



Idaho Cleanup Project Storage Requirements

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EM Environmental Management

safety ❖ performance ❖ cleanup ❖ closure

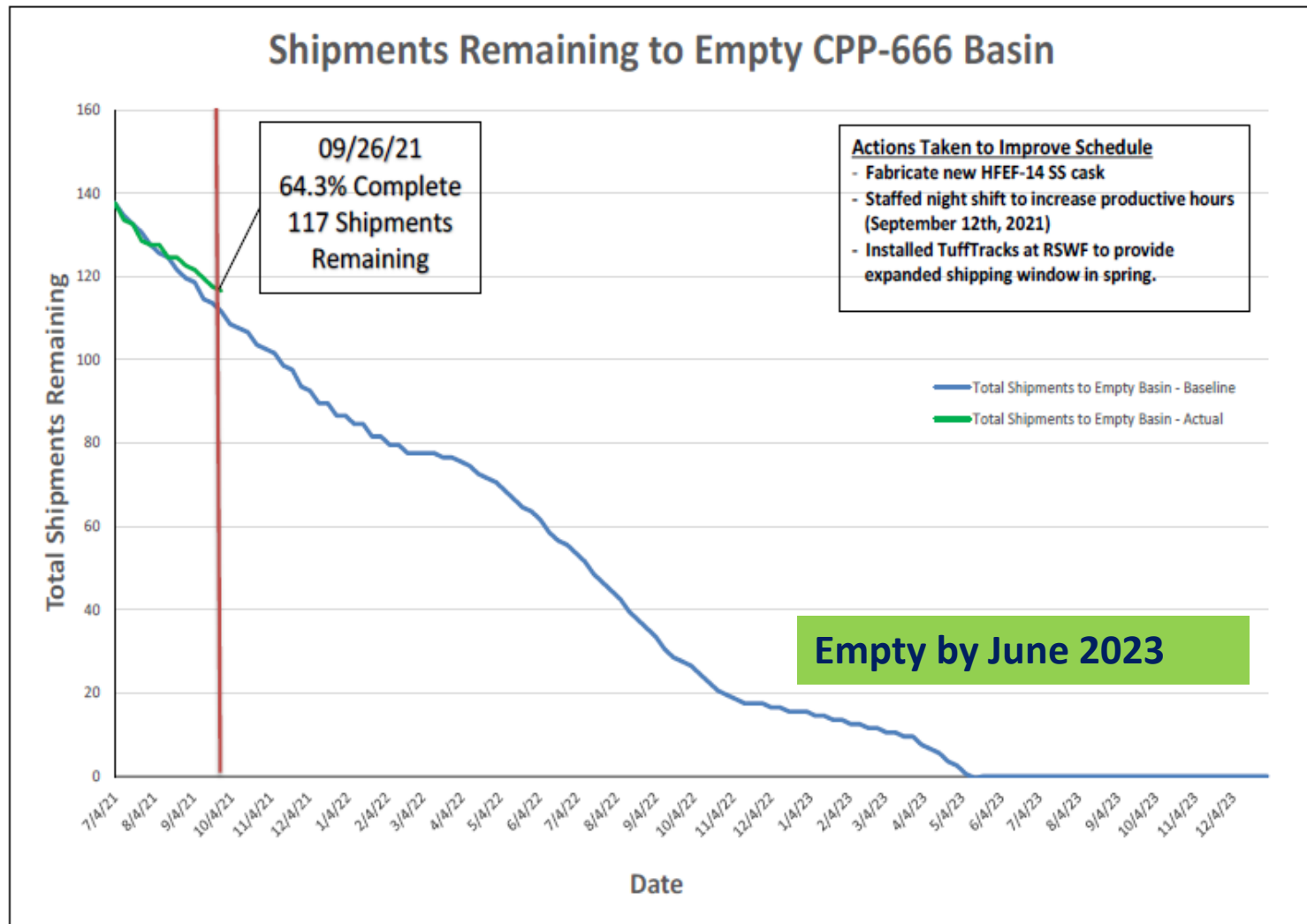
Idaho Cleanup Project

Waste Requiring Storage

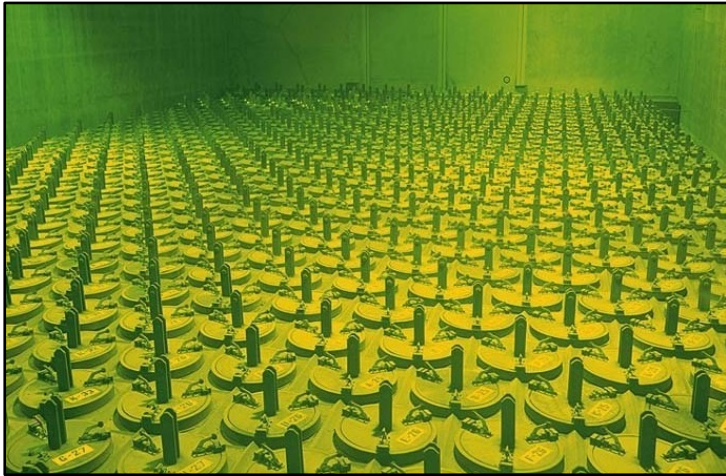
- Spent nuclear fuel (~305 metric tons heavy metal)
 - Wet and dry storage
 - Packaging to multi-purpose canisters
 - Staging facility
- Sodium bearing waste (~ 850,000 gallons)
 - Storage tanks (liquid)
 - Treated through IWTU
 - Canisters in the product storage building
- High level waste – calcine (4,400 m³)
 - Bin sets
 - Treatment - tbd
 - Staging - tbd



SNF – Wet Storage



SNF – Dry Storage in Idaho



CPP-603, Cave of the irradiated fuel storage facility



CPP-2707, Above ground pad for cask storage



CPP-1774, Above ground (modules on a pad)



CPP-749, Underground vault storage

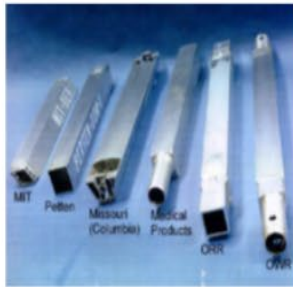


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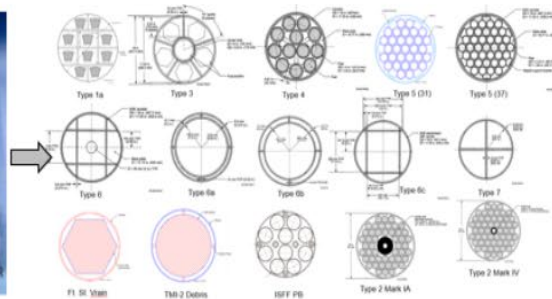
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Idaho Cleanup Project

- Road Ready Dry Storage Demonstration



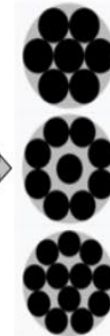
Different Fuel Types



Different Baskets



Different Canister Sizes



Different Over-Canister Capacities



Different Vendors



Range of Stage Area Pad Capacities

SNF – Staging Facility

- Mission need (CD-0) approved 2021
- Staging for road-ready SNF

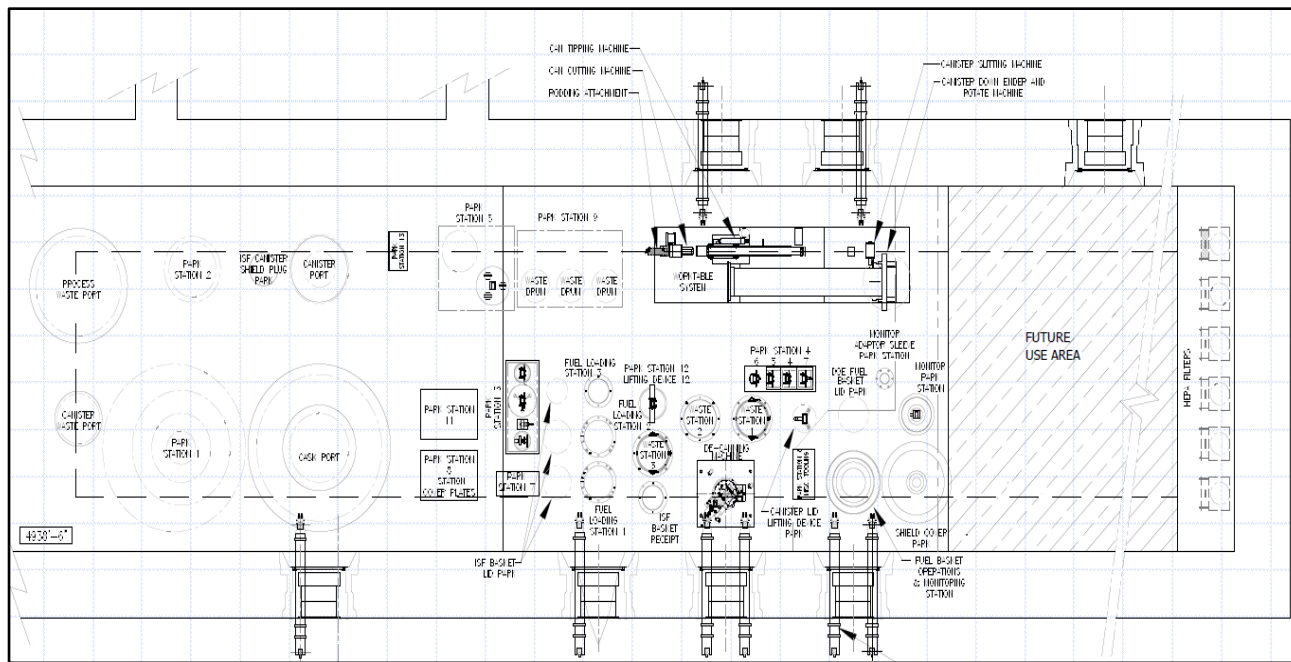


Canister staging facility example



SNF – Packaging Facility

- Retrieve SNF from dry storage
- Package fuel for road readiness

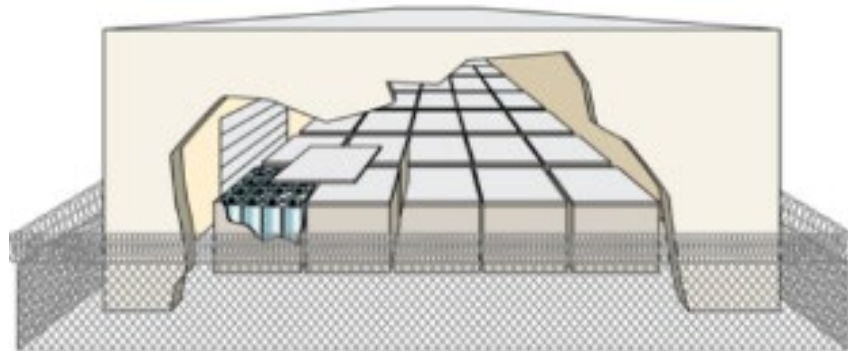


Notional packaging facility layout



Sodium Bearing Waste – Post IWTU Processing

- Canisters placed in product storage building
- Current vault storage capacity (37) is not enough to contain all the vaults for the IWTU mission (78)



Product storage building



Calcine

- Currently 4,400m³ stored in calcined solids storage facilities (bin sets)
- Post processing
 - Road-ready canisters will need staging area until shipped out of state
 - Staging area size and configuration dependent on processing method selected

