



Recently, National Geographic visited PFP and featured on Instagram this photo of PFP tank spikes staged in front of the PFP visitor trailer.

Plutonium Finishing Plant (PFP) Closure Project

River & Plateau Committee
Hanford Advisory Board

Mike Swartz, Vice President PFP Closure Project
Larry Romine, Federal Project Director

November 13, 2013

Agenda

- Overview
- Progress
- PFP Remedial Action Work Plan
- PFP Open Air Demolition
- Path Forward
- Issues/Challenges
- Key Points

Plutonium Finishing Plant Overview

Demolishing the Plutonium Finishing Plant – safely and compliantly by 2016

Performance - Increasing productivity while maintaining safety

PFP glovebox removal 85% complete (202 of 238 removed)

PFP pencil tank units removal 59% complete (115 of 196 removed)

PFP facility deactivation 66% complete

Disposition of Process Vacuum System Piping 36% complete

Disposition of Process Transfer Lines 76% complete

Removal of asbestos insulation in the duct level 73% complete

Schedule - Identifying ways to safely and compliantly advance schedule

Maximizing efficiencies

Demolish low-level waste in place

Reducing preventative maintenance activities

Working parallel activities

Eliminating surplus facilities

Establishing 4x10 schedule

GLOVEBOX AND HOOD STATUS

COLOR CODE
STATUS AS OF AUGUST 7, 2013

- GLOVEBOXES THAT HAVE BEEN REMOVED
- GLOVEBOXES REMAINING TO BE REMOVED



NO:Beer/Serbin_Brad White Dept/DOE/BL/609 STYL/LPT/BL/Ag August 7, 2013

Plutonium Finishing Plant Closure *Progress*

- Completed draining, flushing, removing and disposing of the first of three nitrate lines in PRF
- Resumed work on the mechanical isolation of Miscellaneous Treatment gloveboxes in PRF
- Achieved DOE-RL's FY2013 KPGs related to PFP
 - Disposition of 20 pencil tank units
 - Removal of 18 gloveboxes
- Reduced preventative maintenance activities
 - Replaced large, legacy air system with portable system
 - Combined fire alarm tests
 - Cancelled preventative maintenance activities for equipment and buildings slated for demolition



PFP team separates HA-13A/13G glovebox

PFP RAWP for Demolition Status

- **Activities have been conducted under CERCLA authorization since May 2005 in accordance with:**
 - DOE/RL-2005-13, *Action Memorandum for the Plutonium Finishing Plant Above-Grade Structures Non-Time Critical Removal Action.*
 - DOE/RL-2005-14, *Removal Action Work Plan for the PFP Above-Grade Structures: Facility Deactivation*
 - DOE/RL-2005-15, *Removal Action Work Plan for the PFP Above-Grade Structures: Ancillary Facility Demolition*
- **To complete deactivation and conduct demolition of major structures, DOE/RL-2011-03 (Draft B) was submitted to DOE-RL in June 2011. RAWP Draft B is scheduled to be updated FY2014:**
 - Updates include D4 strategy changes and current regulatory requirements.
 - Draft RAWP estimated to be available for DOE-RL review in Winter 2013 and Regulator review in Spring 2014.
 - Estimated schedule completion for RAWP approval is September 2014.

PFP Open Air Demolition

- Open-air demolition and dismantlement planned for Buildings 234-5Z, 236-Z, 242-Z, and 291-Z Stack.
- Demolition and dismantlement may be conducted using standard industrial equipment with assorted implements (e.g. shears, cutters, thumb and bucket, hammers, etc.)
- Demolition and dismantlement techniques selected to:
 - Mitigate industrial safety risks to project personnel
 - Minimize radiological emissions outside work area boundary and eliminate potential emissions to the environment and public
- Risk mitigation determination will be supported by:
 - Characterizing source term (amount and locations)
 - Implementing methods to protect source term (including TRU) during demolition
 - Implementing methods of handling source term during disposal/transport
 - Implementing real-time assurance methods to ensure we are in control

PFP Open Air Demolition (Cont.)

- 209E Critical Mass Laboratory is an example of previous experience in conducting safe demolition of contaminated facilities with plutonium-bearing source term (See photo examples). Techniques used included:
 - Applying fixatives to contaminated items prior to demolition.
 - Identifying contaminated items that will remain in place during demolition by painting with highly visible paint (Photo 1).
 - Using standard industrial demolition practices to expose contaminated items containing source term (Photo 2).
 - Surgical removal of contaminated items containing source term (Photo 3).



Photo 1



Photo 2



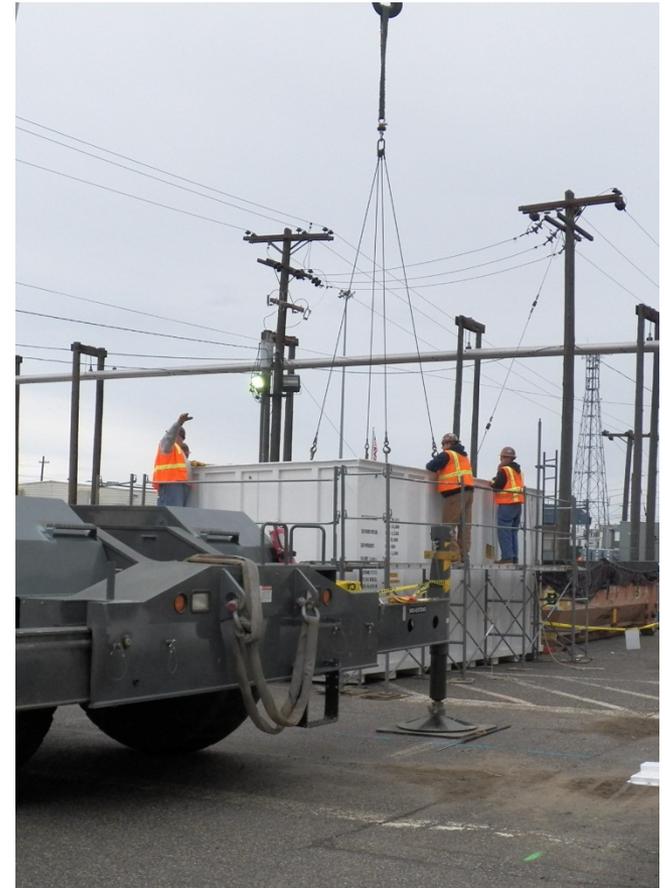
Photo 3

Slab Tank Removal

Plutonium Finishing Plant Closure

Path Forward

- Relocate employees, establish central location for D4 team
- Eliminate surplus facilities in preparation for staging D4 equipment
- Begin D4 of ancillary facilities at the beginning of CY2014
- Reduce mortgage costs and dependence on aging support systems
- Implement integrated strategy
- Increase productivity while maintaining worker safety

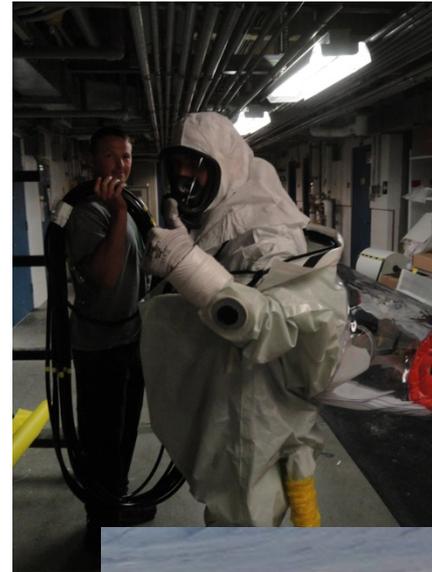


HA-23S glovebox removal

Plutonium Finishing Plant Closure

Issues/Challenges

- Managing culture change through mounting distractions
- Implementing efficiencies



Left: Exploring use of MSA PremAir supplied air respiratory system suits Suit

Below: Conducting pilot foaming glovebox project



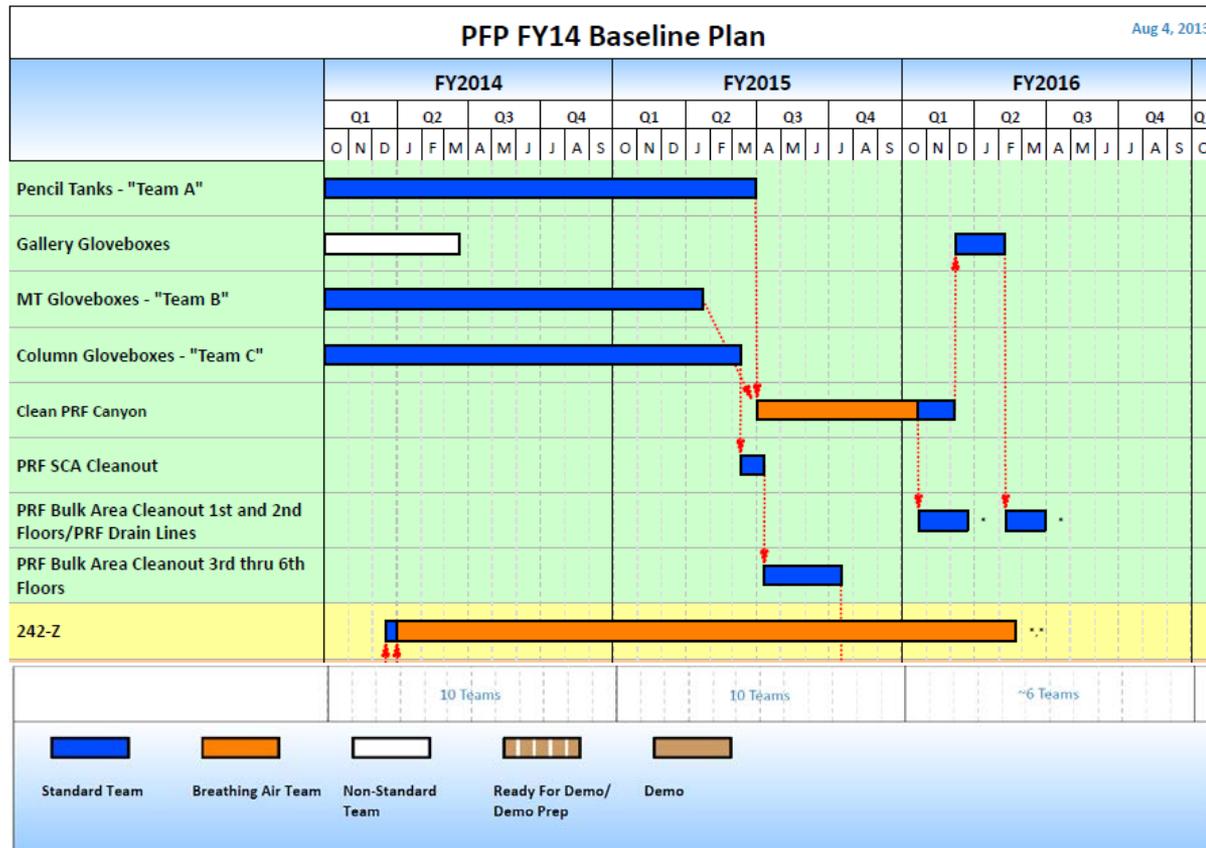
Plutonium Finishing Plant Closure

Key Points

- PFP is one of the most challenging and complex clean-up projects within DOE complex today
- Stability of craft work force is essential to safety and progress to meet TPA milestone, 2016 demolition to Slab-on-Grade
- Stabilized funding saves the Government approximately \$1.0B and accelerates project completion
- To maintain the PFP safety systems requires \$30-50M per year; ventilation for confinement/material-at-risk is key driver
- For more information visit the PFP chapter of the Hanford Story at http://www.youtube.com/watch?v=d0_vVczQxr0

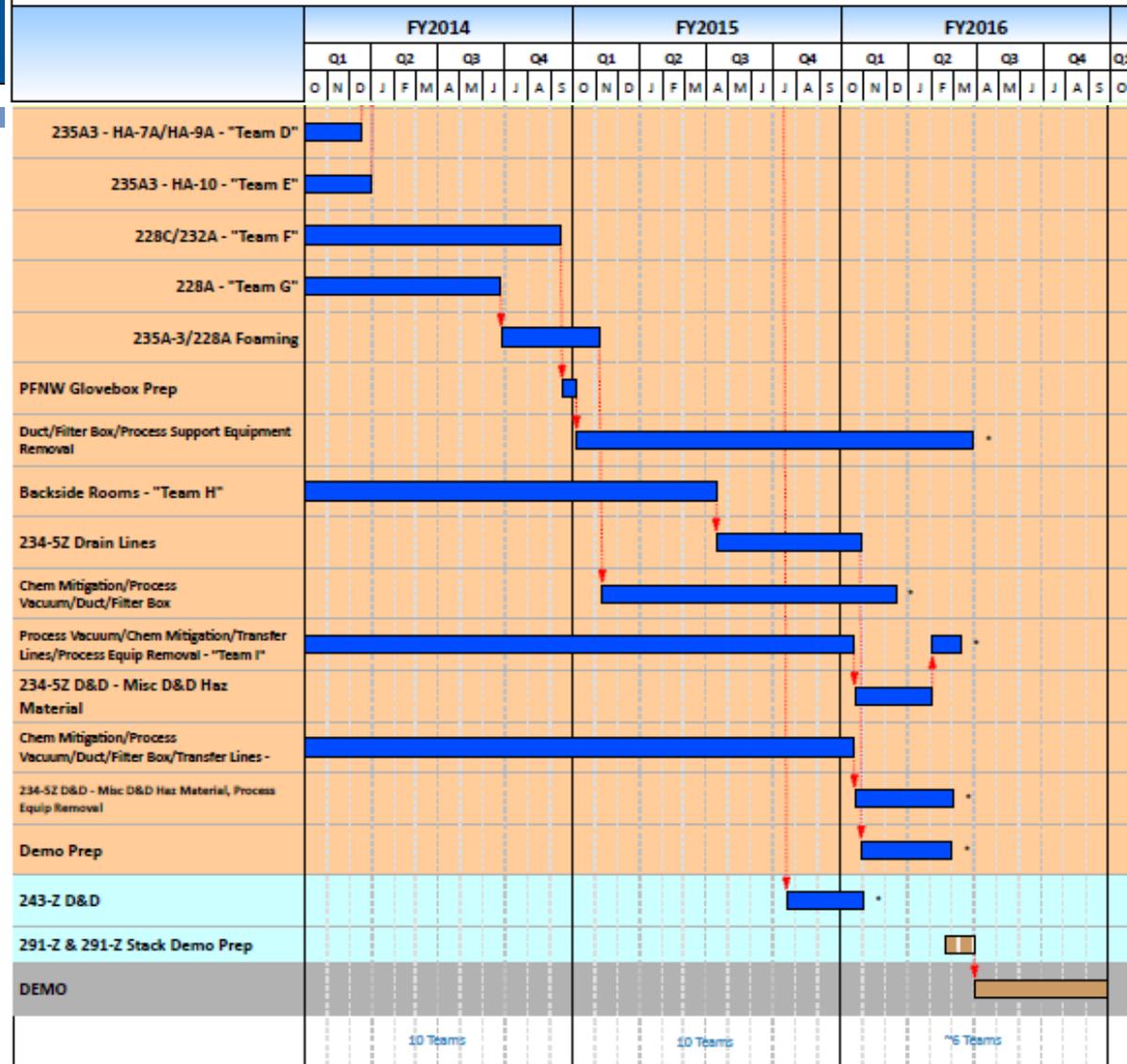
Backup Slides

Performance Management Baseline (PMB)



PFP FY14 Baseline Plan

Aug 4, 2013



Plutonium Finishing Plant Closure

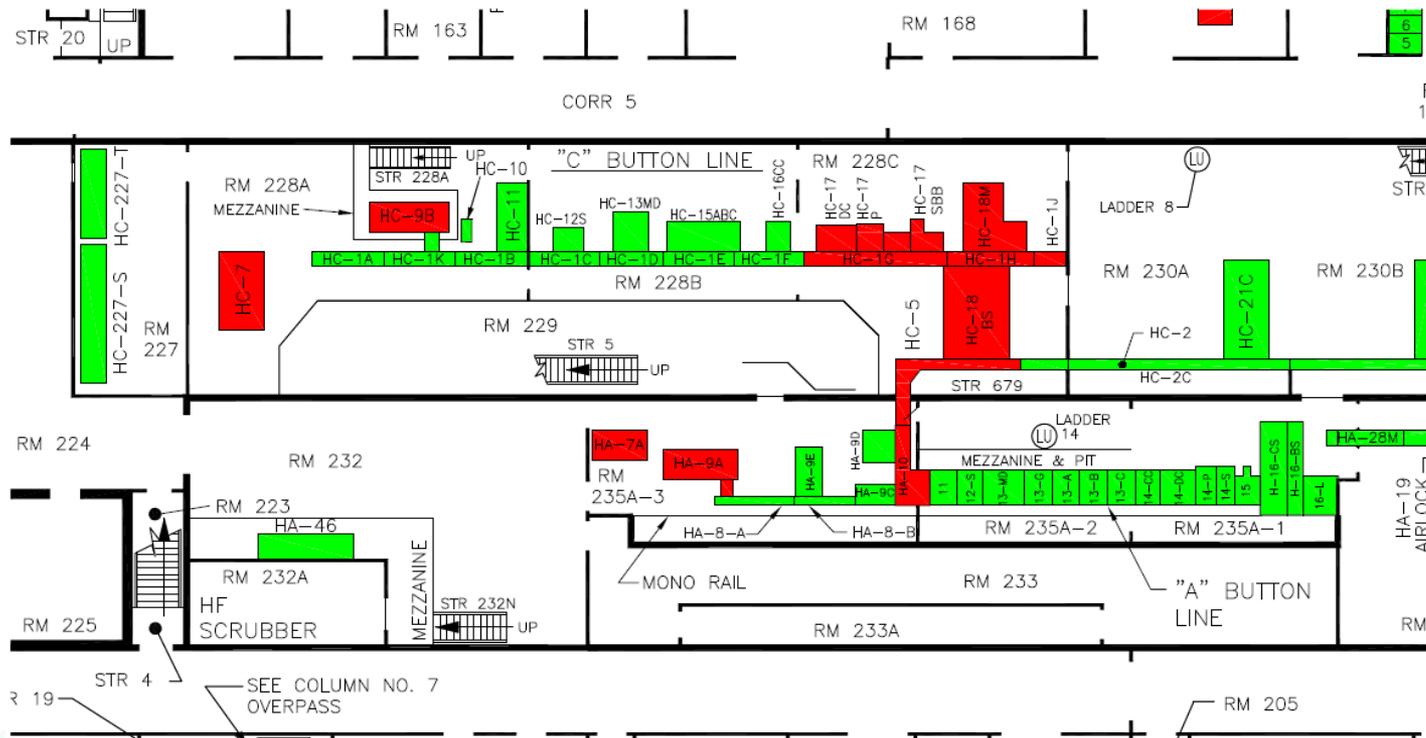
RMA and RMC Glovebox Status

GLOVEBOX AND HOOD STATUS RMA-RMC AREAS

COLOR CODE
STATUS AS OF AUGUST 7, 2013

 **GLOVEBOXES THAT HAVE BEEN REMOVED**

 **GLOVEBOXES REMAINING TO BE REMOVED**



Plutonium Finishing Plant Closure

Rooms 230A, B, and C and 235B Status

GLOVEBOX AND HOOD STATUS ROOMS 230A-B-C AND 235B

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