D-Area Operable Unit (DAOU) Status Update

Presentation By
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Department of Energy
Savannah River Operations Office
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Agenda

• D-Area Operable Unit (DAOU) Background
• Completion Objectives
• Current Status
• Path Forward
## List of Acronyms

<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tbody>
<tr>
<td>ARRA</td>
<td>American Recovery and Reinvestment Act</td>
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<tr>
<td>As</td>
<td>Arsenic</td>
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<tr>
<td>Ba</td>
<td>Barium</td>
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<tr>
<td>CMS/FS</td>
<td>Corrective Measures/ Feasibility Study</td>
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<tr>
<td>DAOU</td>
<td>D-Area Operable Unit</td>
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<tr>
<td>DDD</td>
<td>insecticide (di-chloro - ethane)</td>
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<tr>
<td>DDE</td>
<td>insecticide (di-chloro - ethylene)</td>
</tr>
<tr>
<td>DDT</td>
<td>insecticide (tri-chloro - ethane)</td>
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<tr>
<td>DOE</td>
<td>Department of Energy</td>
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<tr>
<td>EE/CA</td>
<td>Removal Site Evaluation Report / Engineering Evaluation / Cost Analysis</td>
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<tr>
<td>PCBs</td>
<td>Polychlorinated biphenyls</td>
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<tr>
<td>pH</td>
<td>Negative logarithm of effective hydrogen-ion concentration</td>
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<tr>
<td>PSVE</td>
<td>Passive Soil Vapor Extraction</td>
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<tr>
<td>Rev.</td>
<td>Revision</td>
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<tr>
<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<tr>
<td>RFI/RI</td>
<td>RCRA Facility Investigation/Remedial Investigation</td>
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<tr>
<td>ROD</td>
<td>Record of Decision</td>
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<td>Se</td>
<td>Selenium</td>
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<tr>
<td>SRS</td>
<td>Savannah River Site</td>
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<tr>
<td>TCE</td>
<td>Trichloroethylene</td>
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<tr>
<td>WOF</td>
<td>Waste Oil Facility</td>
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<td>VOC</td>
<td>Volatile organic compound</td>
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DAOU Location on the Savannah River Site
DAOU Background
DAOU Background - continued
DAOU Completion Objectives

- Remediate waste units requiring action.
- Meet industrial standards at completion
- Contribute to ARRA footprint reduction at a cost of $17M.
D-Area Operable Unit Layout

Legend:
- Secondary Road
- Tertiary Road
- Drainage Ditch
- Intermittent Stream
- DAOU Boundary
- DAP-90-20G
- ENSLS
- Water
- Powerhouse
- Non-production Slab
- Structure, SRS Unit 6 State (Slab)
- Structure Area, SRS AB
- Coal Stacks
- D-Area Bubble Pit (Closed)
- DAOU Subunits
- Bubble Tower Subunit
- Moderator Processing Subunit
- Powerhouse Subunit

Map features:
- Asbestos Pit (089-20G)
- Bubble Tower Subunit
- Inactive Process Sewer Lines
- Moderator Processing Subunit
- Powerhouse Subunit
- D-006 Outfall
- 483-D Spill Area
- 484-10D WOP
- 488-10D
- 488-4D
- 488-1D
- 904-50G Outfall
- Beaver Dam Creek
- D-001 Outfall

Savannah River Site
Site Areas for the DAOU
Aiken, South Carolina
D-Area Operable Unit – Current Status

Project being safely performed as part of Recovery Act funding.

- Characterization (surface and subsurface) complete
  - Tritium, solvents (TCE), pesticides and metals identified as constituents of concern
- Corrective Measures / Feasibility Study Report (remedial alternatives analyses) approved.
- Rev.0 Record of Decision (ROD) submitted.
- EE/CAs for Bubble Tower Subunit, Moderator Facility Subunit and Coal Pile Runoff Basin consolidation approved.
- Second Campaign of the Thermal Detritiation Treatability Study Pilot underway.
DAOU Thermal Detritiation Treatability Study

- Regulators approved Treatability Study Plan
- Offers potential cost savings alternative for treatment of tritiated media elsewhere at SRS and the DOE complex
- The first heating campaign successfully treated 77 cubic yards of tritiated concrete and soil
- Enhancements were made to optimize the thermal treatment unit for the second heating campaign
- The second heating campaign started May 28. Treating approximately 200 cubic yards of tritiated soil from an area adjacent slab
- Target temperature for concrete remediation is 1500°Fahrenheit. Target temperature for soil remediation is 212°Fahrenheit.
D-Area Operable Unit – Current Status
DAOU Path Forward

- Complete installation of the 11 enhanced PSVE wells at the Bubble Towers Subunit: 9/30/10
- Submit the Rev.0 Bubble Towers Removal Action Report: 1/31/11
- Complete the D-Area Coal Pile Runoff Basin consolidation and soil cover Phase I (northern end of the basin): 9/30/11
- Complete the thermal detritiation campaigns: 9/30/11
- Submit the Rev.0 Moderator Facility (thermal detritiation) Removal Action Report: 12/14/11
- Complete the D-Area Coal Pile Runoff Basin consolidation and soil cover Phase II (southern end of the basin): 6/5/13
- Submit Rev. 0 D-Area Coal Pile Runoff Basin Consolidation Removal Action Report: 12/6/13
- Submit Rev.0 DAOU Post-Construction report: 1/12/14