



A N D R E W S , T E X A S

New Mexico
Radioactive and Hazardous Materials Committee
October 22, 2015



WCS Safety and Quality Focus

- WCS maintains strong, overarching commitment to safety and quality.
- WCS promotes a safety culture consistent with the best nuclear utilities and DOE sites:
 - Trust-based organization
 - Open communication free from concerns over reprisal
 - All workers have right *and obligation* to report safety and quality concerns
 - Management practices conservative decision-making



Disposal and Service Capabilities

WCS provides the most comprehensive, full service, and complete Radioactive and Hazardous Waste Services in the Nation.

Commercial Waste

- In- and Out-of-Compact Class A, B, and C LLRW



Federal Waste

- Federal Class A, B, and C LLRW and MLLRW



Low Activity

- Accepts LLRW up to 10% of the Class A limit in RCRA/TSCA landfill



Transportation

- 3 state-of-the-art Type B Casks
- 2 Type A Casks



Processing

- Dewatering, Sorting, Stabilization, Repackaging, etc.



Storage

- GTCC, TRU, Sealed Sources, MLLRW





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WCS Current Facilities



LSA Pad

Federal Facility

Byproduct Facility

Compact Facility

Hazardous Waste
Landfill

Administration Buildings and
Treatment Facility



Facility Design

- First compact disposal facility for Class A, B and C LLW in over 30 years:
 - 9 million cubic feet and 3.89 million curies of disposal capacity for nuclear power plants and other commercial generators
- First federal offsite disposal facility for Class A, B and C LLW and MLLW in over 30 years:
 - 26 million cubic feet and 5.6 million curies of disposal capacity for DOE
- First direct disposal option for Class B/C LLW since 2008.
- Depth and robust liner design are more protective than previous industry standards.
- Transfer of ownership to Texas or DOE is more protective than previous industry standards.



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Compact Waste Facility





Modular Concrete Canister (MCCs)



80" D x 110" H

Cylindrical MCC



MCC Opened for Waste Placement



114" L x 92" W x 110" H

Rectangular MCC



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Federal Waste Facility





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Disposal of Glove Box





TRU Storage

- WIPP operations were suspended after the February 2014 radiation release at WIPP.
- DOE had been striving to meet a significant regulatory milestone (June 2014) related to the removal of TRU from LANL when the WIPP incidents occurred.
- DOE, through its contractor, Nuclear Waste Partnership, entered into a contract with WCS to temporarily store LANL waste at WCS for up to one year.



Receipt of TRU



- Receipt by WCS of TRU for temporary storage





LANL Shipments to WCS

- DOE discovered the breached drum originated from LANL, and shipments to WCS were stopped.
- By this time WCS had received 40% of planned shipments before stoppage:
 - 39 shipments containing 193 standard waste boxes (SWBs) and 2 Ten Drum Over-packs (TDOPs).
 - WCS was informed that 74 SWBs already received by WCS contain the same nitrate salt waste stream as breached drum at WIPP.
 - The waste stream was reclassified by DOE with D001 waste code.



SWBs with Nitrate Salts

- Reclassified as D001 because LANL discovered nitrate salts were treated with organic kitty litter, which could cause a heat event.
- WCS received temperature information from LANL that D001 SWBs should be less than 130 degrees F.
- In consultation with TCEQ and DOE, WCS implemented enhanced protective measures:
 - SWBs were put in MCCs for better protection, thermocouples probes installed within the MCC, and the remaining voids filled with pea gravel to allow venting
 - To maintain the safest configuration possible, WCS placed 35 MCCs with suspect SWBs in the Federal Waste Facility (FWF) and covered with sand.
- Remainder of non-nitrate salt TRU continue to be stored in the original storage location and configuration awaiting shipment to WIPP.



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TRU Storage in MCC





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