



DOE Railcar Fleet Asset Planning & Lessons Learned

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**Environmental Management Consolidated
Business Center (EMCBC)**

Support: Office of Packaging & Transportation (EM-45)



Discussion Overview

- Completed Rail Campaigns - LLW
 - Fernald, Mound, Savannah River
- In Progress – LLW
 - Savannah River, Brookhaven, Moab
- ForeCast – LLW
 - Portsmouth, Paducah, D&D, DUF6
- Lessons Learned



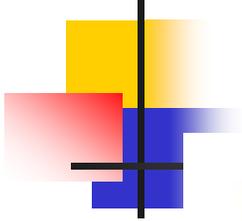
Fernald Closure Project

First Rail Shipment:	April 26, 1999
Final Rail Shipment:	October 11, 2006
Unit Trains Shipped:	201
Railcars Shipped:	12,000
Tons Shipped:	1,200,000



Fernald Rail Equipment

- 3 - Locomotives
- 250 Total Railcars In Service
 - 190 New Purchase Gov't Gondolas
 - 60 Leased Gondola Railcars
- 5 Miles New Rail
 - 11 Track Railyard
 - Locomotive Maintenance Building



Fernald Unit Train





Fernald DOE Gondola





60 Ton Locomotives





Fernald RailYard





Fernald 60 Car Unit Train





Mound Closure Project

Start Rail Shipment: July 2005

Final Rail Shipment: October 2009

Railcars Shipped 364

Tons Shipped 22,000



Mound Project - Loading





Savannah River Rail Actions

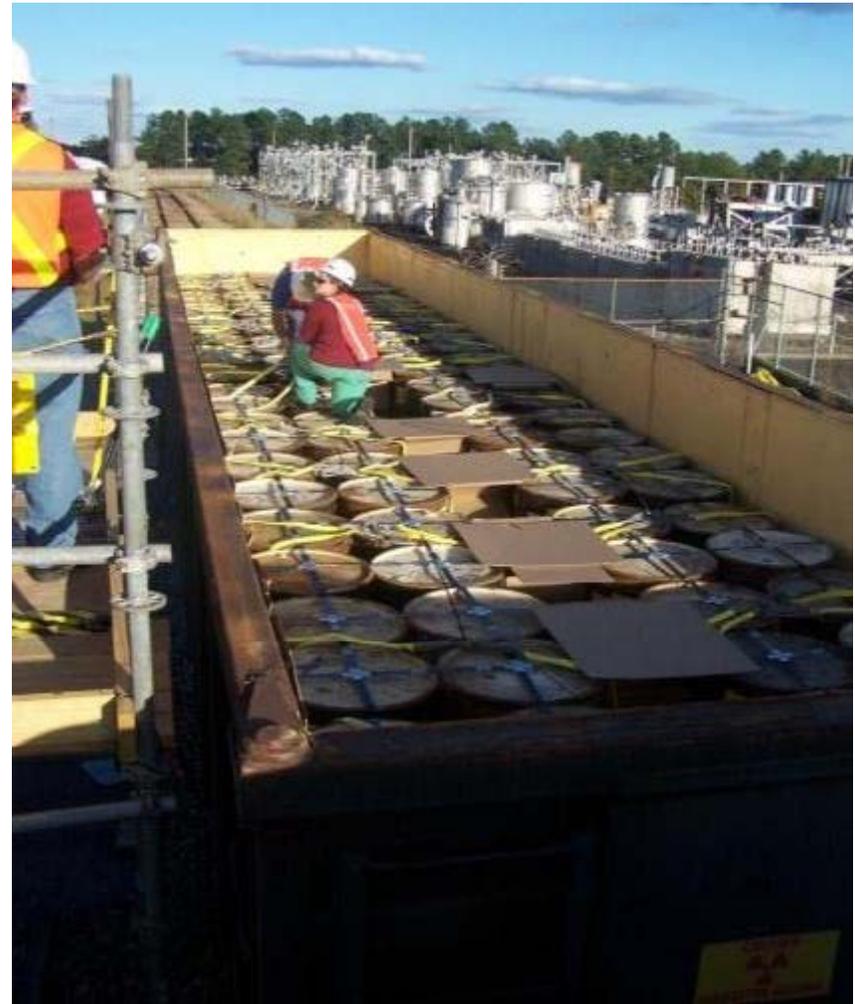
Final Rail Shipment: December 2009

Railcars Shipped 154

Tons Shipped 5,500



Savannah River Rail Program





Moab UT Mill Tailings

- Total thru 4-28-11: 3,751,149 tons
- Contract To Go: 950,000 tons
- Unit Trains Shipped: 750 Trains
 - 2 trains per day
 - 72 rail cars per day
 - 144 containers per train
 - 50,000 tons per week



Moab UT Mill Tailings





Moab UT Mill Tailings





Brookhaven National Lab

- Considering Rail Shipment:
 - Debris From Stack D & D
 - Concrete & Rebar
- Railcars Required: 30 to 51
- Tons Estimated 2,700



Brookhaven National Lab





Forecast DOE Rail Programs

- Portsmouth, OH
- Paducah, KY

- Building D&D
- DUF6 Projects



Lessons Learned

- Don't Ask:
' *What Were You Thinking ?* '
- Ask:
' *What Did You Learn ?* '



Lessons Learned

- Overall Goals-
Safe Movement & Ops
Compliance with Regulations
Expeditious Movement
- Perform-
Continuous Process Improvement



Lessons Learned

- Planning:
 - What are you transporting?
 - What is your packaging?
 - Where is it going?
 - When will it be loaded?
 - Who is loading?
 - ...Et cetera...



Lessons Learned

- Safety
- Training & Re-Training
- Equipment – Railcars, Covers, Package
- Equipment – Brakes, AEI, Clamps...
- Placards
- Strong Tight
- Waste Profile Discrepancy



Lessons Learned

- Railcar Condition
- Tarps
- Hard Cover System
- Unit Trains
- Tracking
- Emerging Issues



Lessons Learned

- Inspections & Re-Inspections
- Use Others Lessons Learned
- Diligence
- Integrated Safety Management Sys
- Communications
- Advance Notifications
- Dedicated Rail Ops Personnel



Lessons Learned





Lessons Learned





Lessons Learned





Lessons Learned





Lessons Learned





Lessons Learned





Lessons Learned





Lessons Learned





Lessons Learned



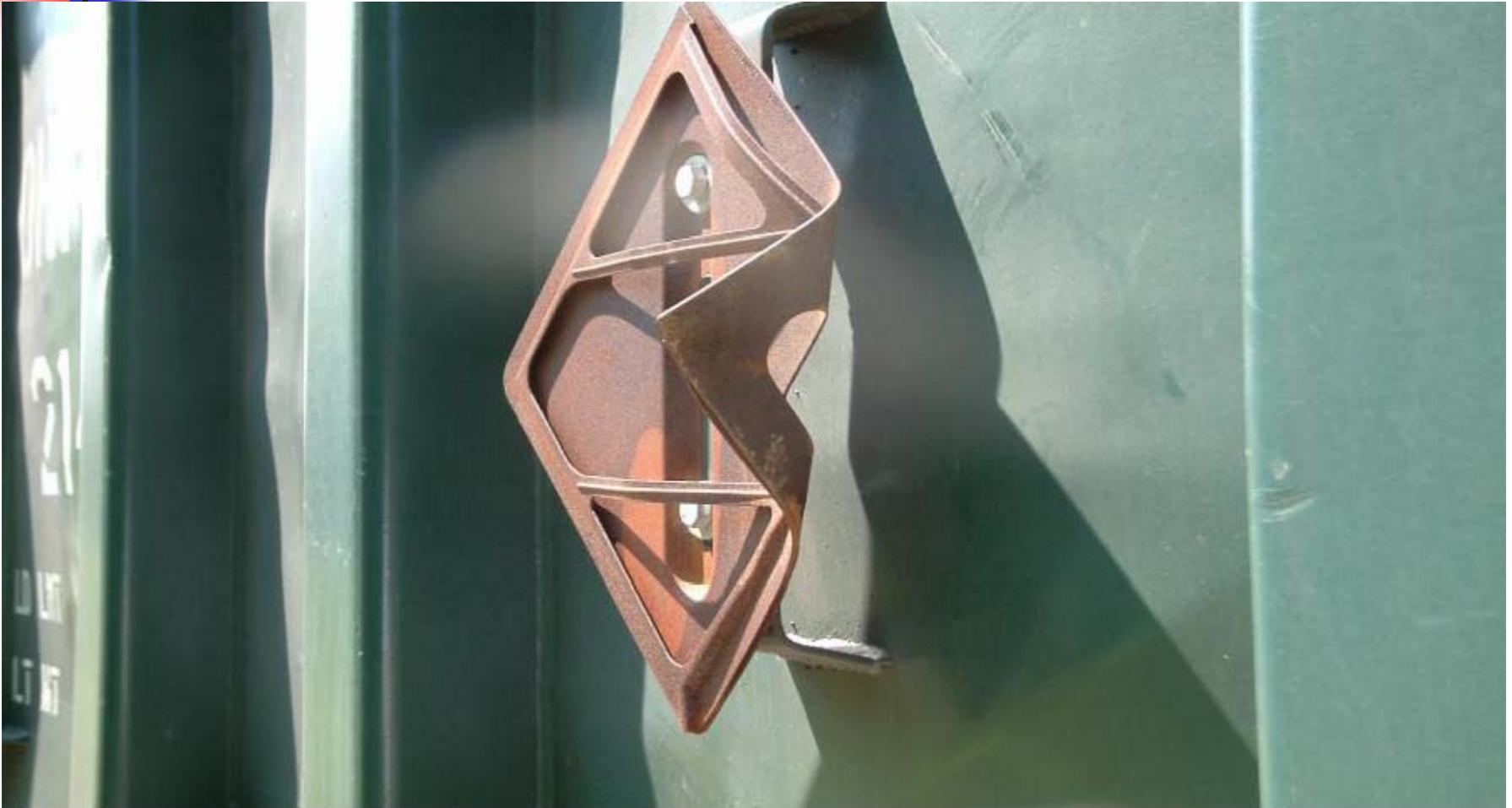


Lessons Learned





Lessons Learned



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Lessons Learned





Lessons Learned





Lessons Learned





Key Lessons Learned

- Diligence
- Inspections
- Contact with Railroads
- Contact with the Disposal Site
- Contact with Transit States



Key Lessons Learned

- Training
- Retraining
- Unit Trains
- Tracking & Scheduling
- Consistent Railcar Type



DOE Rail Asset Use

190 DOE 110-Ton Gondola Railcars

90 on DUF6 Projs @ Portsmouth & Paducah

52 at Savannah River Site (finished?)

38 on D&D Projects at Paducah

10 with USAArmy at Aberdeen (finished)

3 DOE 60-Ton Locomotives

1 at Savannah River Site

2 At Moab Project (available)