Storage of Vitrified High Level Waste

Citizens Advisory Board
Waste Management Committee

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Presentation By

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Purpose & Acronyms

- Provide information on the interim storage of vitrified high level waste at the Savannah River Site.

- Acronyms –
  - GWSB Glass Waste Storage Building
  - SCT Shielded Canister Transporter
  - HLW High Level Waste
  - SR Savannah River Operations Office
  - SRR Savannah River Remediation, LLC
  - PC Performance Category

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Impacts of Yucca Mountain Delay

NO IMPACT to SR operations/storage

- SR will continue to produce canisters in accordance with requirements.

- SR will continue to **interim** store vitrified HLW in the GWSBs until a geologic repository is available or the policy is revised.

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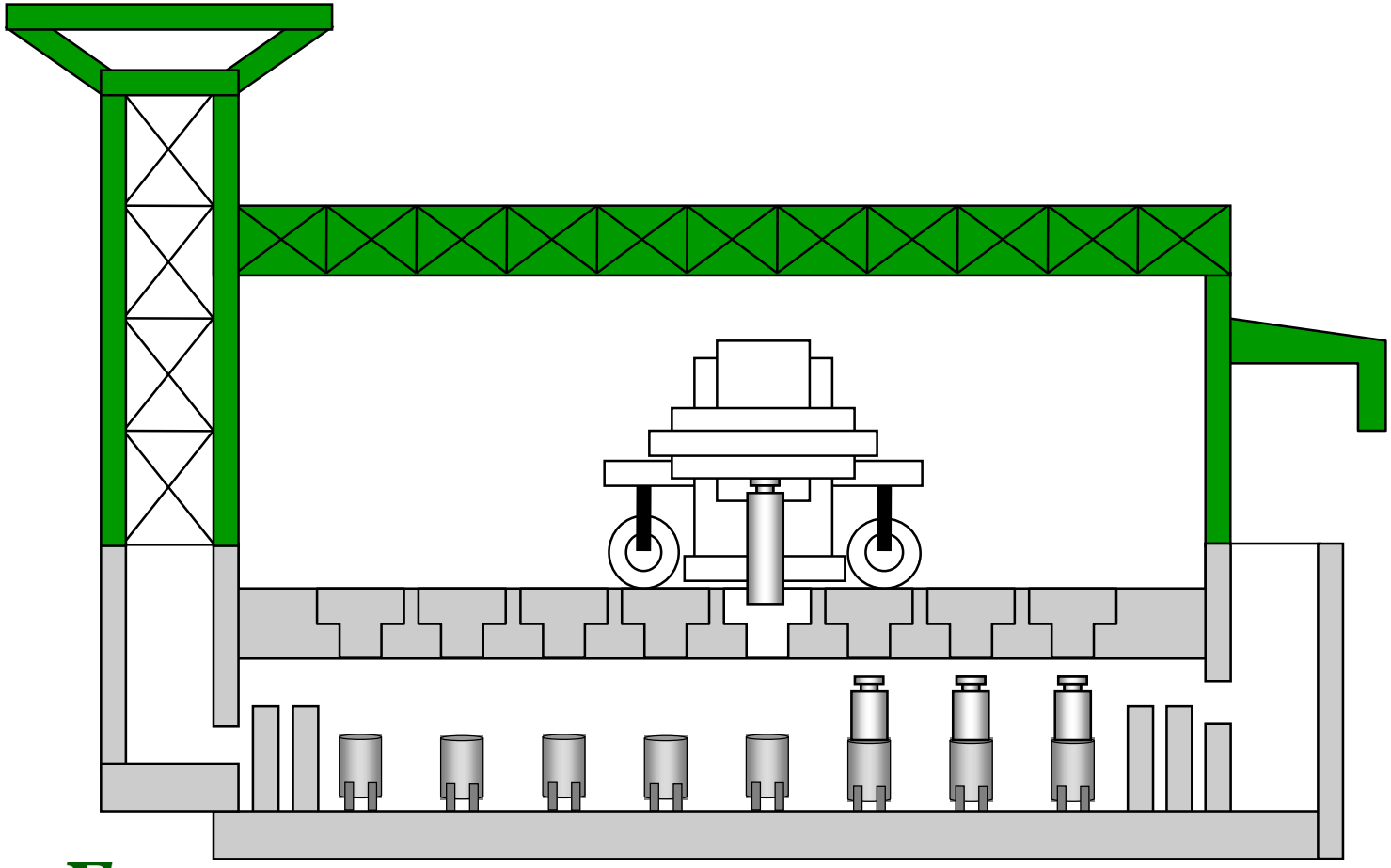
Glass Waste Storage Building



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Glass Waste Storage Buildings

- Currently two GWSBs
  - Vault – PC- 2
  - Metal bldg – PC-1
- Ventilation –
  - GWSB #1 – forced and passive
  - GWSB #2 – passive only
- Capacity:
  - GWSB #1 – 2,253 available positions
  - GWSB #2 – 2,340 positions
- Design Life – 50 years
- Estimated Useful Life – 100 years
- GWSB #3 – planned for 2020

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Funding

- Funding through PBS-14 Liquid Radio-active Waste Management
- New Liquid Waste Contract – SRR
  - Will establish new baseline in 6-8 months
  - Proposal costs lower than projected in Request for Proposal
- GWSB #3 – projected Line Item

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Canister Design

- Vitrified waste form – best available technology to stabilize high radio-active liquid waste.
- Canister made of 304L stainless steel – 3/8” thick.
- Life expectancy estimated ~1000 years.
- Canisters do not breach on drop test of over 7 meters.

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Summary

- The GWSBs and the vitrified high level waste canisters are of robust design.

- Safe interim storage will continue until such time as a geologic repository becomes available.

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