

# PUREX and PUREX Storage Tunnels

## Closing Unit #25

### PUREX

- “Plutonium-Uranium Extraction” (PUREX) plant extracted plutonium and uranium from fuel rods dissolved in acid for use in nuclear bombs.
- One of Hanford’s 5 cruise-ship-sized plutonium-processing plants.
- Built in 1956; ran until 1972. Restarted in 1983; ran until 1990.

### Tunnels

- Extend south of PUREX and store waste like discarded equipment from PUREX and items that must be handled remotely due to high radiation.
- The first tunnel was built in 1956, and sealed in 1965. It holds 780 cubic yards of waste in eight rail cars.
- The second tunnel, built in 1964, holds 2,883 cubic yards of waste in 28 rail cars.

### Hybrid unit: Closing unit with some operating units

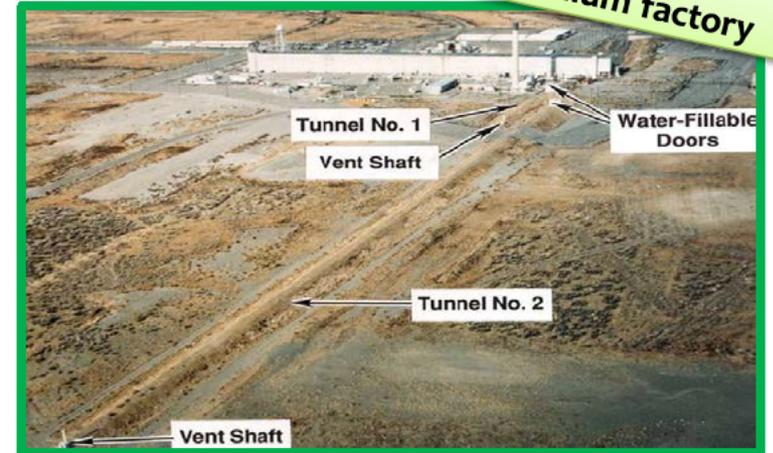
PUREX is a closure unit with three different permitted parts.

1. The rail tunnels are a “miscellaneous unit.” The first tunnel is full. The second tunnel can accept more waste, if Ecology approves it.
2. Tank systems that have been drained and cannot receive any waste.
3. A containment building with two locations in the PUREX main building. One location is the floor, where workers have removed all debris. The other is in F-Cell, which does have waste. The containment building is not authorized to receive additional waste.

The Tri-Party Agreement agencies will address PUREX tunnels and related sites through Milestone M-85-20A, due in September 2015. It requires submitting a remedial investigation and feasibility study work plan to Ecology.

The permit requires workers to remove free liquids from waste or equipment that go into the tunnel. This is to prevent spills, corrosion, or environmental releases.

Hanford’s final plutonium factory



DEPARTMENT OF  
**ECOLOGY**  
State of Washington

**What's the risk?**

The chemical wastes at this unit do not pose much risk. There is greater risk from the radioactive materials USDOE regulates. There will also be some industrial risk to workers when they tear down the building. The plan due to Ecology in 2015 should more clearly define the risks.

Protecting our air, land and water — today and for the future.