Purpose

- Provide update of Tank Closure Progress
  - Tanks 5 and 6 in F Tank Farm
  - Risk Reduction
  - Status of Tanks 12 and 16 in H Tank Farm, as described in Annual Work Plan
    - Regulatory Drivers
    - Field Activities
    - Path Forward
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
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<tr>
<td>BWR</td>
<td>Bulk Waste Removal</td>
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<tr>
<td>CERCLA</td>
<td>Comprehensive Environmental Response, Compensation and Liability Act</td>
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<tr>
<td>DOE</td>
<td>Department of Energy</td>
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<td>EPA</td>
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<td>FFA</td>
<td>Federal Facility Agreement</td>
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<td>HTF</td>
<td>H Tank Farm</td>
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<tr>
<td>NEPA</td>
<td>National Environmental Policy Act</td>
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<tr>
<td>NRC</td>
<td>Nuclear Regulatory Commission</td>
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<tr>
<td>RAI</td>
<td>Request for Additional Information</td>
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<td>RCRA</td>
<td>Resource Conservation and Recovery Act</td>
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<tr>
<td>SCDHEC</td>
<td>South Carolina Department of Health and Environmental Control</td>
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<tr>
<td>SRNL</td>
<td>Savannah River National Laboratory</td>
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<tr>
<td>TER</td>
<td>Technical Evaluation Report</td>
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</tbody>
</table>
Tanks 5 and 6 Status

Tank 5 and 6 GROUTING PROGRESS
November 21, 2013, 98 calendar days

WEEKLY NOTES
No safety events
22 trucks placed this week
1,127 trucks placed to date

Tank 5
Lift 9 is complete
Equipment fill is complete
36 of 36 cooling coils complete
0 of 15 risers complete

Tank 6
Lift 9 is complete
Equipment fill is complete
9 of 36 cooling coils complete
0 of 15 risers complete

Next week pouring: M/Tu/W
Forecast – Cool temperatures with a chance of rain.

GROUT DELIVERY NUMBERS
- 4,800 Cubic Yards per Tank
- 8 yd³ per Truck
- 6 Trucks per Hour (max)
- Pour 8 Hrs each 10 Hr Day (max)
  ≈ 400 yd³ per Day (max)
- 5 Days per Week

Grout Risk Tracking
- Weather Delays – none to date
- Grout Delivery Issues – vendor fly ash shortage
- Readiness Rework – none to date
- Annulus / Coil Fill Issues – cooling coil hose replacement
- Equipment Issues – none to date
- Resource Limitations – recovery from lapse in appropriations
- In-process Inspections Delays – none to date
Tanks 5 and 6 Grouting

Primary Tank Grouting

Tank Annulus Duct Grouting
Tank 5 Bulk Grouting

Grouting Command Center

Tank 5 Primary near 80% Full
Reduce operational risk and the risk of leaks to the environment by removing waste from tanks, and closing the tanks. (DOE/SCDHEC/EPA Common Goal and Value #1)

- Curie work off from ~550 million curies in 1995 to 295 million curies in June 2013

- Of the 24 old style tanks
  - 6 are grouted or being grouted (Tanks 17, 18, 19, 20, 5, and 6)
  - 1 cleaned and under characterization for closure – Tank 16
  - 1 cleaned and under evaluation – Tank 12
  - 4 completed bulk waste removal efforts – Tanks 4, 7, 8, 11
  - 1 undergoing bulk waste removal – Tank 13
  - 7 stable, containing immobile solids – Tanks 1, 2, 3, 9, 10, 14, 15
  - 4 supporting waste treatment – Tanks 21, 22, 23, 24

25% (6/24) of Old Style Tanks are Grouted
See Handout of Progress against all Goals and Values
H Tank Farm Regulatory Drivers for Closure

Area-Specific

- High-level Waste Tank Farm Closure Environmental Statement
  - NEPA Record of Decision
  - NEPA Supplement Analysis

- Waste Determination Basic Document
  - NRC Consultation Technical Evaluation Report
  - Waste Determination
  - NRC F-Tank Farm Waste Internment Monitoring Plan

- Performance Assessment
  - Composite Analysis
  - DOE Closure Documentation Tier 1

Tank-Specific Pre-Grouting

- WASTE REMOVAL
  - Special Analysis
    - DOE Closure Authorization Tier 2
      - STABILIZED TANK

Tank-Specific Post-Grouting Interim Period Up to Oil Closure

- South Carolina Pollution Control Act General Closure Plan (SCDHEC)
- South Carolina Pollution Control Act Closure Module (SCDHEC)
- Approve Closure Module (SCDHEC)
- Final Configuration Report
- Remove Tank System from Wastewater Permit

Legend
- DOE
- EPA
- SCDHEC
- NRC

March 2013
DOE and NRC Consultation

NRC RAI and DOE Response posted at: http://sro.srs.gov/f_htankfarmsdocuments.htm

RAI - Request for Additional Information
TER - Technical Evaluation Report
Tank Closure Progression

- **Safe Storage**: Tanks 1, 2, 3, 9, 14, 21, 22, 23, 24
- **Bulk Waste Removal**: Tanks 10, 13, & 15
- **Mechanical Heel Removal**: Tanks 4, 7, 8 & 11
- **Chemical Cleaning**: Tanks 12 – Bulk Oxalic Acid cleaning completed
- **Grouting**
  - Tank 5 and 6 Grout Initiation
  - Tank 16 – Isolation design and sampling in progress
  - Tanks 5 & 6 – Grouting underway
- **Cooling Coil Flushing**
- **Annulus Cleaning**
- **Isolation & Final Sampling**
- **Grout Tank**: Tanks 17, 18, 19 & 20

4 tanks closed
6 more active
• Three bulk oxalic acid strikes completed

• No primary tank leakage

• Solids reduced from ~4,400 to ~<1,400 gallons

• Benefit may not be worth ‘cost’
• DOE, SCDHEC and EPA agreed to enter sampling and analysis phase - April 2013

• Primary and annulus sampling complete

• Sample analysis underway at SRNL
Tank 16 - Primary
• Complete closure of Tanks 5 and 6 including documentation to SCDHEC and EPA

• Tank 12 - DOE, SCDHEC, and EPA will discuss preliminary cease waste removal agreement

• Tank 16 – sample analysis and volume determination underway

• DOE will continue consultation with NRC to support a Secretarial Waste Determination for H Tank Farm ~ summer 2014

• Incorporate Lessons Learned into a future Tank Closure Strategy

• DOE, SCDHEC, and EPA discussions related to waste removal and tank closure regulatory commitments