

Tank AP-101 being prepped for first waste transfer to WTP

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With the replacement of a giant pump in a million-gallon Hanford tank, the Office of River Protection and CH2M HILL are a step closer to being ready for sending tank waste to the Waste Treatment Plant now under construction.

Tank AP-101 is one of 10 double-shell Hanford tanks near the Waste Treatment Plant site that are being readied to serve as staging tanks. As waste is retrieved from aging single-shell tanks across Hanford's central plateau, it will be sent to these tanks until the waste can be treated.

Tank AP-101 has been identified as the feed tank for the first transfer of low-activity waste to the Waste Treatment Plant for processing. The tank's existing 30-horsepower "flex and float" transfer pump was removed because it was undersized and not equipped to transfer all the waste out of the tank. The old pump was removed nearly 200 days ahead of schedule to prevent schedule conflicts with emerging mission-acceleration work planned for later this year.

The pump was cut into four pieces and placed in a stainless steel burial box. During the final stages of the preparation for pulling the pump, the operations field crew recommended placing a thermocouple removed from single-shell Tank C-106 into the same burial box rather than using a separate box for the thermocouple. The idea will save an estimated \$100,000 that can be directed to other mission-acceleration work.

A 60-horsepower variable-frequency-drive pump will be installed in the tank to provide increased pumping capacity and the ability to dilute the waste as it's being transferred to the WTP.

To ensure that safety and efficiency were integrated into the pump-removal effort, the work crew used a mock-up to prepare for the job before performing the actual work. Lessons learned from the mock-up were recorded and integrated into the final work plans.

A major highlight of the mock-up included integration of a glove bag and pump-cutting tool system, which resulted in the waste-disposal process being completed in half the time required for similar work previously performed in the tank farms. The lessons learned have also been shared with CH2M HILL crews performing similar tasks on other waste-retrieval projects in single-shell tank farms.■



Crews pulled a large transfer pump from double-shell Tank AP-101 earlier this month to make room for a larger pump. It will handle the job of feeding the first low-activity waste to the Waste Treatment Plant.