



Savannah River
Nuclear Solutions, LLC
A Fluor Daniel Partnership

SRS Safety Performance Perspective

M&O Contractor Perspective

Briefing to the South Carolina Governor's Nuclear Advisory Council

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Governor's Nuclear Advisory Council



Why We're Here

- **Follow-up briefing/background**
- **Progress over the past couple of months**
 - SRNS Site Wide Leadership
 - DOE Complex Performance
 - SRS 2009 Safety Performance Time line
 - Safety Improvement Compensatory Actions and Measures
 - Actions and Lessons Learned



SRNS Provides Site Wide Leadership

- **SRS Training – GET Video (General Employee Training)**
- **Employee, Subcontractor & Community Engagement**
 - President’s Zero Incidents Safety Meeting (PZIC)
 - Blitz at SRS
 - EXPO at USC Aiken Convocation Center
 - Subcontractor Safety Forum (Aiken)



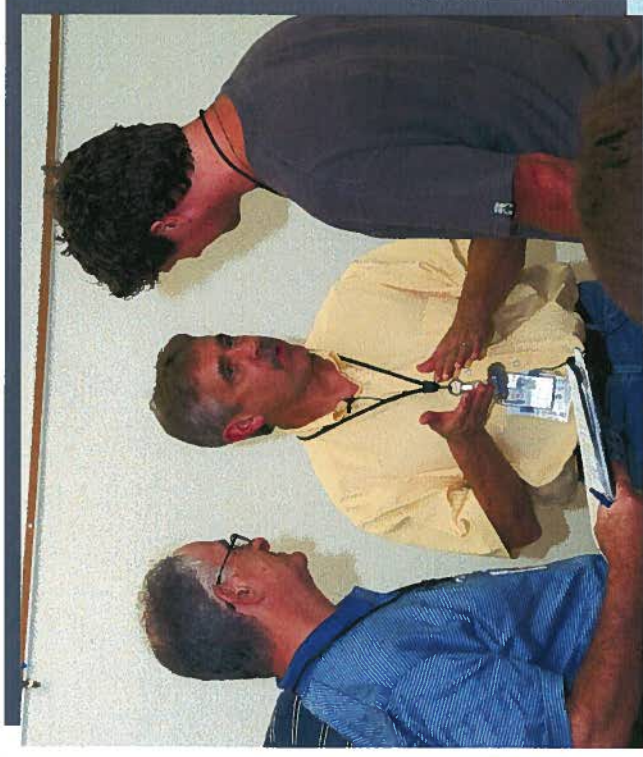
- **Communications**

- Website
- Take 5
- Spectrum
- Lunch ‘n Learns
- 2010 Calendar



SRNS Provides Site Wide Leadership

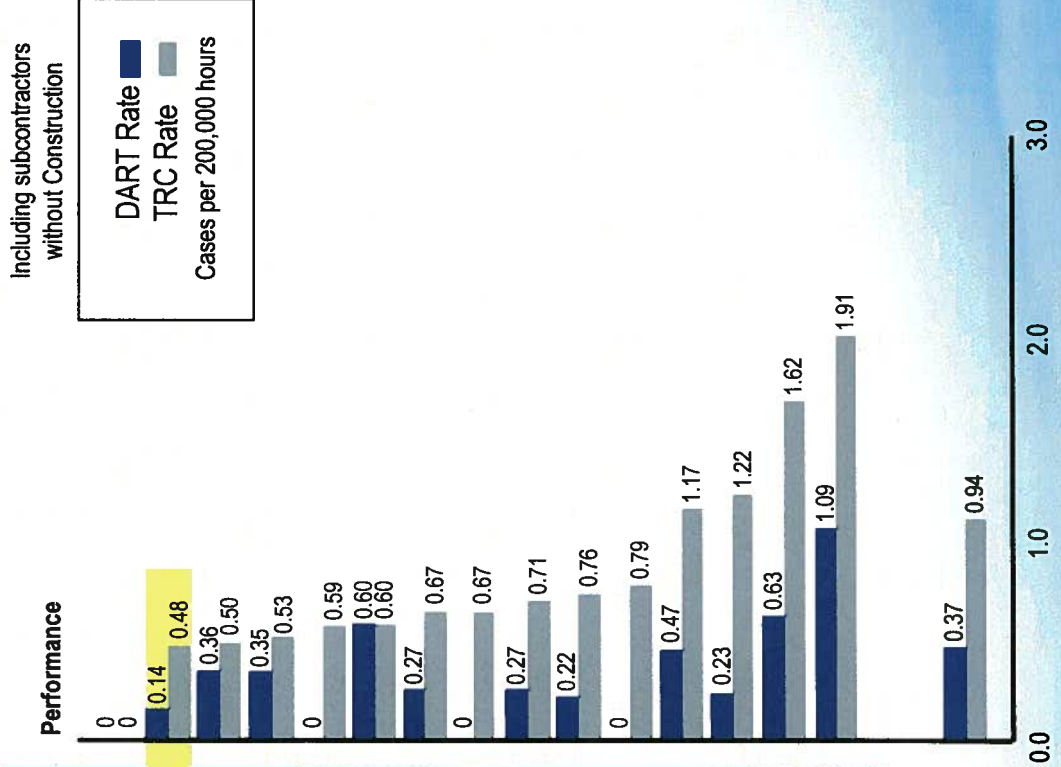
- **Site wide Exercises/Drills**
- **Site wide Procedures Council**
- **Integrated Safety Management (ISMS)**
Integration Council (Policy Level – DOE, SRNS, and Contractors) examples:
 - Training
 - Vehicles/barricades
 - Medical
 - Lessons learned/shared
- **SRS ISMS Processes and Communications Team (SME Working Group)**
 - Behavior Based Safety (BBS)
 - Voluntary Protection Program (VPP)
 - Human Performance Improvement (HPI)
 - Health and wellness



Safety Performance Across the DOE Complex

FY09 through June 2009

Company	Contract	Workforce
West Valley Environmental Services	WVDP	279
Savannah River Nuclear Solutions	SRS M&O	5,894
Savannah River Remediation	SRS LWO	1,867
Bechtel BWXT Idaho	AMWTP	760
Washington Closure Hanford	RCCP	1,124
LATA/Parallax/Portsmouth	Portsmouth	222
Washington TRU Solutions	WIPP	1,002
Uranium Disposition Services	Paducah	199
Fluor Hanford	PHMC	1,503
Washington River Protection Solutions	FOC Hanford	1,223
CH2M WG Idaho	ICP	1,181
CH2M Hanford	Plateau Remediation	1,707
Bechtel National Remediation	WTP Hanford	2,959
Bechtel Jacobs	ETTP	1,899
Paducah Remediation Services	Paducah Remediation	488



Background- SRS FY09 Safety Performance

- **Lowest fiscal year first quarter injury rates on record (seven weeks w/o TRC); Operations and Subs worked 8 million hours, without a lost time injury**
- **Construction logged 11 years, > 23 million hours without a lost time injury**
- **SRNL safest of 12 multi-program national labs for fifth straight year**
- **Eighth VPP Star of Excellence**
 - National Safety Council’s Operational Excellence Award
 - S.C. Manufacturer’s Alliance’s Plant Safety Award
- **Site lost work days (e.g., severity) reduced by 83 percent from FY 2007 to 2009**
 - 2007 = 206 LWD
 - 2008 = 146 LWD
 - 2009 = 34 LWD

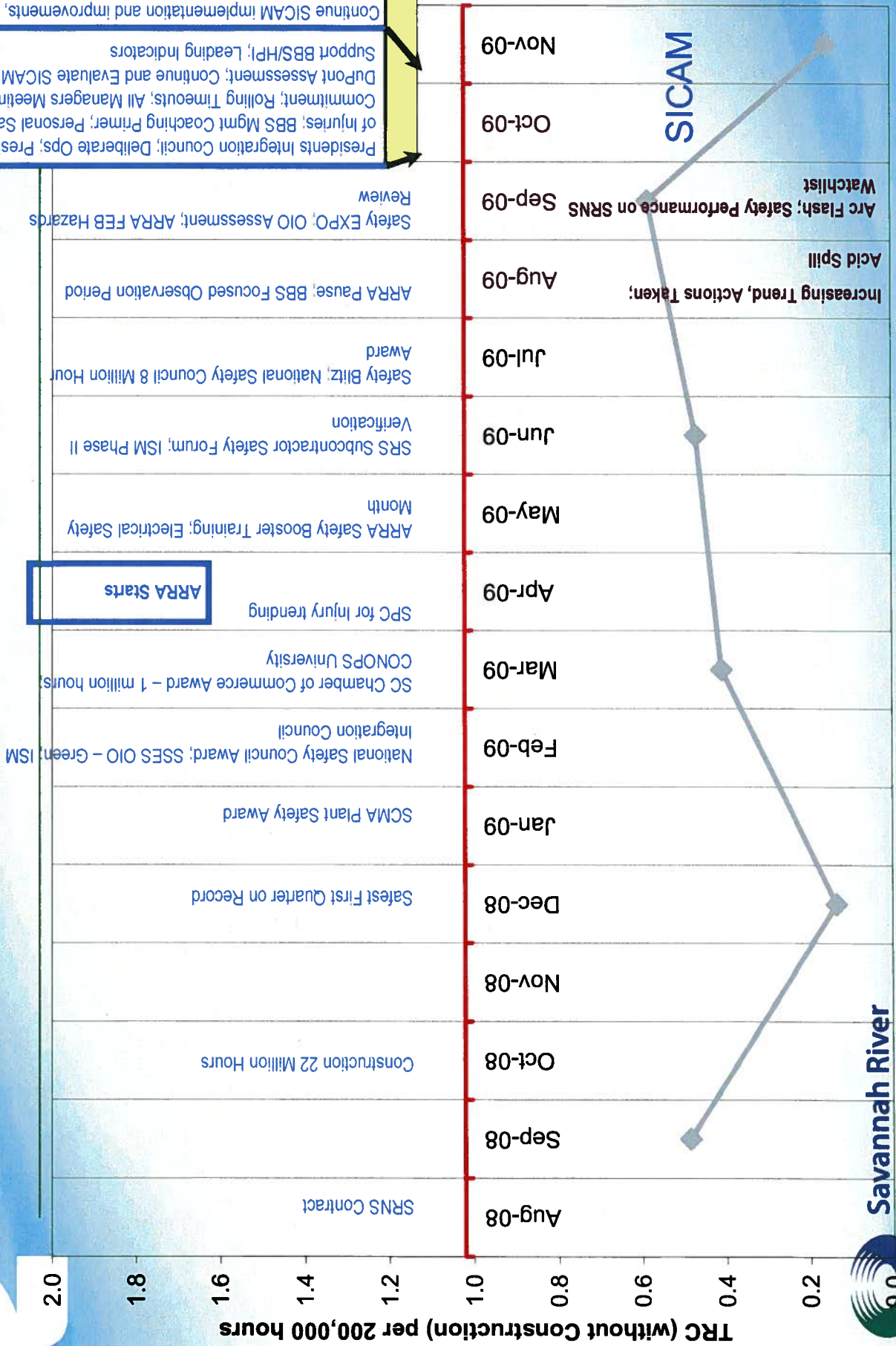
All of this lulled us into thinking we were inherently “safe”, but, as we know Safety requires constant vigilance

BACKGROUND – SRNS Safety Status – Dec 2009

In early CY 2009, several significant events occurred in the DOE Complex

- Golf cart incident/injury at WIPP; Electrical event at ETEC; Vehicle fatality at LLNL; Fall from 50 ft height at Hanford (& subsequent fall at Hanford from platform)
- **In July - August, based on these events, as well an upward trend in injuries and Opportunities for Improvement identified in the SRNS 2009 ISMS Phase 2 Assessment, SRNS initiated corrective actions**
- **However, the August acid spill and September electrical arc flash events required a more urgent and overarching response**
- **SRNS Senior Management took action and implemented the Safety Improvement Compensatory Action and Measures (SICAM) Process.**
- **In parallel DOE undertook Type B Investigations for the arc flash and a separate incident at the Salt Waste Project**

SRNS Safety Timeline - Dec 2009



ARRA Starts

SICAM

Increasing Trend, Actions Taken; Arc Flash; Safety Performance on SRNS Watchlist; Acid Spill

SRNS Actions Taken to Address Issues

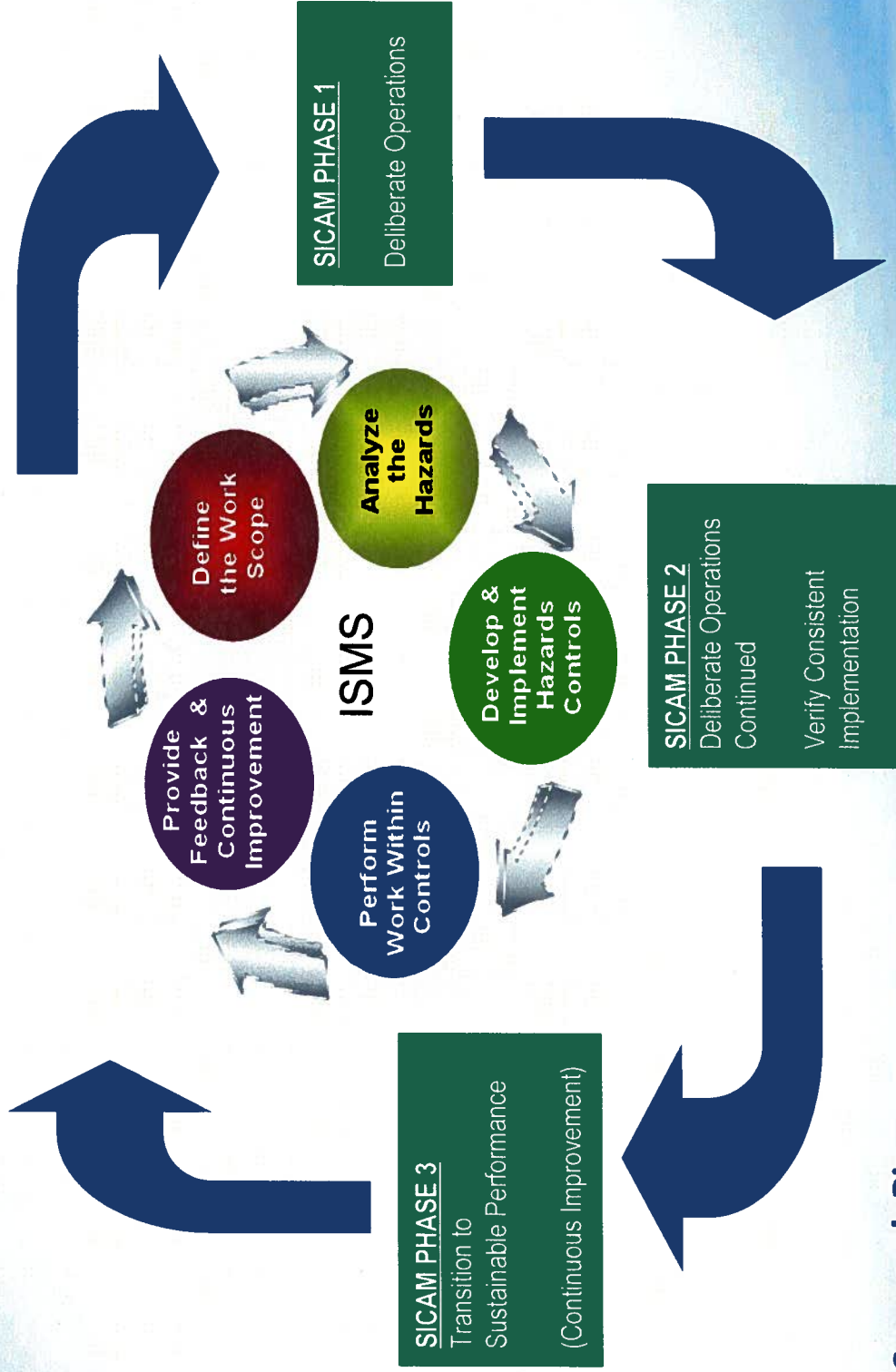
- **Corporate Reachback (e.g., Assessments, Statistician, etc.)**
- **Lessons Learned from 42 External (Third Party) Assessments (e.g., EM62, OIO, DHEC, EPA, etc.)**
- **SICAM—Safety Improvement Program**
 - Began October 6, 2009 (Phase 1)
 - Increased management attention and involvement in field ops
 - Increased reviews of work packages
 - Review Safety Improvement Compensatory Actions and Measures status
 - Renewed personnel commitment to safety
 - Rolling timeouts for each area
 - Moved to Phase 2 in late November
- **DuPont Cultural Assessment**
 - 5,347 of 6,432 respondents completed (83%)





Safety Improvement Compensatory Actions and Measures

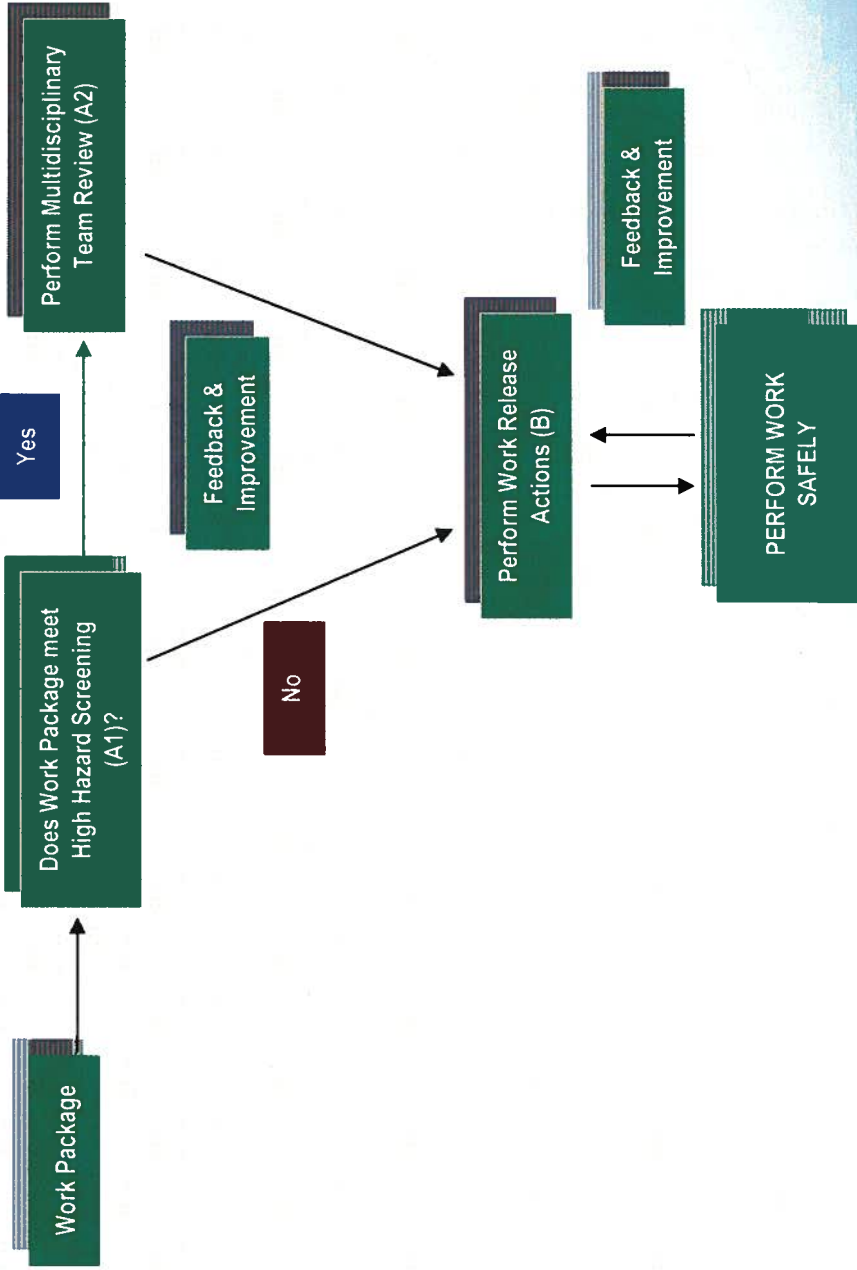
SICAM PROCESS - FOCUSED ON ISMS





“SICAM”

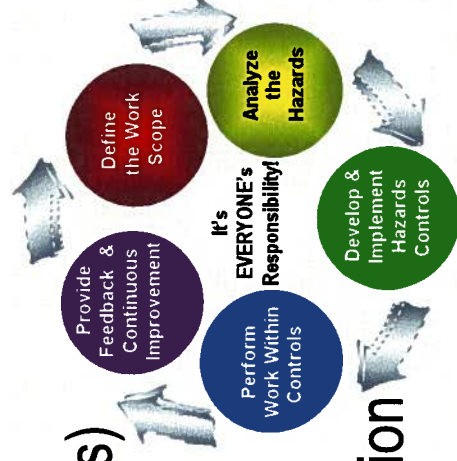
Safety Improvement Compensatory Actions and Measures



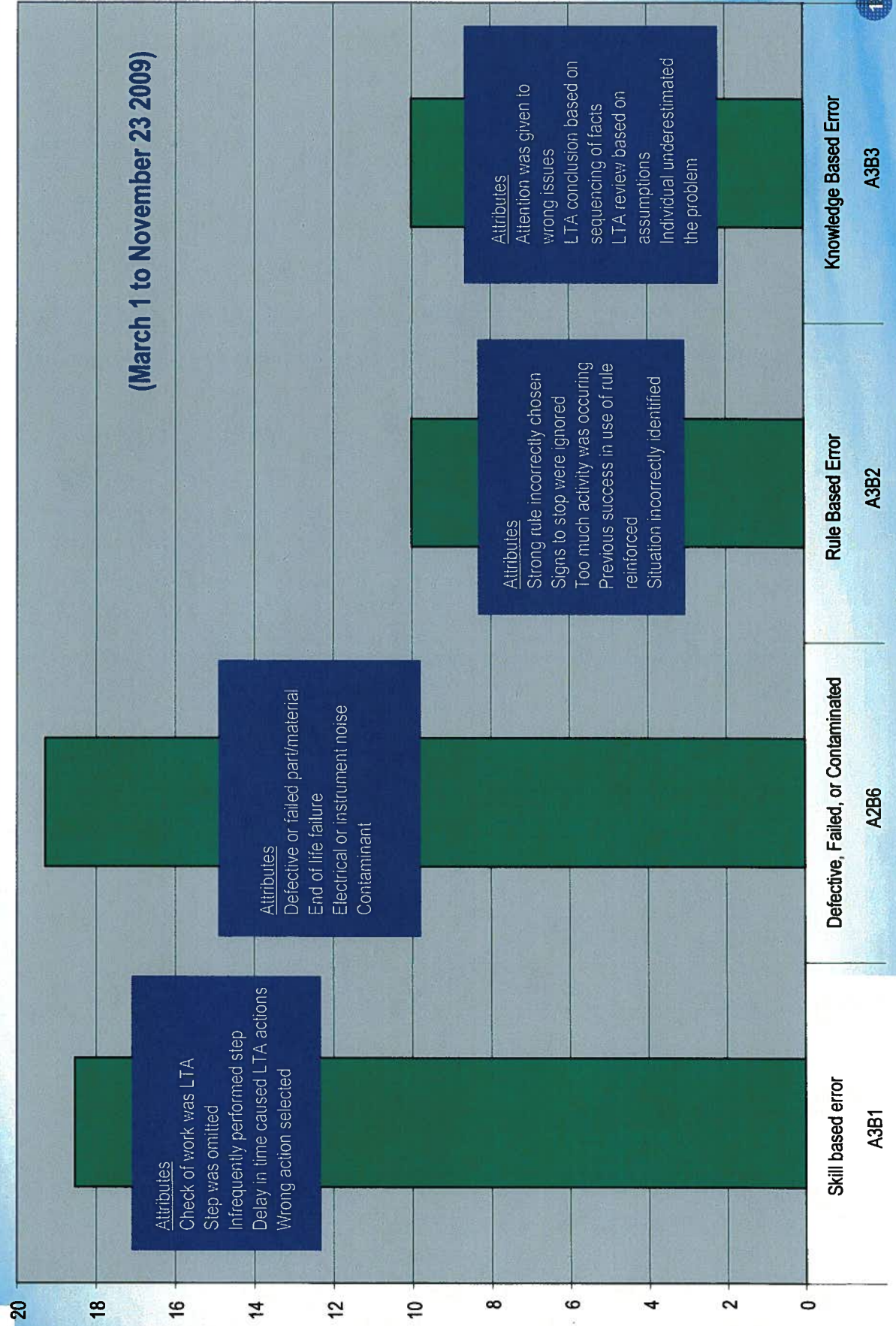
Rolling Timeout Action Plan (VP/Director Lead)

Actions:

- 1. Review SICAM Status**
- 2. Conduct hazard awareness training (2 hour interactive video)**
 - Adapt Fluor Hanford briefing (piloted in SRNS ARRA Project)
 - Using trained presenters
 - Review HPI / BBS tools/methods
 - Management Field Observations (MFOs)
 - Lessons Learned (LL)
- 3. Feedback continuous improvement**
 - How to improve on safety performance
 - Discuss facility project specific information
 - Address “hot” issues
 - Ask: How we can do better each day?
- 4. Perform housekeeping; MFOs; BBS**



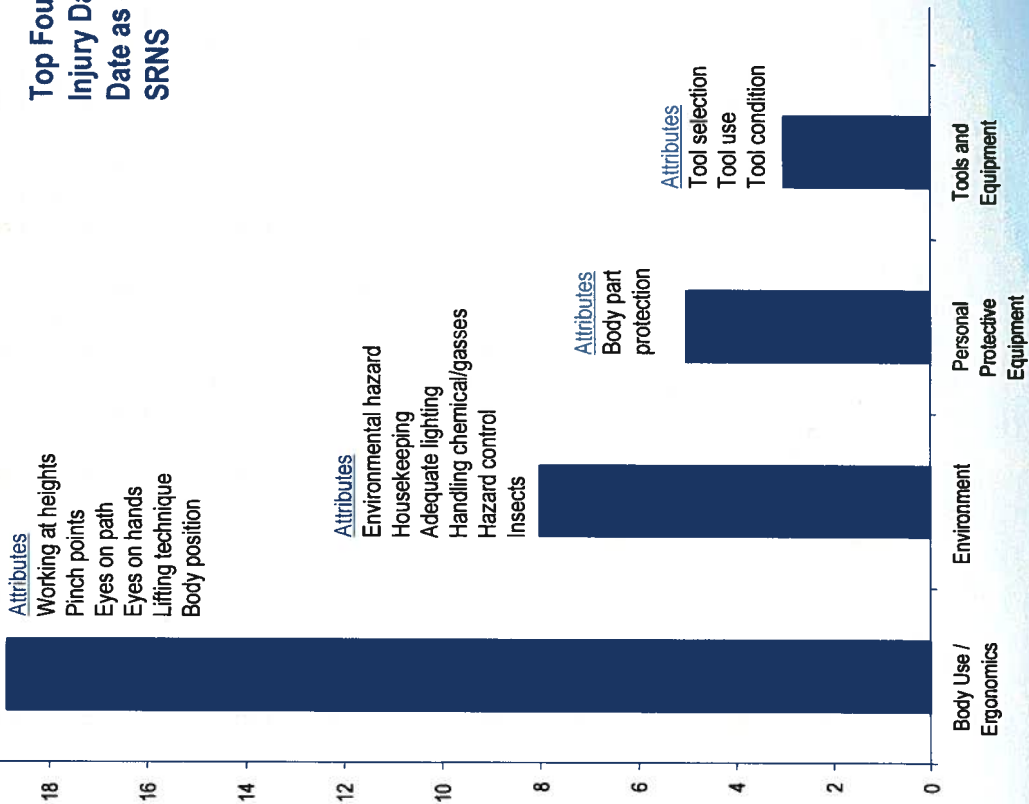
Lessons Learned- SRNS ORPS and TRC "Top 4" Causes



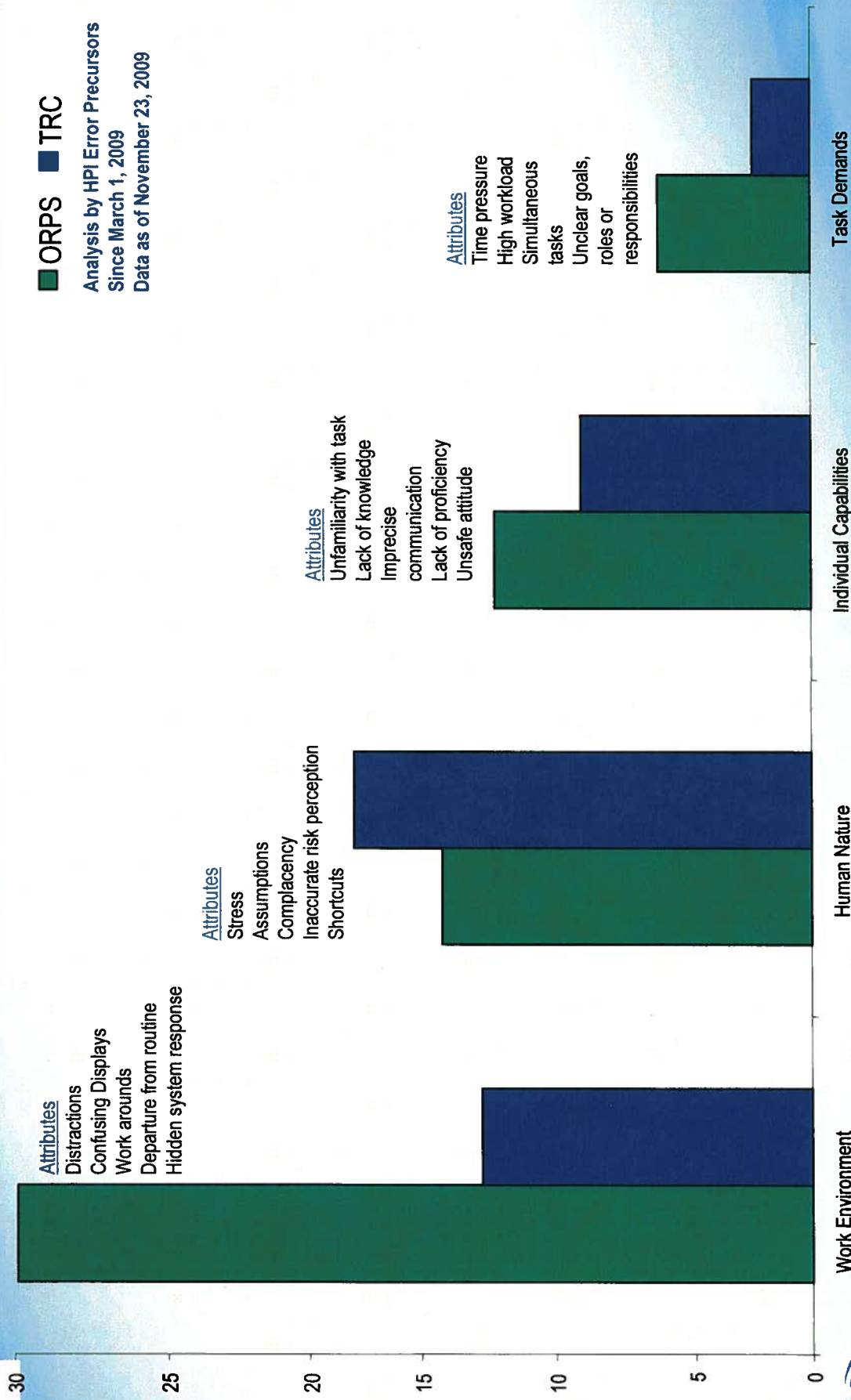
Lessons Learned

Total Recordable Case (TRC) vs Behaviors

Top Four TRCs
 Injury Dates since March 1, 2009
 Date as of November 23, 2009
 SRNS

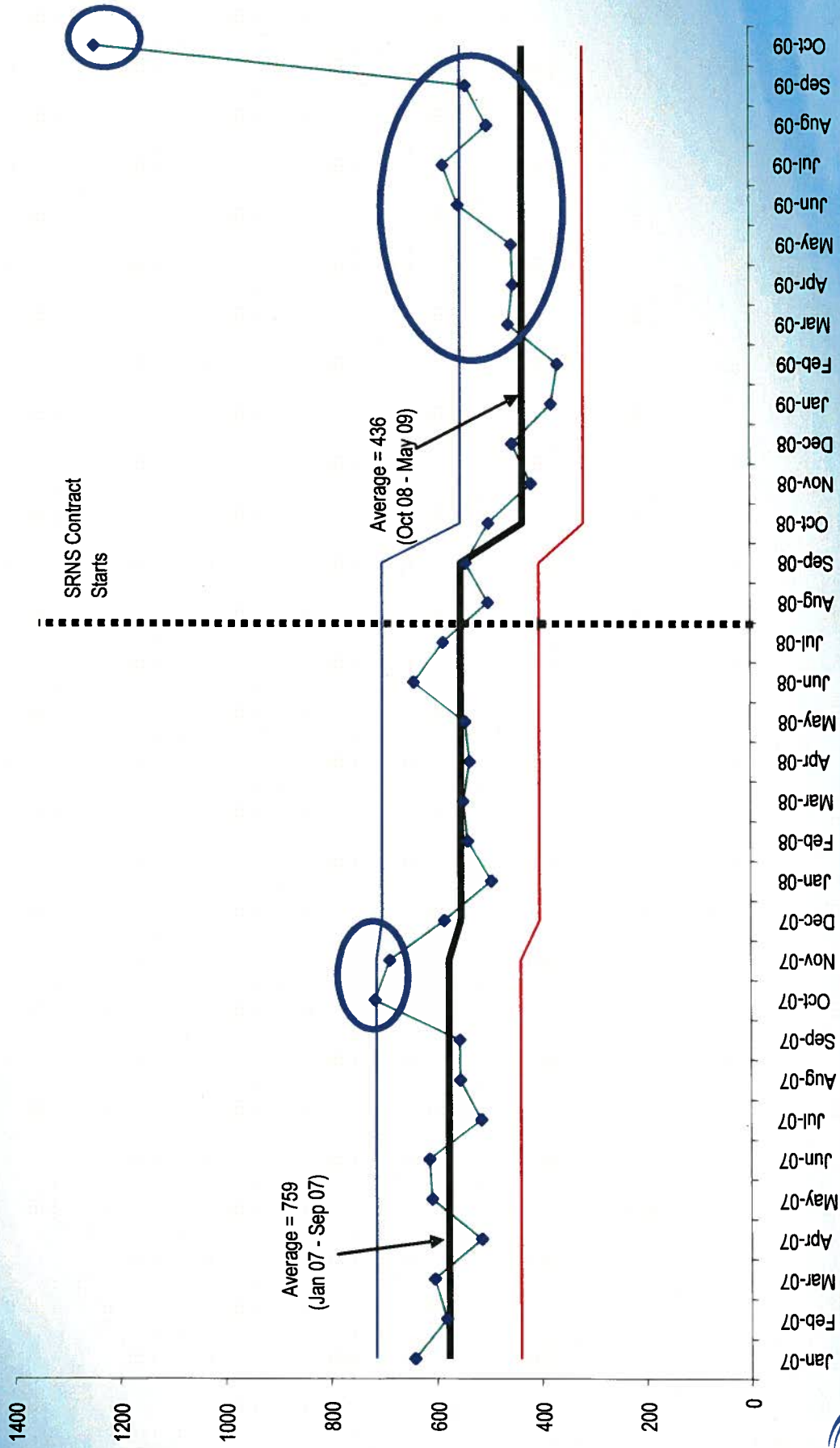


Lessons Learned



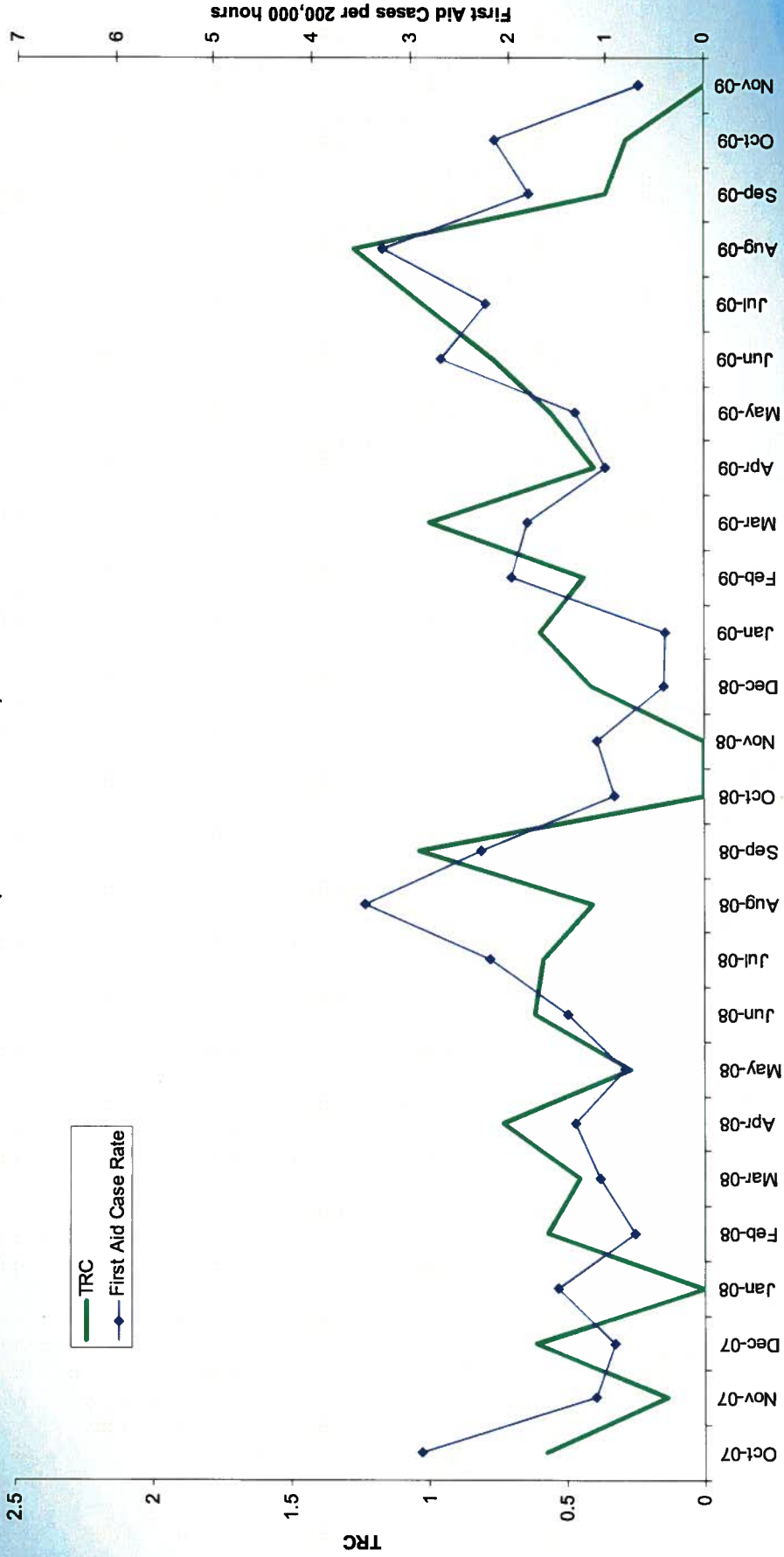
Measuring Effectiveness – Management in the Field

Monthly management field observations



Measuring Effectiveness: SRNS First Aids and TRCs

SRNS (Ops + Service Subs) TRC Cases per 200,000 hours
(Without Construction)



Path Forward

- **Institutionalize “phased” SICAM process to ensure continuous improvement**
 - Increase management field observations-presence in the field
 - Conduct “timeouts” when needed
 - Act on DuPont safety assessment/survey results
 - Gather continuous feedback from Local Safety Improvement Teams and incorporate in work practices
 - Measure work performance and incorporate into work practices
 - Monitor Effectiveness using leading and lagging indicators

Watch Out for Those Crocs/Gators

