



**Savannah River
Remediation**

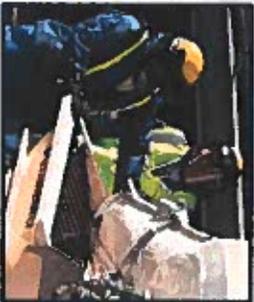
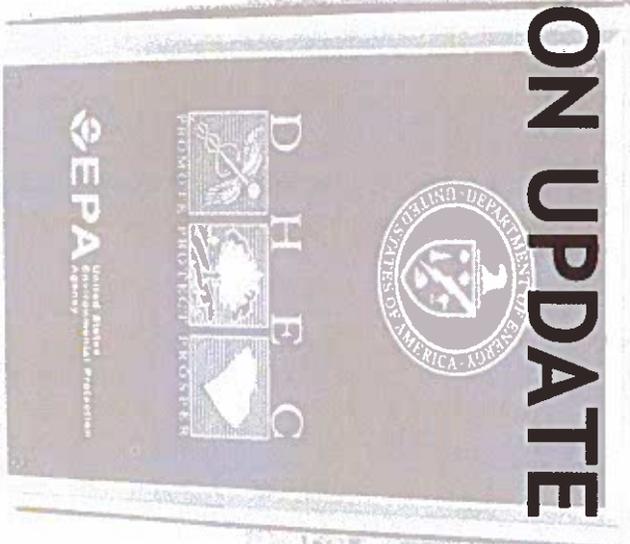
AECOM | BECHTEL | CH2M | BWXT

May 21, 2018

SAVANNAH RIVER REMEDIATION UPDATE

Phil Breidenbach

Chief Engineer



Savannah River Remediation Contract in Perspective

SRR Parent
Companies



AECOM



CH2M



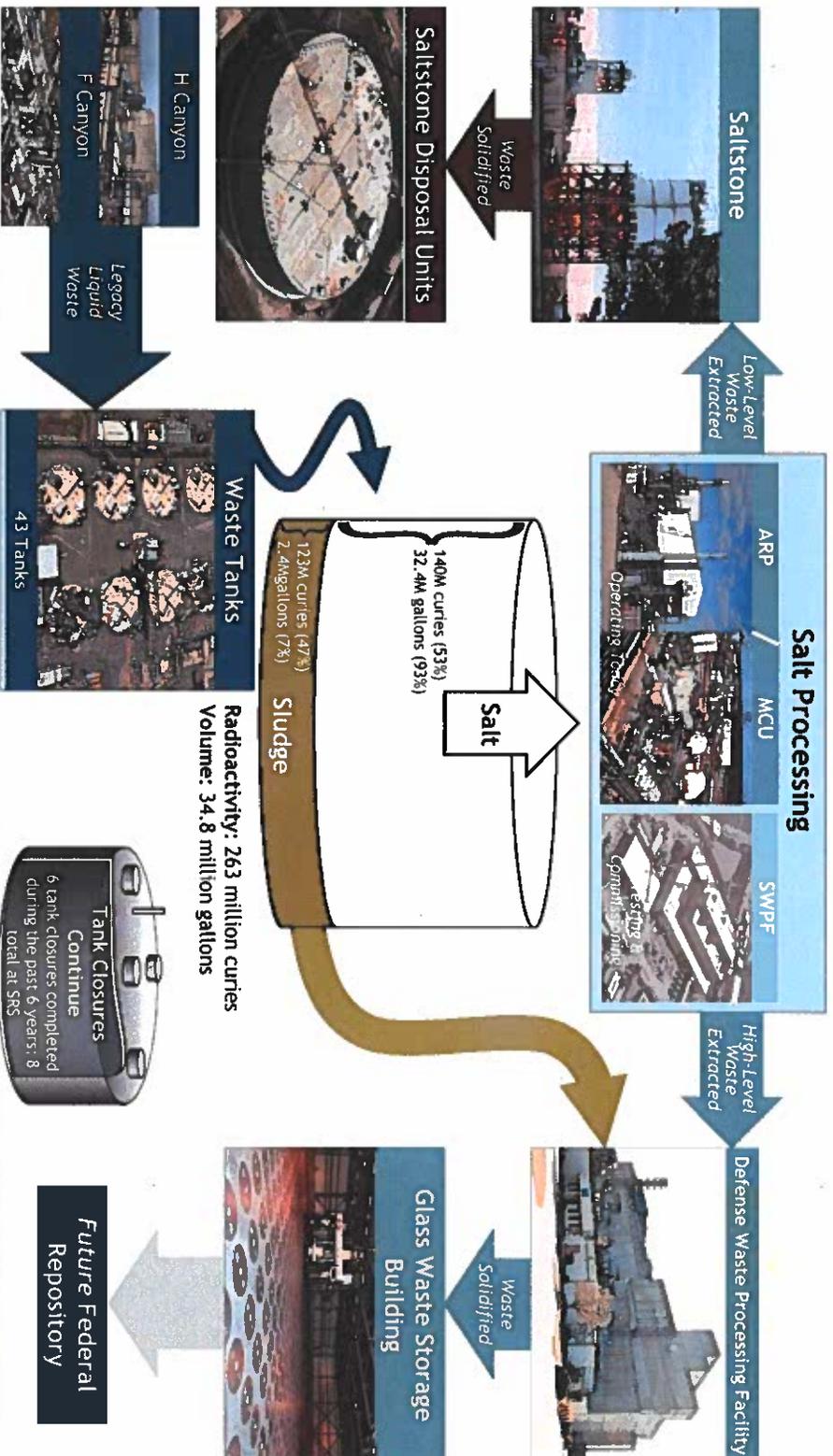
- SRR started the contract on July 1, 2009
- 6-year base contract, plus 2-year option, for high-level waste cleanup at SRS ending June 30, 2017
- DOE intends to extend the contract to March 31, 2019
 - Current workforce of ~2,200 employees (including subcontractors)
- Focused on Liquid Waste Mission
 - High-hazard operations
 - Complex Engineering, Procurement, & Construction
 - Closing waste tanks

Safety

- **Record-setting worker safety**
 - >8 million total project safe work hours - highest total since contract began
 - SRR Construction >29.9 million safe work hours (nearly 20 years)
- **Received the Voluntary Protection Program Star of Excellence for safety each year of contract**
- **Electrical mechanic working night shift suddenly experienced cardiac arrest**
 - Quick thinking by co-workers saved his life



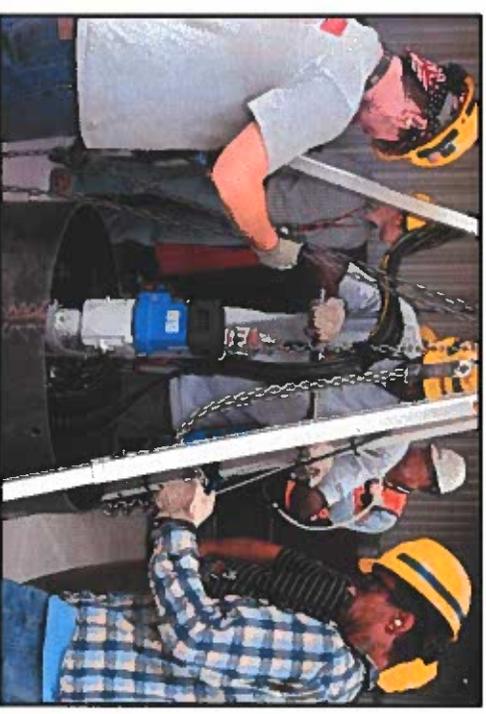
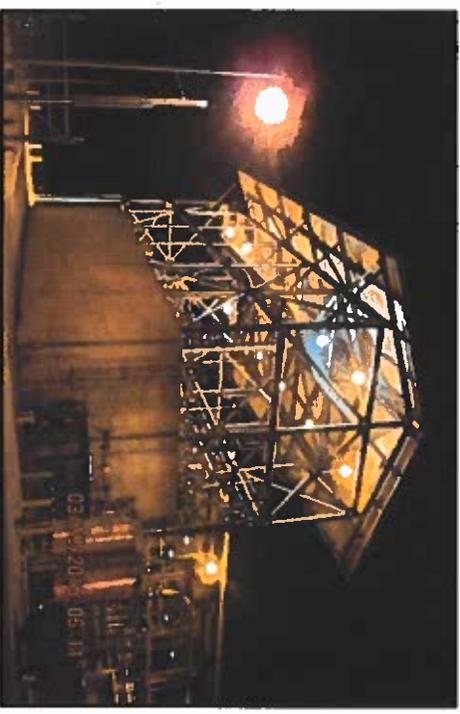
SRR Waste Tank Cleanup



“The high-level waste at the Savannah River Site represents the single largest environmental risk in South Carolina.”
— S.C. Department of Health and Environmental Control

Major Contract Accomplishments

- Produced more than 1,500 canisters and poured 6 million pounds of radioactive glassified waste
- Processed more than 6 million gallons of salt waste
- Stabilized and disposed of more than 10.9 million gallons of low-level liquid waste
- Designed and built SRS' first mega-volume (32 million gallons) Saltstone Disposal Unit
 - Cost \$120 million, came in 16 months ahead of target schedule/more than \$25 million under the target cost
- Operationally closed six high-level radioactive waste tanks



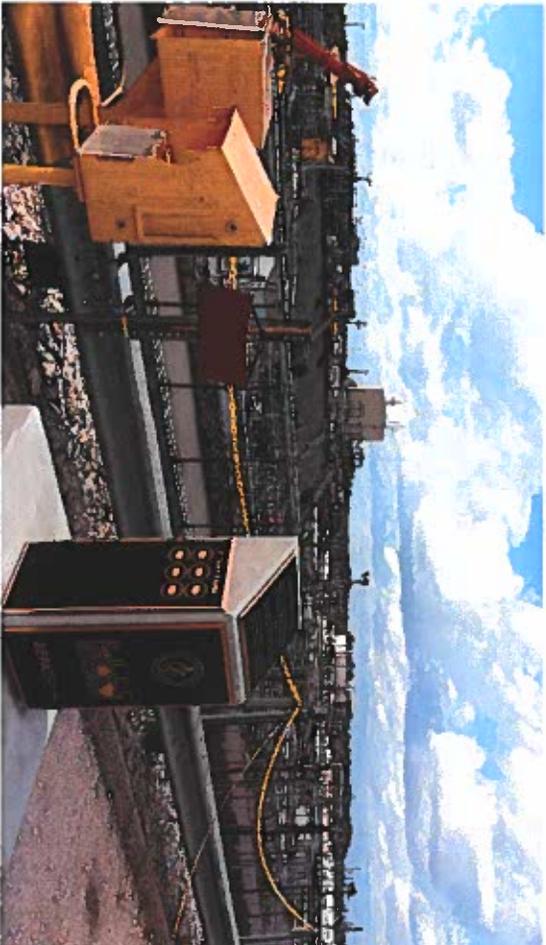
Excellence in Project Management: Saltstone Disposal Units

- **SDU 6**
 - DOE Environmental Management Project of the Year - Nov. 2017
 - DOE Project Management Excellence Award - March 2018
- **SDU 7**
 - Completed Phase 1 by removing trailers, structures, yard materials
 - Awarded storm water reroute subcontract
 - Completed team review of General Site Prep Design
 - Secretary of Energy Rick Perry breaks ground on SDU 7 in February
- **Work continues on SDUs 8-12**
 - Working through design, approvals, etc.
 - Moving the SDUs through together is more efficient for a proven concept



Excellence in Project Management: Tank Closure

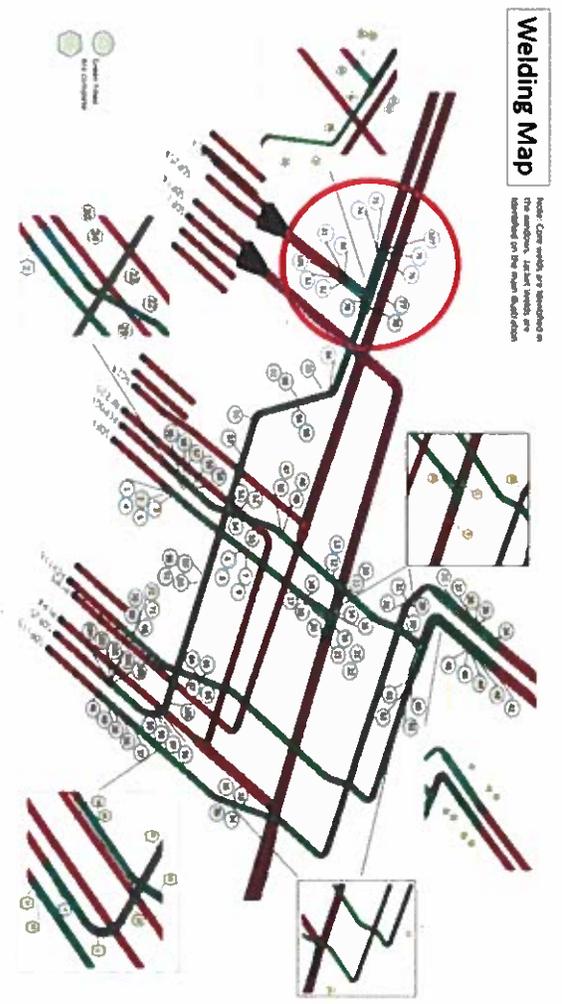
- **Operationally closed six high-level radioactive waste tanks**
 - Tanks 18 & 19 in 2012
 - Tanks 5 & 6 in 2013
 - Tank 16 in 2015
 - Tank 12 in 2016
- **2017 Project Management Institute Award for Project Excellence - Tank 12 Closure**
 - One of two Global awards given by PMI



Excellence in Project Management: Salt Waste Processing Facility Tie-ins

- **What the Work Entails**
 - Excavation to expose the transfer piping
 - Piping modifications to connect SWPF with the liquid waste facilities
 - Once the modifications are complete the excavated area will be backfilled
- **The Major Scopes of Work**
 - West Transfer Lines, Tank 49 feed modifications, DWPF modifications

Completing this work is imperative to SWPF startup

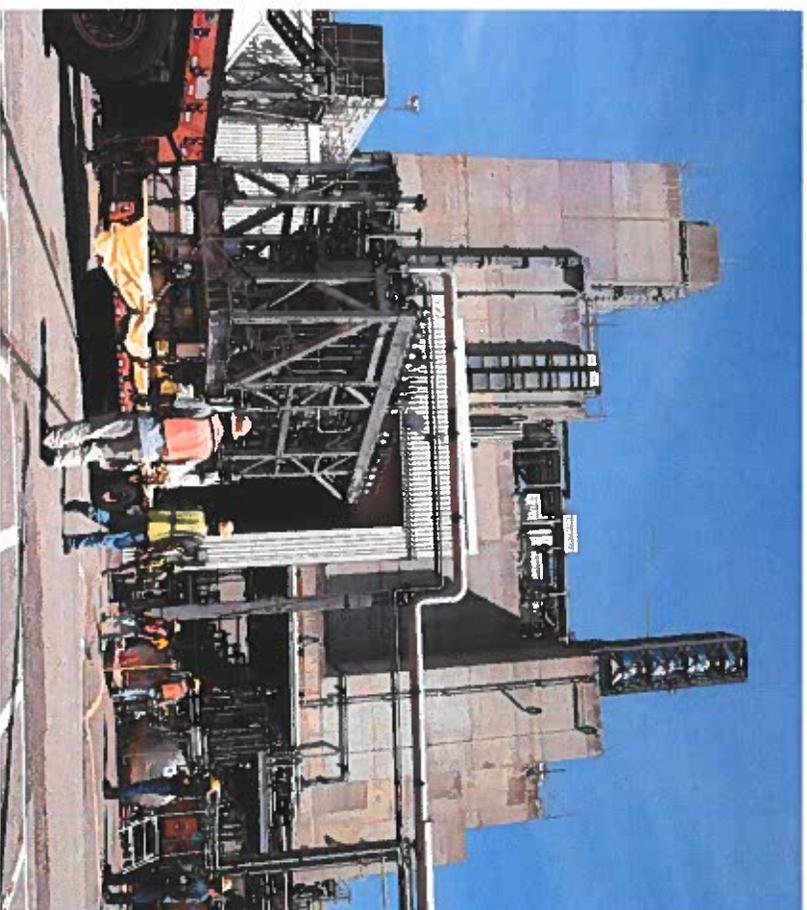


Excellence in Project Management: Melter 2

- Over its 14-year lifetime, Melter 2 poured more than 10.4 million pounds of glassified waste, totaling 2,678 canisters

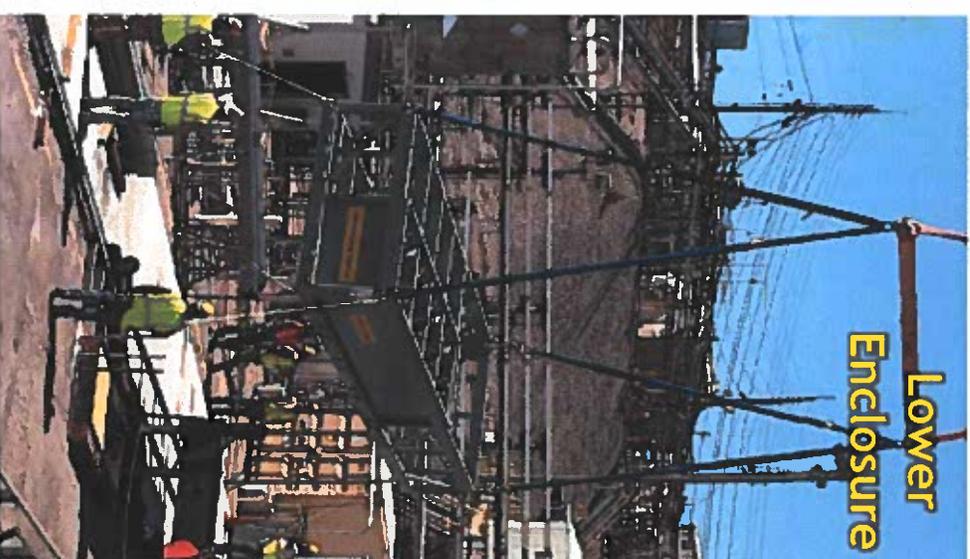
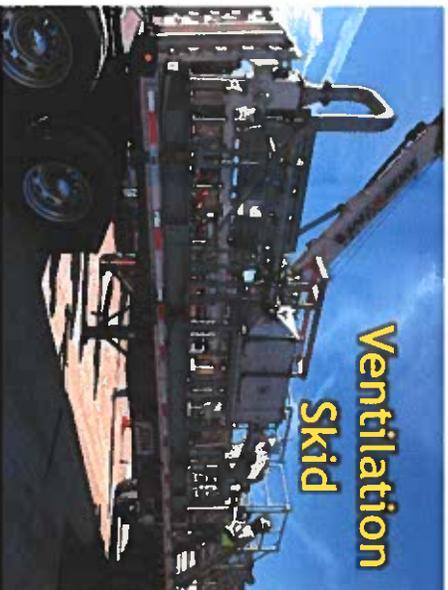
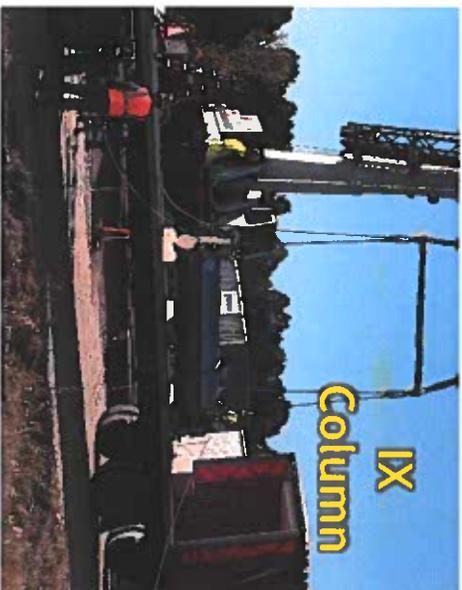


- Melter 3 installed, successfully poured 7 canisters at the end of 2017, beginning of 2018



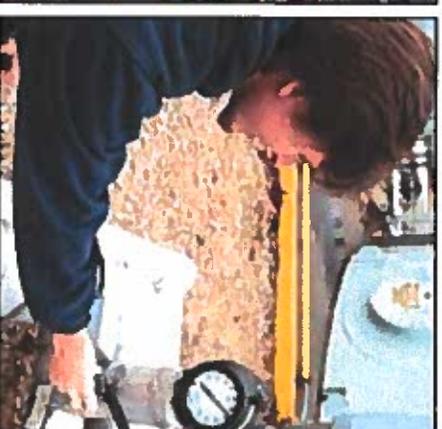
Tank Closure Cesium Removal

- Ion exchange technology provided additional method to remove cesium from waste tanks
- First time a large-scale mobile ion exchange process will be used in the DOE Complex
- Savannah River National Laboratory real waste sample analysis ongoing
- Training and Procedures being developed
- Regulatory/Permit progressing
- Demonstration operations target start is late this year



Ready for the Future

- Completing final pre-flight checks now before liquid waste system begins full production again this month
- Preparing a robust system for future operations
- SRR continues to operate effectively to ensure liquid waste mission accomplished
- Even in ongoing contract extensions, SRR continuing to innovate, operate successfully



*Advancements have and will
continue to accelerate the liquid waste mission*