



5.10 Pollution Prevention and Waste Minimization

This section provides information about Hanford Site policies regarding pollution prevention and waste minimization. Initiative 297, a ruling enacted by Washington State voters in November 2004, is also discussed.

5.10.1 Pollution Prevention Program

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The *Hanford Site Pollution Prevention and Waste Minimization Program Plan* (DOE/RL-2004-57) provides guidance for Hanford Site contractors to prevent pollution from entering the environment, to conserve resources and energy, and to reduce the quantity and toxicity of hazardous, radioactive, mixed, and sanitary waste releases to the environment at the Hanford Site. The program plan reflects the national and local waste minimization and pollution prevention goals and policies and represents an ongoing effort to ensure that pollution prevention and waste minimization is part of the Hanford Site operating philosophy. The program plan is designed to satisfy DOE Orders 435.1 and 450.1, executive orders, and federal and state regulations and requirements. In accordance with sound environmental management, the first priority is to prevent pollution through source reduction. When source reduction is not possible or practical, waste treatment to reduce quantity, toxicity, or mobility is considered. The second priority is environmentally safe recycling, and the third priority is approved disposal at permitted sites. The DOE Richland Operations Office is responsible for the Hanford Site pollution prevention program. The office provides program guidance for Hanford Site contractors, which integrated through Fluor Hanford, Inc.

The Hanford Site met the fiscal year 2004 Secretarial Goals (as defined in a DOE memorandum) for low-level

waste, mixed low-level waste, hazardous and sanitary routine waste generation, and recycling (including paper, plastic, cardboard, and glass). In 2004, the program reported recycling 2,504 metric tons (2,760 tons) of sanitary and hazardous waste. This recycled waste included 309 metric tons (341 tons) of office and mixed paper, 385 metric tons (424 tons) of iron and steel, 103 metric tons (114 tons) of non-ferrous metal, and 107 metric tons (118 tons) of appliances and furniture. Affirmative procurement (the purchase of environmentally preferable products containing recycled material) at the Hanford Site achieved 100% of the 2004 goal. The Hanford Site generated 27,546 cubic meters (36,000 cubic yards) of cleanup and stabilization goal waste (i.e., low-level waste, mixed low-level waste, and hazardous waste), and did not meet the 10% cleanup stabilization goal of 24,547 cubic meters (32,100 cubic yards). Not meeting this goal could be a reflection of additional cleanup and waste stabilization activities that were not anticipated in the fiscal year 2004 waste forecast.

One notable achievement in 2004 was the Mortar Lining Project for Water Distribution receiving the DOE Office of Environmental Management Pollution Prevention Best in Class Award for Innovative Technology. Mortar lining, an innovative, commercially available technology, is being used to refurbish 53 kilometers (28.62 miles) of degraded waterline, ensuring that water for fire protection and drinking is available during site closure activities. For the same cost, mortar lining restores twice as much pipeline as replacement pipe, stopping leaks and protecting groundwater from soil contaminants. Pipelines are restored in place using minimal excavation, which reduces worker risk by decreasing exposure to possibly contaminated soil. Over the 10-year life of the project, cost avoidance of more than \$19 million is anticipated, along with waste avoidance of 6,134 metric tons (6,760 tons) of replacement pipe.



5.10.2 Washington State Initiative 297, The Cleanup Priority Act

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Initiative 297, known as the *Cleanup Priority Act* and included in *Mixed Radioactive and Hazardous Waste* (RCW 70.105E), was passed by Washington State voters in November 2004. The provisions of the *Cleanup Priority Act* could affect a variety of operations at Hanford, depending on how the law is interpreted. Among other things, the act could restrict the importation of offsite waste to Hanford, circumscribe available disposal methods, set cleanup standards for radioactive releases, and require DOE to pay a new mixed-waste surcharge. In December 2004, the

U.S. Department of Justice sought and received a temporary restraining order from the U.S. District Court that enjoined application or enforcement of the act at Hanford or Pacific Northwest National Laboratory, except to the extent it prohibited import of mixed waste to Hanford. The U.S. Department of Justice filed a motion for summary judgment arguing the *Cleanup Priority Act* is preempted by federal law, violates the principle of sovereign immunity, and burdens the flow of interstate commerce in violation of the U.S. Constitution. In February 2005, the state of Washington asked the federal court to certify five issues for interpretation by the Washington State Supreme Court. The federal court agreed and then prohibited application of the entire initiative, including waste importation prohibitions, until all claims are resolved in both federal and state courts.