Savannah River Remediation

We do the right thing.

Saltstone Enhancements

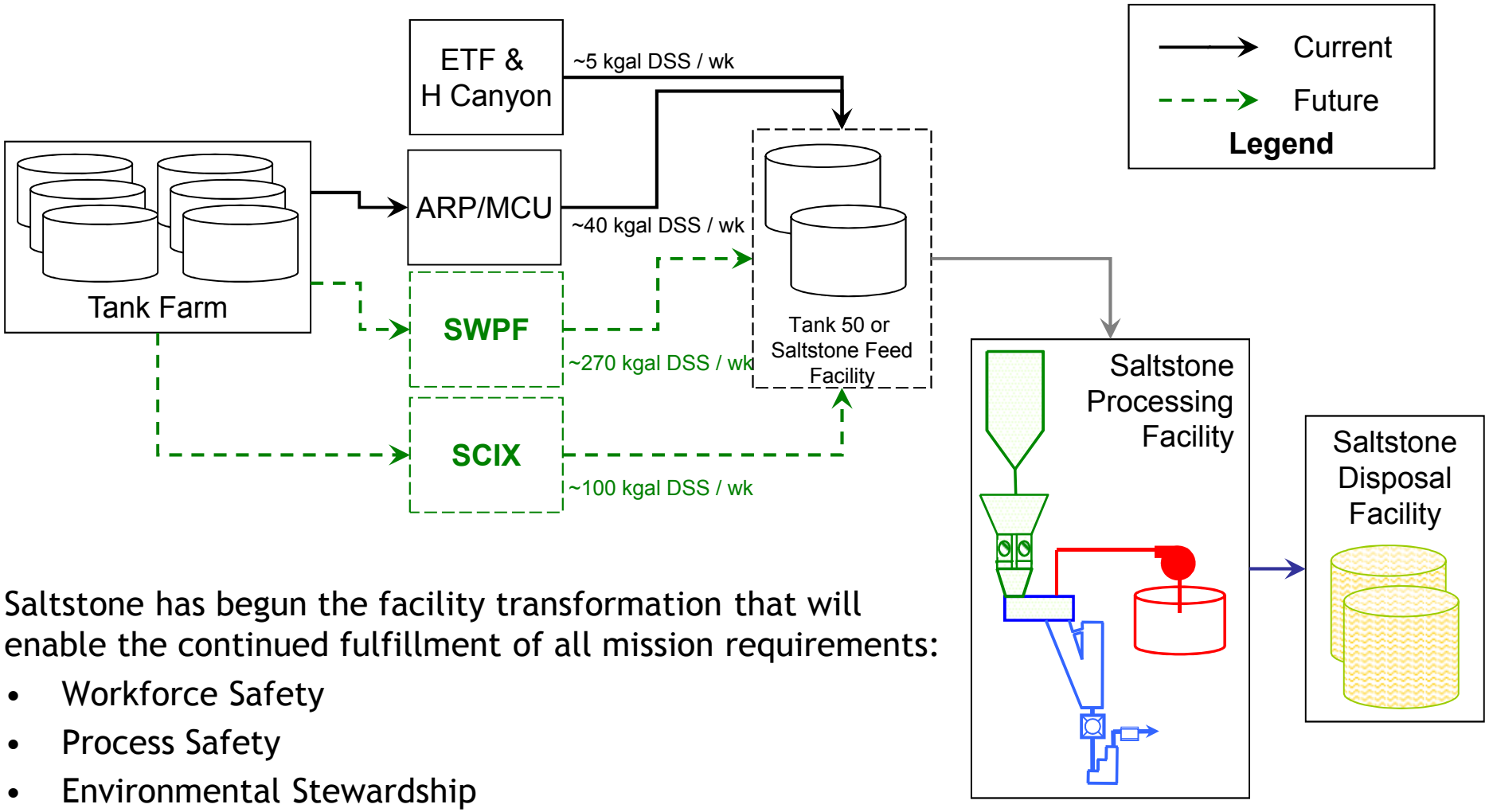
Presentation to the Citizens Advisory Board
December 13, 2011

Les Sonnenberg
DWPF / Saltstone Facility Manager
Savannah River Remediation

Agenda

- Salt Waste Processing Flowsheet
- Current Saltstone Process
- Saltstone Enhancements
- Current Status

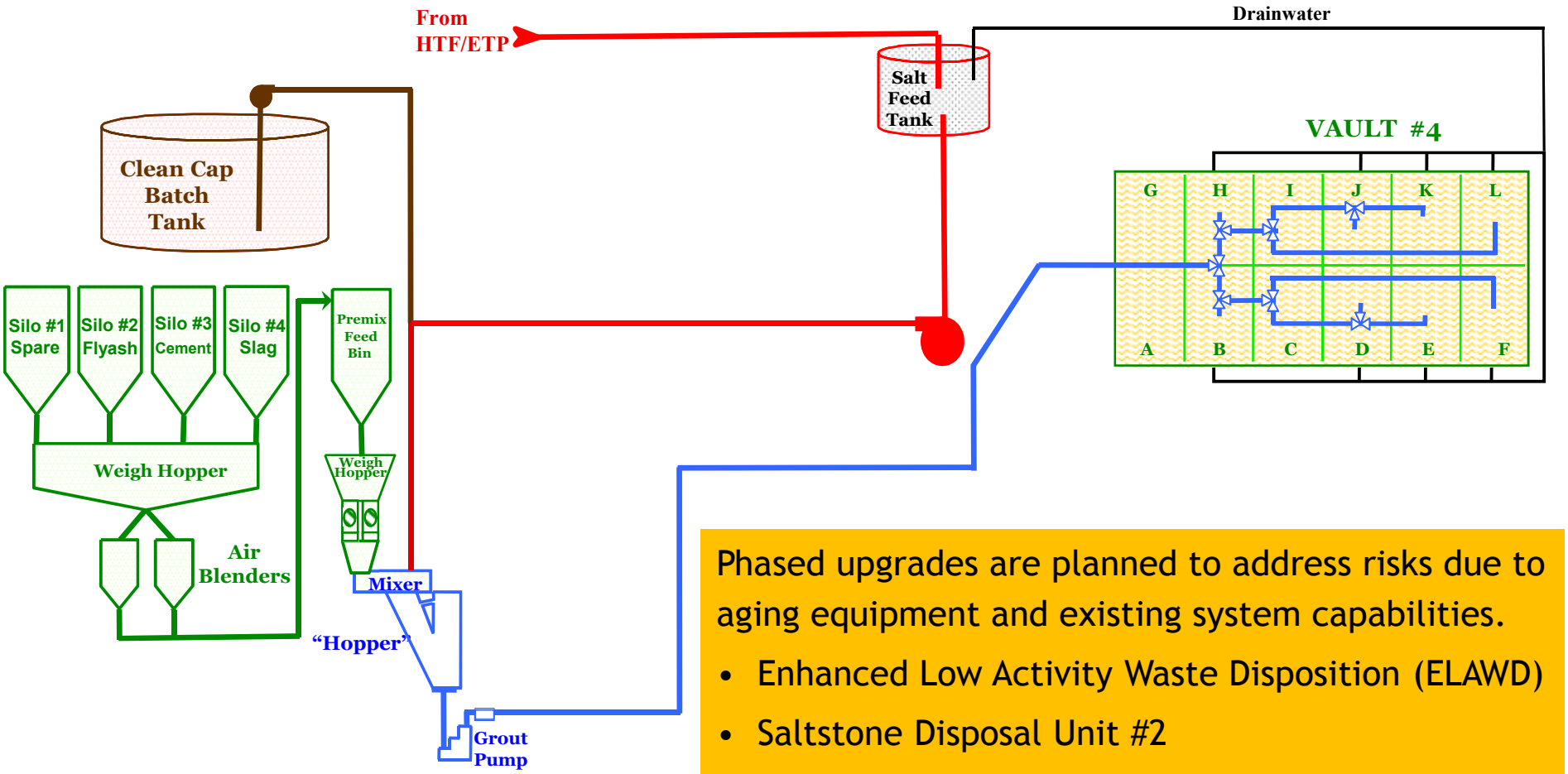
Salt Waste Processing



Saltstone has begun the facility transformation that will enable the continued fulfillment of all mission requirements:

- Workforce Safety
- Process Safety
- Environmental Stewardship
- Life Cycle Objectives

Current Saltstone Process



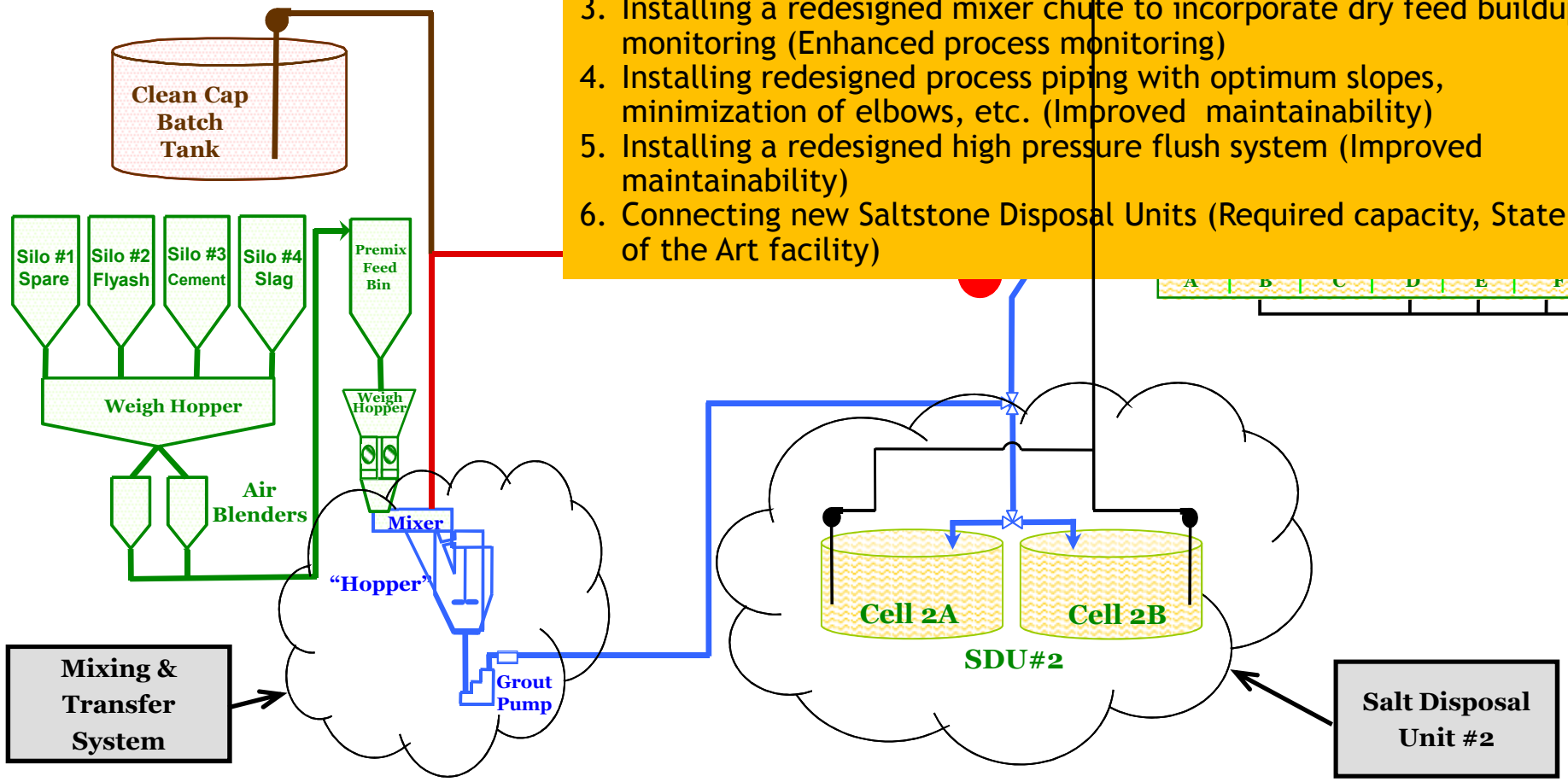
Phased upgrades are planned to address risks due to aging equipment and existing system capabilities.

- Enhanced Low Activity Waste Disposition (ELAWD)
- Saltstone Disposal Unit #2
- Salt Solution Receipt Tanks

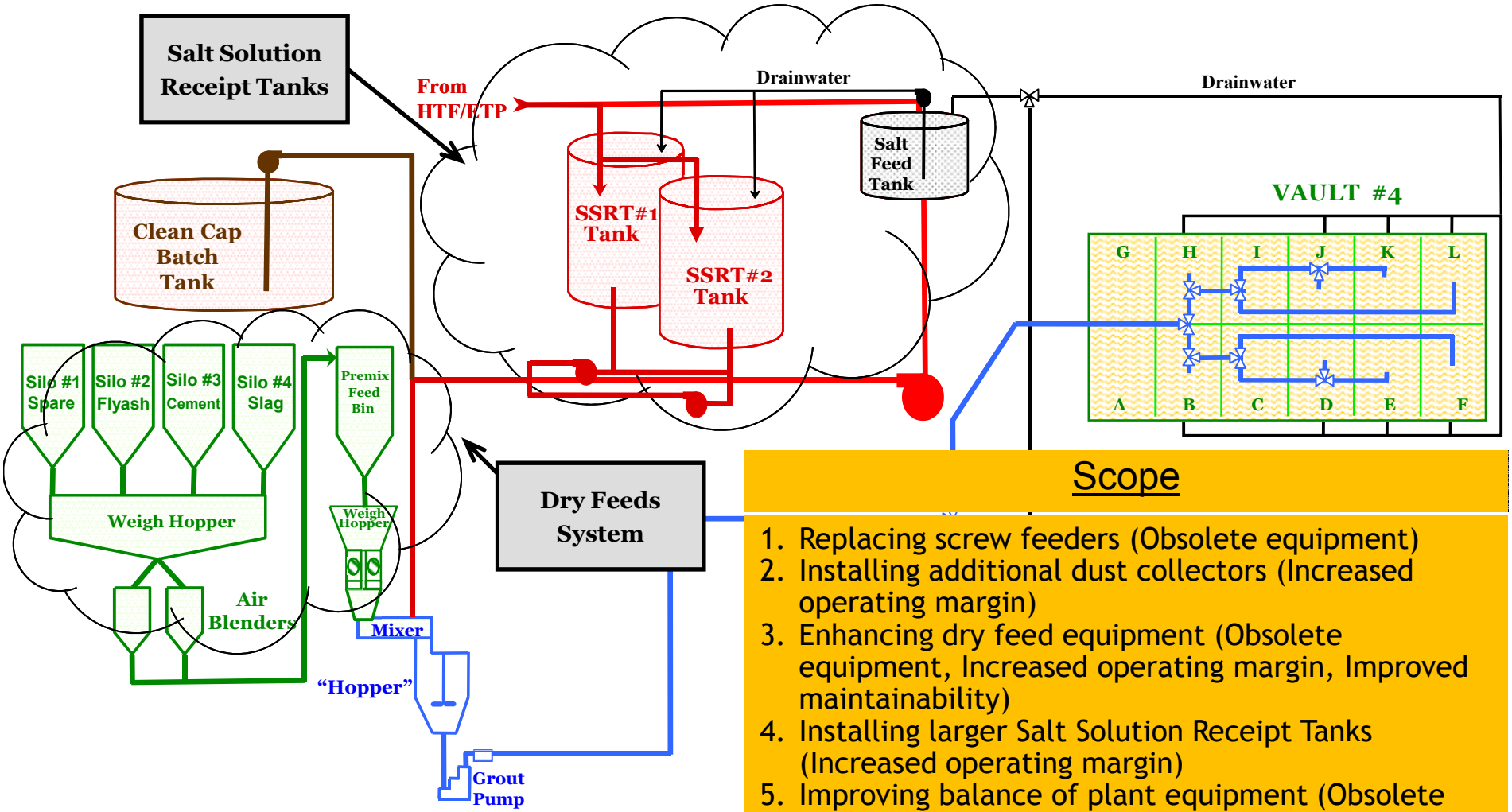
Current Outage - Phase I

Scope

1. Installing a redesigned grout hopper (Increased operating margin)
2. Replacing the mixer (End of life)
3. Installing a redesigned mixer chute to incorporate dry feed buildup monitoring (Enhanced process monitoring)
4. Installing redesigned process piping with optimum slopes, minimization of elbows, etc. (Improved maintainability)
5. Installing a redesigned high pressure flush system (Improved maintainability)
6. Connecting new Saltstone Disposal Units (Required capacity, State of the Art facility)



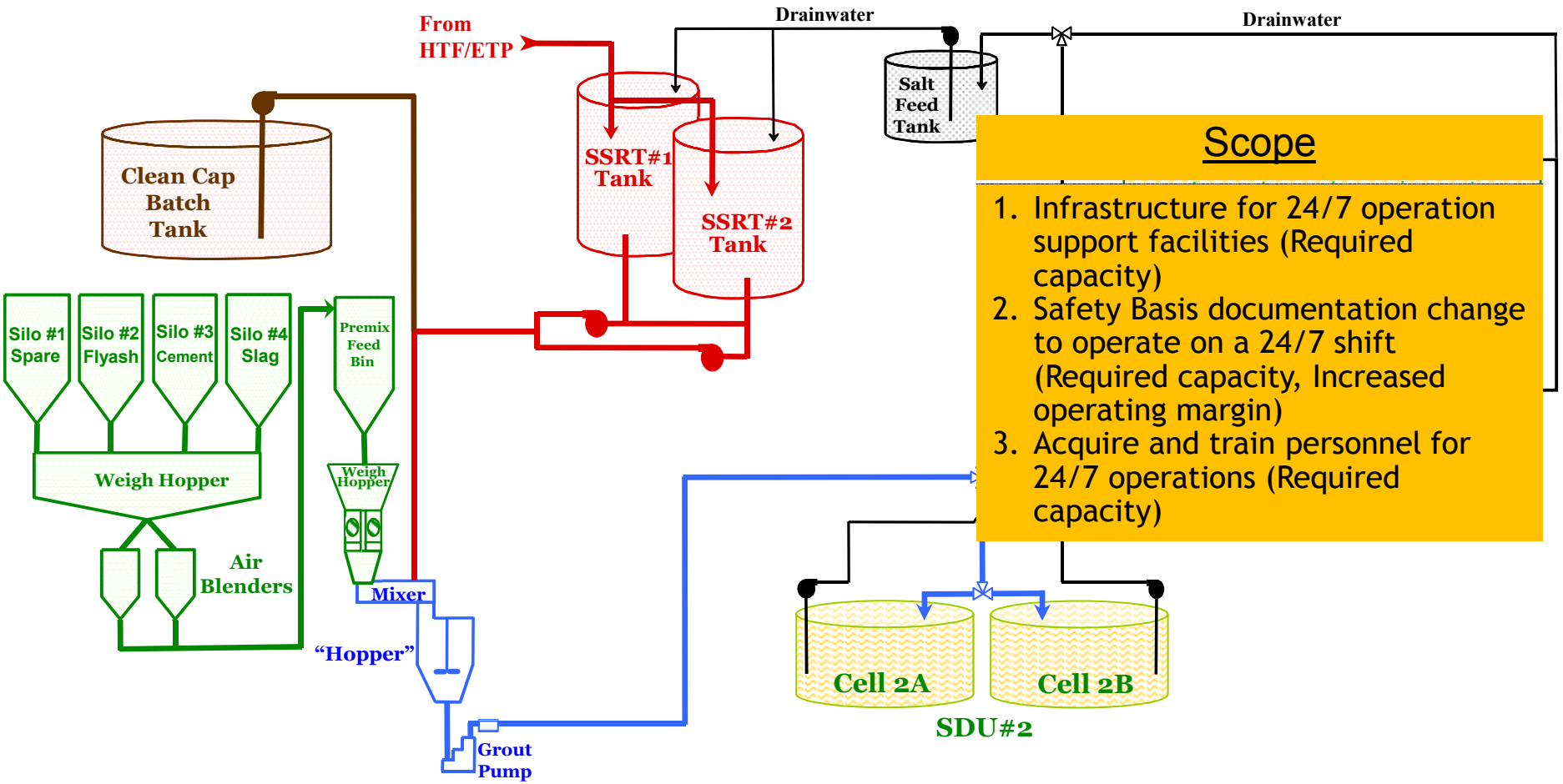
2013 Modifications - Phase II



Scope

1. Replacing screw feeders (Obsolete equipment)
2. Installing additional dust collectors (Increased operating margin)
3. Enhancing dry feed equipment (Obsolete equipment, Increased operating margin, Improved maintainability)
4. Installing larger Salt Solution Receipt Tanks (Increased operating margin)
5. Improving balance of plant equipment (Obsolete equipment, Increased operating margin, Improved maintainability)

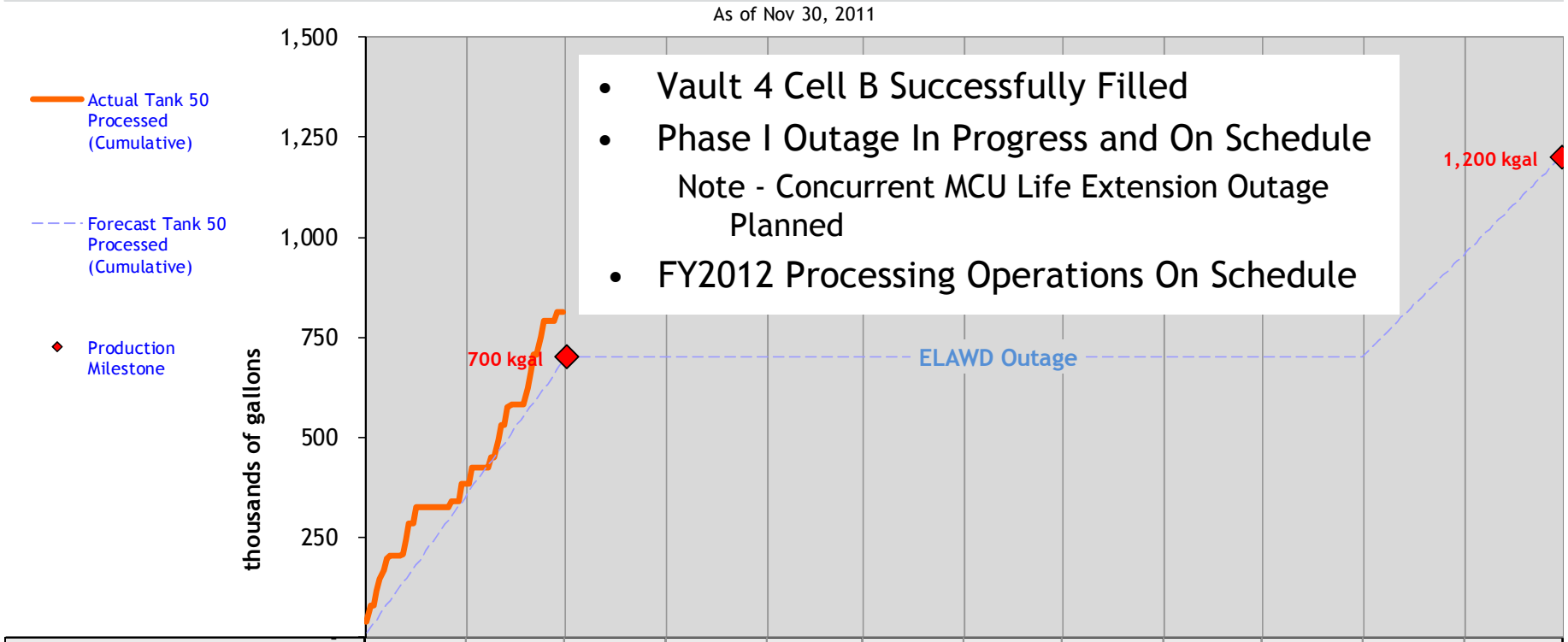
24/7 Modifications



Scope

1. Infrastructure for 24/7 operation support facilities (Required capacity)
2. Safety Basis documentation change to operate on a 24/7 shift (Required capacity, Increased operating margin)
3. Acquire and train personnel for 24/7 operations (Required capacity)

Current Status



- Vault 4 Cell B Successfully Filled
- Phase I Outage In Progress and On Schedule
  - Note - Concurrent MCU Life Extension Outage Planned
- FY2012 Processing Operations On Schedule

Data (gallons—end of month)	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12
Actual Tank 50 Processed (Cumulative)	381,676	812,437										

Acronyms

ARP – Actinide Removal Process
DSS – Decontaminated Salt Solution
DWPF – Defense Waste Processing Facility
ELAWD - Enhanced Low Activity Waste Disposal
ETF – Effluent Treatment Facility
HTF – H Tank Farm
MCU – Modular Caustic Side Solvent Extraction Unit
SCIX – Small Column Ion Exchange
SDU – Saltstone Disposal Unit
SSRT – Salt Solution Receipt Tank
SWPF – Salt Waste Processing Facility