

6.5 Hanford Waste Treatment and Immobilization Plant



B. L. Curn

The Hanford Waste Treatment and Immobilization Plant (Waste Treatment Plant) is being built on 26 hectares (65 acres) located on the Central Plateau outside of the 200-East Area to treat radioactive and hazardous waste currently stored in 177 underground tanks. Currently, four major facilities are being constructed: a pretreatment facility, a high-level waste vitrification facility, a low-activity waste vitrification facility, and new in 2004, an analytical laboratory. Supporting facilities also are being constructed.

Engineering design and construction for the pretreatment, high-level waste vitrification, and the low-activity waste vitrification facilities progressed in 2004, with designs approximately 77% complete and construction 37% complete by year's end. Site excavation for the Waste

Treatment Plant analytical laboratory was completed and construction was approximately 10% complete at the end of 2004. A notable Waste Treatment Plant achievement in 2004 was installation of the pretreatment 4-pack waste receipt vessels. Each 1.42-million-liter (375,000-gallon) stainless steel tank was fabricated onsite, then lifted over walls and set in place. During 2004, workers at the Waste Treatment Plant installed more than 39,624 meters (130,000 feet) of piping and 20,865 metric tons (23,000 tons) of rebar, and poured over 12,000 truckloads of concrete.

Additional information about the Waste Treatment Plant, including a discussion of safety issues related to plant design, can be found in Section 5.8.2.

