Storage of Vitrified High Level Waste

Citizens Advisory Board
Waste Management Committee

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• Provide information on the interim storage of vitrified high level waste

• 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
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
Glass Waste Storage Building

[Diagram of a Glass Waste Storage Building with a section view showing a transport system and canisters.]
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 usable positions
  - GWSB #2 – 2,340 positions
- Design Life – 50 years
- Estimated Useful Life – 100 years
- GWSB #3 – planned for 2020
Funding

• Funding through PBS-14 Liquid Radioactive 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
Canister Design

- Vitrified waste form – best available technology to stabilize high radioactive 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
- Canisters are used for transportation and interim storage
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