Board listed both projects among those causing the "greatest concern" in a report to Congress on significant unresolved design issues. "Of particular concern," the DNFSB report says, is the SWPF project "because of technical shortcomings in the design process," such as poor structural analysis work and a lack of final geotechnical requirements.

Good Communication a Key

In his remarks last week, though, Bader offered several examples of positive lessons that can be taken from the Idaho project. For example, he said that both the Energy Dept. and CWI had "technically strong, experienced project teams," as well as the "good, continuous communications" between DOE, the Defense Board and the contractor. In addition, "conservative assumptions" were made early in the process, resulting in a conservative safety strategy, Bader said, adding, "It's a lot easier to start conservatively and then argue your way down." Bader also highlighted the amount of funding spent on the Idaho project design, noting that up to 30 percent of the total project's cost was related to design work, and of that, 10-15 percent was spent early on in the design process. "Typically DOE has not provided this level of spending prior to CD-1 [Critical Decision-1]. ... I think that's changing," Bader said. "There is no question that increased funding is needed to achieve a more mature design prior to CD-1. I think that's critical." ■