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Hanford evaporator creates more waste storage space

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The Hanford 242-A Evaporator has freed up space for almost 800,000 gallons of radioactive waste in Hanford's double-shell tanks this fall in its first operating campaign since 2010.

The 28 double-shell tanks are near capacity, and the oldest one has developed an interior leak and will be emptied. Each tank can hold about 1.1 million gallons of waste left from the past production of weapons plutonium at Hanford.

The evaporator reduces the liquid content of the waste, allowing more efficient use of the space in Hanford's double-shell tanks as waste from leak-prone single-shell tanks is transferred to them.

Washington River Protection Solutions planned to follow the work completed this month with a second campaign to reduce waste volume by 350,000 gallons.

However, a pump failed that is needed to transfer waste to the double-shell tank that stages waste for the evaporator. Workers flushed the waste from the evaporator and shut it down. But Washington River Protection Solutions is making plans to restart the evaporator in a few months after repairs are made and waste can be transferred to the double-shell tank that serves as the waste staging tank for the evaporator.

The Department of Energy contractor plans to hold three more evaporation campaigns after that by fall 2015, said John Britton, spokesman for Washington River Protection Solutions.

That will help create storage capacity for waste being emptied now from the group of single-shell tanks called the C Tank Farm, and for tanks in the A and AX Tank Farms that Washington River Protection Solutions is preparing to empty next.

It also helps make space available in case of an emergency that requires a tank to be emptied, and to prepare for emptying Tank AY-102 — the double-shell tank with a leak from its inner shell into the space between its shells.