



U.S. DEPARTMENT OF
ENERGY

OFFICE OF
**ENVIRONMENTAL
MANAGEMENT**

West Valley Demonstration Project

2016 EM Success Story

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CH2M HILL BWXT West Valley, LLC.

September 14, 2016

2016 Goals

- Excellent Safety Performance
- Complete the High-Level Waste Relocation and Storage Project
- Complete the offsite shipment and disposal of the vitrification components (Melter, CFMT and MHFT)
- Complete demolition preparations in the Extraction Cells area of the Main Plant Process Building (MPPB) and in the Vitrification Facility
- Complete relocation of personnel into new 4-Plex and 10-Plex offices, and re-purposed warehouse
- Complete infrastructure planning and begin reconfiguration for water, electric, communications and natural gas in preparation for demolition activities and personnel relocations

Safety Performance

**Outstanding
Safety
Performance -
2016 Goal**

As of September 1, 2016, CHBWV and subcontractors worked approximately 2,181,383 work hours (1,396 days) without a lost-time work accident or illness.



Utility Room Asbestos Removal

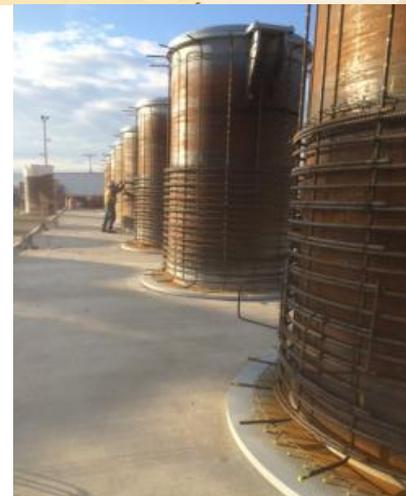
High-Level Waste Relocation Project

Complete HLW Canister Relocation - On Target for December 2016 Completion

- 29 Vertical Storage Casks (VSCs) have been loaded and transported to Interim Storage Pad (145 of 278 canisters) – 52% Complete
- NAC completed onsite fabrication of VSCs (56 total)



Cure Pad for Vertical Storage Casks (VSCs)



Rebar Installation



VSC Relocating from Equipment
Decontamination Room (EDR)



HLW Canister Decontamination



Loaded VSC Transported on Haul Path



29th VSC on the Storage Pad

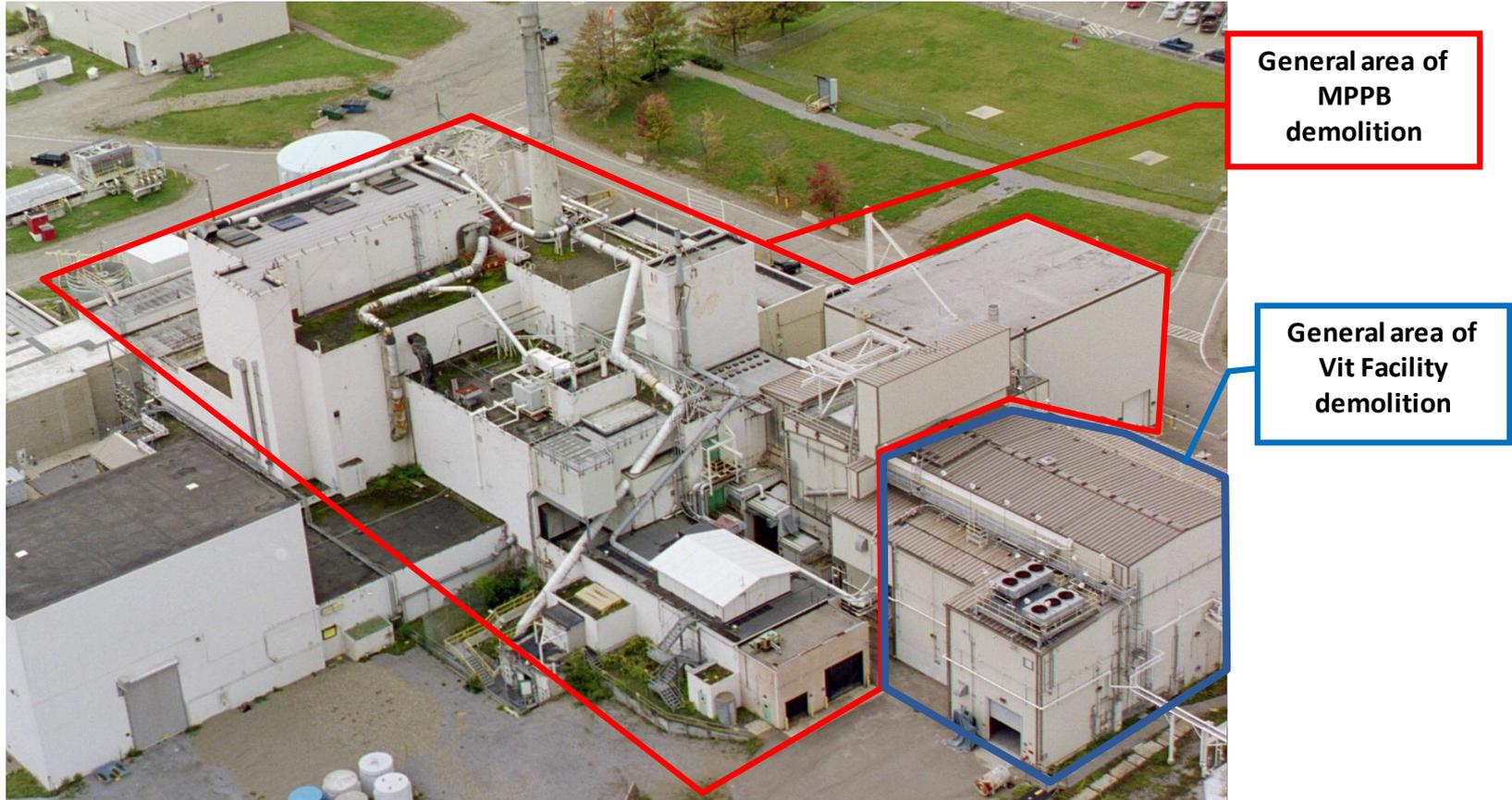
Ship Vitrification Components for permanent disposal – Late 2016



Impact Limiter Installed on Melter Package

- Shipment of Vitrification Melter, Concentrator Feed Makeup Tank (CFMT) and Melter Feed Hold Tank (MFHT)
 - MHF Logistics (MHF), Waste Control Specialists (WCS) and CHBWV walk-down site upgrades and measure melter package with impact limiter installed – mid-September
 - MHF begins mobilization onsite and assembles equipment – late October
 - MHF begins loading three heavy, low-level waste packages onto heavy haul trailers for transport to Blasdell, NY (35 miles north of the site)
 - Low-level waste packages loaded on a Special Railcar for transport to Andrews, Texas for permanent disposal – mid-November

Facility Disposition Status



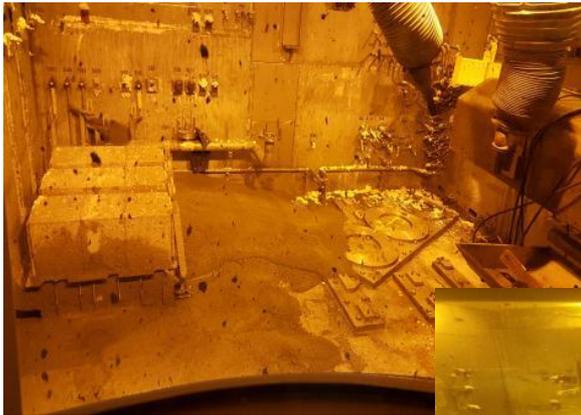
- Vitrification Facility Deactivation – 95% Complete
- Main Plant Process Building Deactivation – 53% Complete

Facility Disposition – Step 1 Demolish Vitrification Facility

**VIT Demo Ready
2016**

Vitrification Facility (VIT) Deactivation – 95% Complete

- EPA approved open-air demolition
- Begin Vit Demolition - March 2017 (Contingent on funding)
- Complete Vit Demolition October 2017, 11 months ahead of schedule (Contingent on funding)
- Step 2 – Complete deactivation and begin demolition of Main Plant Process Building – November 2017



Vitrification Cell Grouting in Progress

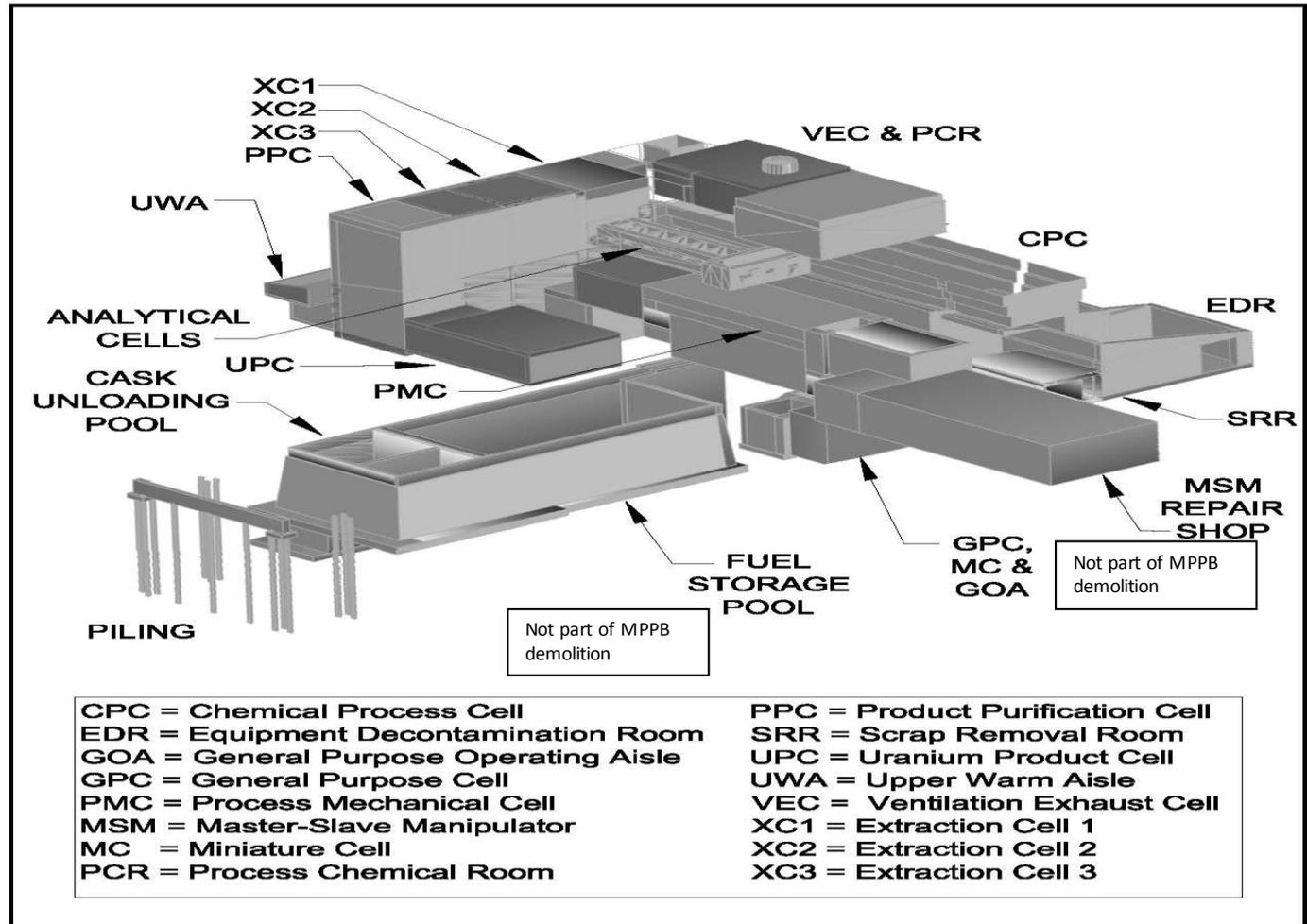


Manned Entry to Obtain Radiological
Dose Rate Surveys

Facility Disposition – Step 2

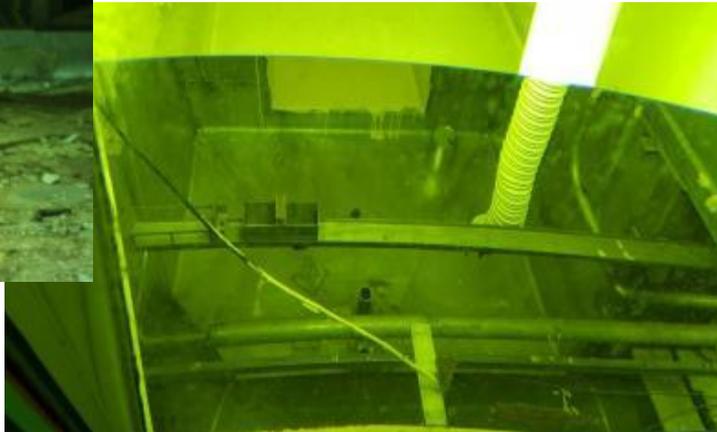
Demolish Main Plant Process Building

- 53% of deactivation of Main Plant Process Building cells has been completed
- Demolition planned November 2017



Main Plant Process Building Deactivation Activities

- Extraction Cells – Completed removal of the Temporary Ventilation System
- Analytical Aisle Hot Cells – Completed final decontamination of Sample Storage Cell and Hot Cells 1 through 5; process drain and vent line characterization; final surveys for open air demolition
- Head End Vent (HEV) Cell – Completed removal of duct and demister tank in the MSM Shop; obtained dose rates and performed video inspection on filters; set up mock-up platform and commenced filter removal mockups
- Fuel Receiving and Storage (FRS) – Commenced one time ACM cleanup in FRS



**Hot Cell #4
Before and After Decontamination**



**HEV Filter Housing – Looking
Down on Top of Filter**

Main Plant Process Building Deactivation Activities

- Liquid Waste Cell (LWC) – Completed piping removal, cutting opening into criticality wall, capping tank openings, and sampling Tank 7D-2 waste water
- Product Purification Cell (PPC) - South – Completed characterization of lower cell walls
- Uranium Product Cell (UPC) – Completed waste water transfer from Tank 5D-15A1 to waste drums (7,800 gallons); commenced waste water transfer from Tank 5D-15A2 (480 gallons)
- Utility Room (UR) – Completed Asbestos-Containing Material (ACM) removal on the east half and roof pipe chase; continuing on west half



LWC – Cutting Criticality Wall
Opening and Tank Capping



Criticality Wall Opening



UR ACM Removal on Steam Piping

*Infrastructure
Configurations
Continue*

Accomplishments

- Demolished 19 of 51 site facilities (37%)
- Completed planning and engineering for electrical isolation of Vitrification Facility.
- Selected bidder for new Communications Data Center
- Completed final design for new potable water system

Look Ahead

- Continue site reconfiguration and utility system reroutes (electrical, natural gas, IT) to position site for future D&D
- Continue Warehouse reconfiguration – Reduce storage footprint and increase office/break room space



**Test and Storage Building Trailer
Demolition**

2017 Goals

- Complete High-Level Waste Relocation and Storage Project
- Complete relocation of legacy waste from Main Plant Process Building (Head-End Cell drums)
- Begin demolition of Vitrification Facility March 2017 (Contingent on funding)
- Continue deactivation of Main Plant Process Building
- Continue reconfiguration of water, natural gas, electric, communications infrastructure