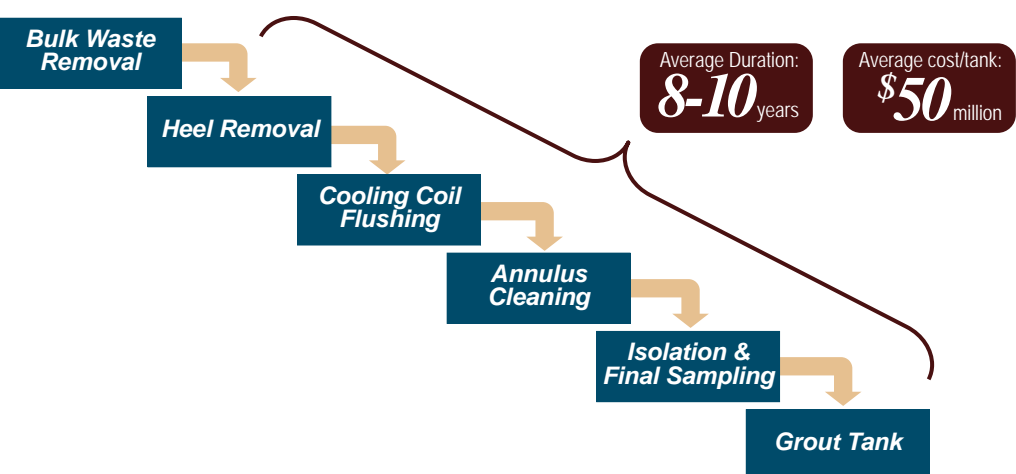


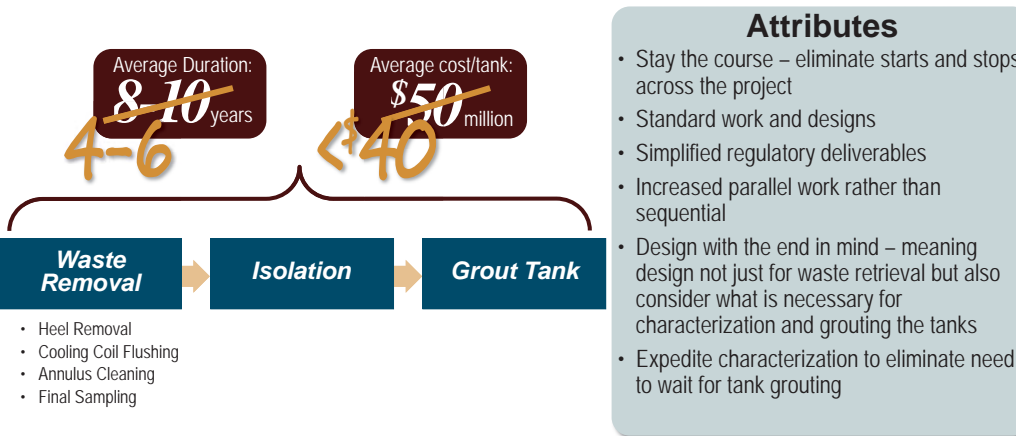


Leaning the Tank Closure Process at the Savannah River Site

Current State of Tank Closure



Target State of Tank Closure After Lean

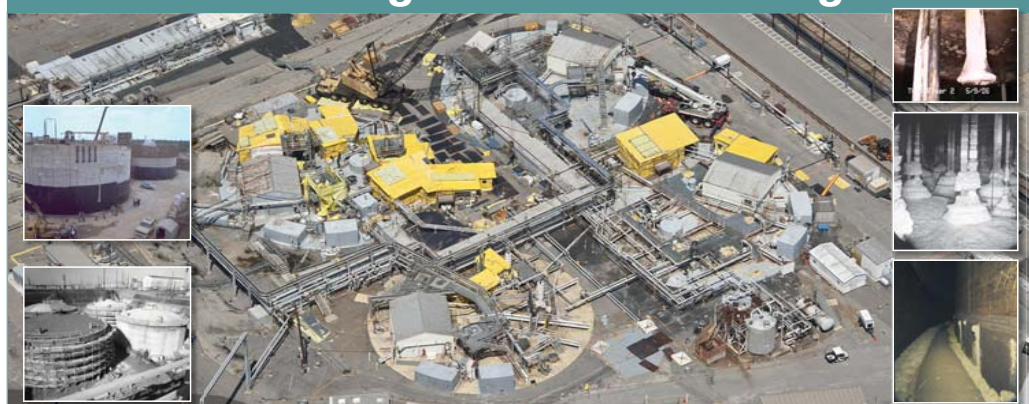


The Teams



Teams consisted of SRR employees and representatives from the South Carolina Department of Health and Environmental Conservation, Department of Energy, Savannah River National Laboratory, and external industry.

4-Pack of Underground Waste Storage Tanks



Benefits

- Engineering Documents Rapid Improvement Event**
 - 58 day (50%) reduction in average cycle time from design input to output
 - 50% reduction in the average number of drawings requiring change
- Contaminated Pump Removal Rapid Improvement Event**
 - Establish storage control for necessary equipment—reduces ~900 person-hours from critical path
 - Grout pumps in-place—saves ~\$1M per tank
- Tank Characterization Rapid Improvement Event**
 - Implement Project Management practices with the end in mind—removes three years from tank closure critical path and saves ~\$1.2M per tank
 - Collect samples prior to tank being dried—saves six months schedule or \$600K/tank
- Grouting of In-Tank Equipment (including cooling coils) Rapid Improvement Event**
 - Eliminate coil flushing—saves >\$65K per tank and generation of 5,000 gallons of liquid waste that historically goes back to an active waste tank for treatment
 - Eliminate grey water totes (20 per tank)—saves ~\$100K per tank
 - Standardize header removal—saves >2,000 person-hours per tank
- Just Stop Its/Just Do Its**
 - “Just Stop” ventilation removal
 - “Just Stop” pump removal when it does not make economic sense
 - Engineering develops and approves configuration management template
 - For each tank, define and obtain early DOE buy in to complete entire scope—waste removal through tank closure
 - Develop standard work package
 - Develop standard design for closure tanks

It's All in Our Own Hands—Insights to Lean Events

“Our own paradigms drive our behaviors: almost 100% of the time we discovered that we were over interpreting the rules or requirements.”

“There is a common misconception that since this is the way “we have always done it,” our stakeholders will not consider accepting anything different. The strength of the Lean process is that key stakeholders are invited to participate in the events. The assembly of affected parties is extremely powerful for team building and educating each other about what drives each organization’s decision making.”

“There is always more than one way to tackle a problem and our stakeholders are open to alternate solutions that have sound technical basis. In one instance, we were able to resolve a technical challenge during the course of an event that saved six months from our closure schedule – it was win-win for all parties!”

