

Integrating Safety Management in the RHIC Program

DOE RHIC S&T Review 2009

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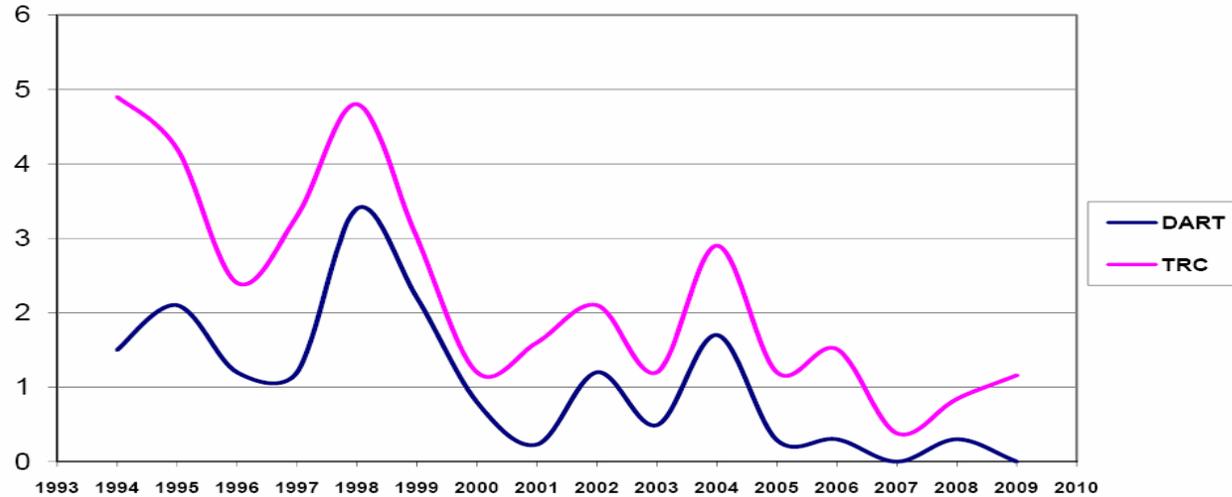
Benefits From Excellent Safety Management

In the long run there will be net benefits greater than cost of safety – some are intangible

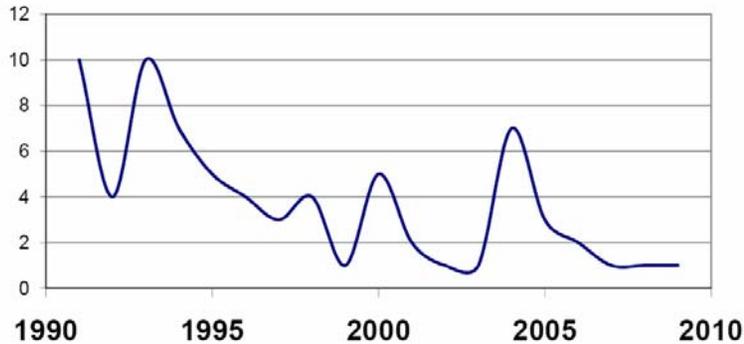
- Operating costs decrease
- Fewer equipment failures
- Less impact on environment
- Injuries continue to decrease
- Fewer “enforced” shut downs
- Relations with stakeholders continue to improve

Trends in ESH Performance at RHIC

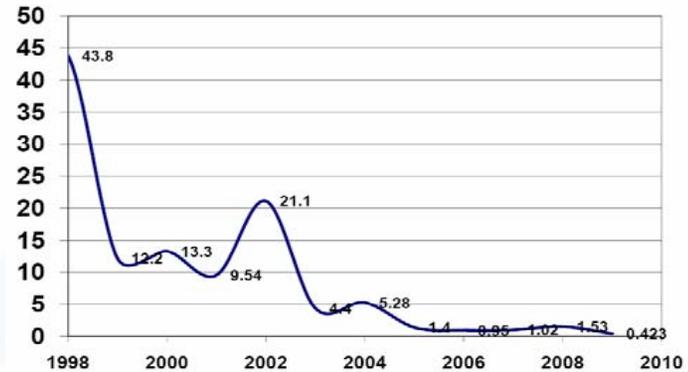
C-AD Injury/Illness Rates
(# per 100 FTE)



Annual Number of Reportable Occurrences at C-AD



Calendar Year Collective Dose, person-rem



Key Safety Management Beliefs

Managers must be visibly involved in safety

Line management must be accountable for safety

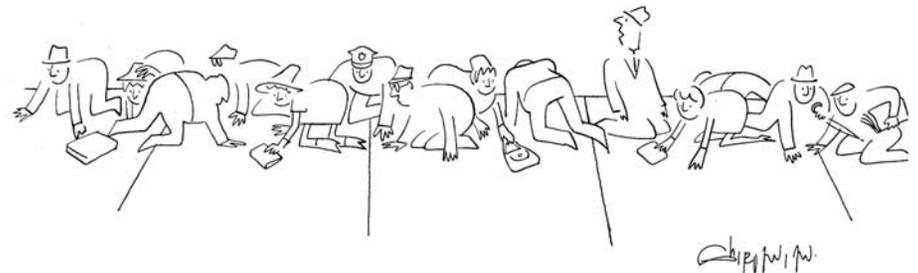
All staff must be involved in doing things in safety

Workforce must be trained and qualified

Safety systems must be up to date and implemented



"First of all, let's find out who blew the whistle on us."



"Whether we find my contact lens or not, I want to thank you all anyway, for becoming involved."

Safety Management Practices

- For RHIC scale of operations, about 40 safety management practices are in play each year
- Practices can be grouped into broad categories
 1. Safety Meetings
 2. Rules
 3. Injury / Event Investigations
 4. Safety Organization
 5. Safety Specialists
 6. Safe Facilities and Equipment
 7. Worker Involvement
 8. ...

Broad Category

Some Practices

Hold regular safety meetings involving all people in the workplace

- We send weekly email on safety topics
- Meetings start with safety discussion
- Daily coaching by supervisors
- Weekly Time Meeting starts with safety discussion

Set basic rules crafted with broad participation and apply consistently

- 10 rules developed; separate from regulations
- Used workers, supervisors and managers to develop
- Enforcement is cautionary conversation to termination
- Culpability procedure was also developed

Broad Category

Some Practices

Investigate every injury and incident

- We investigate and communicate results to staff
- Take action (or not) quickly
- We use Five Levels of Why and other causal analysis techniques
- Human performance experts involved

Lead safety through Chairman's Office with broad participation by the entire workforce

- Implemented Conduct of Operations and Accelerator Safety Orders
- Safety committees used in design review
- Perform manager work observations weekly
- ISO14001 and OHSAS18001 registrations
- Implemented human performance training

Broad Category

Some Practices

Involve the workforce

- Workers hold safety meetings (WOSH Committee)
- Workers use human performance tools
- Workers helped set rules
- Workers perform critiques and investigations

Use safe facilities and equipment

- Used leading edge safety in design
- Reviewed design of new equipment
- We manage configuration of facilities
- Used leading edge safety systems in operation

Other Broad Categories of Practices



Summary

- **If aiming for outstanding performance, then cost is offset by long term benefits, which are:**
 - **Zero injuries, zero shutdowns and zero occurrences**
- **Techniques used in safety management for excellence are based on research and experience**
- **Management practices that demonstrate manager commitment, improve line accountability and increase worker involvement work best**

Can Bad Performance Be Avoided?

