Heavy Water Components Test Reactor (HWCTR) Update

Presentation By
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Agenda

• Heavy Water Components Test Reactor (HWCTR) Background
• Completion Objectives / Key Performance Parameters
• Scope
• Current Status
• Path Forward
List of Acronyms

- ARRA American Recovery and Reinvestment Act
- D&D Deactivation and Decommissioning
- EE/CA Engineering Evaluation/Cost Analysis
- HWCTR Heavy Water Components Test Reactor
- KPP Key Performance Parameters
- M Million
- RSER Removal Site Evaluation Report
HWCTR Location on the Savannah River Site
HWCTR was built to test the concept of heavy water moderated reactors for the civilian power industry (circa 1960).
Background continued

- **1965**
  - retired in place with controlled access

- **1975-1976**
  - decommissioning plans considered
  - postponed due to budget constraints

- **1994-1997**
  - Second attempt to D&D
  - budget constraints again
  - Auxiliary buildings removed
  - placed in extended surveillance mode

2009
Background - Panorama view showing inside of HWCTR at zero elevation
Completion Objectives / Key Performance Parameters

♥ Achieve Human Health and Environmental Protectiveness by removing approximately 99% contamination
  ➢ Meets standards for industrial worker

♥ Final Decommissioned End State
  ➢ Achieve Mechanical Completion
  ➢ Final walk-down inspection is completed, including close-out of punch list
  ➢ Regulatory acceptance is documented
 Scope

- Project being performed as part of Recovery Act funding for $10.7M

- End State: *In Situ* Decommissioning with Reactor Vessel and 2 Steam Generators removed
Scope continued

- **Major Work Activities**
  - Drain all liquids and isolate all hazardous energy
  - Remove and dispose the metal dome
  - Remove and dispose the reactor vessel
  - Remove and dispose the two steam generators
  - Grout the spent fuel pool
  - Grout the below-grade areas of the building, including remaining piping and equipment
  - Install a concrete cover over the remaining grouted structure
Current Status
Current Status - Cutting of two access doors
Path forward

- Asbestos Abatement at Reactor Vessel head (June 10, 2010 complete)
- Start removal of concrete blocks and cutting piping around Reactor Vessel (August 10, 2010)
- Cut and remove dome for heavy lifts (December, 2010)
- Rig and remove Polar Crane and Trolley (January, 2011)
- Remove Reactor Vessel and load on transport frame (January, 2011)
- Remove and disposition 2 Steam Generators (January, 2011)
- Move Fuel Transfer Vessel Coffin to Reactor Vessel void (February, 2011)
Path Forward – continued

- Grout below grade building areas (March 2011)
- Concrete cover over remaining grouted area (May, 2011)
- Decommissioning complete (July 2011)