

November 15, 2016

CITIZENS ADVISORY BOARD LIQUID WASTE (LW) READINESS FOR SALT WASTE PROCESS FACILITY (SWPF)



Keith Harp, Program Manager
SWPF Integration

We do the right thing.

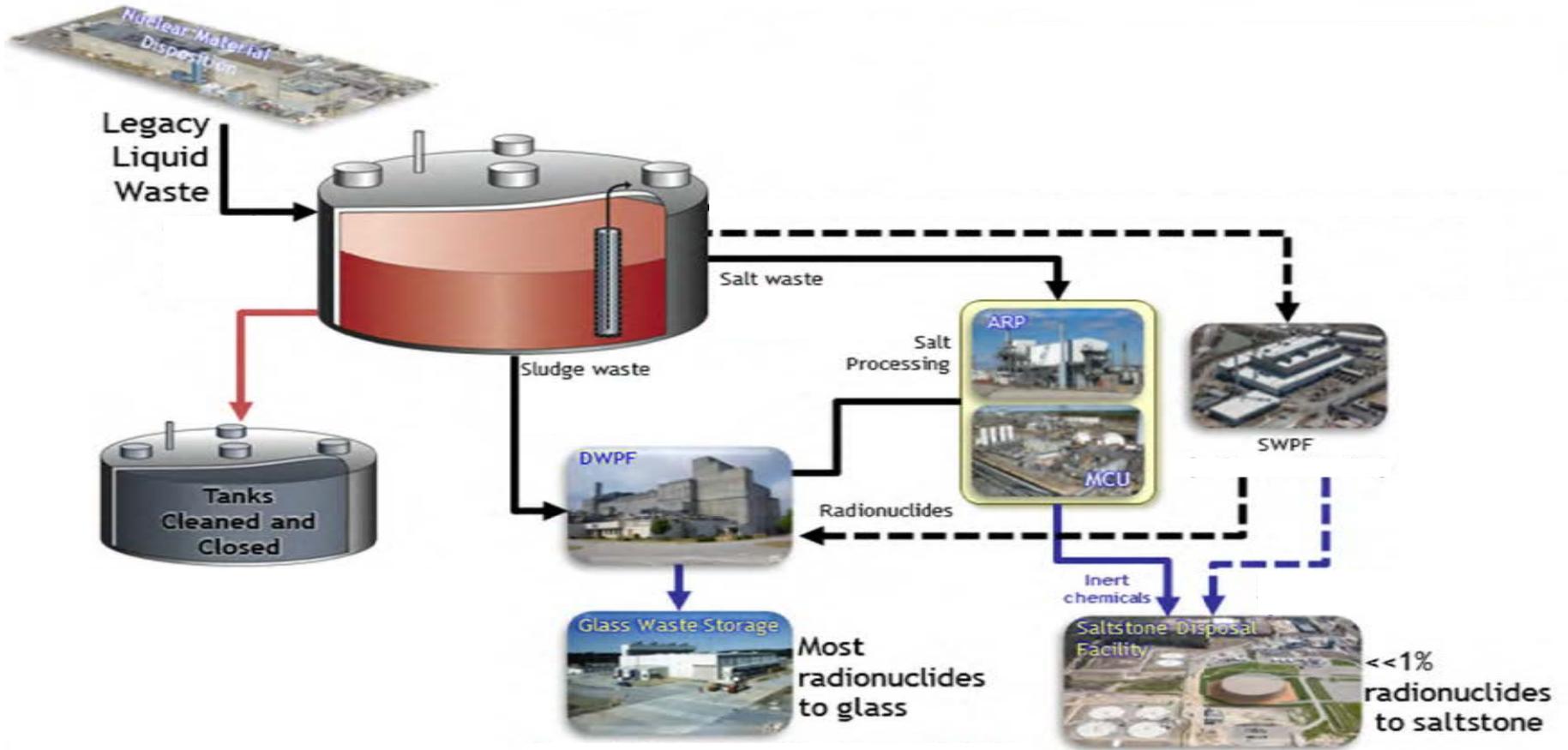
BCP	Baseline Change Proposal	LW	Liquid Waste
CHA	Consolidated Hazards Analysis	MCU	Modular Caustic Side Solvent Unit
CRF	Change Request Form	OAC	Operations Acceptance Checklist
DCS	Distributed Control System	PPT	Precipitate Pump Tank
DSA	Documented Safety Analysis	RCO	Radiological Controls Organization
DSS	Decontaminated Salt Solution	RSS	Raw Salt Solution
DWPF	Defense Waste Processing Facility	SC	Safety Class
FE	Field Engineering	SE	Strip Effluent
FTE	Full Time Equivalent	SEFT	Strip Effluent Feed Tank
HDB	H-Area Diversion Box	SEHT	Strip Effluent Hold Tank
IAL	Inter Area Line	SPT	Sludge Pump Tank
LCO	Limiting Condition of Operation	STP	Submersible Transfer Pump
LPPP	Low Point Pump Pit (511-S)	SWPF	Salt Waste Processing Facility
		TSR	Technical Safety Requirements

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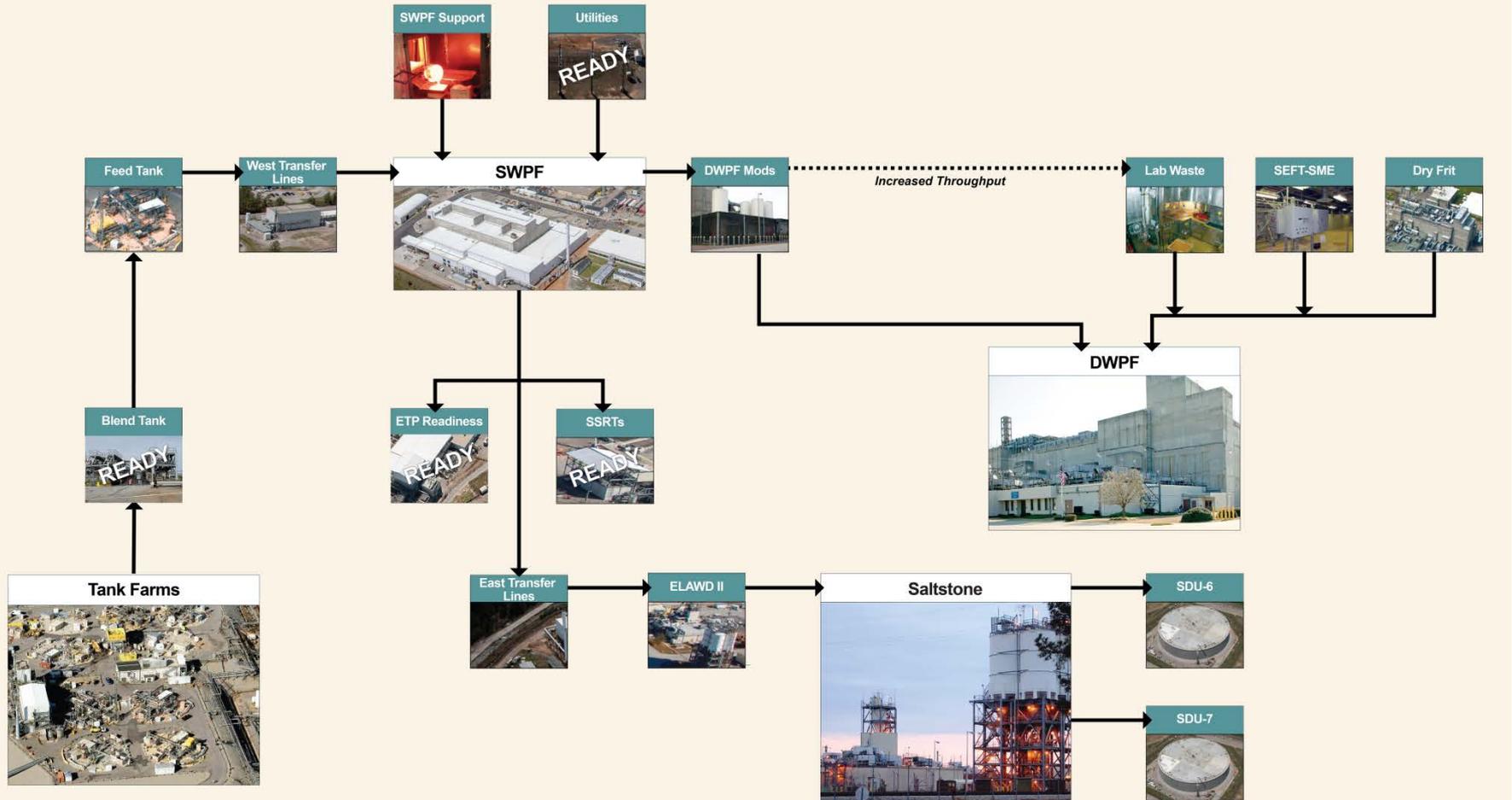
- System Overview
- Integration Flowsheet
- Video
- Accomplishments
- Tank 21
- Tank 49
- DWPF Modifications
- West Transfer Line Modifications
- TiO₂

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SRR Liquid Waste Program



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October 26, 2016

- **EMBED VIDEO** SRR-SWPF-2016-00003, Rev 1

■ East Transfer Lines

- Completed installation of the Decontaminated Salt Solution (DSS) line extension from the Salt Waste Processing Facility (SWPF) tie in point toward the Tank 50 to Saltstone Inter Area Line (IAL) and backfilled the excavation



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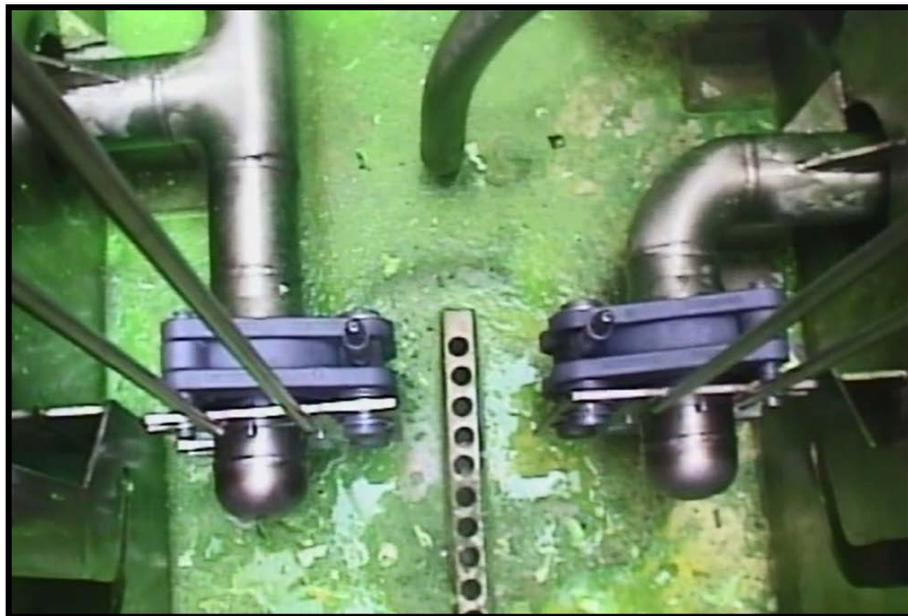
SWPF Integration Overview

- **West Transfer Lines**
 - Design and specification to procure shoring services is approved for the excavation at the 511-S Low Point Pump Pit (LPPP) for future tie in of SWPF piping
 - Vendor proposals have been submitted
 - Completed final interference excavations at 511-S and as-built the electrical duct bank
 - Installed fiber optic cable to provide for Distributed Control System (DCS) communications between facilities
 - Contract awarded to Parsons for RadCon staffing services
 - 20 Full Time Equivalent (FTEs) selected and training has begun

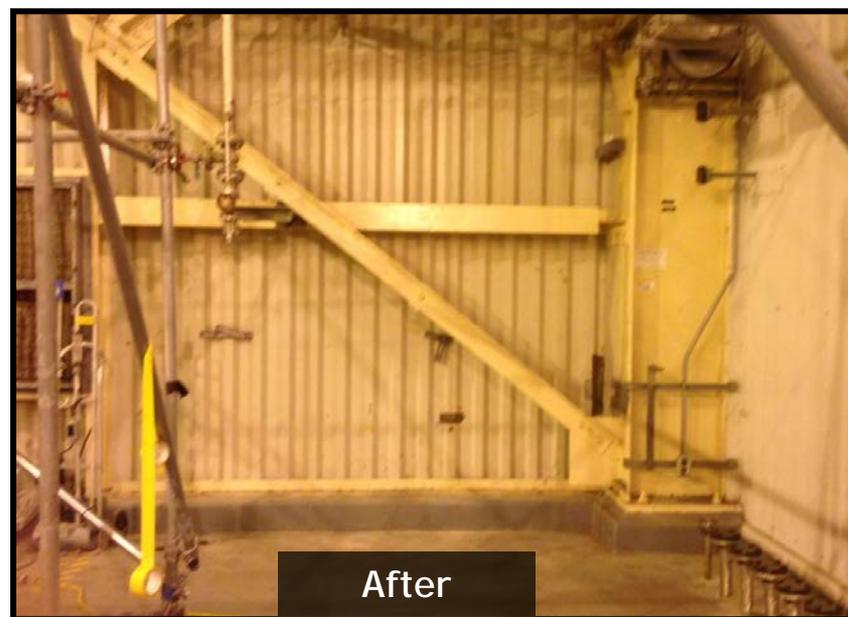
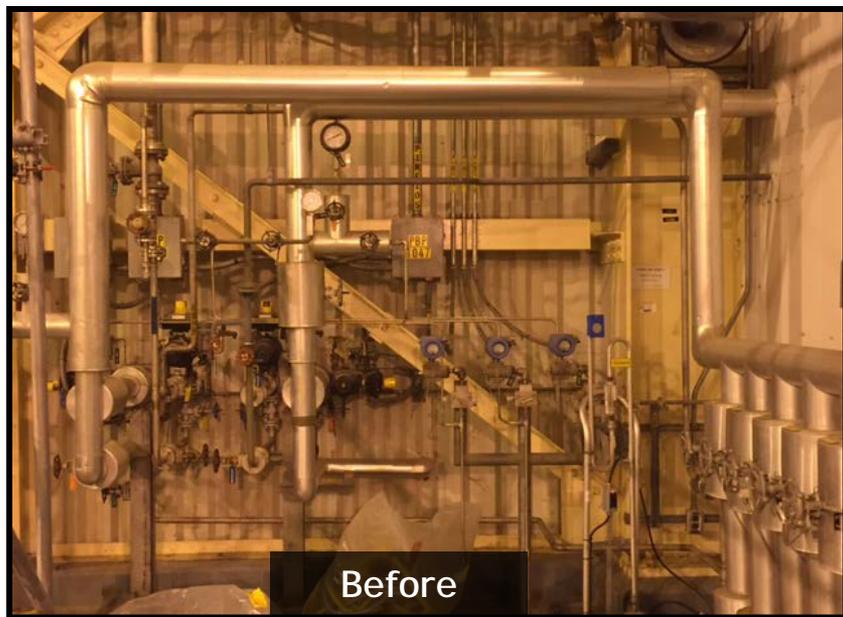


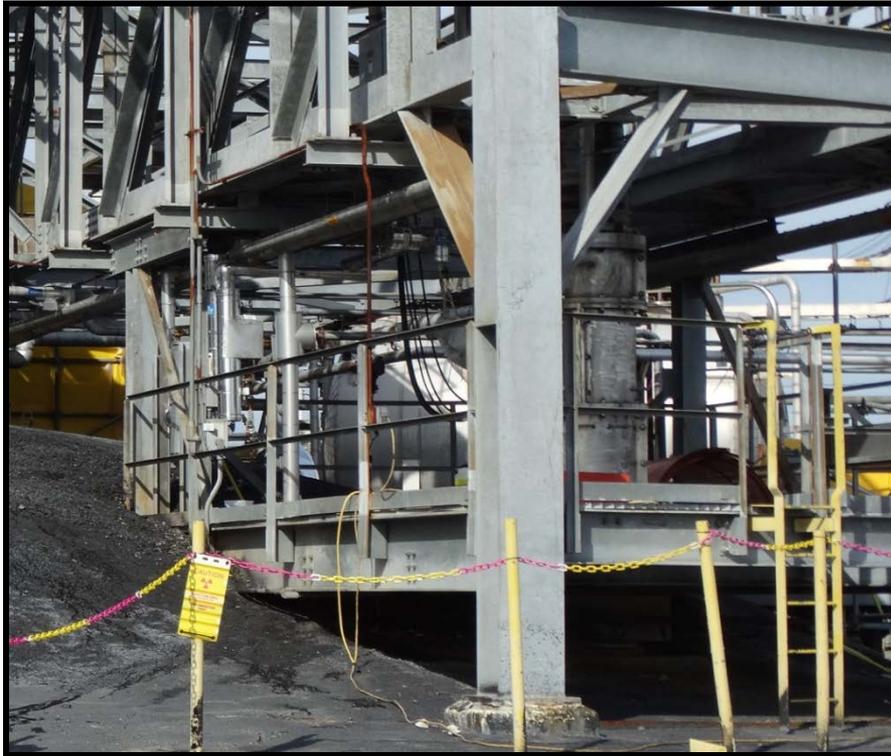
■ Blend and Feed Modifications

- Completed installation and backfill of Tank 49 Phase I and II piping sections
- Completed Phase III piping fabrication
 - Excavation activities of Phase III piping has initiated
- Completed valve box blank installation
 - Completed jumper fabrication
- Completed shielding modifications at Tank 21



- **Defense Waste Processing Facility (DWPF) Modifications**
 - Completed removal of abandoned piping and supports from the west side of 511-1S to provide space for new instrument cabinets for Precipitate Tank Safety Class (SC) Interlocks
 - Completed fabrication of jumpers required for Modular Caustic Side Solvent Unit (MCU) Continued Operations
 - Completed Leak Detection Box design



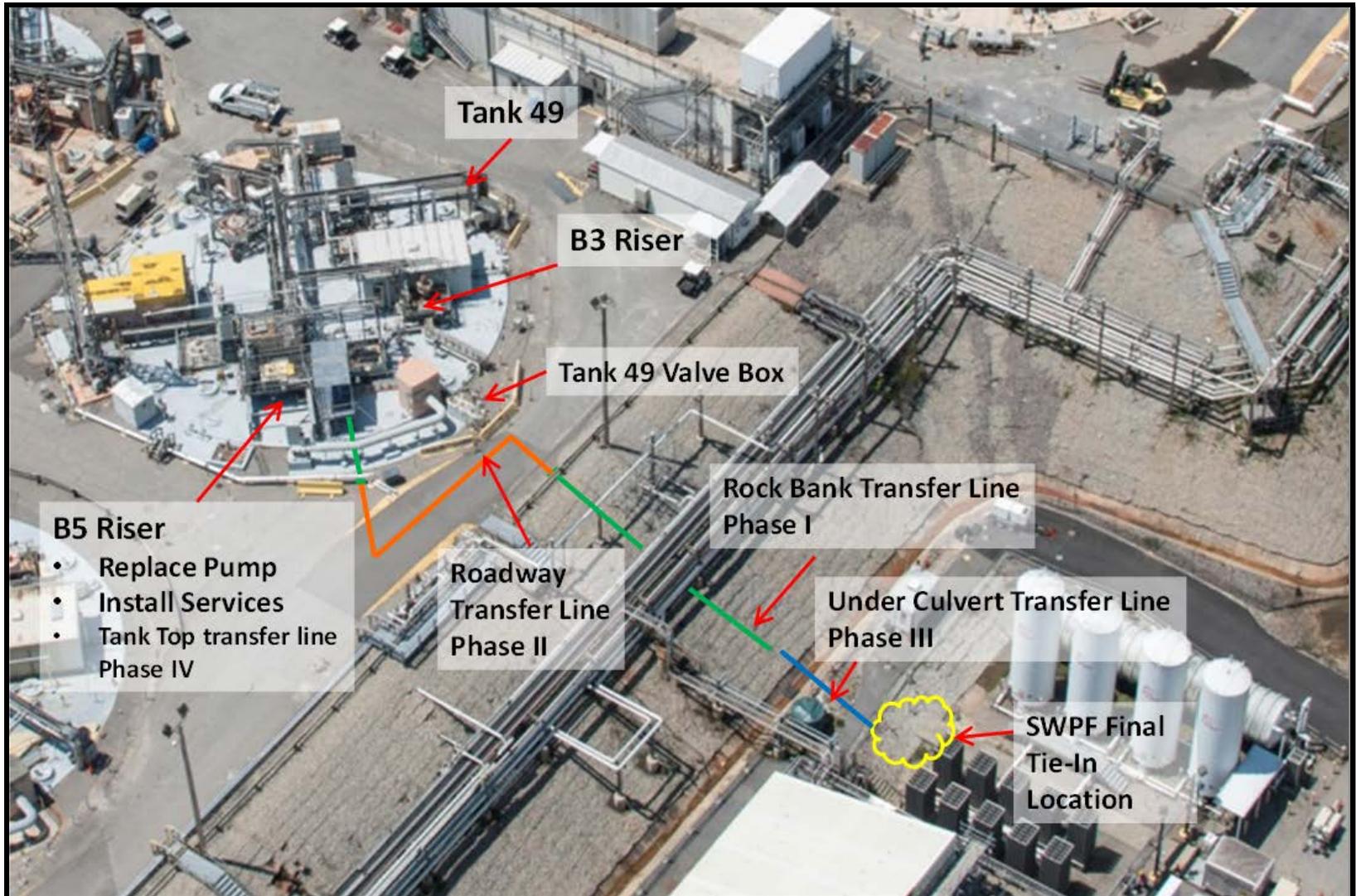


■ Without shielding



■ Shielding installed

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- **MCU Continued Operations**
 - Tank 49 B3 pump modifications
 - Design in progress
- **Tank 49 Valve Box modifications**
 - Fabricate Tank 49 Valve Box access plugs
- **Fabrication, installation and backfill of the new SWPF feed line**
 - Phase III Piping installation underway
 - Phase IV Piping
 - Design in progress

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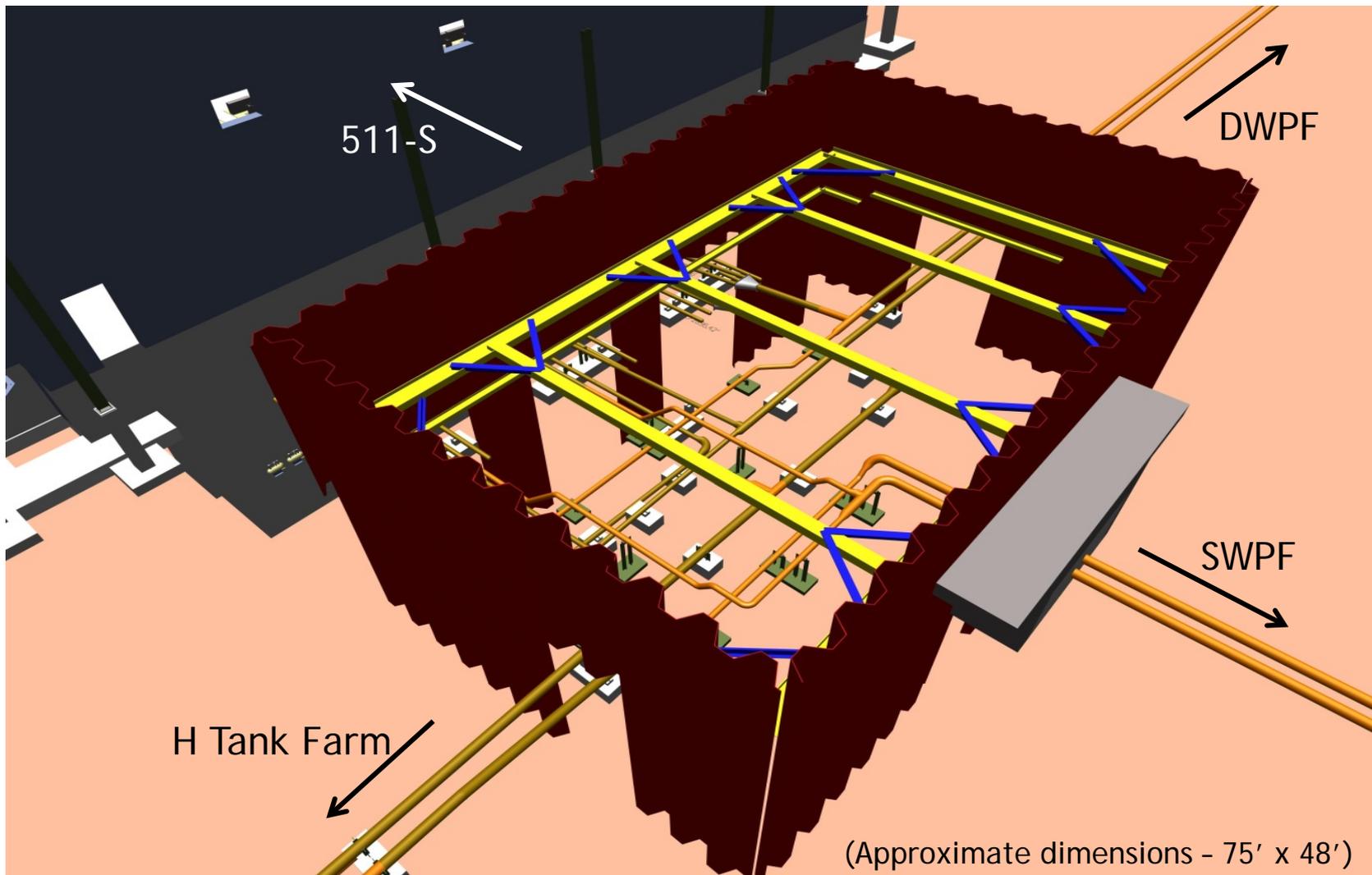


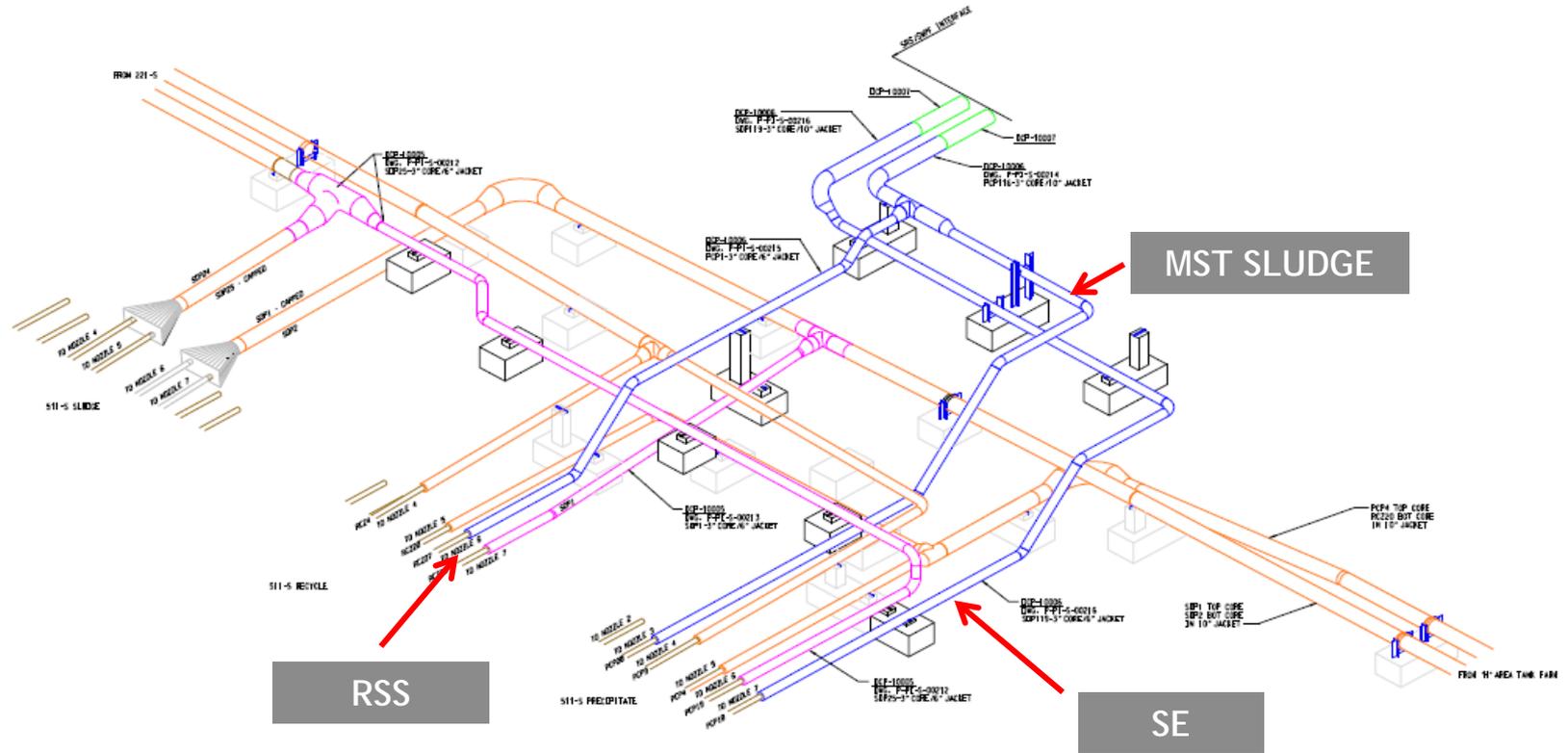
511-S Low Point Pump Pit (LPPP)

■ Design

- Inter Area Software
- Sump Pump Jumpers
- Task ready to install leak detection box plugs and conductivity probes
- Fabrication of the Thermowell electrical jumper
- Fabrication of Thermowell assembly
- Installation of SC interlock non-intrusive scope
- Fabricate and install missile shield at 511-S to protect SC interlocks
- Procure material for SWPF jumpers
- Perform required Consolidated Hazards Analysis (CHA) and Documented Safety Analysis (DSA) activities (submit Change Request Form)
 - Submit the MCU Continued Operations DSA/Technical Safety Requirements (TSR)
 - Continue to perform calculations for SWPF Integrated Operations

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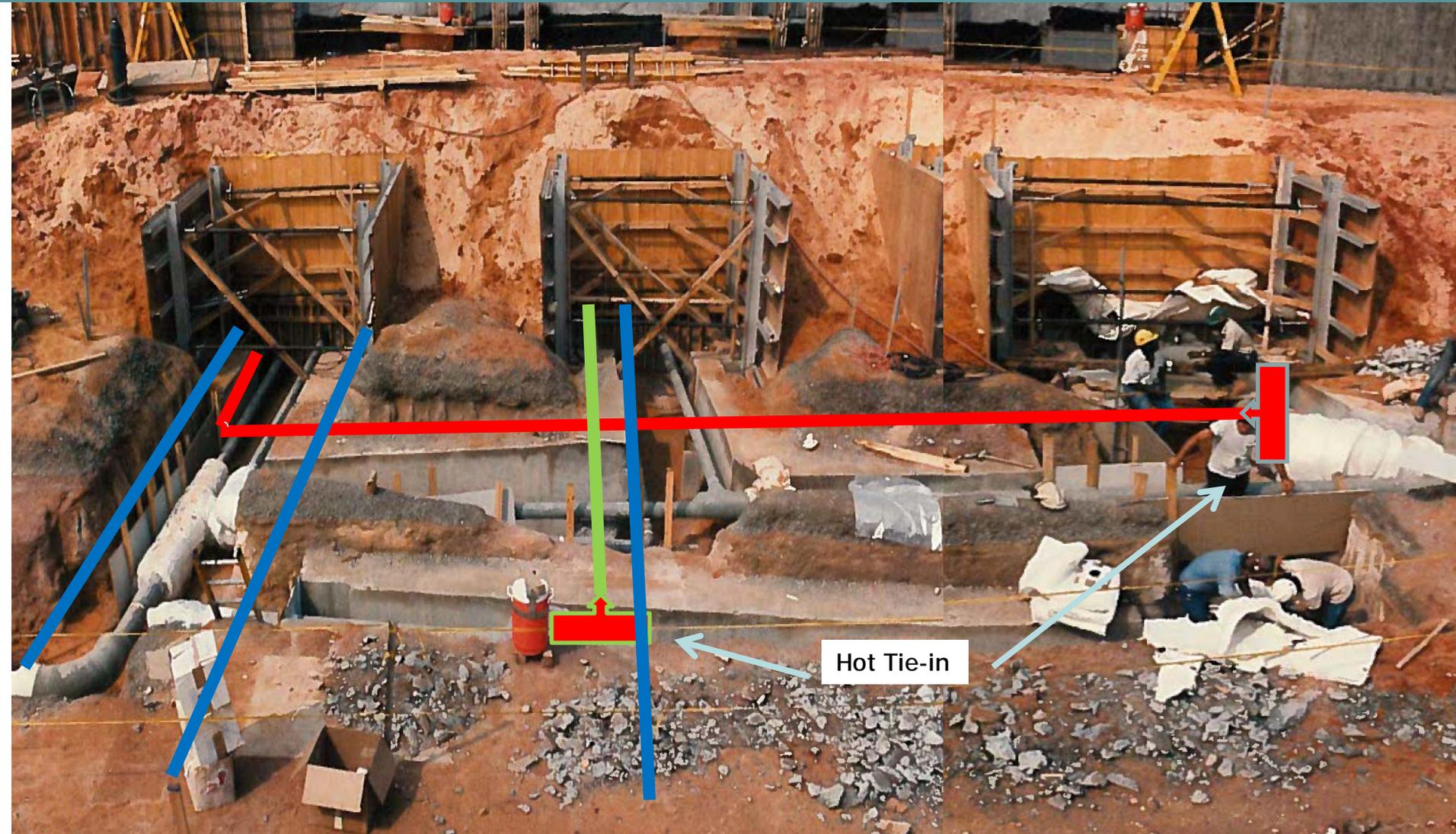
- PER EXIST DCP'S IN DCC
1. P-DCP-S-10005 REV 0
 2. P-DCP-S-10006 REV 0
 3. P-DCP-S-10007 REV 0

- COLOR CODE:
- EXIST. JACKET (Orange line)
 - P-DCP-S-10005 (Pink line)
 - P-DCP-S-10006 (Blue line)
 - P-DCP-S-10007 (Green line)

- Fabrication of piping spool pieces
- Award contract for shoring fabrication and installation
- Removal of excavation interferences
- Installation of sheet piling
- Excavation of soil down to level to install walers and struts
- Installation of walers and struts
- Excavation of soil down to 4' above transfer line
- Task ready for flushing
- Pull fiber cable and Install DCS hardware

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West Transfer Lines



- VSL developed 50 glass samples for testing
 - All testing is complete
- Durability model has been revised & approved
- Viscosity model has been revised & approved
- Evaluation of the Liquidus data is underway

- *Results thus far are favorable but not confirmed until Liquidus model is revised*