

# West Valley Demonstration Project High Level Waste Canister Relocation and Storage Project

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# HLW Canister Relocation & Storage Project

- WVDP is relocating high level waste from high level waste (HLW) interim storage in the Main Process Plant Building to a stand-alone dry cask storage system:
  - 275 HLW canisters
  - 2 evacuated canisters
  - 1 non-routine HLW canister (WV-413)
  - 2 Spent Nuclear Fuel (SNF) debris drums
- Use current licensed SNF shipping cask multi-purpose canister overpacks and current SNF cask designs:
  - 5 HLW canisters per package (55)
  - 3 canisters in separate cask ( 2 evacuated canisters, and 1 non-routine HLW canister (WV-413) )
  - Spent Nuclear Fuel Debris in separate cask



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# HLW Canisters Relocation & Storage Project

## Technical Approach

- Canisters moved from Chemical Process Cell to Vitrification Facility (VIT) for processing
- Multi-purpose canister (MPC) placed within shielded cask and moved to VIT
- MPC/Cask loaded
- Remote welding station welds MPC lid in the Equipment Decontamination Room (EDR)
- Cask lids secured and transferred to the High Level Waste (HLW) Canister Interim Storage Facility
- For final shipment MPC transferred from storage system to transportation cask in currently available deployed technology
- Current Spent Nuclear Fuel (SNF) commercially available cask will accommodate 5 HLW canisters
- MPC/Cask configuration will be NRC licensed for HLW Certificate of Compliance (CoC)



Example of a multi-purpose canister



Placement of a multi-purpose canister at a NAC project

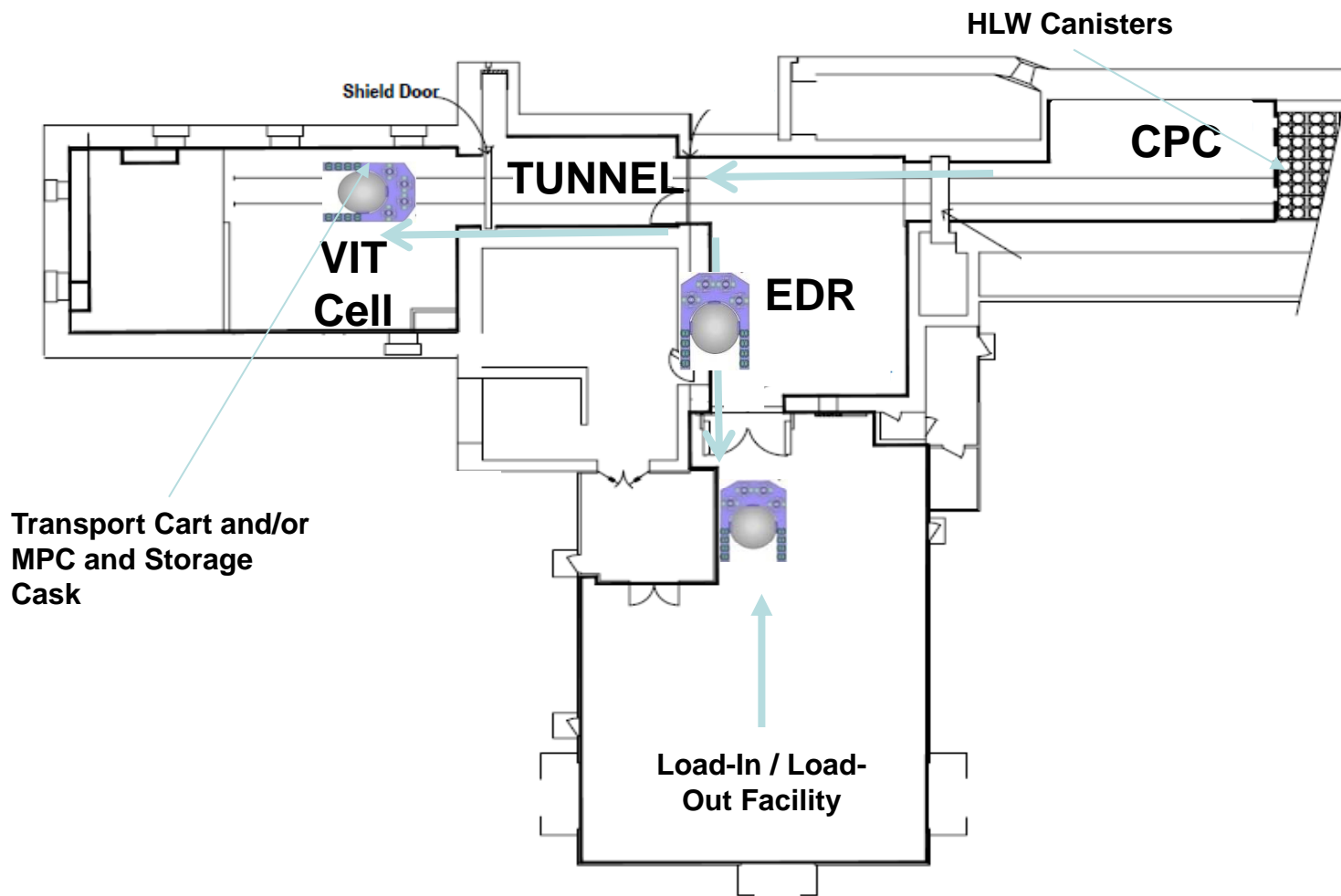


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# HLW Canisters Relocation & Storage Project

- NAC International (NAC) selected for the High Level Waste Canister Relocation and Storage Project
- West Valley Demonstration Project will have 57 storage casks at the completion of the High Level Waste Relocation and Storage Project



NAC installed HLW Canisters at Maine Yankee Project Site

# Advantages of NAC System

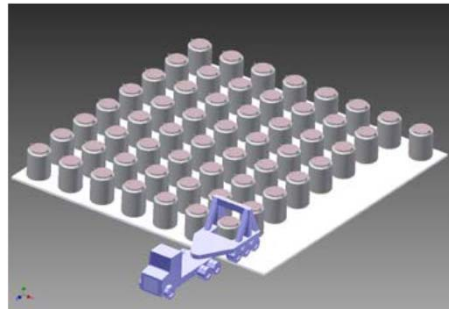
- Fully licensed technology
- High capacity production
- Best value
- Smallest footprint

# NAC Scope

- The design, fabrication, and delivery of a High Level Waste Storage System
  - Construct 57 overpacks and storage casks
  - Design and fabricate transport equipment
  - Design of storage pad



**Canister under construction at NAC Project Site**



**Example of a storage pad**



**Similar transport of casks will be used at WVDP**

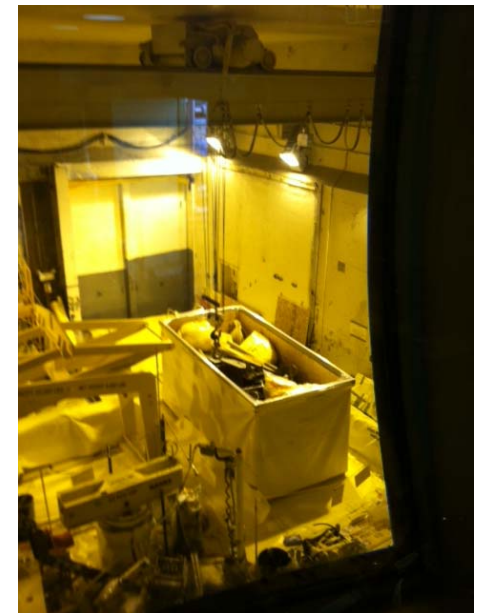
# Current Activities, cont.

## Integration and status of additional work

- Chemical Process Cell (CPC) waste removal 90% complete
- Equipment Decontamination Room (EDR) waste removal initiated
- Transfer of a welder and grapple from Hanford Site (Richland, Washington)



CPC



EDR



# Questions?