



Waste Treatment Plant Project



2016 WTP Nuclear Supply Chain Collaboration Event

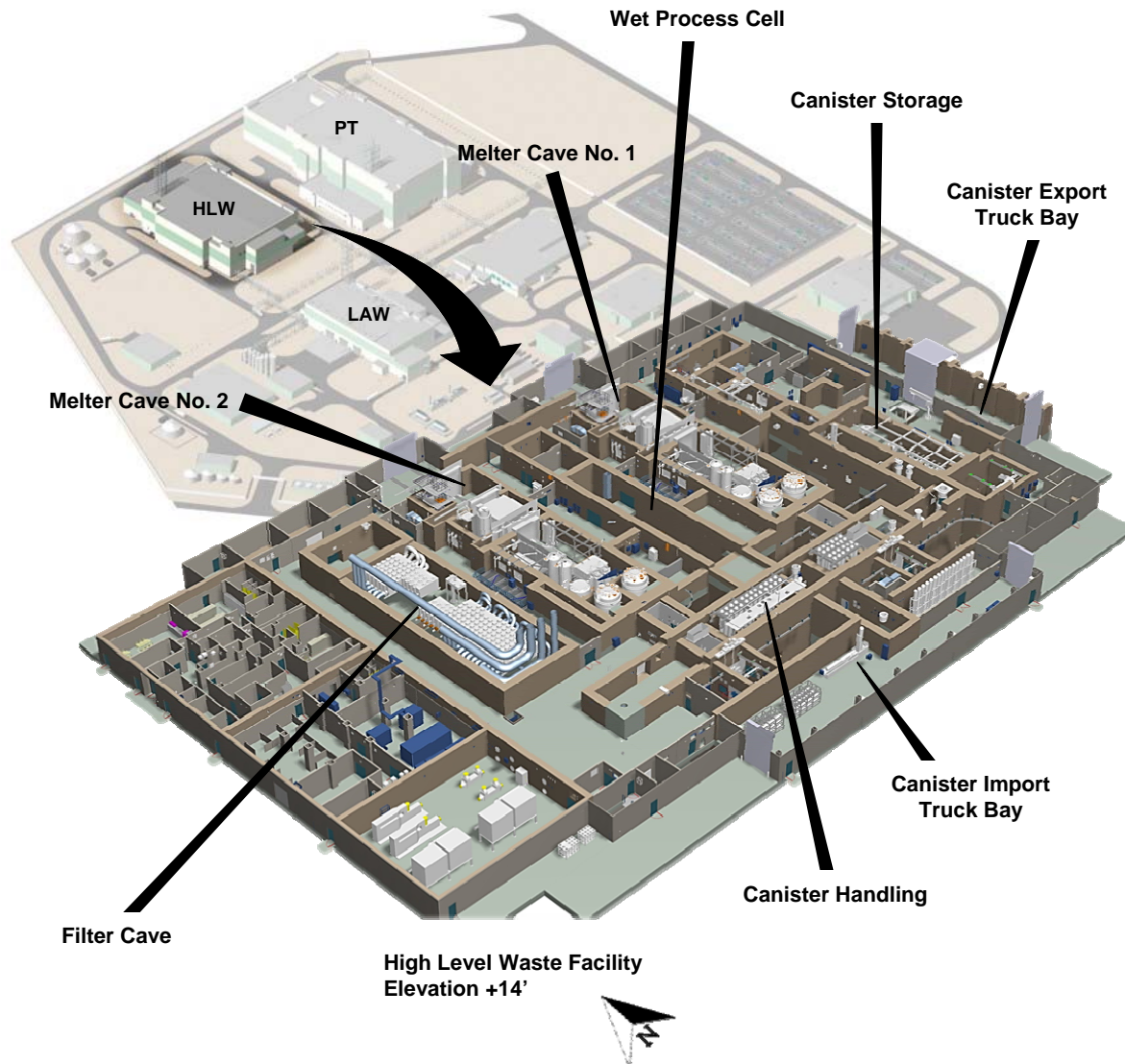
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High Level Waste Facility Overview



Facility Overview

- 275' (w) x 440' (l) x 95' (h)
- Process High Level Waste Stream from Tank Farms
- Annual average of 600 canisters
 - 4TN each
 - 14.5'(h) x 2'(d)
- Key Processes:
 - Glass Vitrification
 - Off-gas Filtration

Key Quantities



Concrete
88K CY



HVAC
1.1M LB



Steel
11.5K TN



Conduit
233K LF



Pipe
165K LF



Cable / Wire
1.6M LF



HLW Facility Wet Cell Information

Deliver Vessels

Set Vessels
VSL 2: 18 days
VSL 7: 30 days
VSL 8: 30 days

Install Steel
Pipe Support:
150 days

Install Below Slab Pipe
PA01 Pipe
(Below Slab):
400 days

FREP Slab 4010
Decking: 11 days
Slab 4010: 60 days

Install Racks
Pipe Racks: 16 days
Instrument Racks:
24 days

Install Above Slab Pipe
PG5 Pipe
(Above Slab):
150 days

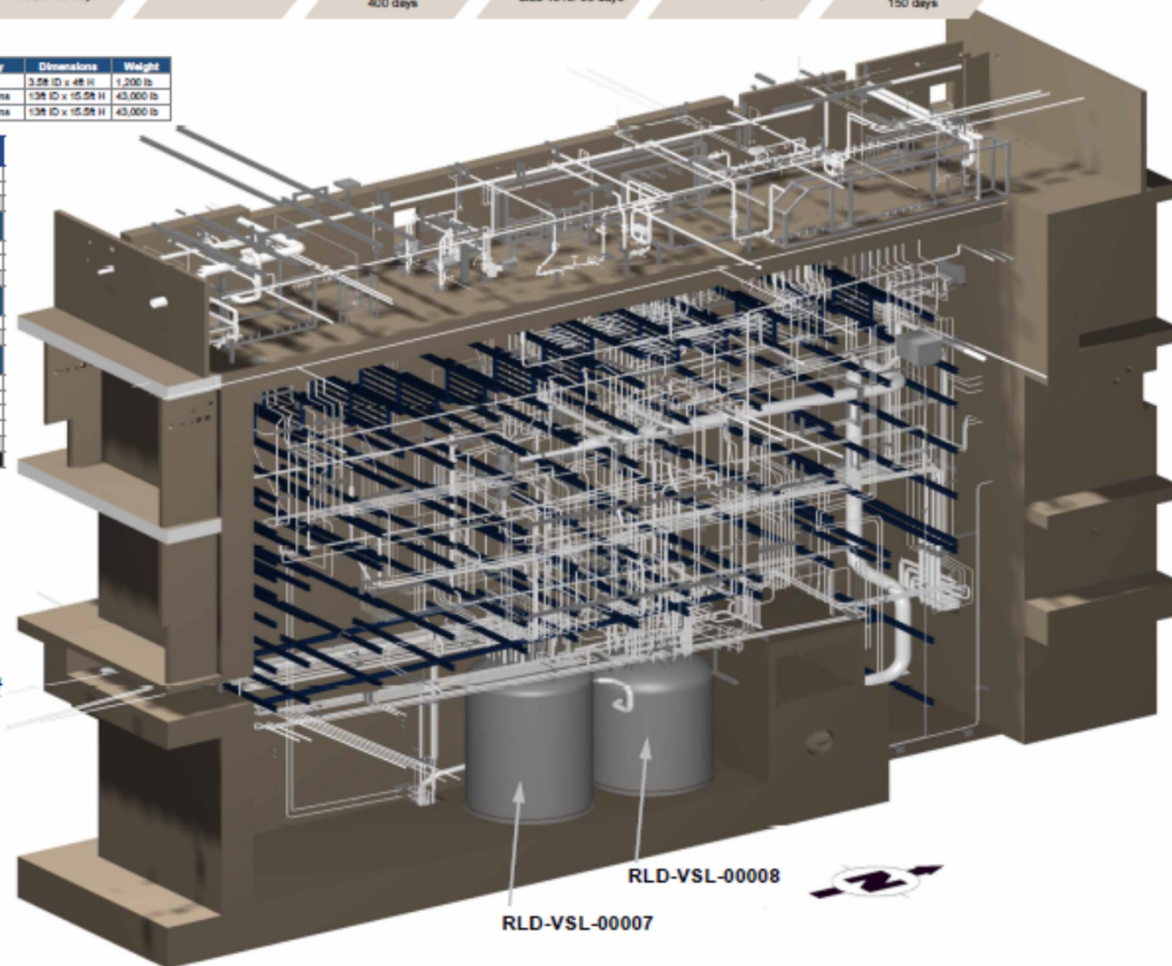
Major Vessels

Vessels	Description	Capacity	Dimensions	Weight
RLD-VSL-00002	Offgas Drain Collection Vessel	282 gallons	3.58 ID x 48 H	1,200 lb
RLD-VSL-00007	Acidic Waste Vessel	15,750 gallons	138 ID x 15.58 H	43,000 lb
RLD-VSL-00008	Plant Wash and Drain Vessel	15,750 gallons	138 ID x 15.58 H	43,000 lb

Piping Area	Length (ft)	Current Budget Hours
Above Slab 4010 (Elev +50' to +72')	1,385 ft	5,000
Below Slab 4010 (Elev -2' to +50')	14,810 ft	47,200
Total	16,195 ft	52,200
Steel	Weight (lb)	Current Budget Hours
Structural	34 lb	900
Pipe Support	40 lb	2,000
Total	74 lb	2,900
Concrete	Quantity (cy)	Current Budget Hours
FREP Slab 4010 (Elev +50')	224 cy	4,500
Total	224 cy	4,500
Other Quantities	Quantity	Current Budget Hours
Joggles	120 ea	4,500
Instrument Racks	10 total	1,000
Pipe Racks	10 total	1,000
Scaffold Support Hours	25,000 h	25,000
Total		31,500
Total Craft Hours		91,100

RLD vessel procurements are current critical path for HLW over-the-top equipment.

In-cell piping concrete roof and pipe racks are subsequent critical path activities.

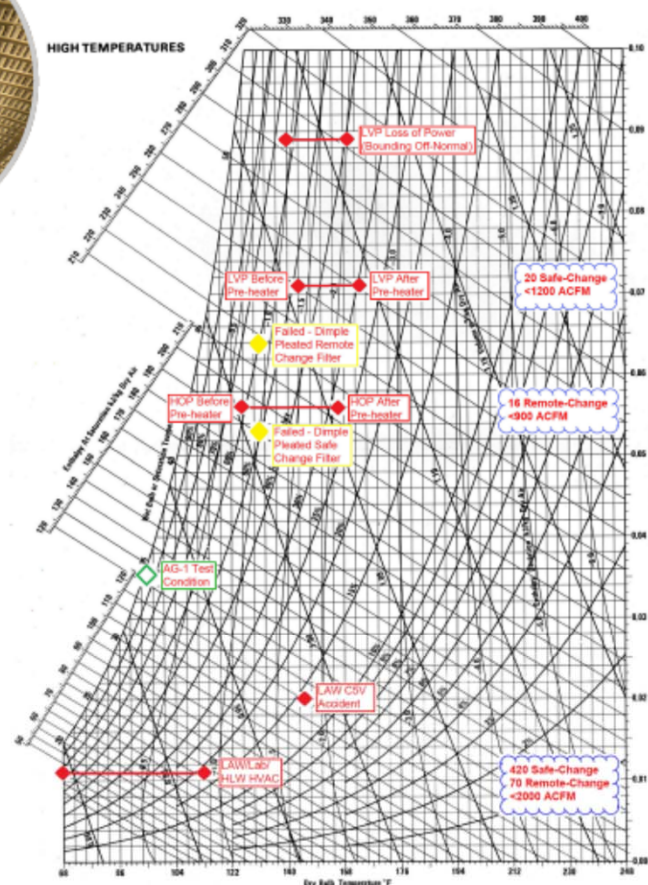
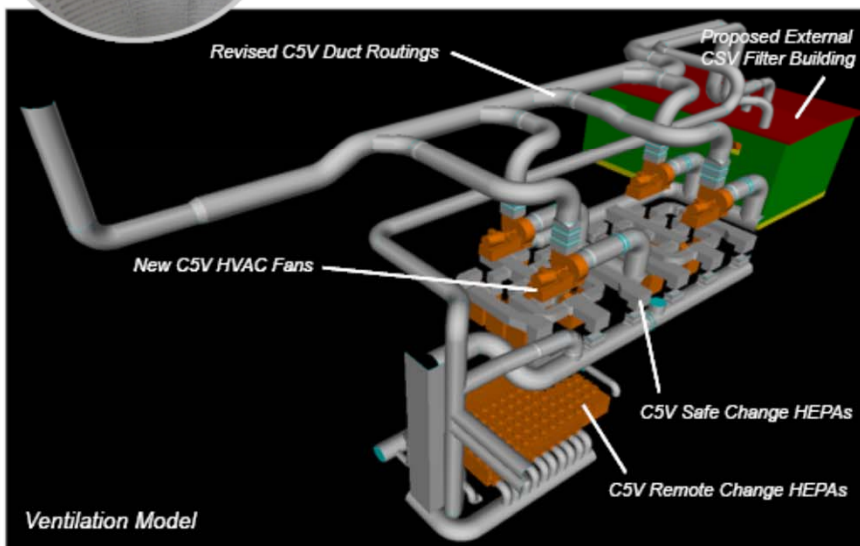
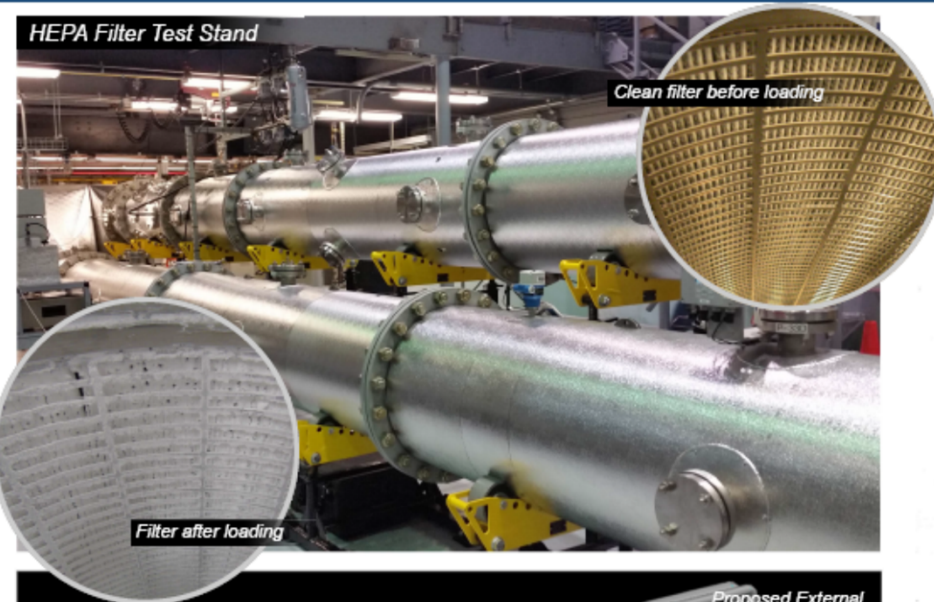


What have we been working on
at HLW?



High-Level Waste Facility Filter Cave

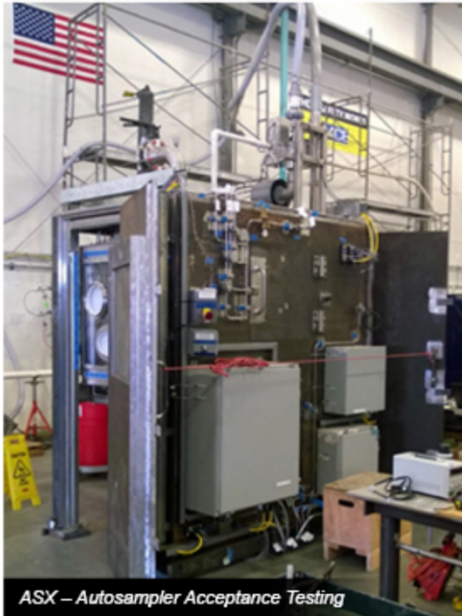
HEPA Filter Test Stand



Psychrometric Chart with WTP Conditions



High-Level Waste Facility Equipment



What's the path forward for
HLW?



Management Focus

- Implement 5 Year Plan
- Release Engineering and Construction for full production
- Re-baseline the to go scope cost and schedule
- Complete HEPA Safe Change and Remote Change Filter Qualification Testing
- Deliver over the top equipment required for roof completion



EPC Scope

■ **Engineering & Nuclear Safety**

- Primary focus in FY17 on resolution of Design & Operability Review comments, submittal of updated Preliminary Documented Safety Analysis, and preparation for re-baseline
- FY18 focus is on re-baseline
- FY17 – 21 Production Activities:
 - Continue limited (due to funding) production engineering on key HLW systems
 - Complete Remote Change HEPA Filter Qualification Testing
 - Increase Construction Backlog



EPC Scope (cont.)

■ **Procurement**

- Complete RLD 7 and 8 fabrication and delivery
- Deliver Auto Sampler Units
- Deliver remaining cranes required to support construction
- Initiate procurement of Safe Change Filter Housings
- Maintain existing authorized procurements and complete as resources allow

■ **Construction**

- Limited construction focused on path to roof and installation of over the top equipment