



Addressing the Highest Risk: Environmental Programs at Los Alamos National Laboratory

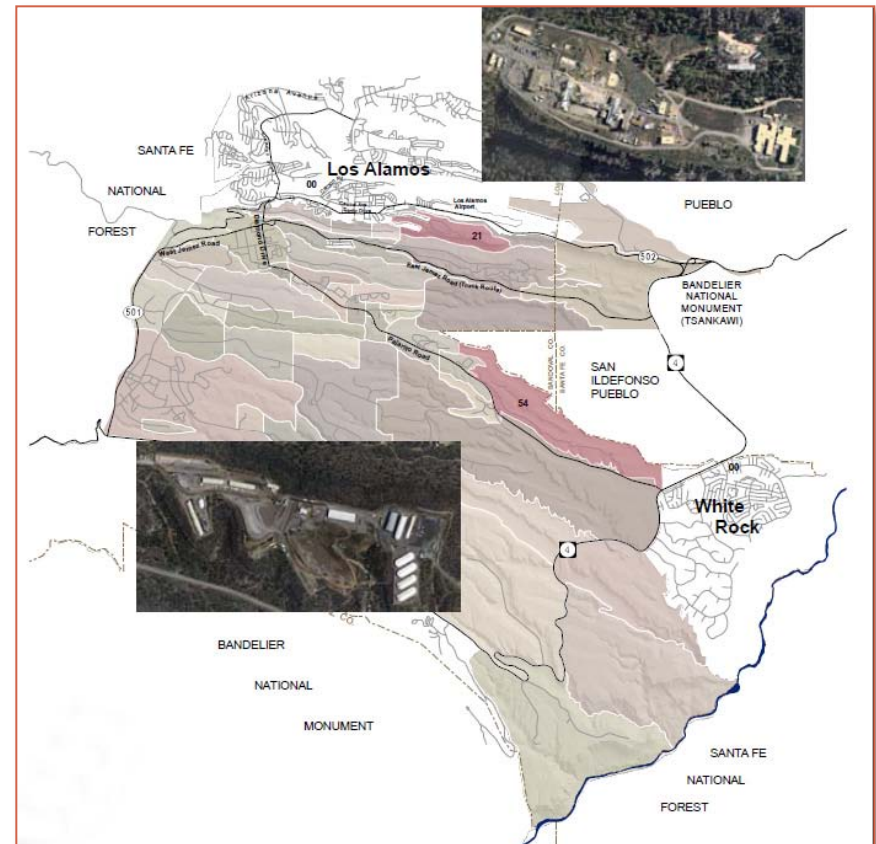
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June 12, 2012

Today's Topics

- Current status of cleanup
- Shift in priorities to address highest risk
- Removal of above-ground waste
- Continued focus on protecting water resources

Environmental Programs Mission

- Repack and ship legacy transuranic waste containers
- Investigate and remediate Cold War (legacy) hazardous and radioactive waste areas
- Demolish unused buildings
- Disposition solid waste from Laboratory operations
- Lifecycle cost nearly \$3 billion



What Has Happened in the Last Year

- Successfully closed out projects funded by the American Recovery and Reinvestment Act
- Reached agreement on near-term priorities
 - Framework agreement with the New Mexico Environment Department
- Shifted personnel and contracts to align with these priorities



Cleanup Status and Accomplishments

- Partnership between the National Nuclear Security Administration's Los Alamos Site Office, DOE Carlsbad Field Office, New Mexico Environment Department, and contractor staff has enabled unprecedented cleanup progress
- Progress on TRU campaign is well ahead of plan
 - To date, have completed 132 shipments vs. 104 planned
 - Shipped 502 cubic meters of above-ground waste (vs. 277 planned)
 - Removed 11,249 PE Ci of material at risk (vs. 9,411 planned)
- Continued focus on protecting water resources
- All consent order commitments delivered on time or ahead of schedule

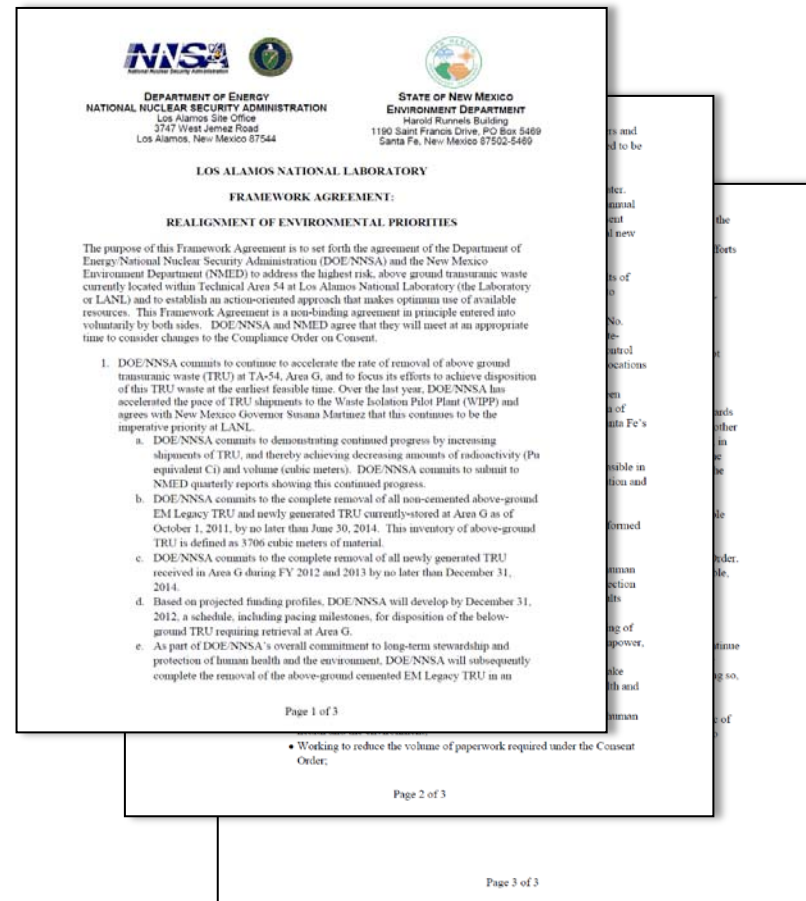
Partnering with DOE/NNSA and NMED on Priorities



- Made the shift from lower-risk activities to address highest-risk above-ground TRU waste
- Continuing priority on protecting groundwater and surface water
- With NMED, have aligned remaining efforts on priority cleanup
 - Similar steps under way for FY13

Framework Agreement

- Risk-based realignment of environmental priorities
- Focus of January 5, 2012 Citizens Advisory Board meeting
- The 2005 Order on Consent remains in place



Key Framework Agreement Deliverables

- “DOE/NNSA commits to complete removal of all non-cemented above-ground EM Legacy TRU and newly generated TRU currently-stored at Area G as of October 1, 2011, by no later than June 30, 2014. This inventory of above-ground TRU is defined as 3706 cubic meters of material.”
- DOE commits to the complete removal of all newly generated TRU received in Area G during FY 2012 and 2013 by no later than December 31, 2014.”
- “Based on projected funding profiles, DOE/NNSA will develop by December 31, 2012, a schedule, including pacing milestones, for disposition of the below-ground TRU requiring retrieval at Area G.”

Transuranic Waste Inventory

**Above Ground Inventory
October 1, 2011**

4,536 Cubic Meters

**Highest Priority Waste for
Removal**

3,706 Cubic Meters

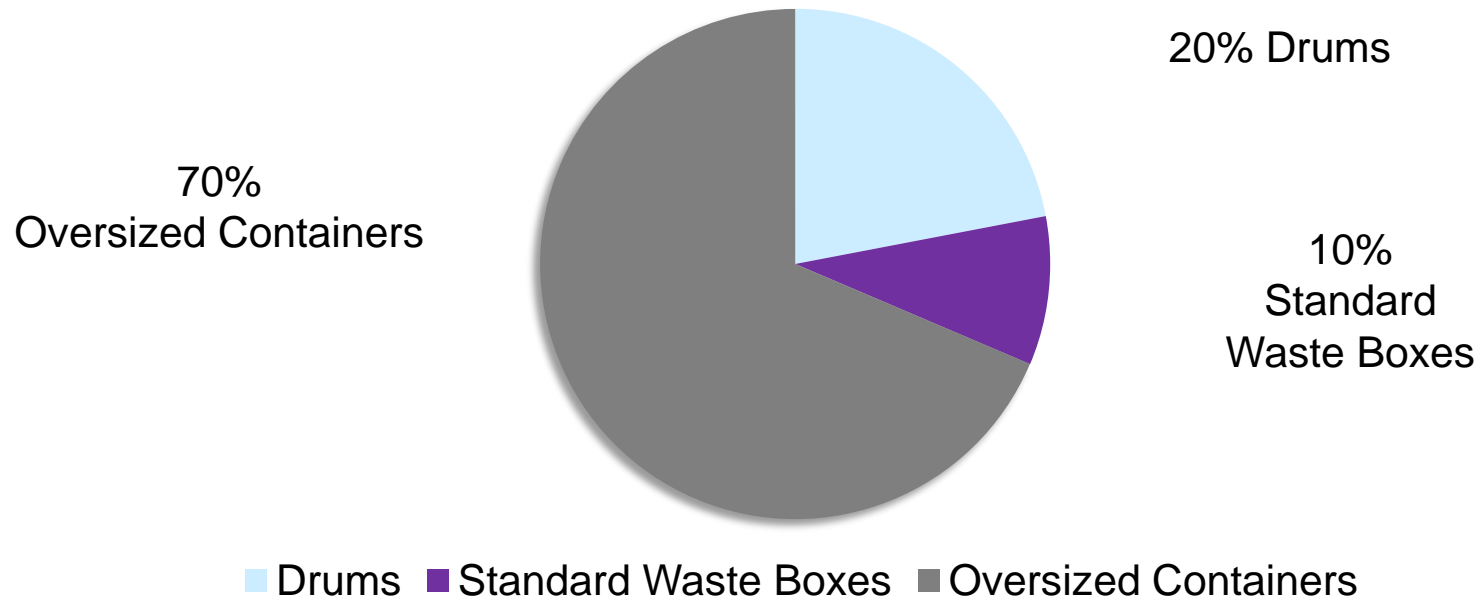
**Lower Priority Waste for
Removal**

830 Cubic Meters

LANL Transuranic Waste Removal Campaign Scope

3,706 Cubic Meters

Removed By
June 30, 2014



NATIONAL LABORATORY
EST. 1943

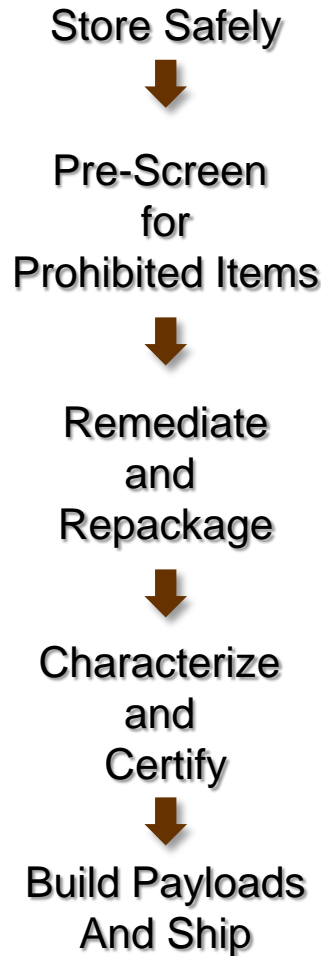


UNCLASSIFIED



FY12-ADEP-00182-ADEP/mcc-10

Drums – 905 Cubic Meters



Waste Characterization,
Reduction, and
Repackaging Facility

Dome 231
Permacon

(FY 12 Only)

High Efficiency
Neutron Counter

Real Time
Radiography



Oversized Containers – 2,801 Cubic Meters



Store Safely



Remediate
and
Repackage



Characterize
and
Certify



Build Payloads
and
Ship

Building 412
Box Line

Dome 231
Permacon
Box Line

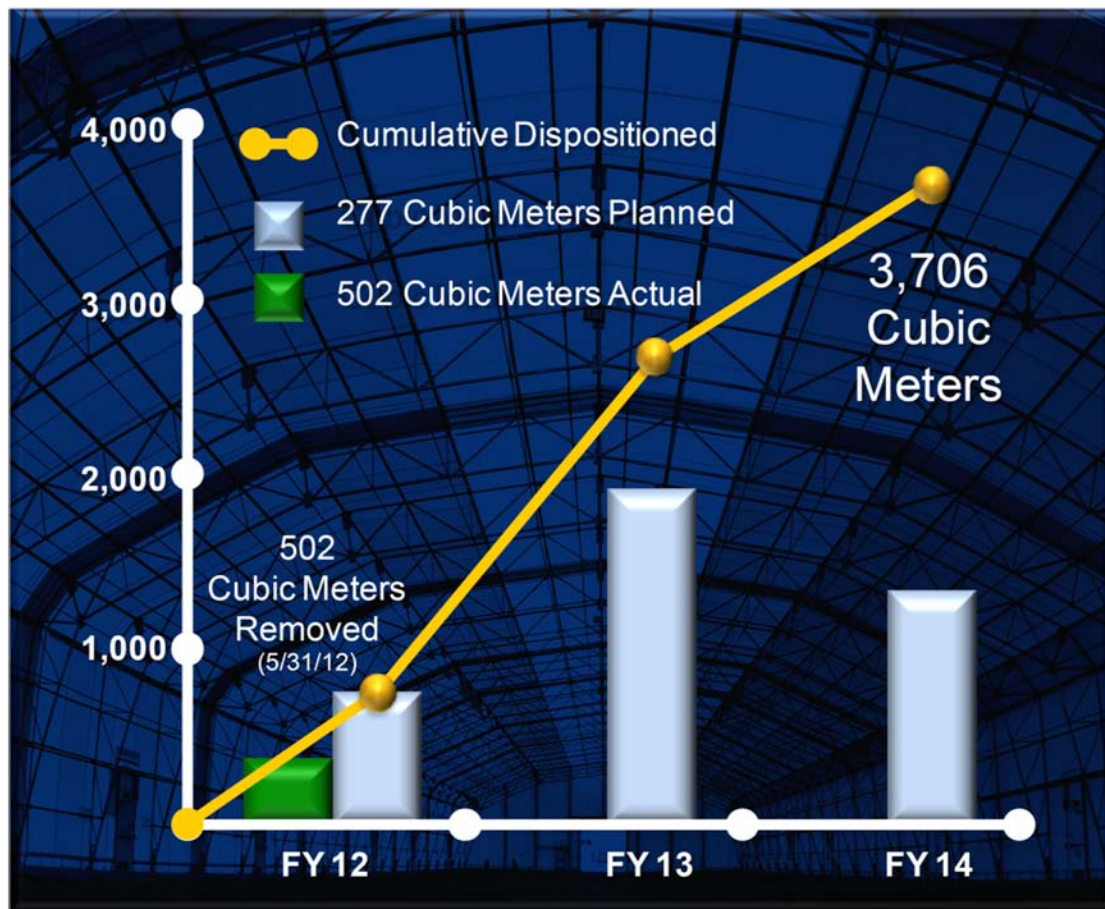
Dome 375
Box Line
(FY13)

“Super”
High Efficiency Neutron
Counter

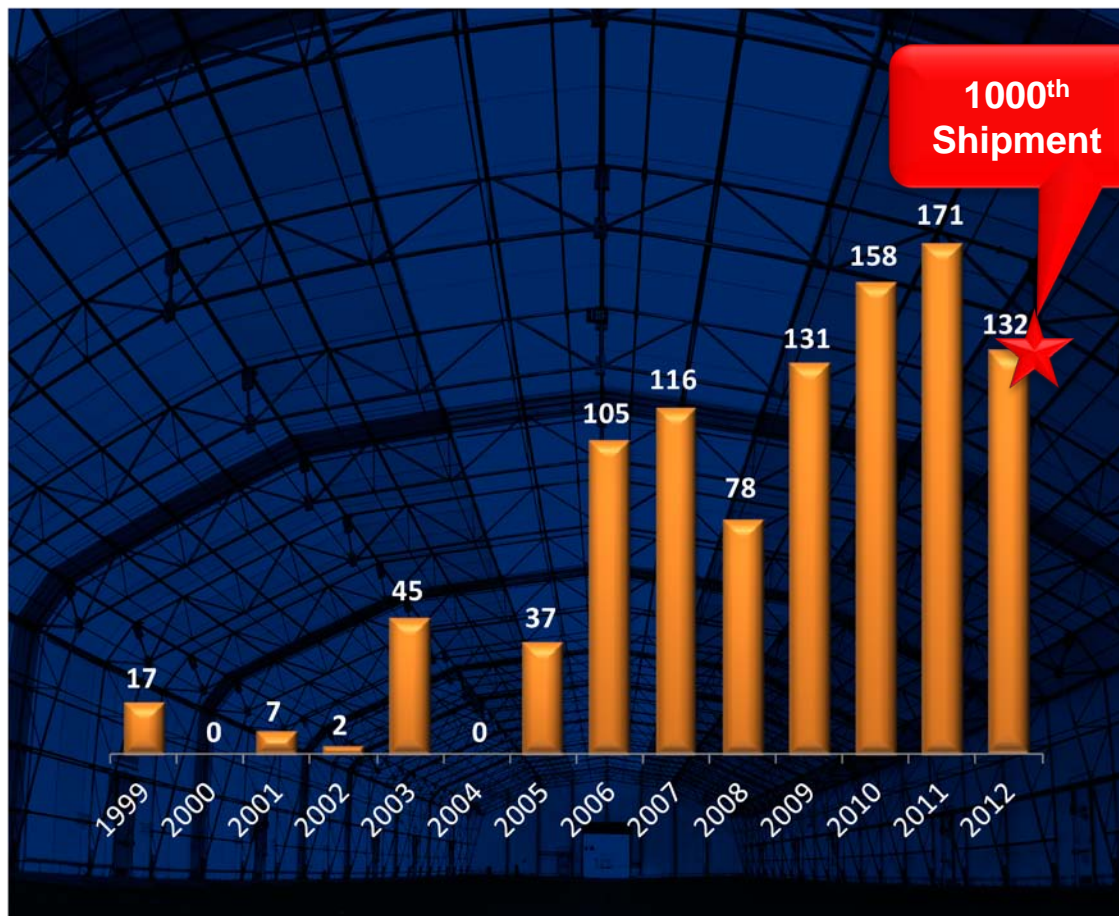
High Energy
Real Time Radiography



Removal Performance



Total Shipments to WIPP



Committee invited to attend event on June 26



Challenges

- Remediation: high activity and complex media
- Packaging: size reduction of oversized containers
- Prioritization and planning to address highest risk
- Workforce expansion, training, and qualification
- New capability construction and commissioning



Bottom Line

- Putting New Mexicans to work (more than 75 new jobs)
- Ahead of schedule - 502 cubic meters of waste removed (277 planned)
- New facilities in domes 375 and 231 nearing completion
- Strategy working – 2012 transition year to full operation in 2013 and 2014
- May was the best month ever at LANL – 165 cubic meters removed



Another Priority: Protecting Water Resources

- Continuing to monitor area groundwater and surface water and protect watersheds
 - Including chromium plume in Mortandad Canyon
 - Sample at 186 locations, which include three groundwater zones, surface water, and springs.
- Beginning seasonal monitoring efforts
 - Gearing up for monsoon season
 - 2011 data indicate no LANL-related contaminants in runoff water from storms
 - Interagency team led by New Mexico Department of Health to issue news release indicating no risks from post-2011 runoff



Buckman Direct Diversion

- Provide support for the Buckman Direct Diversion Project
- Storm water runoff flows toward the Rio Grande (and Santa Fe)
- Large-scale mitigations in place to minimize effects of runoff
- Automated gauges at key points in canyon detect water flow levels, take samples, send wireless signals to Buckman operators



Priorities for Fiscal Year 2013

- President's Budget Request: \$235 million
- House Proposed Appropriation: \$215 million
- Senate Proposed Appropriation: \$235 million

Working with NMED on priorities beyond TRU waste disposal and water protection