CHBWV Project Update

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Milestone 1 – HLW Relocation Project

• Objective: Relocate waste from Main Plant to a stand-alone dry cask storage system
  • 275 HLW canisters
  • 2 evacuated canisters
  • 1 non-routine HLW canister (WV-413)
  • 2 miscellaneous debris drums
• Technical Approach
  • Perform “operational decon” of canisters
  • Load 5 canisters into an overpack nested within the shielded cask
  • Remotely weld overpack
  • Secure cask lid
  • Transfer to new storage location
Milestone 1 - HLW Relocation Status

HLW Storage System Component Status

- Pad
  - Construction complete
  - Preparing for temporary drainage removal

- Vertical Storage Casks
  - First 8 fabricated on site
  - Fabrication of 8 more planned for later this year

- HLW Overpacks
  - First group of 8 in production
  - Delivery expected in June

Milestone 1 – HLW Relocation

HLW Storage Project Equipment Status

- Cask movement equipment
  - GT-50 Tugger on site
  - Remaining equipment is in fabrication for 2014 delivery

- Overpack Welder
  - Fabrication 90% complete
  - Weld testing and qualification planned for May/June
Milestone 1 - HLW Relocation

HLW Relocation Pathway Status

- Load in Facility
  - Evaluating upgrade options to support
    - Vertical Storage Cask handling
    - Welding system installation
  - Equipment Decontamination Room
    - Structural evaluations of subfloor complete
      - Recommendations under review
    - Preparing to fill Soaking Pit with grout
  - Haul Path from MPPB to Storage Pad
    - Upgrades planned for this year

Milestone 2 - Waste Operations

Waste Processing and Disposition Activities are categorized as

- Legacy (in storage at the start of the CHBWV contract)
- Newly Generated (generated as a result of current activities)

Processing and disposal activities for waste with a pathway for disposal involves

- Low-level waste (LLW)
- Mixed low-level waste (MLLW)
- Industrial Waste
- Hazardous Waste
Milestone 2- Waste Operations

Current Radiological Waste Activities

- Processing activities
  - Contact handled
    - Waste Processing Area (WPA)
  - Remote handled
    - Remote-Handled Waste Facility
- Waste Management activities
  - Off-site waste shipments for treatment and disposal
  - Overpacking and relocating RH-TRU waste in the Chemical Process Cell
  - Planned shipment of oversized packages
  - Managing on-site inventory

Legacy Waste Disposition Status through March 2014

- Approximately 140,000 ft³ in storage at start of contract
- Processed and shipped ~77,000 ft³ for disposal to date
  - Variety of container types (drums, boxes, intermodals)
  - Waste types include PPE, demolition debris, soils, expended equipment
  - 84 shipments to date
Newly Generated Waste

- Container types include drums, boxes and intermodal containers.
- Waste includes PPE, demolition debris, soils, expended equipment.
- Contract-to-date shipping status through March 2014:
  - Industrial Waste – 147,231 ft³
  - Hazardous/Universal Waste – 472 ft³
  - LLW – 114,744 ft³
  - MLLW – 737 ft³

Milestone 2- Waste Operations

### Waste Type

<table>
<thead>
<tr>
<th>Waste Type</th>
<th>Treatment</th>
<th>Treatment and Disposal Locations</th>
<th>Notes</th>
<th>Cost*</th>
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</table>
| LLW                         |           | Commercial facilities in TN, UT and TX and National Nuclear Security Site (NNSS), NV | No cost for LLW disposal at NNSS | Disposal: Varies from $0 – ~$30/ft³  
Transportation: ~$11,500 – ~$15,000 per truckload |
| MLLW                        | All MLLW requires treatment prior to disposal (i.e., liquid solidification, waste encapsulation) | Commercial facilities in TN, FL, UT and WA and NNSS | Some facilities charge single rate for treatment and disposal  
No charge for disposal of MLLW that meets Land Disposal Restriction (LDR) requirements at NNSS | Treatment: Ranges from ~$10,000 per drum up to ~$150,000 per box  
Disposal: Varies from ~$0 – ~$140/ft³  
Transportation: ~$12,000 – ~$15,000 per truckload |
| Hazardous/Universal/Industrial |           | Commercial facilities in IN, PA, and NY | Combined cost for treatment, disposal, and transportation. Total cost ~$10,000/yr. |
| Construction and Demolition Debris |           | Commercial facilities in NY and PA | Non-radiological construction debris shipped for disposal | Disposal: Between $50-60 ton  
Transportation: Between $100 - $500 per truckload |

* Some disposal costs are determined by DOE Indefinite Delivery, Indefinite Quantity (IDIQ) contracts.
Milestone 3 - Facility Disposition

Continued deactivation and cleanout of Main Plant Process Building (MPPB) and Vitrification Facility

- Asbestos abatement in 1st floor Plant Office of MPPB
- Deactivation and decommissioning activities
  - Analytical Hot Cells
  - Extraction Sample Aisle
  - Liquid Waste Cell
  - Vitrification Facility
  - Preparing for work in the Sample Storage Cell and Extraction Cell #1

Milestone 4 - Balance of Site Facilities

- Continuing miscellaneous structure removals
- Backfilling and seeding completed at demolition areas
  - Expanded Environmental Lab
  - Diesel Fuel Oil Tank Pad
  - T-FS-04 Building
  - Vit Fab Shop Pad
  - Vitrification Test Facility Waste Storage Pad
- Completed installation of first water well
Questions?