

Richland ♦ Kennewick ♦ Pasco ♦ West Richland ♦ Benton County ♦ Port of Benton

Background – *The Hanford Site is a Department of Energy (USDOE) owned, contractor-operated facility in southeast Washington near Richland. The Site was established during World War II to produce plutonium for America's defense program. During 50 years of nuclear materials production, Hanford generated a significant amount of radioactive and hazardous waste. Liquid waste expelled to retention basins and leaked from piping has contaminated soil and groundwater in the vicinity of the nine production reactors along the Columbia River. Contaminated soil makes up a sizeable percentage of the estimated 10 million tons of contaminated material in Hanford's River Corridor. The remaining contaminated material resides in facilities and waste burial grounds.*

Cleanup to Date - Over the past decade significant progress has been made in cleaning up the river shore that borders Hanford. However, the most important cleanup challenges lie ahead. Under the 1994 Environmental Restoration Contract established by USDOE the previous contractor, Bechtel Hanford, placed four of the former plutonium production reactors in interim safe storage, demolished numerous facilities, remediated a number of waste sites and removed more than six million tons of contaminated materials near the Columbia River transporting it for disposal at the Hanford Environmental Restoration Disposal Facility (ERDF).

River Corridor Cleanup Project - In September 2005, USDOE selected Washington Closure Hanford to manage the 2.2 billion, eight-year River Corridor Cleanup. Washington Closure is



a limited liability company owned by Washington Group International, Bechtel National and CH2MHill. The River Corridor Cleanup Project is structured differently than previous Hanford management and operations contracts. It has a specific scope of work with the fee structure linked to that work. And it provides

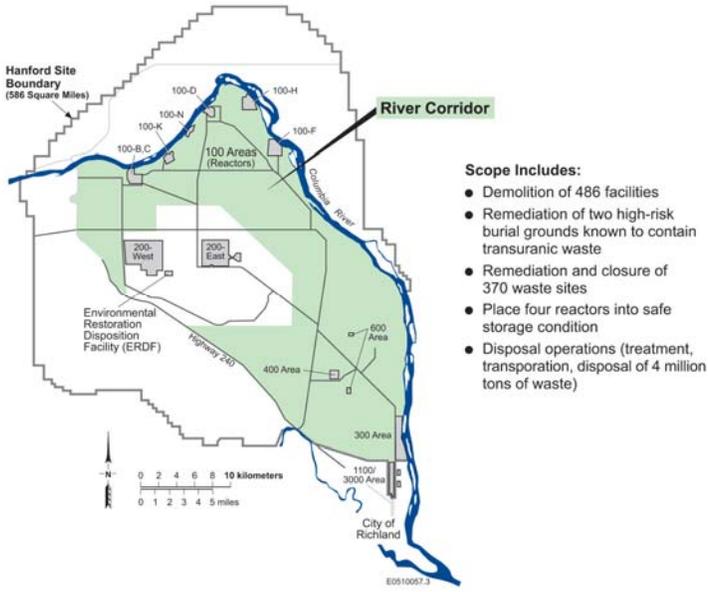
incentives for saving time and money. For example, the Washington Closure contract is a cost-plus-incentive-fee contract. For each dollar saved over target cost, USDOE keeps 80 cents and Washington Closure earns 20 cents, up to a set amount.

Washington Closure's goal is to safely and efficiently complete cleanup in the 218-square-mile Hanford River Corridor ahead of time and under budget. Their success will require collaboration with and support from regulatory agencies, tribal nations and other stakeholders.

D4 (Deactivation, Decommissioning, Decontamination and Demolition)

Project – In all, 486 facilities will be decommissioned or demolished in the 100, 300 and 400 Areas of the Hanford Site. Demolition of buildings such as the 324, 325, 327 and 329 hot cell facilities in the 300 Area has not been attempted on this scale. High dose rates, contamination levels inside the hot cells and the heavy concrete walls preclude traditional approaches to decontamination and demolition. Current plans are to fill the cells with grout and then use diamond wire saws to cut the grout-filled cells into large chunks for removal and burial at ERDF.

Contract Scope



Reactor Interim Safe Storage (ISS) Project

The ISS process referred to as “cocooning” involves demolishing the reactor building down to the four-foot-thick concrete shield walls surrounding the reactor core, reducing the footprint by 80 percent. Building openings are sealed except for one door that is welded shut, allowing access for inspection every five years. A galvanized aluminum roof also is installed. The cocooned reactors will remain for 75 years, allowing USDOE and other regulators time to determine alternate disposal methods for the radioactive reactor cores. To date, five of Hanford’s nine plutonium production reactors have been cocooned – C, D, DR, F and H Reactors. K East, K West and N reactors are scheduled to be completed by 2013. The historic B Reactor may be released to Washington Closure for cocooning after a National Park Service study is completed and a subsequent USDOE decision about preserving the reactor as a museum.

Field Remediation Project – The goal of Field Remediation is to clean up 370 liquid and solid waste sites and burial grounds. The largest volume of contaminated liquid waste in the River Corridor came from leaks in reactor effluent piping systems and retention basins, as well as liquid waste disposal cribs and trenches – one form of which was used at all Hanford reactors. With the liquid waste sites, remediation workers knew the nature and extent of the contaminated materials they were dealing with. The solid

waste sites and burial grounds are a different story. Here, radioactive and hazardous material was buried with little or no documentation. The most challenging remediation work will be the 618-10 and 618-11 burial grounds. Contaminated materials in the burial grounds pose significant risks. They contain transuranic wastes that will have to be carefully removed, packaged and shipped to the Waste Isolation Pilot Project in New Mexico for disposal. A major focus will be protecting workers and the environment during clean up, as well as protecting Energy Northwest workers at the nearby Columbia Generating Station.

Potential Obstacles – There are about 700 Pacific Northwest National Laboratory employees who must be relocated to new laboratories before key facilities in the 300 Area can be turned over to Washington Closure for demolition. Also, timely cocooning of KE and KW Reactors depends on timely removal of sludge from the basins and transfer of those facilities to Washington Closure. Finally, the uncertainty about what may be found in some of the solid waste burial grounds could present issues. However, plans are in place to deal with “anomalous” wastes so that their discovery will not impact cost or schedule.

Long-Term Stewardship – By contract Washington Closure is expected to leave Hanford’s River Corridor in a safe condition that preserves USDOE’s options for future uses. Regulators, tribal nations, other stakeholders and the public will be involved in making many of the decisions as cleanup progresses.

Hanford Communities Position - Completion of reactor cocooning and remediation of the remaining waste sites along the Columbia River have always been high priorities for the Hanford Communities. They have encouraged USDOE and its contractors to examine new and developing technologies that could be deployed to remediate the challenging 618-10 and 618-11 burial grounds. There is strong support from local communities and residents throughout the region to preserve B Reactor as a museum.

To find out how you can become more involved in this important regional issue, or to have a Hanford Communities speaker talk to your organization, contact the Hanford Communities at (509) 942-7348 or by fax at (509) 942-7379