

# Cleanup Progress at Hanford

The U.S. Department of Energy is responsible for one of the largest nuclear cleanup efforts in the world, managing the legacy of five decades of nuclear weapons production. At its peak, this national weapons complex consisted of 16 major facilities, including vast reservations of land in the States of Idaho, Nevada, South Carolina, Tennessee, and Washington.

Nowhere in the DOE Complex is cleanup more challenging than at the Hanford Site in southeastern Washington. Hanford made more than 20 million pieces of uranium metal fuel for nine nuclear reactors along the Columbia River. Five huge plants in the center of the Hanford Site processed 110,000 tons of fuel from the reactors, discharging an estimated 450 billion gallons of liquids to soil disposal sites and 53 million gallons of radioactive waste to 177 large underground tanks. Plutonium production ended in the late 1980s.

Hanford cleanup began in 1989, when a landmark agreement was reached between DOE, the U.S. Environmental Protection Agency, and Washington State. Known as the Tri-Party Agreement, the accord established hundreds of milestones for bringing the Hanford site into compliance with federal and state environmental regulations.

After more than two decades of cleanup, considerable progress has been made at Hanford, reducing the risk the site poses to the health and safety of workers, the public, and the environment.

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Hanford Site Cleanup	
Before Cleanup Began (1989)	Examples of Cleanup Work Completed (September 2011)
586-square-mile footprint of active cleanup	<ul style="list-style-type: none"> <li>• 201-square-mile footprint of active cleanup remaining</li> </ul>
2,300 tons of spent nuclear fuel stored near the Columbia River	<ul style="list-style-type: none"> <li>• COMPLETED: Moved all spent fuel to dry storage</li> </ul>
20 tons of leftover plutonium in the Plutonium Finishing Plant	<ul style="list-style-type: none"> <li>• COMPLETED: Stabilized and shipped plutonium off-site</li> </ul>
999 waste sites, 471 facilities, 9 plutonium production reactors near the Columbia River	<ul style="list-style-type: none"> <li>• 588 waste sites remediated, 290 facilities demolished, 12.5 million tons soil/debris removed</li> <li>• 5 reactors cocooned (associated facilities demolished), 2 underway</li> </ul>
More than 100 square miles of groundwater contaminated	<ul style="list-style-type: none"> <li>• 5 billion gallons treated, 65 square miles of groundwater contaminated</li> </ul>
53 million gallons of waste in 177 underground tanks; 20 known to have leaked and 47 potentially having leaked in the past	<ul style="list-style-type: none"> <li>• All pumpable liquids and 2 million gallons of solids transferred to newer, double-shell tanks</li> <li>• 7 tanks emptied, 7 emptied to retrieval limits, 10 more underway</li> <li>• Surface barriers installed to protect groundwater</li> <li>• Tank integrity analyses ongoing</li> </ul>
One tank waste retrieval technology available	<ul style="list-style-type: none"> <li>• 10 retrieval technologies available</li> </ul>
No treatment capability for underground tank waste	Waste Treatment Plant under construction – 61 percent complete
15,000 cubic meters of plutonium-contaminated waste buried or stored on site	<ul style="list-style-type: none"> <li>• 11,540 cubic meters of waste retrieved</li> <li>• 649 shipments of waste off-site</li> </ul>
850 waste sites and 970 facilities on the Central Plateau (center of the site) requiring cleanup	<ul style="list-style-type: none"> <li>• 81 waste sites remediated, 332 facilities demolished</li> </ul>

For more information, visit [www.hanford.gov](http://www.hanford.gov)

