N318. Hanford, Where Should We Begin?

In May 1989, a Federal Facility Agreement and Consent Order was signed between the US Department of Energy, which owns Hanford, the US Environmental Protection Agency and the state of Washington. Known as the Tri-Party Agreement, it set out a 30-year schedule to bring Hanford into compliance with various federal and state environmental laws and regulations.

The largest environmental restoration program got underway since Hanford's 45-year defense production mission was effectively ended by 1990. There are several parts of the cleanup program. About one-fifth of the site's $2 billion budget goes towards the management of 177 underground tanks used to store 61 million gallons of HLW (High Level Waste) generated by its chemical separations plants. Because more than 80% of these tanks were built before 1955, and 69 of them have, or are suspected to have, leaked at some time, they pose the most serious environmental risks at Hanford. These tanks, which were virtually ignored during Hanford's production era, are now the focus of a project which integrates their day-to-day operations with safety programs and efforts to stabilize and dispose of the tank waste. DOE's understanding of the tank waste has improved through sampling, analysis, and improved monitoring.

Another priority is 2,100 tons of spent fuel from Hanford's N reactor. The stability of the water-filled concrete basins near the Columbia River, where the fuel is stored has become a critical environment concern.

DOE is also exploring new technologies for cleaning contaminated ground waste beneath the site, and working to prevent further contamination of the soil and the Columbia River. More than 300 new monitoring wells have been drilled to track the movement of contamination. The volume of untreated wastewater and other liquids released by Hanford facilities has already been cut by 80%.

Three soil cleanup projects have been completed ahead of schedule, saving years of work and millions of dollars. Nearly half of the site area will be safe for release for other uses.

For more, "Hanford, Where Should We begin?," Nuclear Engineering International, pp. 30-31, August 1994.