P-Area Operable Unit (PAOU) Update

Presentation By
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April 20, 2010
Agenda

- P-Area Operable Unit (PAOU) Background
- Current Status
- Scope
- Strategy
- Accomplishments
- Conclusion
List of Acronyms

- D&D: Deactivation and Decommissioning
- PAOU: P-Area Operable Unit
- RFP: Request for Proposal
- PSA: Potential Source Area
- TPC: Total Project Cost
Area Completion Approach

- 515 Waste Sites (369 complete)
- 14 Completion Areas

- F Area
- H Tank Farm
- H Area
- N Area
- R Area
- P Area
- A Area
- M Area
- T Area
- D Area
- C Area
- L Area
- K Area

- Completed
- Working (D, M, P, R)
- Future Reactor Area Closure (C, K, L)
- Non-Reactor Completion Areas
PAOU Background

- Operated from 1954 and to 1991
- Comprises approximately 100 acres, includes 17 waste units and, at one time, 42 buildings and ancillary structures.
- Facilities included reactor building, maintenance buildings, administrative building, cooling water basin, pump house, and coal fired power house.
- Reactor was operational centerpiece of area; purpose was to produce special nuclear materials for national defense.
- PAOU first reactor area to be addressed under area completion process.
PAOU Area Completion Objectives

• Remediate waste units
• In-Situ Decommission Reactor Building
• At completion, P-Area Operable Unit will be safe for industrial reuse
# P-Area Operable Unit

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<tr>
<th>FY09</th>
<th>FY10</th>
<th>FY11</th>
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<tbody>
<tr>
<td><strong>Completed Deactivation</strong></td>
<td><strong>Awarded gantry crane removal contract. Baseline Approved</strong></td>
<td><strong>Complete grouting Reactor Vessel</strong></td>
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<tr>
<td><strong>Begin Disassembly</strong></td>
<td><strong>Complete Basin water removal. Complete gantry crane removal</strong></td>
<td><strong>Complete grouting Reactor Building</strong></td>
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<tr>
<td><strong>Completed Deactivation</strong></td>
<td><strong>Complete Cask Car Railroad Tracks closure</strong></td>
<td><strong>Complete closure of all waste units</strong></td>
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P-Area Operable Unit Scope

- Project being safely performed as part of Recovery Act funding at a TPC of $270M. Scope includes:
  - D&D of P-Reactor Building
    - Evaporation of four million gallons of water from Disassembly Basin
    - The placement of approximately 130,000 cubic yards of grout including:
      - Below grade spaces
      - Reactor Vessel
      - Disassembly Basin
    - The removal and disposal of above-grade Disassembly Basin structure and concrete cap installation
  - Ventilation Stack and Gantry Crane removal
  - Roof modifications and sealing of building
  - Batch Plant operations and maintenance
  - Upgrades to railroads and roads used for transporting grout materials
P-Area Operable Unit Scope
(continued)

- Remediate waste units:
  - P-Area Cask Car Railroad Tracks
  - PSA-3A and 3B waste units
  - P007 Outfall
  - P-Process Sewer Lines
  - P-Ash Basin
P-Reactor Facility – Remediation Strategy

P-Reactor Facility Overview

Approach to deactivate and in-situ decommission facility include:

- evaporate disassembly basin water
- grout basin
- remove above grade portion of disassembly basin wing and cap basin
- grout the below-ground portions of the reactor buildings
- remove ventilation stack and gantry crane
- modify roofs and seal building
Reactor In-Situ End-State Cross Section
P-Area Operable Unit Accomplishments

- P-Reactor Facility:
  - Safely performing work
  - Completed deactivation
  - Removed exterior metal and piping from reactor building
  - Installed temporary power and lighting
  - Prepared facility for decommissioning
  - Installed and operating 6 Disassembly Basin Water evaporators with 4 additional undergoing testing
  - Completed Gantry Crane removal
  - Awarded contract for stack removal/below-grade grouting and are evaluating bids for modify roofs/seal building contract
P-Area Gantry Crane Mobilization / Removal Crane Assembly

Successful Crane Activation

177.5 foot Jib

First Lift Activation

Gantry Crane

Crane Debris Removal

Crane Debris Removal
Gantry Crane: Before and After
P-Area Operable Unit Accomplishments (continued)

- Achieved mechanical completion of the P-Cask Car Railroad Tracks Soil Contamination Removal.
  - Excavated and disposed on site 70 cubic yards of radiologically contaminated soil and debris
- Began remediation well installation at PSA 3A and 3B.
- Completed vegetation removal for Ash Basin remediation and soil stockpiling.
- Installing Batch Plant provide grout to both P and R Reactor decommissioning.
P-Area Cask Car RR Tracks Remedial Action

P-Area Cask Car Railroad Tracks Waste Unit Completion

P-Area Cask Car Railroad Tracks Pre-Remediation

P-Area Cask Car Railroad Tracks Remediation

P-Area Cask Car Railroad Tracks Waste Unit Completion
P Area Batch Plant Mobilization
P-Ash Basin

- Installed 1500 linear feet of erosion control fencing
- Completed removal of 35-acres of vegetation to prepare site for clean soil cover
- Completed sampling around the P Area Ash Basin to determine ash thickness
Conclusion

• Work is performed safely.

• Significant field activities underway leading to decommissioning first SRS Weapons Production Reactor.

• Stakeholder involvement contributing to cost effective cleanup.