

March 27, 2017

# DEFENSE WASTE PROCESSING FACILITY: MELTER 2 REPLACEMENT

SRS Citizens Advisory Board Meeting

Aiken, SC

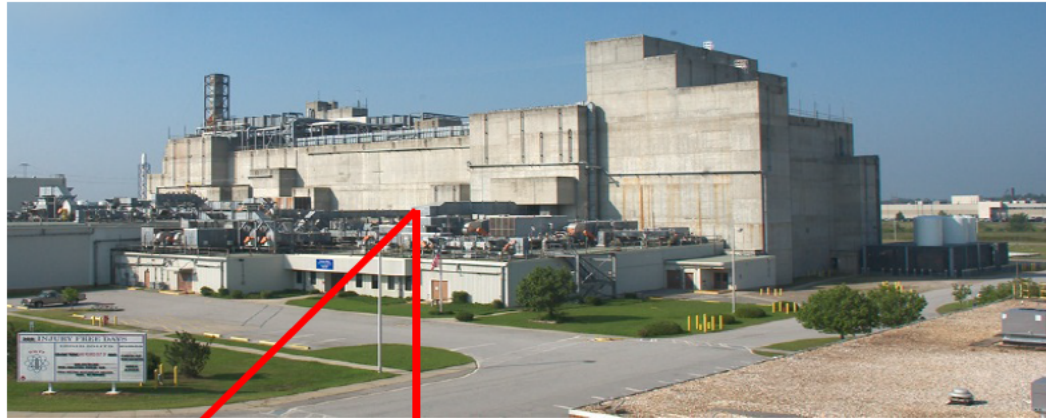
Wes Bryan

Waste Treatment Outage Manager

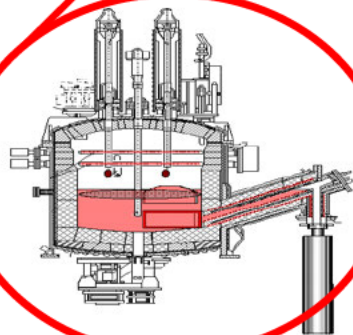


- **Melter Replacement Scope**
  - Melter 2 Removal
  - Melter 3 Prep & Installation
  
- **Questions**

# Melter



Defense Waste Processing Facility



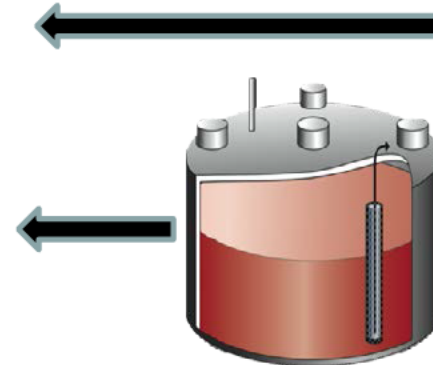
Melter



Shielded Canister Transporter



Glass Waste Storage Building



Tank Farms



Actinide Removal  
Process/Modular  
Caustic Side Solvent  
Extraction Unit



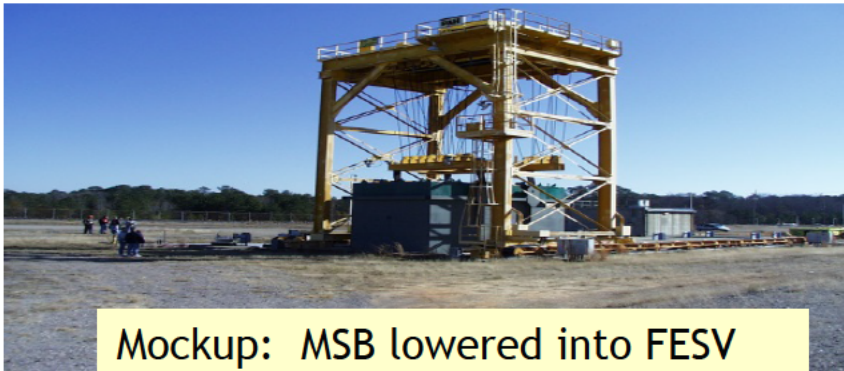
# Melter 2: Exceptional Performance

- The DWPF melter design life is ~2 years; however, Melter 2 operated for almost 14 years!
  - Equipment design improvements
  - Operational performance & monitoring
  - 2,819 canisters poured (>10 million lbs. of glass)
- **Benefits**
  - Minimized risk - Personnel Safety & Exposure
  - Exceeded mission objectives
  - Eliminated outage-related costs
- **Melter 2 experienced operational issues indicative of melter end of life and was shut down 2/14/17**



# Melter 2 Removal Scope

- **Cell Cover Cleanup for Melter 2 Exit Route**
  - 4-5 containers of equipment removed from cell covers
- **Cranes & Railroad**
  - Preventive/Corrective Maintenance & Inspections
- **Melter 2**
  - Jumper & Component Removal (93 total)
  - Post-mortem inspection & evaluation
  - Removal from DWPF via Melter Storage Box (MSB)
  - Placement into Failed Equipment Storage Vault (FESV)
  - Melt Cell Cleanup using robotics



Mockup: MSB lowered into FESV



Mockup: MSB staged on railcar



Melter 1 being placed into MSB

# Melter 3 Replacement Scope

- **Melter 3**
  - Placement of Melter 3 in mock-up stand at 717-F
  - Prep/test/checkout
  - Transport to DWPF
  - Installation/inspection/checkout
  - Startup testing



Melters 2 & 3 swap at 717-F



Melter 3 assembly September 2004



# Questions And Comments?