



U.S. DEPARTMENT OF
ENERGY



DWPF Canister Storage Facilities

Glass Waste Storage Buildings

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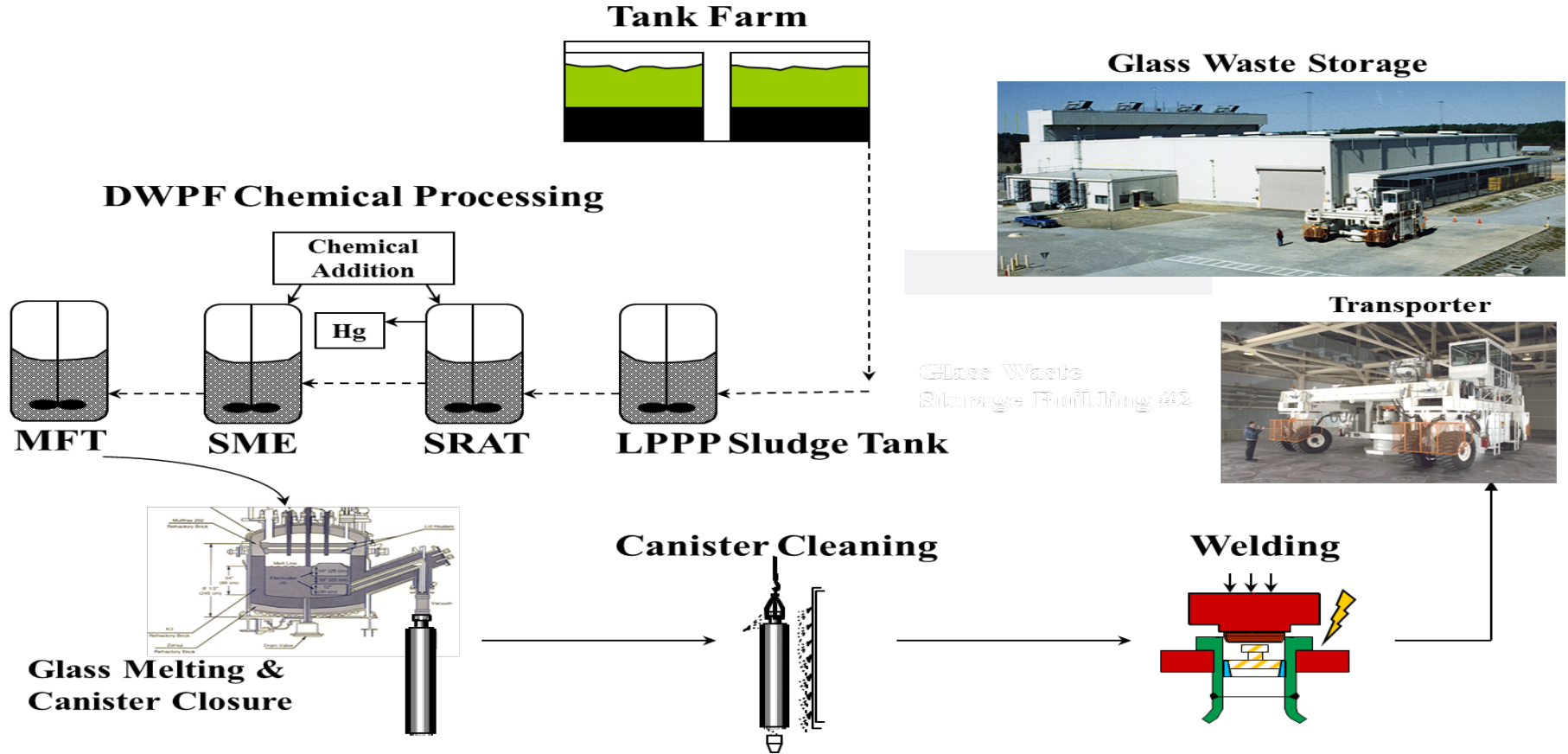
CAB Meeting

September 2017

Purpose

- Provide update on the DWPF Canisters Storage Capacity
- Provide update on GWSB #1 Interim Canister Storage Double-Stack Project

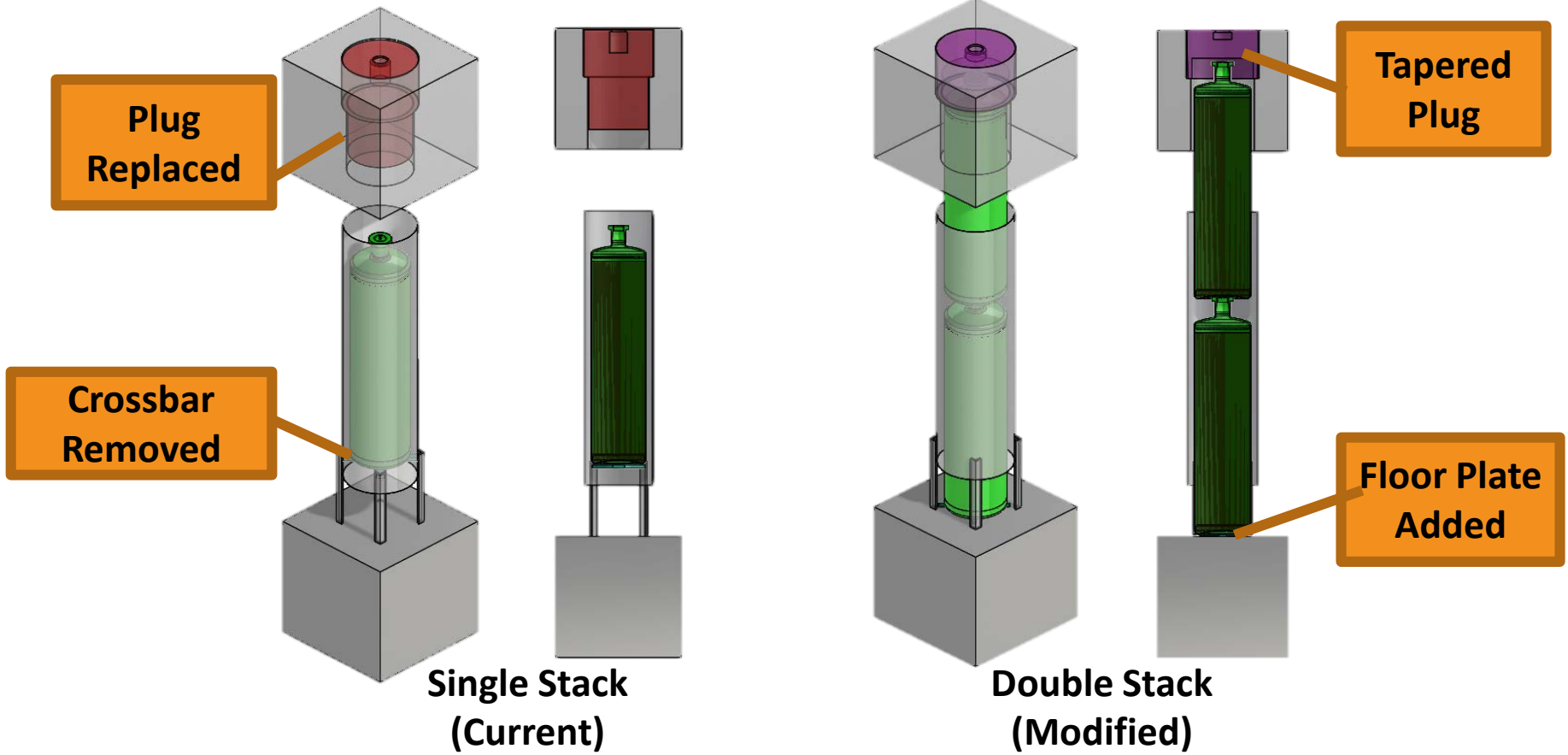
Vitrification Process



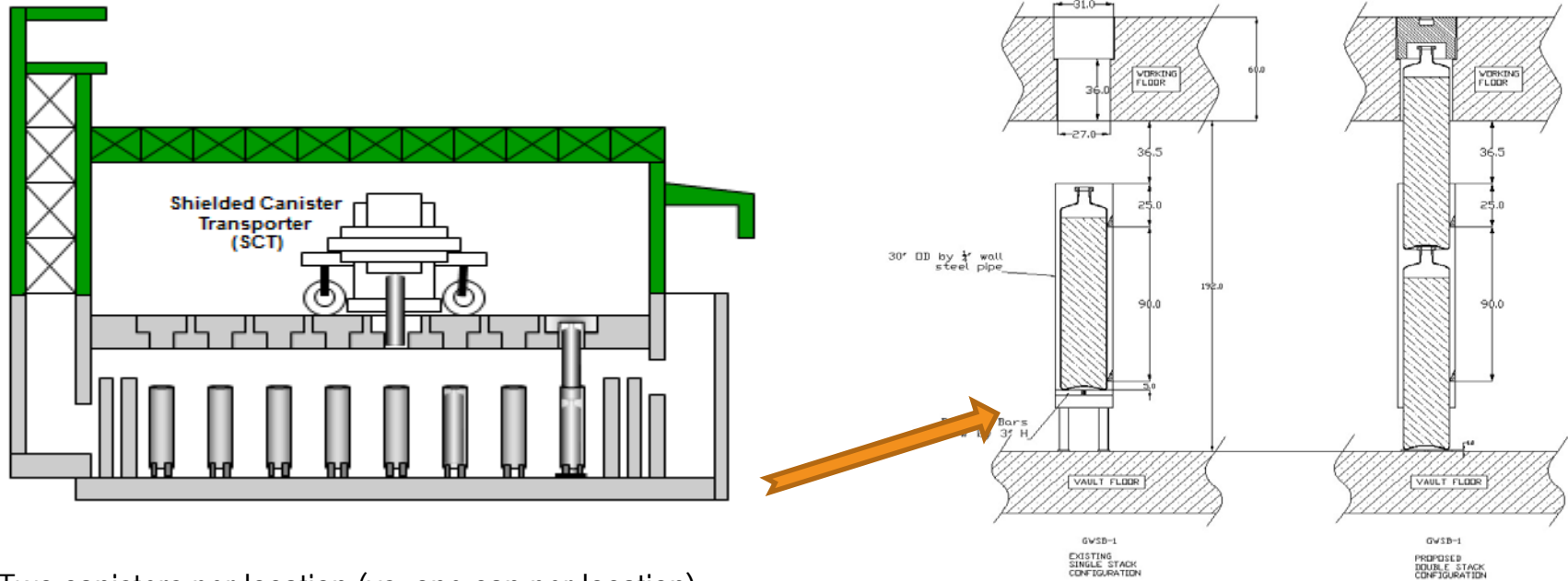
GWSB Storage Capacity

- Two Glass Waste Storage Buildings (GWSB)
 - 4,602 Storage Positions
(GWSB #1 – 2,262 Positions and GWSB #2 – 2,340 Positions)
- Interim Canister Storage – Double Stacking Project
 - GWSB #1 will double its capacity to 4,524 Storage Positions
 - Provides a total storage capacity of 6,864 (GWSB #1 - 4,524 and GWSB #2 – 2,340 Positions)
 - Additional storage capacity not needed until FY29
- Canisters Produced To Date (September, 2017) 4,155
- Estimated Total Canister Production – 8,170
 - Still need space for approximately 1,306 more canisters

Double Stacking Concept – Before and After



Interim Canister Storage – Double Stack Concept for GWSB1



- Two canisters per location (vs. one can per location)
- Lower canister on support on vault floor (vs. cross bar support 3' off floor)
- Upper canister placed directly on top of lower canister
- Upper canister extends into operating deck floor, but remains below grade
- Shield plug redesigned for equivalent radiological protection

Designed Tools



Crossbar Cutting Tool In Field

1. Tool capable of removing 1 ½ inch x 3 inch galvanized steel
2. Cross Bar Assembly is 1 ½ inch x 3 inch galvanized carbon steel bars
3. Cross Bar Assembly~ 18 ft down with 30 inch Outside Diameter



Crossbar Removed



Support / Crossbar



Completed Crossbar Cut

Glass Waste Storage Building Vault A



Inside View across vault A - Single Storage



Inside View of Vault A - Double Stack



Position Being Recovered in vault A



Concrete Plug being replaced with Redesigned Steel Plug

Summary

- 400 positions have been fully modified and available for use (Cross-bar cut, floor plate installed and cast iron plug installed)
- 73 additional positions have had the cross-bar removed. Plan to complete cross-bar removal on the remainder 73 positions in Vault A by 12/31/2017
- 202 canisters have been double stacked. Plan to double stack 100 more canisters by 12/31/17.

Acronym List

DWPF: Defense Waste Processing Facility

SWPF: Salt Waste Processing Facility

GWSB: Glass Waste Storage Building

LPPP: Low Point Pump Pit

SRAT: Sludge Receipt and Adjustment Tank

SME: Slurry Mix Evaporator

MFT: Melter Feed Tank

SCT: Shielded Canister Transporter

HLW: High Level Waste

OD: Outside Diameter

ID: Inside Diameter