



# Direct-Feed Low-Activity Waste Program (cont.)

DOE's mission at Hanford is to deliver safe, efficient, and effective cleanup, protective of the workforce, the public and the environment. The Hanford of today is focused on the future – on creating value, enabling progress, and maximizing risk reduction. DFLAW represents an achievable and affordable approach to deliver progress and build confidence in the process in the near term, which can be built upon over time to expand and accelerate the overall Hanford tank waste treatment mission.

Completing this mission requires a shift in the culture at Hanford. DFLAW operations will require a degree of coordination and teamwork Hanford has not experienced in several generations. DFLAW represents sitewide operations because WTP requires not only transfers of waste from Hanford's Tank Farms, but the treatment of secondary waste, disposal of vitrified waste, and robust site infrastructure to support 24/7 operations. The activities required to establish, support and operate the DFLAW support facilities span

Hanford field offices and all major cleanup contractors, and are thus being accomplished under a single, integrated DOE management team with a "One Hanford" focus.

The DFLAW approach has highlighted the greater interdependency and need for integration between Hanford field offices, prime contractors, stakeholders, tribal nations, and DOE Headquarters, to play their parts in supporting the common objective of reducing the risk from Hanford tank waste as soon as practicable.

As DOE implements readiness activities and begins DFLAW, an increased operations tempo and sense of deliberate haste has emerged as teams steadily increase the work tempo to bring facilities online. Achieving DFLAW operations by 2023 will require a sustained collective commitment to excellence and teamwork, a robust integration program, and a singular leadership focus to deliver success.

## Facilities

### AP Tank Farm



- Double-Shell Tank AP-107 is the feeder tank to the TSCR system
- Pretreated low-activity waste feed will be stored in Double-Shell Tank AP-106 and transferred in 9,000-gallon batches to the LAW Facility

### TSCR



The Tank-Side Cesium Removal (TSCR) System will filter out suspended solids and remove radioactive cesium to produce low-activity waste feed from tank waste liquid

### ETF/LERF



The Effluent Treatment Facility (ETF) and Liquid Effluent Retention Facility provide storage and treatment for a variety of mixed liquid wastes at Hanford

### ILAW Transporter



Conveys immobilized low-activity waste (ILAW) glass-filled containers from WTP to the Integrated Disposal Facility (IDF)

### IDF



- Engineered disposal facility
- Accepts containers of vitrified low-activity waste for disposal
- Accepts solidified secondary waste forms from WTP operations

### Infrastructure



Provides emergency response, electrical, roads, water, sewer, security, emergency, IT, facilities, and other services in support of all Hanford cleanup activities

### LAW Facility\*



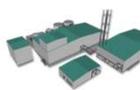
- Mixes low-activity waste feed with glass-forming material and heats them in two high-temperature melters
- Vitrified waste is stored in steel containers for disposal

### LAB\*



Provides analytical laboratory services necessary to confirm the LAW Facility is producing compliant glass

### EMF\*



- Treats the liquid effluent from the LAW Facility in an evaporator
- Pumps decontaminated liquids to the ETF for further treatment

### BOF\*



Provides necessary services to support LAW Facility operations

### 222-S Laboratory



Provides analytical services for the Hanford Tank Farms and DFLAW feed qualification

\* These facilities support both DFLAW and the WTP

