618-10 Burial Ground Remediation Progress & Adjacent Waste Sites

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Aerial View of 618-10 Burial Ground and Adjacent Waste Sites
Overview of 618-10 Burial Ground

Initial Design:
- 12 discrete trenches at 20 to 25-foot depth; 126,505 bank cubic meters
- 2,254 drums (972 concrete-lined, 178 depleted uranium black oxide, 537 depleted uranium chips and oil, 47 zirconium chips, 40 thorium, 480 misc.)
- Miscellaneous debris waste
- 94 vertical pipe units (VPUs)
618-10 Project Transition Status

- Transition effective date was August 29, 2016
- Continuity of remediation activity was maintained by CH2M HILL Plateau Remediation Company (CHPRC), through the hiring of the Washington Closure Hanford (WCH) 618-10 Project team and roll over of existing project procedures, processes, and protocols
Trench Status

• More than 1,980 drums retrieved. About 309 drums remain; estimates based on legacy data, ground-penetrating radar (GPR), and field observations

• Safely shipped more than 352,800 tons of material to the Environmental Restoration Disposal Facility (ERDF)

• Concrete-shielded waste drums containing high dose items, debris drums as well as granular media drums are being processed with grout in trenches
Trench Status (cont’d)

- Trench drum excavation is scheduled for completion by the end of the first quarter of FY17, depending on the amount of drums discovered
- Completion of VPU’s and the entire trench excavation is anticipated by the end of FY17

Loading drum/grout waste mix into lined Environmental Restoration and Disposal Facility (ERDF) containers
Vertical Pipe Units (VPU) Status

- 80 Corrugated/Drum VPUs:
  - 80 over-casings installed in FY15
  - 80 VPUs augured in FY16
  - 55 VPUs retrieved as of Oct. 14; expect to complete remaining VPUs in FY17
Steel VPUs

- 14 Steel Pipe VPUs (Row 1)
- Project startup review and mockup testing underway
- Estimated retrieval start in first quarter of FY17
- Scheduled completion in fourth quarter of FY17

Steel Vertical Pipe Unit remediation mock-up
316-4 Waste Site Remediation Remove, Treat, Dispose

• Scope:
  – Complete remediation of 316-4 Waste Site adjacent to the 618-10 Burial Ground
  – Two bottomless tanks, buried 10 feet below grade, were removed in 2005
  – Remediation of residual contamination could not be processed below 27 feet, due to close proximity to 618-10
  – Site was backfilled and put on hold until work at 618-10 would not interfere with 316-4 excavation
  – Will excavate the remaining contamination, which may reach groundwater
316-4 Waste Site Remediation
Technical Approach
Remove, Treat, Dispose

Approach:

1. Excavate ~26 feet overburden and stockpile
2. Excavate ~69 feet deep to groundwater

Waste removal:

- ~225,000 bank cubic meters to be excavated
- ~34,000 tons of low level waste to be disposed of at ERDF
In 1978, Pacific Northwest Laboratory used the 600-63 site to investigate groundwater recharge and radionuclide migration through soils at the Hanford Site.
# 618-10, 316-4, 600-63 Baseline Summary Schedule

<table>
<thead>
<tr>
<th>Activity</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
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<tr>
<td>618-10 Trench (Drum) Excavation</td>
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<td>618-10 VPUs Excavation</td>
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<td>618-10 Steel VPUs Excavation</td>
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<td>618-10 Mass Excavation</td>
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618-10 Remediation Update

Questions?