Drums of Cement
Stabilized Waste

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19,877 square steel drums filled with cemented waste are stored on site in an aboveground facility referred to as the Drum Cell.

Produced between 1988 and 1995 from pretreatment of high-level waste to remove salts and sulfates that would affect glass quality.

The waste has been managed and stored as LLW since 1995.
Separation of salts and sulfates from the high-level waste (HLW) was designed to produce low-level waste.

—1982 Environmental Impact Statement identified this as the preferred processing option.

—HLW vitrification process was specifically designed to separate a low-level waste liquid before vitrification.
WVDP HLW Waste Processing Flow Diagram (circa 1987)

**Waste Pretreatment**

- Liquid
  - Remove 99.9% of Radioactivity
  - Concentrate Liquid
  - Blend with Cement
  - Store the Cement-filled Drums

- HLW
  - Zeolite
  - To Vitrification

- Sludge
  - Mix Sludge/Zeolite
  - Heat with Glass Formers
  - Store Canisters

**High-level Waste Vitrification**

- Transportation (Pending EIS)
  - Terminal Waste Storage
Consistent with the Department of Energy (DOE)/NRC Memorandum of Understanding (1981) the NRC provided oversight of the process that produced the Drum Cell waste.
In 2005, the DOE Headquarters directed that the characterization data and classification background for this cemented waste be reviewed.

That review has concluded that the cemented waste is low-level waste and that additional review is not required.

— May 2006

The Nevada Test Site (NTS) has reviewed the waste characterization data and concluded the LLW meets the site’s Waste Acceptance Criteria.

— May 2006
Path Forward

- WVNSCO with DOE oversight are conducting a Line Management Readiness Assessment to ensure preparedness for drum packaging and shipping.
- DOE is planning to begin shipping drums to NTS in June.