



The Waste Encapsulation and Storage Facility is adjacent to the B Plant processing facility in the 200 East Area of the Hanford Site.



The water around the cesium and strontium capsules in the Waste Encapsulation and Storage Facility pools glows a color of blue. The effect is known as the Cherenkov Glow, as the radioactive cesium and strontium decay and lose their radioactivity to become stable atoms.

Waste Encapsulation and Storage Facility

The U.S. Department of Energy and contractor CH2M HILL Plateau Remediation Company are preparing to remove some of Hanford's most hazardous legacy waste to reduce potential impacts to people and the environment.

Background

The Waste Encapsulation and Storage Facility (WESF) provides safe and compliant underwater storage for 1,936 highly radioactive capsules containing the elements cesium and strontium. In the 1970s, cesium and strontium were removed from waste tanks at Hanford to reduce the temperature of the waste inside the tanks. Both elements were ultimately placed in sturdy, stainless steel containers at WESF for safe storage and monitoring.

Mission

The Department of Energy (DOE) and CH2M HILL Plateau Remediation Company (CHPRC) are committed to safely storing the capsules until they can be removed for interim and final placement. While the capsules are currently in a safe configuration, WESF is an aging facility. Dry storage would eliminate the possibility of a release of radioactive material in the unlikely event of a major earthquake that might result in loss of pool storage water, and overheating and breach of the capsules. CHPRC is in the process of planning for transfer of the capsules to safer interim dry storage, allowing for the eventual deactivation of WESF.

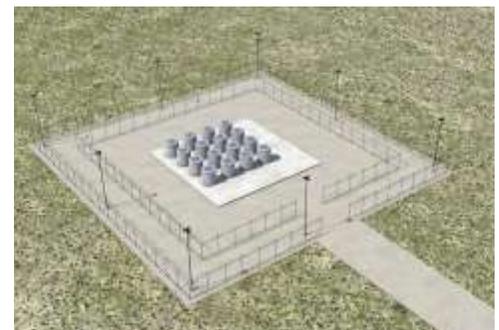


Workers recently decontaminated and painted a hot cell adjacent to the WESF pool cells where the capsules will be transported to a safer storage configuration.

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Conceptual illustrations of a large concrete cask (left) were designed to hold capsules. Between 16 and 20 casks will be placed in a safe, compliant configuration in an outdoor storage area (right), similar to how spent commercial nuclear fuel is currently stored.

