

# Trench 13 Status Report

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December 10, 2008

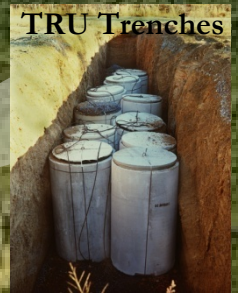


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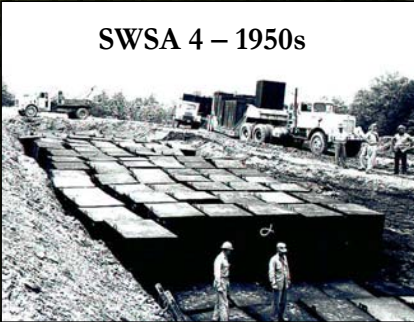
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# Melton Valley Closure Project Completed September 2006



SWSA 4 – 1950s



SWSA 5 1950s-1970s



Approximately 1,000 acre site was remediated  
Placed Engineered barriers on 145 acres  
Removed 204 concrete waste casks  
Excavated 50,000 yd<sup>3</sup> of soil  
Transported over 142,000 truckloads of materials over 1.2 million miles

# Trench 13 Chronology

## Pre- September 2000:

- EPA's review of the MV Proposed Plan disallowed the inclusion into the MV ROD of the excavation of the TRU from the SWSA 5 area based on risk level and costs. TDEC initiated dispute (May 2000) with DOE for inclusion into the STP of the removal, treatment, and disposal of mixed transuranic (TRU) wastes in retrievable storage trenches in SWSA 5 North.

## September 15, 2000:

- TDEC and DOE reached agreement to retrieve the TRU waste from the 22 SWSA 5 N trenches under DOE's Atomic Energy Act. Agreement codified in a dispute resolution agreement attached to the Oak Ridge Site Treatment Plan.

## September 21, 2000:

- Melton Valley Interim ROD signed.

## August 8, 2005:

- Flame event in Trench 13, work suspended.

## June 15, 2006:

- All TRU trench materials removal activities completed with the exception of Trench 13 materials associated with the flame event. Event materials placed into a safe condition by placing shoring blocks around the trench and covering the excavated and unexcavated material with a layer of coke and sand.



# August 8, 2005 Trench 13 Event

- Active retrieval work underway: 4 stainless steel drums, part of a deteriorated carbon steel drum, and some loose waste had been over packed in one B-25 box and two 85 gallon overpacks.
- A reaction occurred within the trench and excavator bucket.
- A 5 to 8 foot high flame formed and lasted ~5 seconds.
- Workers evacuated to the boundary control station.
- Prior to evaluation, the equipment operator emptied the bucket into the trench and swung the bucket away from the trench so as to not involve the hydraulic hoses.





## TRU Cask Removal Sequence

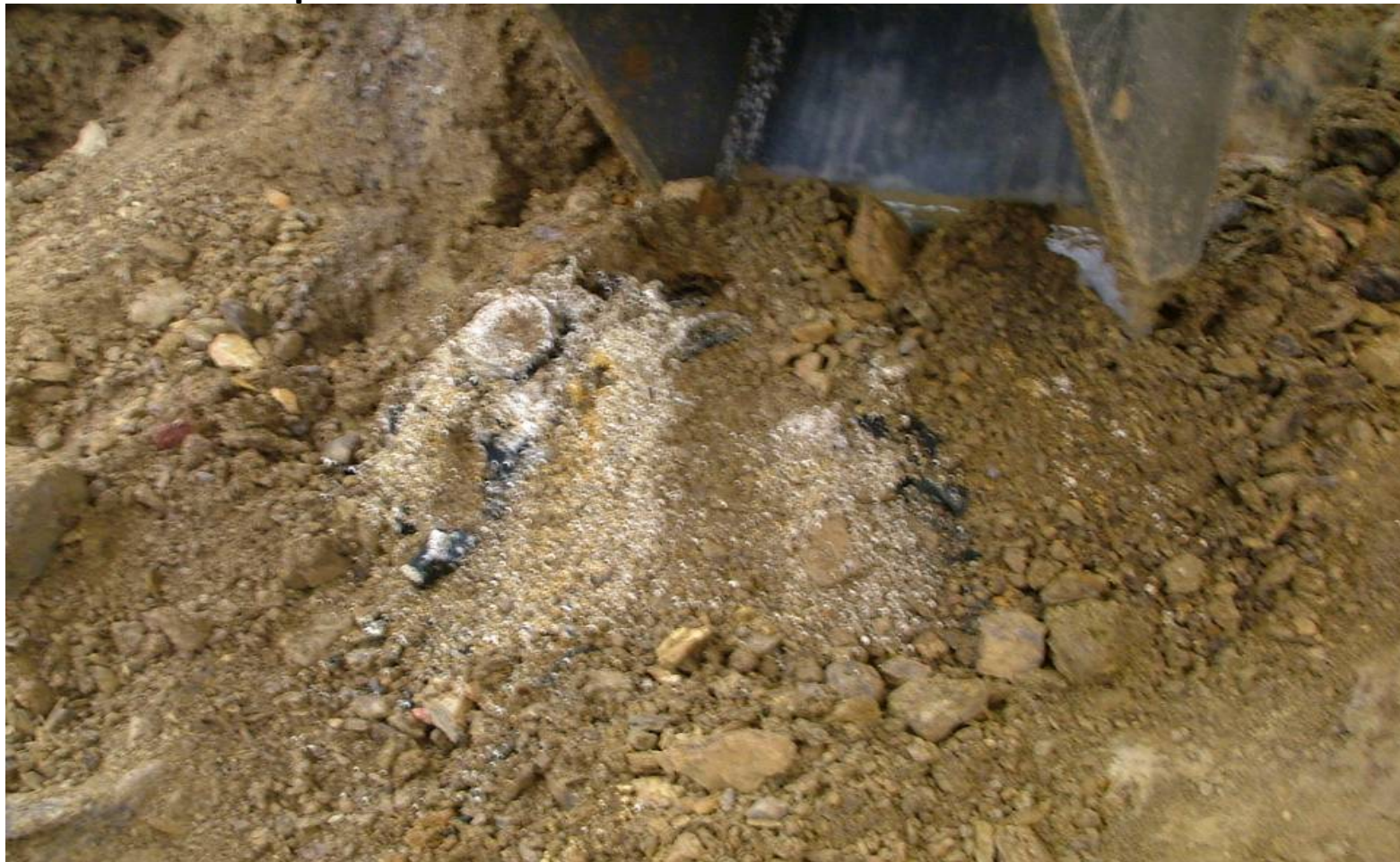


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## Loose waste exposed in Trench 13



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## Glass jars exposed in Trench 13



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## Stabilized Trench 13 and the weather enclosure



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# Current Status

- TRU waste from 21 of 22 Trenches has been safely retrieved and stored for treatment and disposal at WIPP.
- BJC has evaluated the options for retrieval and disposal of the Trench 13 materials.
  - Excavation of Trench 13 presents unique implementation challenges due to flaring potential and resultant waste management challenges
  - Construction of an engineered cap could be accomplished with minimal risk to site workers or occupants of nearby facilities
  - No additional disturbance of the underlying pyrophoric wastes and thus no potential for reactions, fires, or dispersal of radioactive and possible fissile material.
  - Eliminates the difficult issue of identifying an acceptable disposal site and avoids the creation of a “no-path” waste stream with significant storage safety concerns.
  - Consistent with the remedies selected for other buried waste sites within Melton Valley.
  - Potential risk to workers involved in this retrieval would dwarf any potential environmental benefit. Groundwater modeling within the SWSA 5 N site indicated even without capping that there would be no impact on nearby surface waters.
- DOE and State of Tennessee working to finalize disposition plan. DOE proposal due in March.

