Savannah River Site Waste Disposition Project

Clean-up Progress – Clearing the Way for the Future

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Liquid Waste Disposition - Mission

Radioactive Liquid Waste - Tank Waste Stabilization and Disposition

- Safely treat and disposition 36 million gallons of radioactive liquid waste and close 49 underground storage tanks in which the waste now resides by 2028 to reduce risk and meet regulatory commitments

Solid Waste – Stabilization and Disposition

- Treat, store, transport, and dispose of transuranic (TRU), hazardous (HW), mixed (LLMW), low-level (LLW), and sanitary wastes generated at SRS throughout the Environmental Management mission

Radioactive Liquid Waste Disposition

"Radioactive waste stored in SRS tanks poses the single greatest environmental risk in the State of South Carolina."

Challenge:

- Safely store, treat and stabilize legacy liquid waste
- Remove waste and close 49 remaining waste tanks

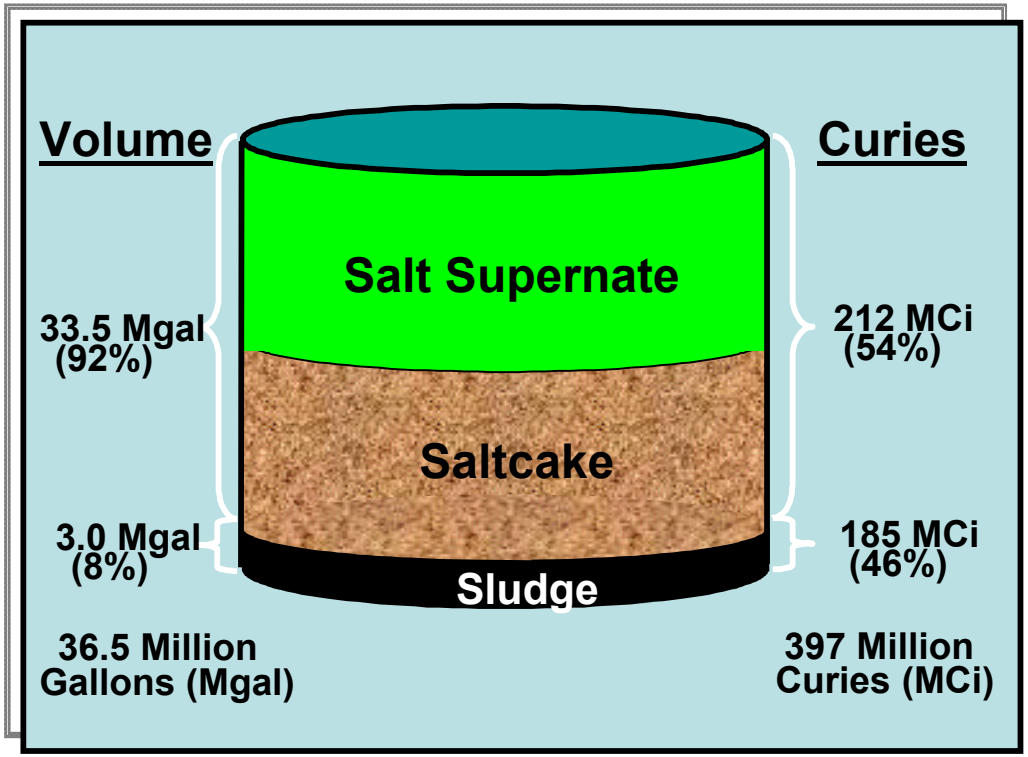
Regulatory Framework

- Federal Facility Agreement (FFA) – Close all noncompliant tanks by Fiscal Year (FY) 2022
- Site Treatment Plan (STP) – remove waste from all tanks by FY 2028
- Tank Closure and waste disposition must meet Section 3116(a) of the Ronald W. Reagan National Defense Authorization Act for FY 2005
- Facilities operated under State-issued permits
- Total radioactivity sent to Saltstone vaults limited to 1.4 million (M) Curies (Ci)

Liquid Waste Background

Facts…

- Two tanks closed
- 49 tanks remaining to close
  - Aging, carbon steel
  - 27 compliant, 22 noncompliant
  - 12 have known leak sites
- Contain half of the radioactivity in the DOE complex
- 1.3 million gallons remaining usable space



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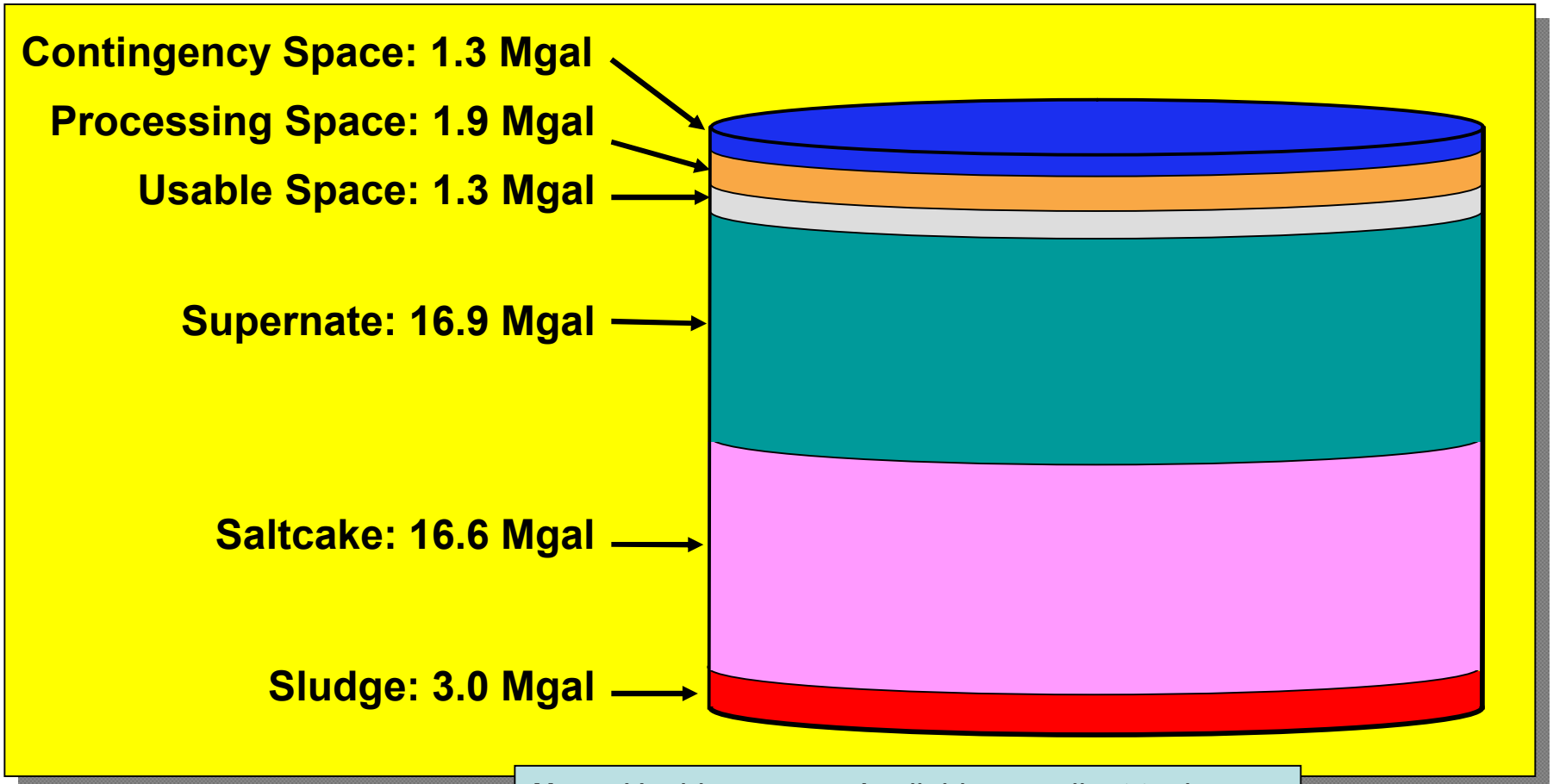
Liquid Waste Tank Space



Note: Usable space = Available compliant tank space less processing space and contingency space

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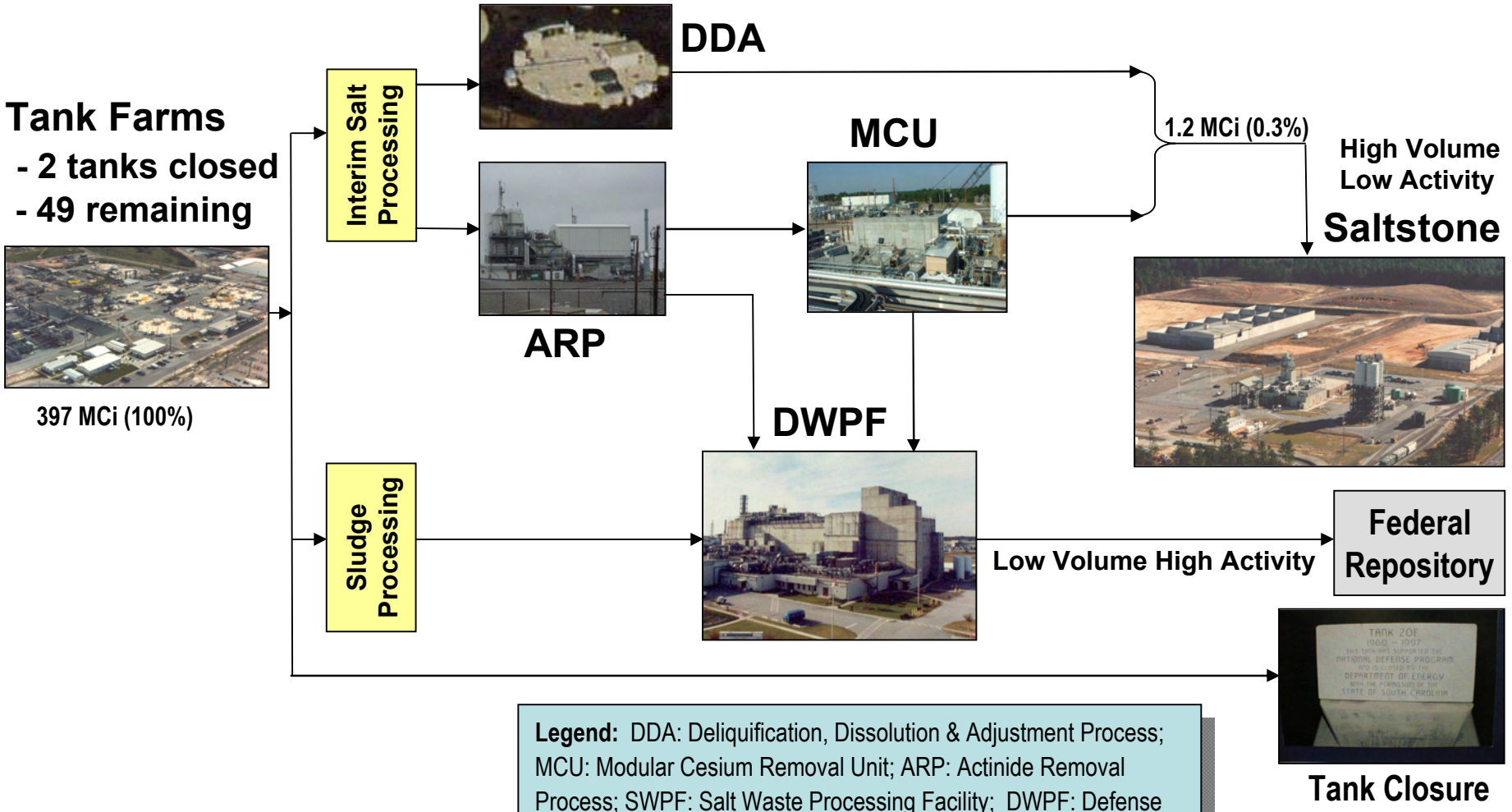
Liquid Waste Processing – 2008



Legend: DDA: Deliquification, Dissolution & Adjustment Process; MCU: Modular Cesium Removal Unit; ARP: Actinide Removal Process; SWPF: Salt Waste Processing Facility; DWPF: Defense Waste Processing Facility; MCi: Million Curies

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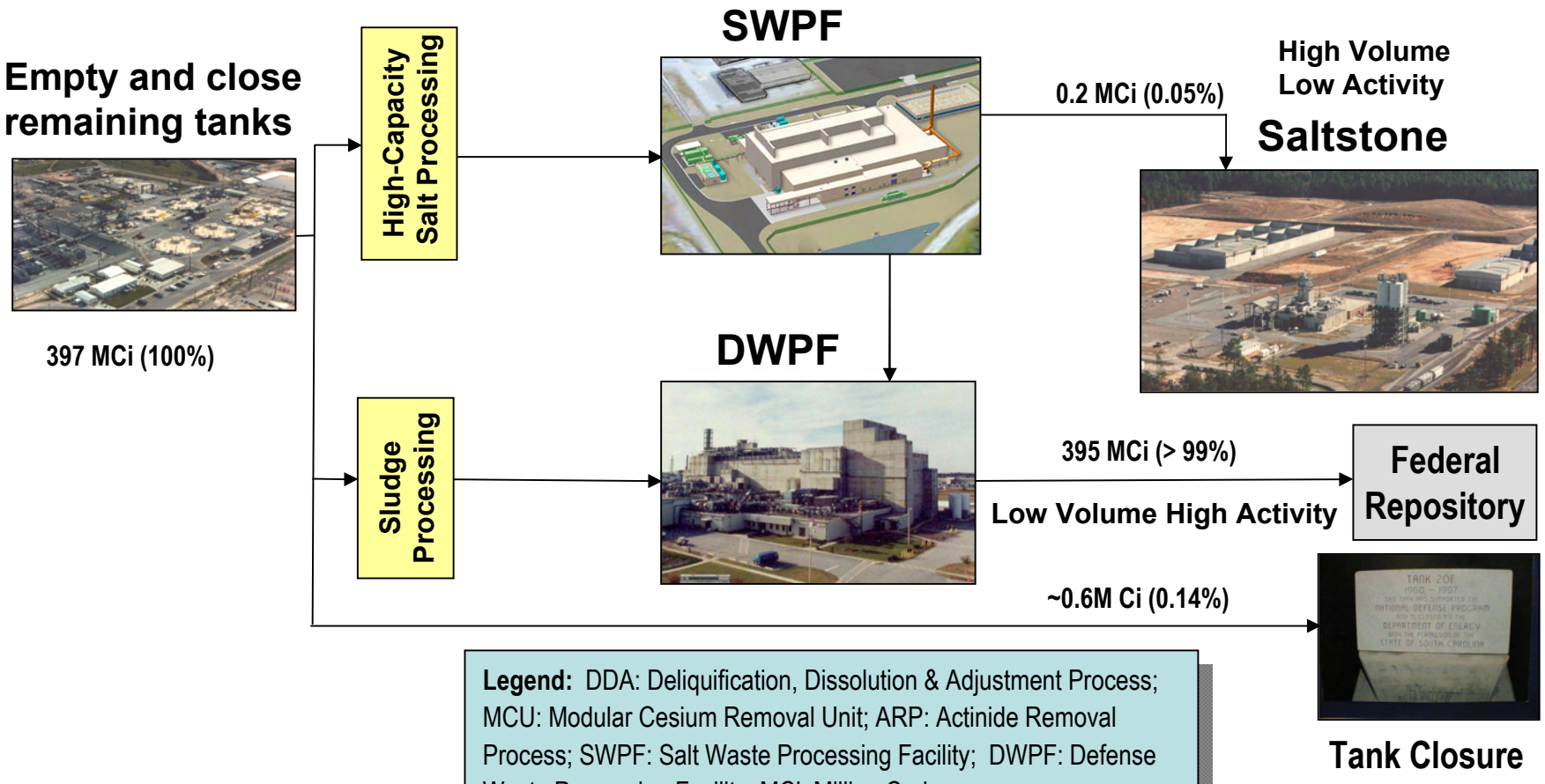
Liquid Waste Processing – Next Five Years

- Vitrify over 800 canisters of high level waste (3,400 total)
- Complete DDA and ARP/MCU interim salt processing
- Recover Tanks 41, 48, and 50 for SWPF feed preparation
- Recover Tank 42 for DWPF feed preparation
- Prepare feed for SWPF operations
- Complete bulk waste removal for 3 liquid waste tanks
- Complete closure of 2 liquid waste tanks
- Fill Saltstone Vault 4 and construct and fill 3 additional Saltstone Vaults
- Support H-Canyon in accomplishing its missions

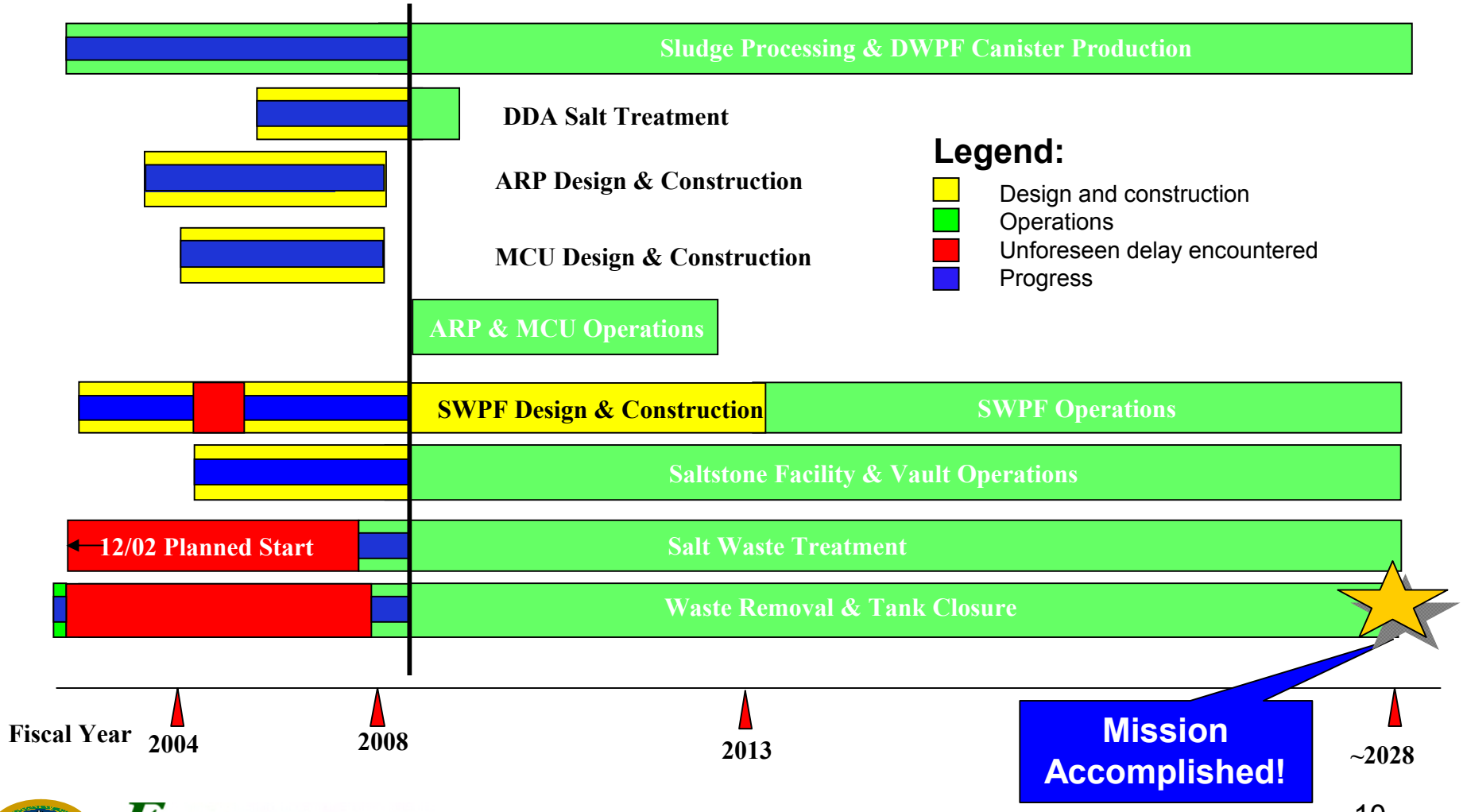
Liquid Waste Processing – 2013



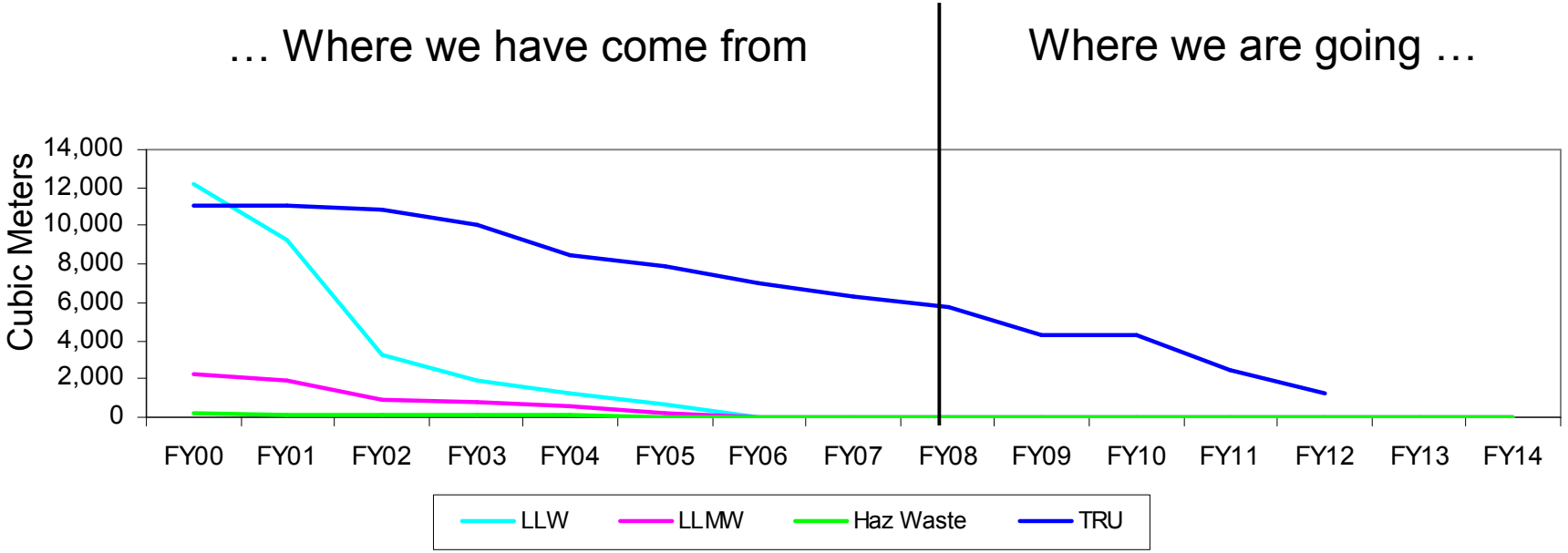
Liquid Waste Processing – Five to Ten Year Horizon

- Vitrify an additional 1,100 canisters of high level waste (4,500 total)
- Start shipping DWPF canisters to the Federal Repository
- Start-up and operate SWPF to rapidly treat and disposition salt waste
- Construct and fill 12 additional Saltstone Vaults
- Complete bulk waste removal for 13 additional non-compliant liquid waste tanks
- Complete closure of 6 additional non-compliant liquid waste tanks
- Closure of F-Tank Farm well underway
- Continue to support H-Canyon in accomplishing its missions

Liquid Waste Project Schedule



Legacy Solid Waste Inventory



- Legacy LLW, LLMW and HW dispositioned
- Legacy drummed TRU Waste will complete in 2009
- Legacy boxed TRU Waste disposition will complete by 2016

Continuing Challenges

- **Radioactive Liquid Waste**
  - Safely operating SRS tank farms
  - Maintaining sufficient tank space for processing
  - Vitrifying and storing waste for final disposition
  - Constructing SWPF
  - Removing waste from old style tanks
  - Recovering Tank 48 for unrestricted use
- **Solid Waste**
  - Identifying disposition pathways for all legacy TRU waste
  - Being vigilant in the generation of future waste to prevent accumulation of stored waste

Summary

- The Savannah River Site (SRS) is moving forward with safe treatment, stabilization and disposal of liquid and solid legacy wastes
- Strategies are in place for completion of solid waste mission by 2016 and liquid waste mission by 2028
- SRS appreciates and values the input and involvement of the SRS Citizens Advisory Board and stakeholders in effectively meeting the challenges still before us