



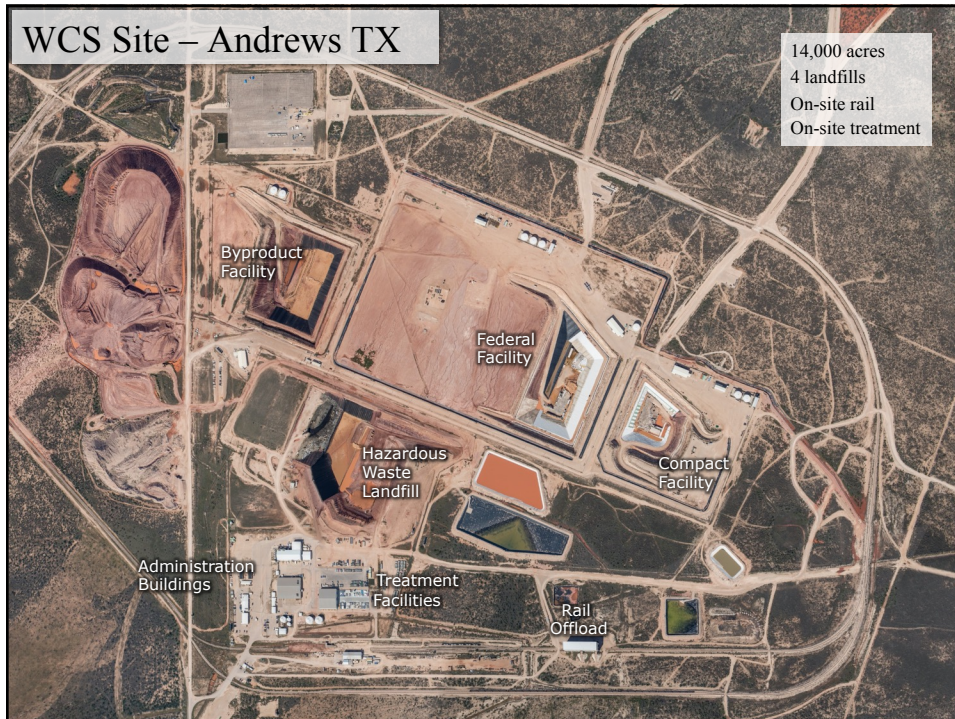
WASTE CONTROL SPECIALISTS

Site Overview for LLW Forum

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Compact Waste Facility (CWF)

History

- The only LLRW disposal facility established under the Compact System
 - LLRWPA (establishing compacts) was passed in 1980
 - Richland, WA (US Ecology) was licensed in 1965
 - Barnwell, SC (EnergySolutions) was licensed in 1971
 - Clive, UT (EnergySolutions) is not a compact site
- Established for the Texas Compact, per Federal, Texas, and Vermont Statutes
 - Opened for LLRW disposal in 2012
 - Open to all US States and territories (with export and import approval)

Key Statistics

- 9,000,000 cubic feet of licensed disposal capacity
 - Actual airspace is 4x that size to accommodate MCCs, backfill, etc.
- Constructed cell capacity is 475,000 ft³ of waste
 - 220,000 cubic feet used to date (2% of licensed capacity)
 - Phase 2 will hold approximately 425,000 ft³ of waste
- 3,890,000 curies (decay corrected) of licensed capacity
 - Can be increased to 8,000,000 curies upon request and TCEQ approval
- Texas owns the privately developed CWF, operated by WCS
 - TCEQ review and acceptance of all waste
 - Licensed through September 2024 with provision for 10-year renewals



3

Compact Waste Facility (CWF)



4

Low Activity Waste (LAW) Facility

Hazardous Waste (RCRA Subtitle C) Disposal Facility

- Permitted Subtitle C landfill opened for RCRA waste disposal in 1997
- Disposal of exempt LLRW added in 2015
- 62,000,000 cubic feet of currently permitted capacity
- Currently used = 14,300,000 ft³ (23% of capacity)
- NRC-reviewed agreement state exemption process allows low activity waste disposal
- On-site verification of characterization for exemption
- Efficient option for large-volume and low activity waste streams



Benefits

- Same protective red bed clay formations as the CWF
- Exempt waste is handled by fully trained and badged Radiation Workers
- Permitted Sub-Title C landfill can accept MLLW
- The majority of D&D waste qualifies for exemption and LAW disposal



5

Low-Activity Waste Landfill



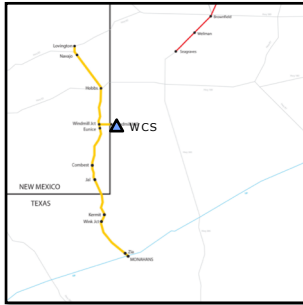
Rail Transportation

Direct Rail:

- Texas and New Mexico Railway (TXN) interchange to Union Pacific (UP) at Monahans

Transload to Truck:

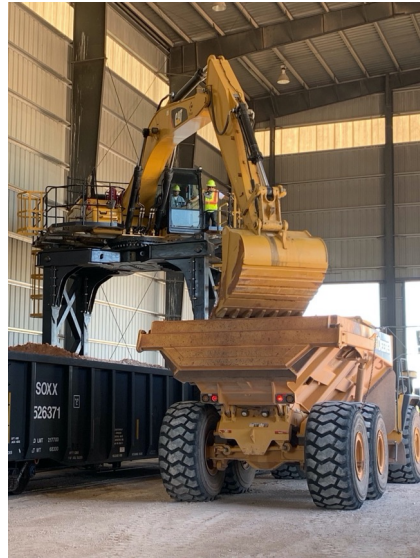
- Lubbock and Western Railway (LBWR) interchange to BNSF at Lubbock
- Rail lines upgraded to support shipments over 450,000 lbs



7

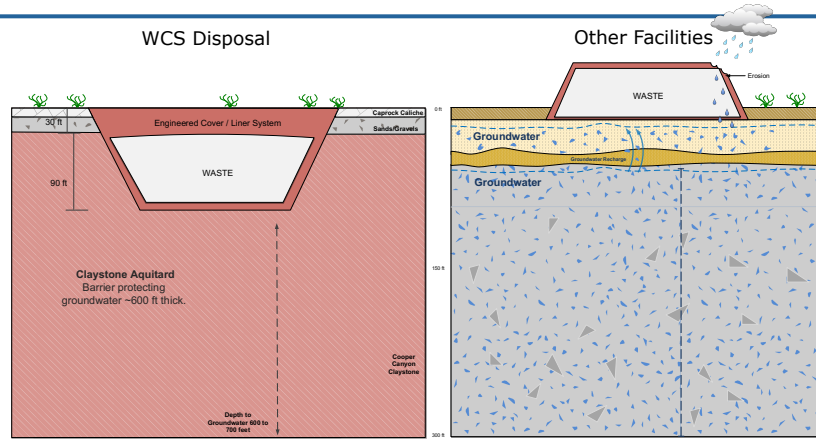
Bulk Waste

- ▶ Straddle Carriers are used for transfer of bulk waste from gondola railcars to haul trucks
- ▶ Enhanced bulk offload implemented at WCS in 2019
- ▶ Additional bulk offload capability added in 2020
- ▶ Intermodal containers are also in routine use from many sites



8

WCS Environmental Protection (vs. Generic Facility)



- 1) Sub-Grade Design
 - Erosion avoidance
- 2) Natural Claystone Barrier
 - No reliance on man-made materials
 - Less porous than concrete
- 3) Depth to Groundwater
 - 600 feet below the waste

**WCS is the
Newest and Most Robust
LLRW facility in the US**



Protectiveness - Performance Assessment – 2018 Update

- ▶ PA examines site geology, surface water and groundwater, potential future weather changes, residential and intrusion scenarios, and possible future uses of the land
- ▶ Evaluated to one million years per Texas Regs
- ▶ Current disposed inventory has a peak dose of 0.5 millirem per year at 170,000 years from closure (inadvertent intruder)

Modeling Conclusions (not in PA)

- ▶ GTCC and DU – Entire combined DOE inventory results in a peak dose of 45 mrem/year at 1,000,000 years post closure (inadvertent intruder)
- ▶ Peak dose is negligible (0.01 mrem/y) for non-intruder scenarios

NRC Standards
25 mrem/y max for 10,000 years
(500 mrem/y for inadvertent intruder)

