

## Vantage Connectors Help Cleanup Nuclear Waste Hanford Waste Treatment Plant - WTP

**Vantage Technology** connectors are specified on the melters used to vitrify low and high-level waste at the Hanford Waste Treatment Plant. Vantage is proud that its nuclear grade connectors meet the demands of this critical project and will help restore this beautiful area along the Columbia River.

In 1943 the Manhattan Project was on a fast track and chose the Hanford Site on the Columbia River for the ground breaking manufacture of weapons grade plutonium. The river provided cooling for the heat created by the nuclear fission in the reactors. The Bonneville and Grand Coulee hydroelectric dams provided electrical power. The site was remote and secure.

From World War II thru the Cold War, 74 tons of plutonium for atomic warheads was made, leaving behind 53 million gallons of plutonium-laden slurry in 177 underground tanks.



*Hanford Reach of the Columbia River*

In May 1989, the Department of Energy, the U.S. Environmental Protection Agency, and the Washington State Department of Ecology signed the Hanford Federal Facility Agreement and Consent Order. This "Tri-Party Agreement" commits DOE to clean up the Hanford Site within 30 years.

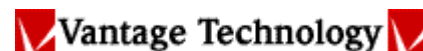
The nuclear waste slurry is vitrified by adding glass-making material such as silica. The melters heat the mixture to 2000 degrees Fahrenheit using 600-kilowatt electrodes. The materials are mixed with hot-air bubblers where it is then poured into stainless steel canisters. After cooling, the canisters are welded shut and decontaminated.



*Hanford Waste Treatment Plant in Washington*

High-level stainless steel canisters will be temporarily stored in a Canister Storage Building before being transported to their final destination, a federally protected deep and stable underground geologic repository. Yucca Mountain in Nevada is under evaluation as the most suitable location. It is scheduled to open in 2017.

Low-level canisters will be buried in trenches at the Hanford site that are isolated from the Columbia River. The radioactive material will decay to safe levels in several hundred years.



**Vantage** connectors carry more third party product certifications than any manufacturer. Our proven history of service, safety, and reliability make us the premier manufacturer of connectors for hazardous locations and extreme environments.

