



# Progress on the Plutonium Finishing Plant (PFP) Closure Project

River & Plateau Committee  
Hanford Advisory Board

Larry Romine, Federal Project Director

November 6, 2012

# Facility History

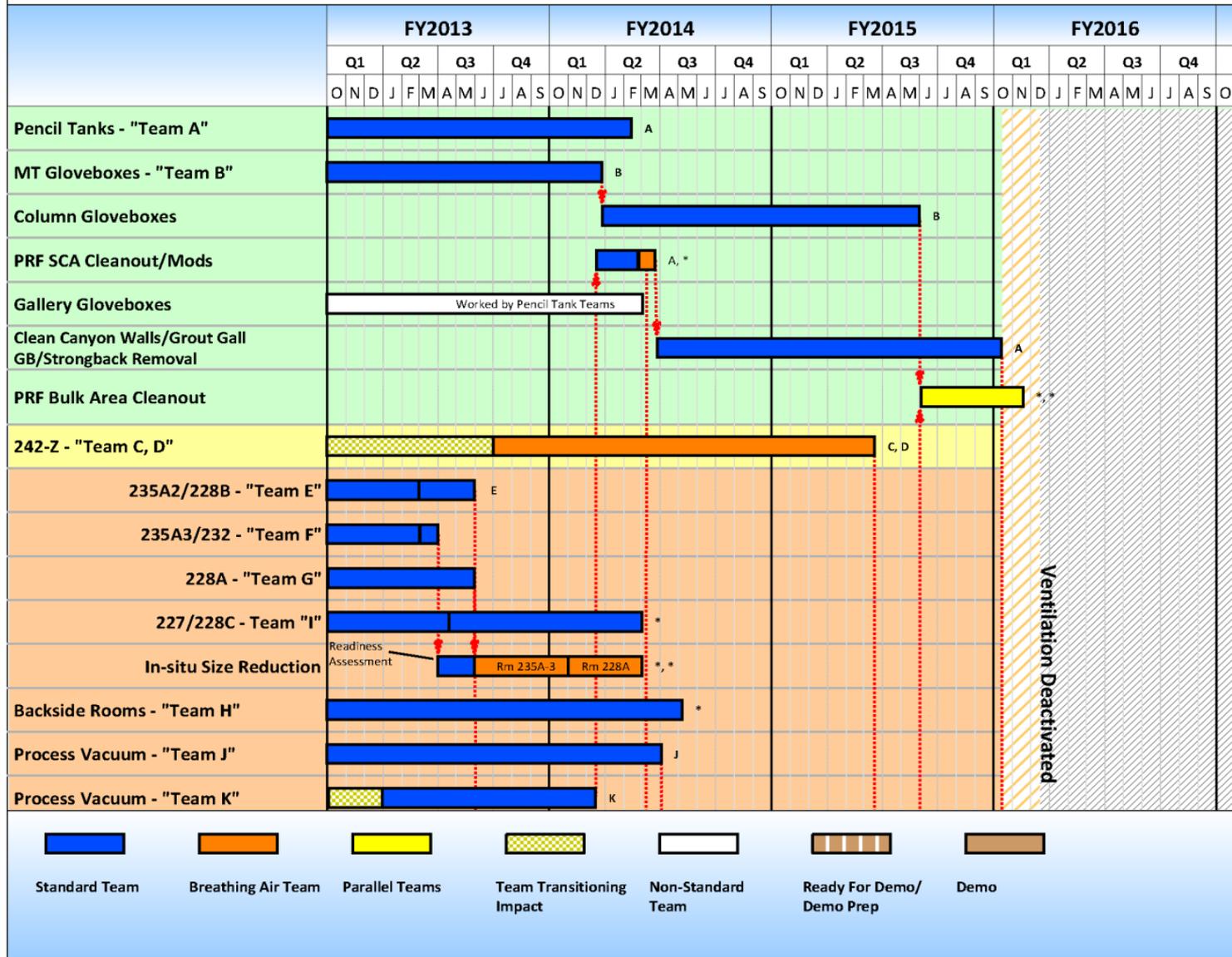
- **Built:1940's; production operations began 1949**
- **Mission: Produce weapons-grade plutonium for nuclear weapons**
  - 1990: Weapons mission ends
  - 1991: Stabilization, cleanup, deactivation and decommissioning and environmental restoration
  - 1996: Formal shutdown order for the PFP
  - 2004: 20 tons of plutonium stabilized and ready for shipment
  - 2009: All packaged plutonium shipped out of PFP
- **Today: D&D activities to reach 'slab on grade' TPA milestone**



# Project Management Baseline (PMB)

## FY2013 - PMB Annual Update

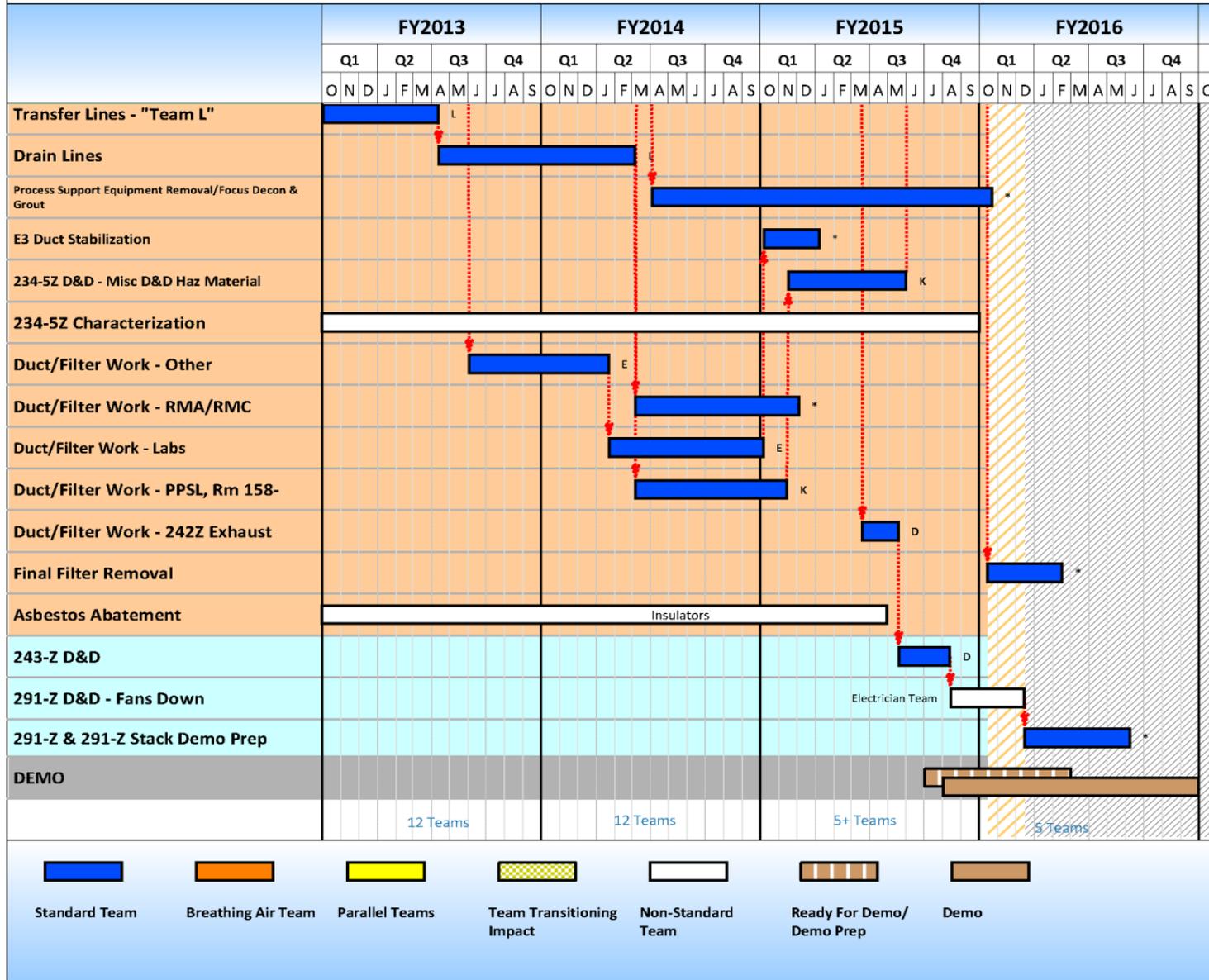
Sept. 13, 2012



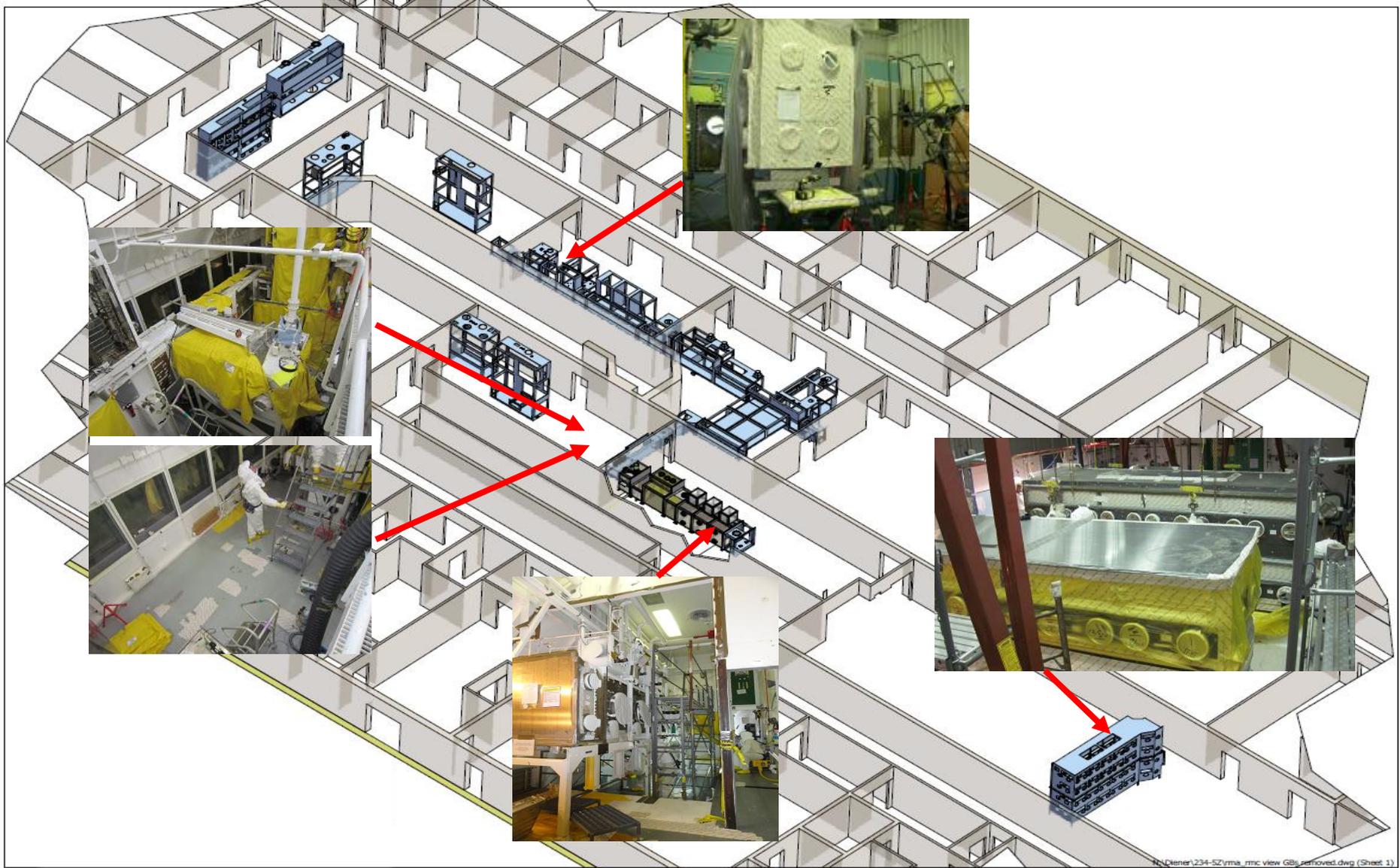
# Project Management Baseline (PMB)

## FY2013 - PMB Annual Update

Sept. 13, 2012



# Accomplishments: Remote Mechanical Line A & C (RMA/RMC)



# Accomplishments Cont'd: Glovebox HA-23S



Room 235B: HA-23S Separation of  
Upper Section from Lower Section

# Accomplishments Cont'd: Piping and Asbestos

- Continued disposition of Process Vacuum System Piping (28%; 1,825 of 6,436 ft.) & Process Transfer Lines (67%; 775 of 1,154 ft.)
- Continued Non-Destructive Analysis (NDA) on tunnel drain lines & Asbestos Insulation Removal (71%; 16,971 of 24,000).

**Prepping Transfer Line Room 262**

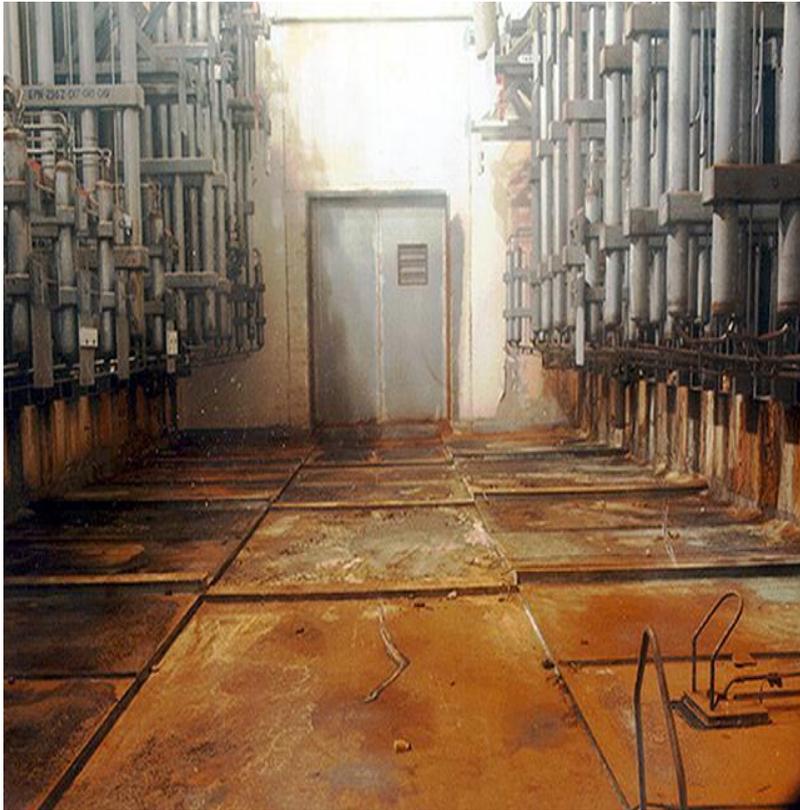


**Asbestos Removal Room 262**



# Accomplishments Cont'd: 236-Z Plutonium Reclamation Facility (PRF) Canyon Then and Now

At Pencil Tank Removal Start-up



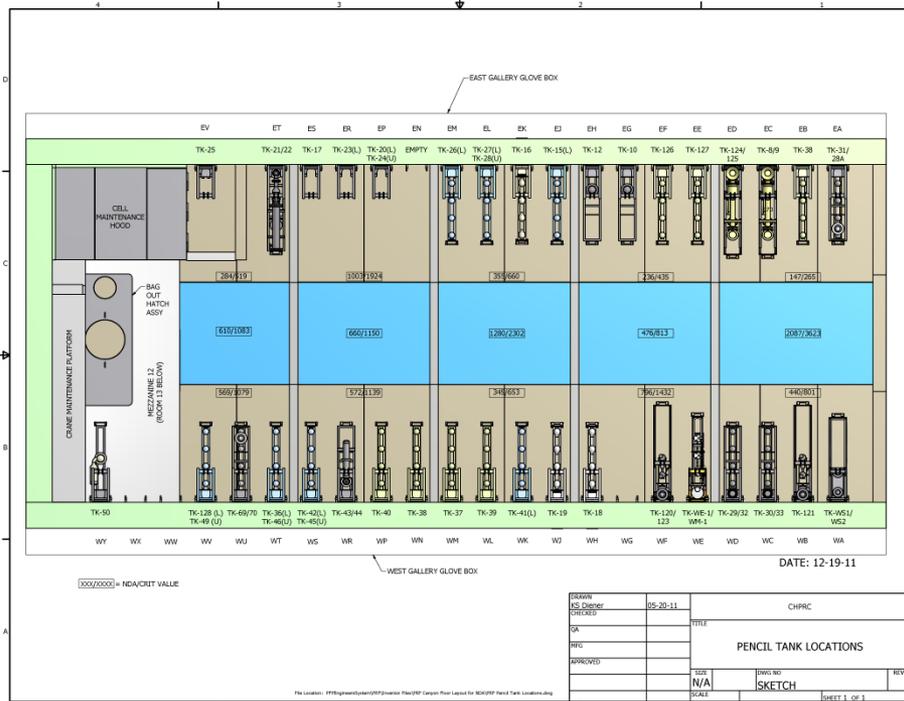
As of October 2012



# Accomplishments Cont'd: 236-Z PRF Canyon – Pencil Tank Progress

December 2011

October 2012



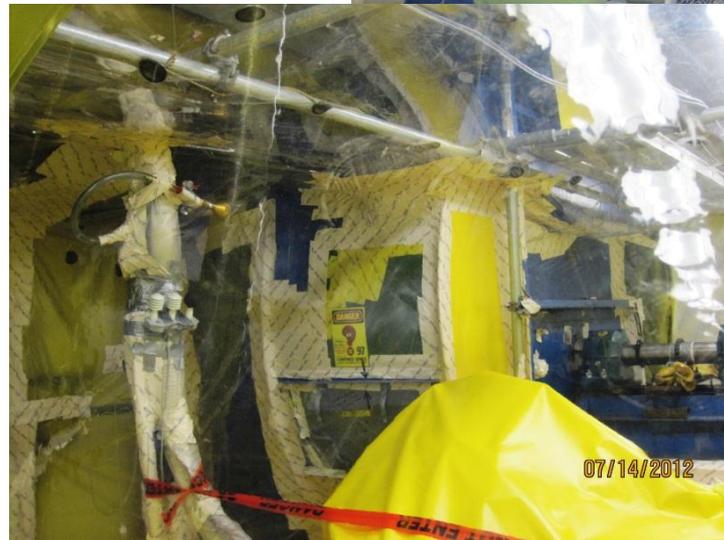
# Accomplishments Cont'd: 236-Z PRF Crane Pulley



# Maintaining the Safety Basis

- Vital Safety Systems
  - Critical monitoring system
  - Fire suppression system
  - Ventilation system
- 291-Z Ventilation Exhaust Fans
  - Completed EF-3 and EF-5 weld repairs
  - Replaced the motor on EF-7
  - Replaced and torqued bearing bolts on EF-2, 4, 6, & 7
  - Installed new belt and sheave on EF-6
  - Continued weekly fan vibration and thermal monitoring
  - Completed vibration testing of ET-8 & 9

Fan Failure



Fan Maintenance

# Safety, Health & Environment

- Significant improvement and investment in facility operations and work control
  - Conduct of Operations
    - Strengthening nuclear facility control
    - Reinvigorating PFP's Conduct of Operations program
    - Analyzing and learning from errors and mistakes
  - Radiological Controls
    - Bolstering the Radiological Controls Program
    - Improving scope definition and radiological controls

# Safety, Health & Environment

- Significant improvement and investment continued:
  - Work Management
    - Improving leadership and processes for work management
    - Improving work document's scope definition and radiological controls
    - Enhancing application of the Hazard Review Board process
    - Upgrading Work Package planning and readiness
    - Defining path forward for higher hazard gloveboxes
  - Preventive and Predictive Maintenance
    - Continue vital safety systems and other essential equipment
- Beryllium Program implementation

# Key Points

- PFP is the most challenging and complex clean-up project within DOE complex
- Stability of craft work force is essential to safety and progress
- To meet TPA milestone, 2016 demolition to Slab-on-Grade, requires fielding 12 to 13 work teams per year, and key procurements for PRF demo-ready.
- Stabilized funding saves the Government approximately \$1.0B and accelerates project completion
- To maintain the PFP safety systems requires \$40-50M 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](http://www.youtube.com/watch?v=d0_vVczQxr0)