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Application of Complex-Wide Lessons Learned in Planning and Executing Future DOE Clean Ups

Lessons Learned in Safety at Los Alamos National Laboratory

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Outline

- Set the stage
- Early actions
- Early incidents
- TRC/DART Rate Trend
- Methods Instituted to Improve Safety Performance
 - Management Involvement
 - Worker Involvement
 - Lessons Learned
 - Training
- Current Safety Situation
- Areas for Continued Emphasis

Set the Scene

- 60 Years of Operation by UC
- At Contract Transition:
 - TRC 5
 - DART 1.8
 - These injuries were primarily industrial accidents during work execution
- Culture statement on lab.

Los Alamos during Manhattan Project

What Was Done at Transition

- Initial and frequent walkdowns
- Identified significant pre-existing issues
- First day – safety sessions with all personnel
- Leaders set the example

Personal Safety Plan – 2006

YOUR SAFETY
In the home – On the roads – At work!

NAME:	DATE:
POSITION:	
SUPERVISOR:	

*In writing my Personal Safety Plan, I am making a personal commitment to myself that **I WILL / WILL NOT** do the following:*

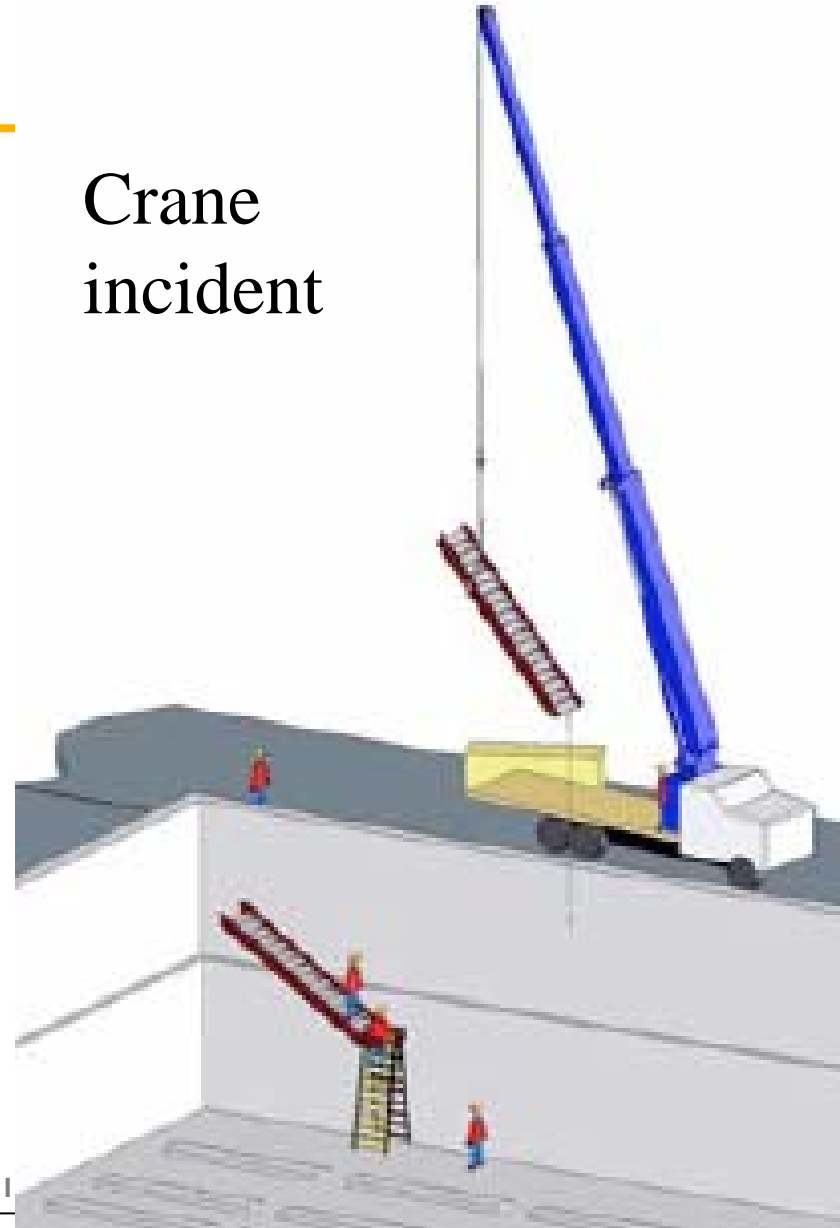
I will:
•
•

Early Events

Electrical incident

The worker was performing work on an individual component (bucket) within an electrical panel on the second floor of the RSL. In preparation for that work, he turned off the power to the individual bucket, but overlooked the need to turn off power to the panel itself.

Crane incident



Approach

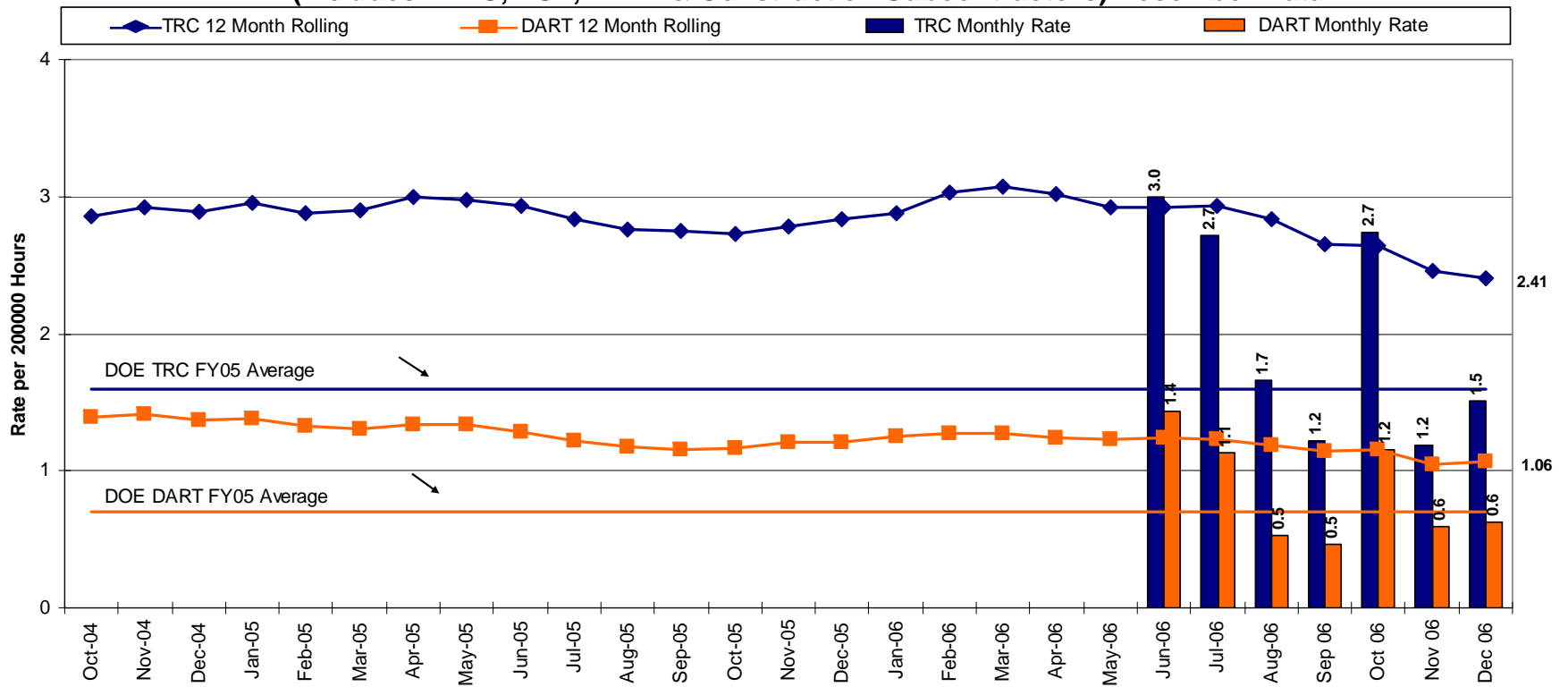
- Strong LANS and Corporate response to early events:
 - Stand down of specific activity
 - Major changes to all subcontractors



Excavation of contaminated absorption bed fill material

TRC/DART Trends

LANL TRC and DART
 (Includes LANS, KSL, PTLA & Construction Subcontractors) December Data



Methods Instituted to Improve Safety Performance

- Management Involvement
- Worker Involvement
- Lessons Learned
- Training



Vacuum
extraction system

Management Involvement

- Facility Operations Safety Committee
 - Specific training and qualification requirements for voting members
 - Committee reviews all high and most medium risk work for:
 - hazards
 - worker safety
 - nuclear safety
 - training
 - compliance
 - quality requirements
 - adequate controls in the Integrated Work Document (job hazard analysis)

Management Involvement

- Environmental Restoration Safety Meeting
 - Weekly meeting between:
 - ER Project Directors
 - ES&Q Manager
 - Industrial Hygiene/Safety Team Leads
 - Radiological Controls Team Leads
 - Quality Assurance Team Leads
 - Discuss upcoming and in-progress work
 - Hazards identified and control strategies agreed upon
 - Team Leads ensure control strategies are reflected in the Integrated Work Document

Worker Involvement

- Local Safety Improvement Teams
 - Instituted within individual facilities
 - Provides forum for workforce to:
 - identify safety concerns
 - provide feedback on the effectiveness of hazard controls
 - provide recommendations for procedural improvement to simplify operations and increase the margin of safety



"Crew member inspecting the transfer truck prior to transport of roll-off containers."

Worker Involvement

- Weekly Safety Meetings
 - Weekly 30-minute stop work
 - Discuss:
 - positive interventions
 - lessons learned
 - safety shorts



environmental sampling injury site

Worker Involvement

- Tailgate Meetings

At start of each workday, the workforce and supervisor meet to review:

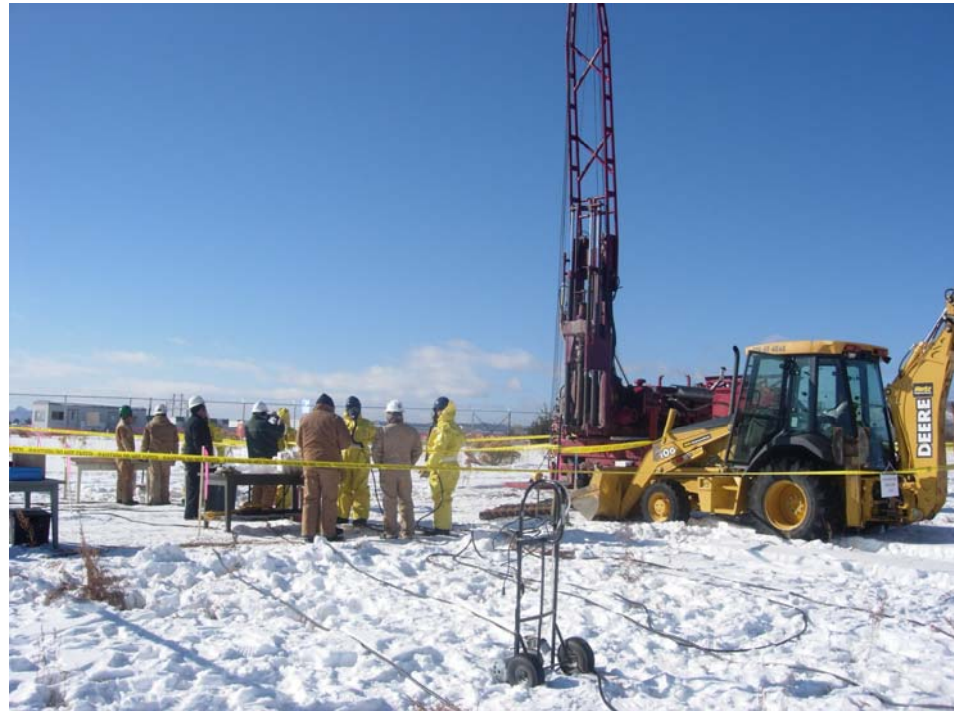
- work to be performed that day
- hazards involved
- controls in place to mitigate the hazards
- changes since the pre-job brief reviewed
- related lessons learned covered

Lessons Learned

- Monthly Laboratory-wide Injury Review Board meeting
- Attended by ESH&Q Manager and any affected managers
- Review:
 - injuries and the corrective action taken
 - precursors to the injuries
 - strategies developed to mitigate these precursors
- ESH&Q Manager:
 - reports the Board's findings
 - identifies possible application to Environmental Programs at the AD's monthly safety meeting

Training

- Mock Ups
 - Employed to develop the work procedure
 - Hazard control is employed and tested under actual work conditions
 - Adjustments are made to the work plan
 - Ensures the hazard control methodology achieves the intended result and does not introduce an additional hazard

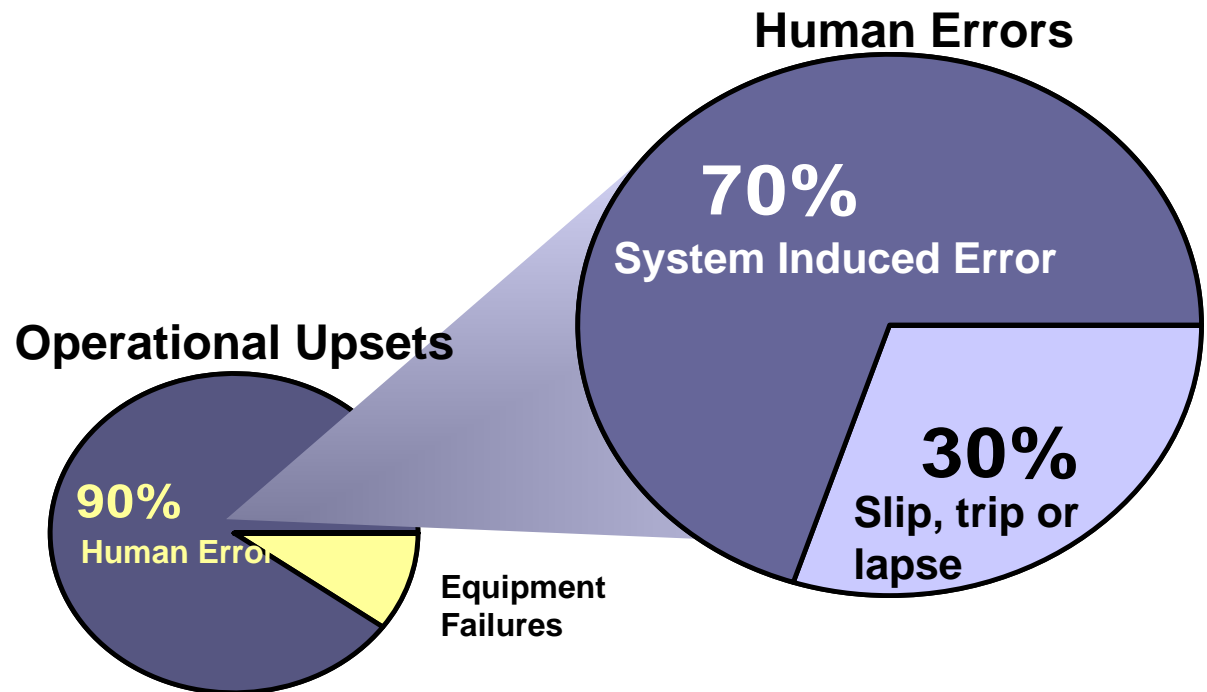


MDA-C Mock-up test
Drilling in PPE and supplied air

Training

- Behavior-Based Training
 - All levels of management and supervisors are undergoing
 - Focuses on examining the reasons for unsatisfactory behavior
 - Moves away from trying to punish our way to acceptable performance

Human Performance

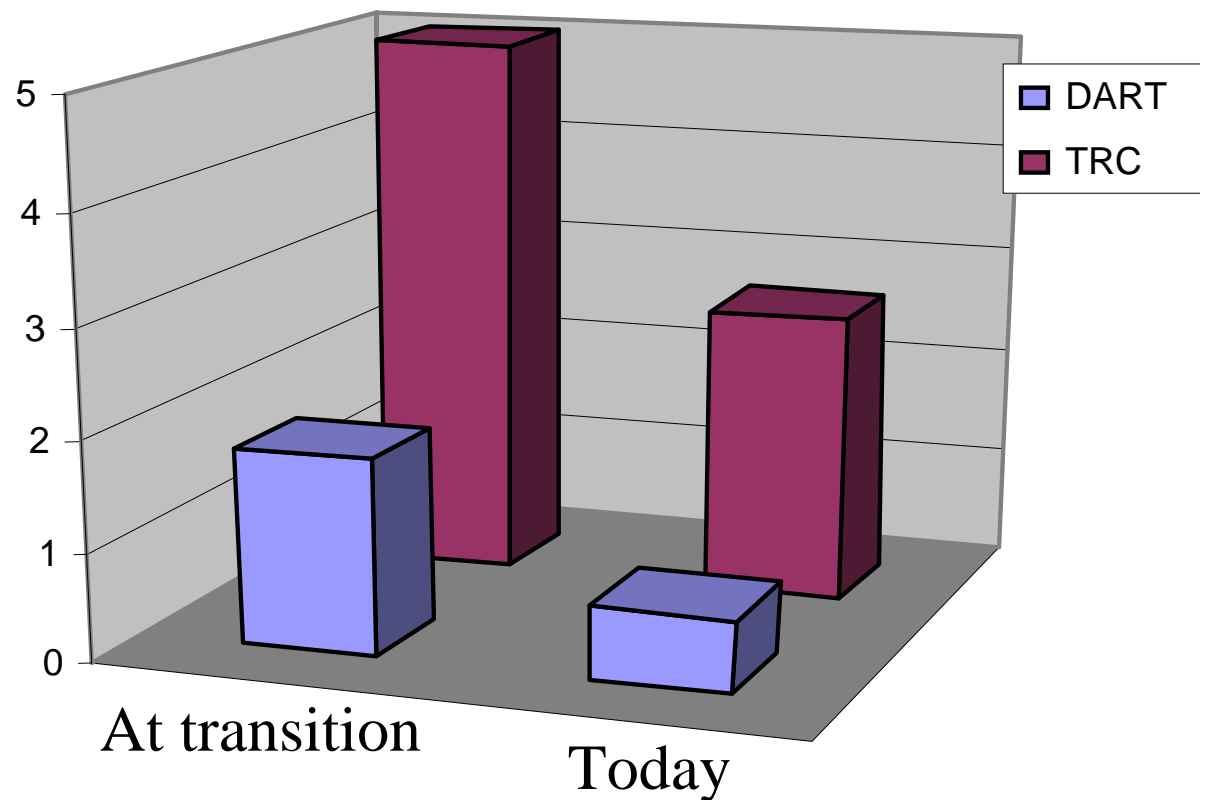


Training

- Safety Shorts
 - Published monthly by ESH&Q Directorate
 - Consists of:
 - short training video
 - flier
 - tool box for safety meeting
 - Focus on current problem areas and precursors to injuries

Current Safety Situation

- Reduction in job performance injuries
- Repetitive motion injuries and slips, trips, and falls continue to be an issue



Areas for Continued Emphasis

- More effort on:
 - ergonomic evaluations
 - proper setup of work stations
- Same attention given to reducing work-site injuries needs to be applied to slips, trips and falls, especially in winter
- Continue to press for cultural change. Every incident is preventable.



Zero Accidents is Achievable