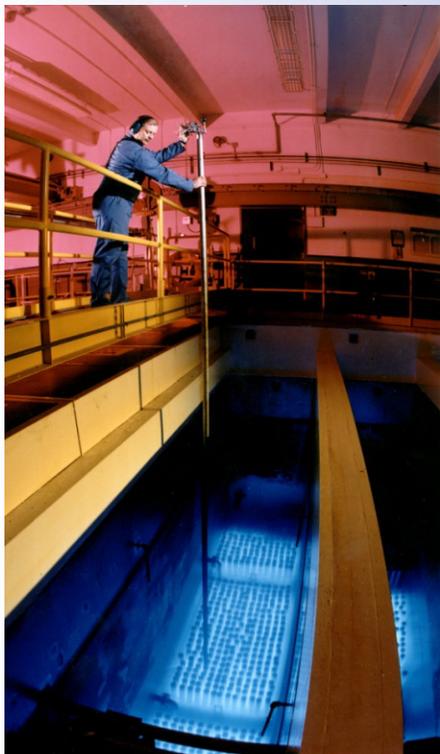




Waste Encapsulation Storage Facility

A U.S. Department of Energy Facility



The Blue Glow

Containers holding cesium and strontium are stored in 13 feet deep pools filled with water. The water both shields workers from radiation and keeps the containers cool. The water in these pools glows blue, in an effect known as the Cherenkov Glow, as the radioactive cesium and strontium decay and lose their radioactivity to become stable atoms. Several cesium capsules were also over-packed to ensure their integrity. The final over-packed capsule was placed in pool storage in January 2000.

Background

The U.S. Department of Energy's Waste Encapsulation and Storage Facility (WESF) plays an important role in Hanford's cleanup mission.

From 1967 to 1983, cesium and strontium were removed from Hanford's single-shell waste tanks to reduce the temperature of the waste inside. Both elements were ultimately placed in sturdy, stainless steel containers at Hanford's Waste Encapsulation Storage Facility (WESF) for safe storage and monitoring.

Over the years, some of the cesium capsules were used in several offsite tests and demonstrations, including sewage sludge sterilization, fruit and pork disinfestations and sterilization of medical devices. In 1990 the capsules were recalled and returned to Hanford over a period of years for storage at WESF.

The Department of Energy will continue to store the capsules until they can be safely removed and placed in a national repository.

Fast Facts

- 1,335 cesium capsules and 601 strontium capsules
- Stored capsules contain about a third of the total radioactivity of Hanford Site wastes.
 - 74 million curies in cesium capsules
 - 32 million curies in strontium capsules
- Approximately \$5 million annually in operating costs ("min-safe" operations, not including facility upgrades/modifications)

For more information:

Geoff Tyree, DOE, (509) 376-4171

Cameron Hardy, DOE, (509) 376-5365