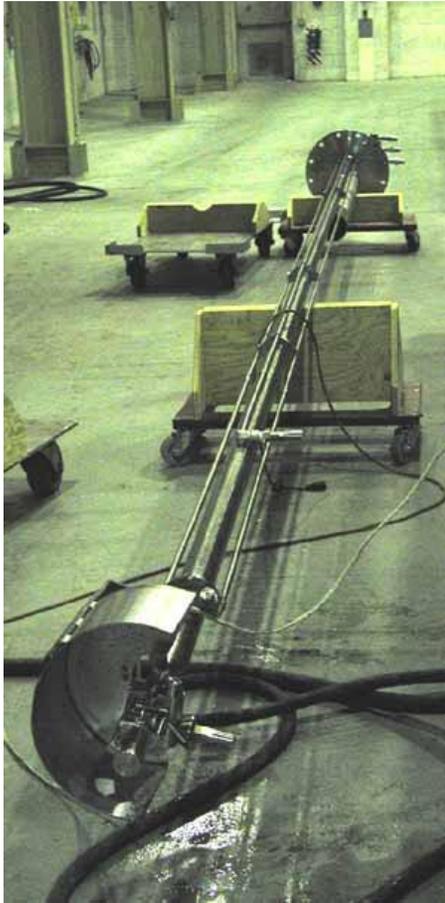


# ORP, CHG combine preparation efforts for Tank U-107

Geoff Tyree, CHG

Pumping of retrievable liquids from single-shell Tank U-107 began on Sept. 30. To save money and improve efficiency, the Department of Energy Office of River Protection and CH2M HILL Hanford Group combined preparations for that effort with another project — the installation of equipment that will be used during an upcoming waste retrieval demonstration.



The Office of River Protection and tank-farms contractor CH2M HILL Hanford Group combined upgrades needed to pump the retrievable liquid waste from Tank U-107 with the installation of equipment — such as this sprinkler assembly — for an upcoming proof-of-concept demonstration on saltcake dissolution.

Pumping out the liquid portion of the waste in Tank U-107 is part of the project — called Interim Stabilization — to move liquids from the aging single-shell tanks to newer, safer double-shell tanks by 2004. Taking out the retrievable liquid reduces the possibility of future tank leaks. In the past, 67 of the 149 single-shell tanks have leaked or are assumed to have leaked approximately a million gallons of highly radioactive and hazardous waste.

“Getting the liquid waste out of these tanks reduces the risk to the groundwater and the Columbia River,” said Dale Allen, CHG senior vice president of Operations.

“We also saw an opportunity to combine this effort with our first field work to demonstrate a new way of removing the remaining solid waste in Hanford tanks,” said Rick Raymond, CHG vice president of Projects.

## Removing saltcake

After pumping an estimated 40,000 gallons of liquid waste from Tank U-107, the demonstration — called a proof-of-concept — to remove some of the underlying solid waste, or saltcake, will begin. Saltcake waste, with the consistency of wet beach sand, was created when tank liquids were processed in evaporation facilities over the decades.

The decision to combine equipment installations for both the Interim Stabilization effort and the upcoming proof-of-concept demonstration has reduced project costs and employee time in the field.

“Even though the activities in Tank U-107 are managed under different programs, we’ve worked together to get everything accomplished,” said A.C. Youngblood, Interim Stabilization Program manager for CHG.

“As we support ORP in demonstrating new methods for removing solid waste from the tanks, making sure this work is integrated with ongoing operations at the tank farms is a key part of our effort,” said Ralph Wilson, single-shell tanks project director for CHG.

Tank U-107 contains approximately 408,000 gallons of waste, including an estimated 360,000 gallons of saltcake. This single-shell tank was built in the 200 West Area in 1944 and went into service in 1948. ♦

## Interim Stabilization — at a glance

Efforts to move retrievable liquids out of Hanford’s older single-shell tanks into newer, safer double-shell tanks continue to reduce the risk of future tank leaks. Here’s what’s been done:

- 1.3 million of the estimated 3.6 million retrievable gallons have been moved since 1998.
- Pumping of 129 of 149 tanks has been completed (S-109 being the latest).
- Of the 20 tanks left, 19 are covered by a consent decree with the State of Washington that requires completing pumping of these tanks by October 2004.
- Of the 19 remaining “consent decree” tanks, pumping has been started on 11 tanks and remains to be started on eight tanks.