

SRNS Management Key to Effective Performance Execution Panel Discussion Waste Management 2011

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Background – SRNS At Savannah River Site

- **May 2008; Savannah River Nuclear Solutions (SRNS) was selected as the M&O Contractor for the US Dept of Energy (DOE), Savannah River Site**
 - A Key Contract Responsibility is Site wide “Integration” of various scopes, including “the Integrated Safety Management System (ISMS) Program”
 - During Transition (May to August 2008) we assumed existing Site Programs and “Blue Sheeted” Procedures, so as not to “Disintegrate” any key inter relationships
- **We understood that we inherited a talented work force with a reputation of safety leadership – we took that at face value**
- **Our approach during Transition was to Understand the Landscape (seek first to understand)**
 - Met with employees and Local Safety Improvement Team (LSIT) Members
 - Performed Internal Self Assessments
 - Employed Gallup Employee Feedback Survey

Complacency – Our View – We Were Inherently Safe

- The Sites' "rolling 12 month average" for lagging Indicators provided no insights
 - Injury Rates showed no significant delta from the past 12 months
- During early FY2009 Safety performance was exemplary:
 - Lowest first quarter TRC on record; Operations/ Subs worked 8 million hours, without a lost work day (reduced by 83 percent from FY 2007)
 - Construction logged > 23 million hours (11 years) without a lost work day
 - 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
- We saw that serious events were occurring elsewhere in the DOE Complex-wide; but "not at SRS":
 - Golf cart incident/injury at WIPP;
 - Electrical event at ETEC;
 - Vehicle fatality at LLNL;
 - Fall from an in door 50 ft height at Hanford
 - Subsequent fall at Hanford at out door platform
- All of this lulled us into the View that we were inherently "safe": but, as we know Safety requires constant vigilance

Events Challenged Our View - We Took Immediate, Aggressive Action

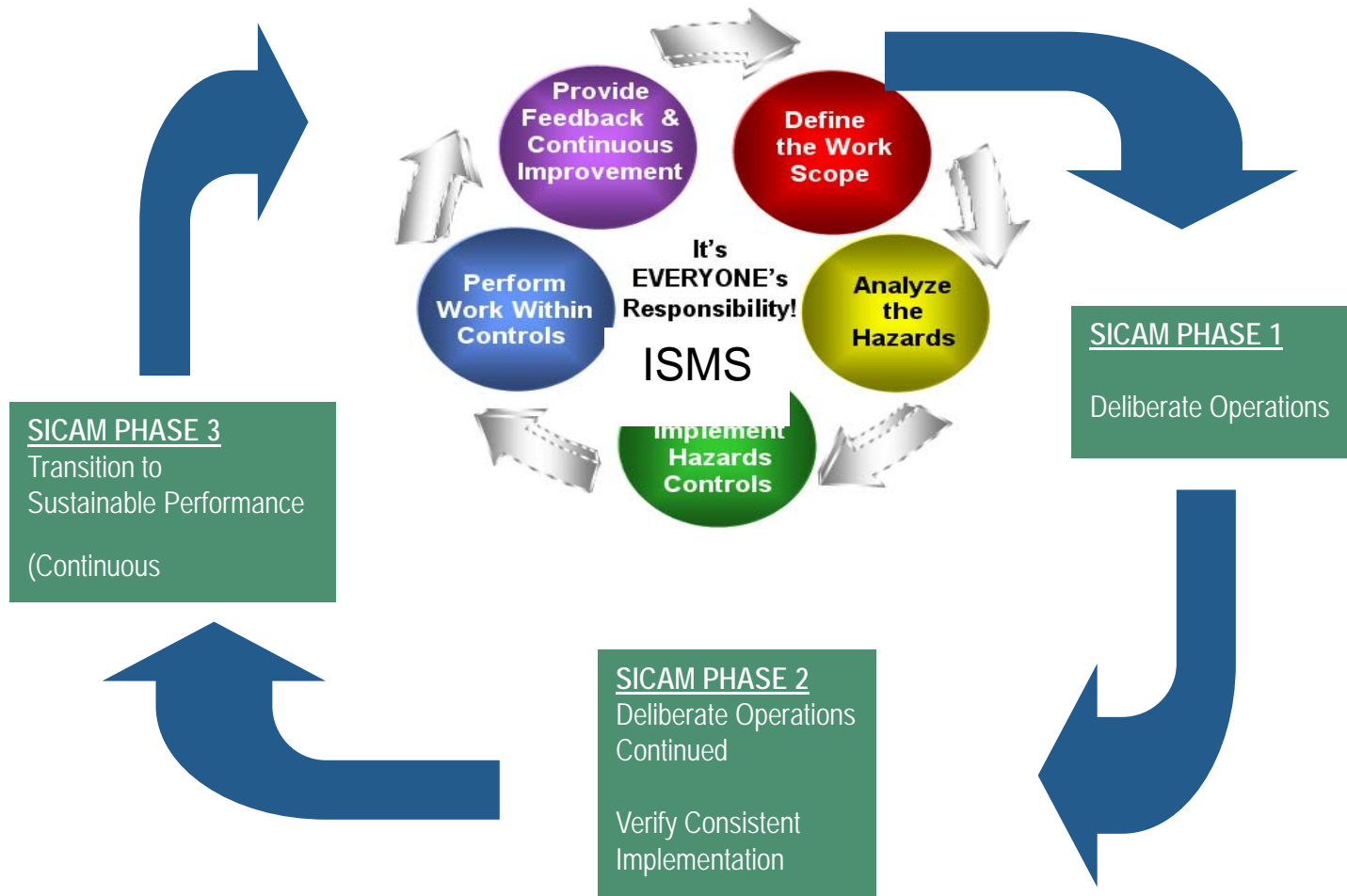
- Two serious events in late FY2009 caused SRNS to realize that we required an urgent and overarching response
 - August - an acid spill during D&D work under ARRA
 - September - an electrical arc flash event at an aging facility (Triggered a DOE Type B Assessment)
- These events were a “Wake Up” Call
- SRNS took immediate Management action and implemented a unique initiative, the “Safety Improvement and Compensatory Measures” Program
 - Emphasized a refocus on ISMS Core Functions
 - Employed a Three Phased Approach
 - Implemented as a Long Term Initiative
- Soon after the SRNS events, a Parsons SRS event also triggered a Type B

SRNS Took Aggressive Action to Respond

- **SICAM—Unique Safety Improvement Program – Three Phases**
 - Deliberate operations began October 6, 2009 (SICAM Still In Place)
 - 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
- **Conduct hazard awareness training (2 hour interactive video – with Q&A)**
 - Adapted Hanford “Croc” Training to “Gator” Training for SRS
 - Used trained staff; trained the Trainers
 - Reviewed Human Performance Initiatives (HPI), Behavior Based Safety (BBS) tools/methods
 - Reviewed Lessons Learned (LL)
- **In Parallel, we engaged DuPont to perform a Safety Focused Cultural Assessment - 83% Of Total Full Time Staff responded**

Safety Improvement Compensatory Actions and Measures

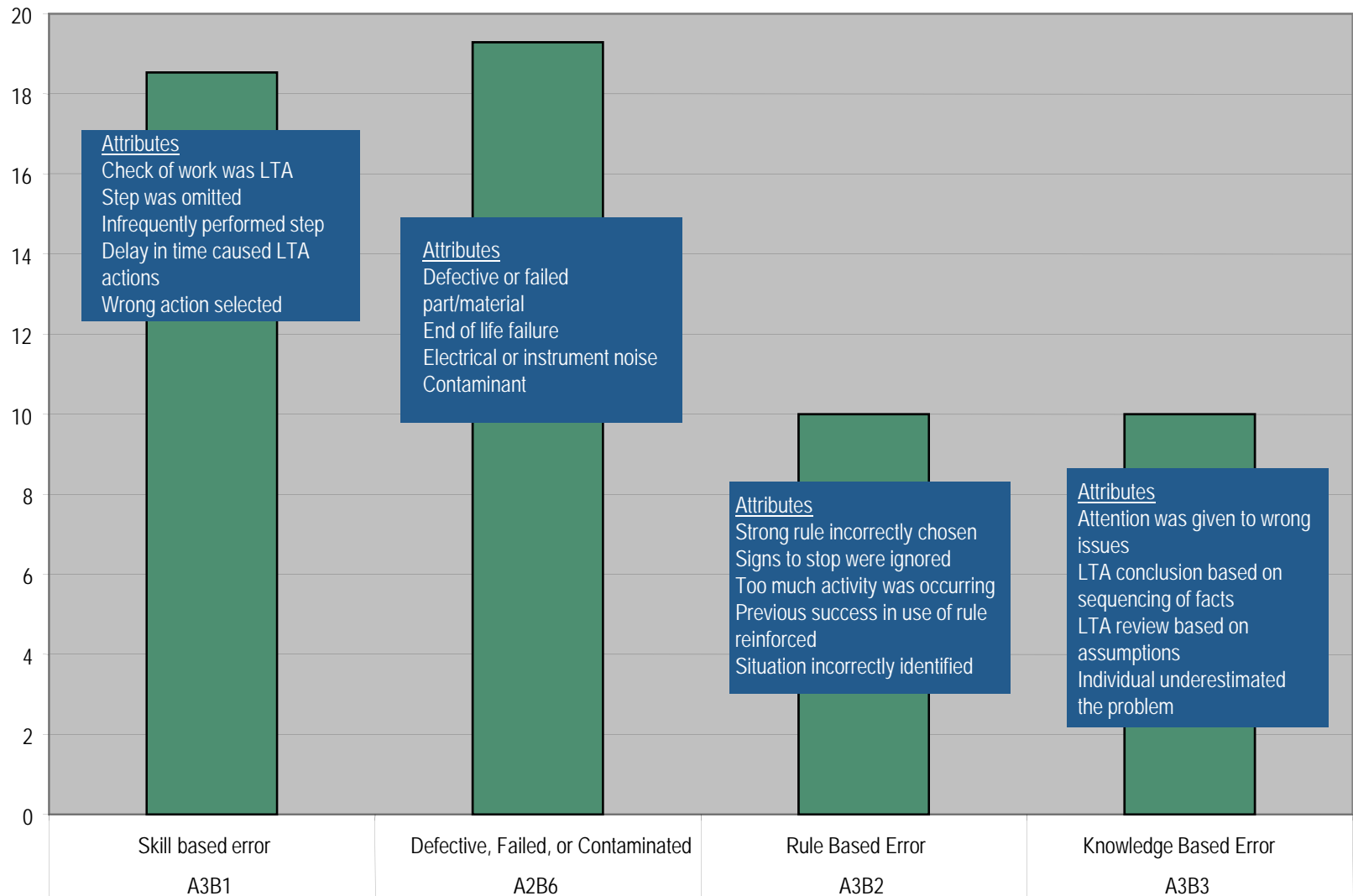
SICAM PROCESS - FOCUSED ON ISMS



What Did We Learn – And What Can We Do?

- We must strive to understand that accidents don't happen because people gamble and lose
- Accidents happen because of “complacency”, the person believes that :
 - what may happen is not believable (it is not possible for me to get hurt doing this)
 - accidents have no connection to what they are doing (accidents happen to the other guy)
 - the possibility of getting the intended outcome is well worth whatever risk there is
- Leaders Must Reinforce that We Expect People to Have a “Questioning Attitude” and Expect the Unexpected (Look for the Gators):
 - Ask: “What is the Worst That Can Happen” if I Proceed With the Current Plan?
 - If it has happened before (to anyone) it could happen to me
 - Ask: Have I done everything I can do, Personally, To Prevent an Incident?
 - Provide Constant Reminders of the “Consequences” of shortcuts – personal testimony is most powerful

What Did We Learn - SRNS ORPS, TRC "Top 4" Causes

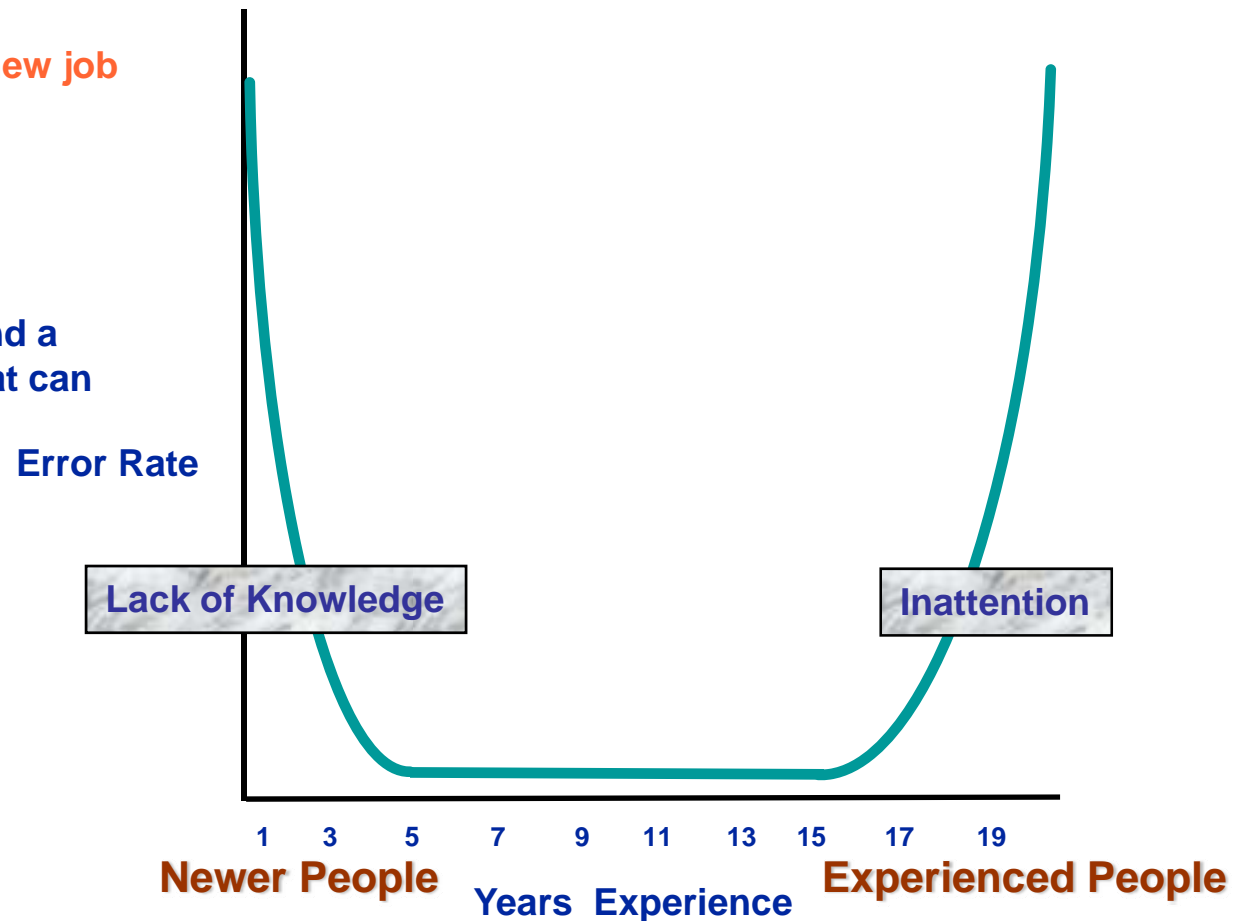


Lessons – Error Rates & Employee Experience

Industry human performance experience indicates that error rates are highest while personnel are **learning a new job function** and **after the job becomes repetitive.**

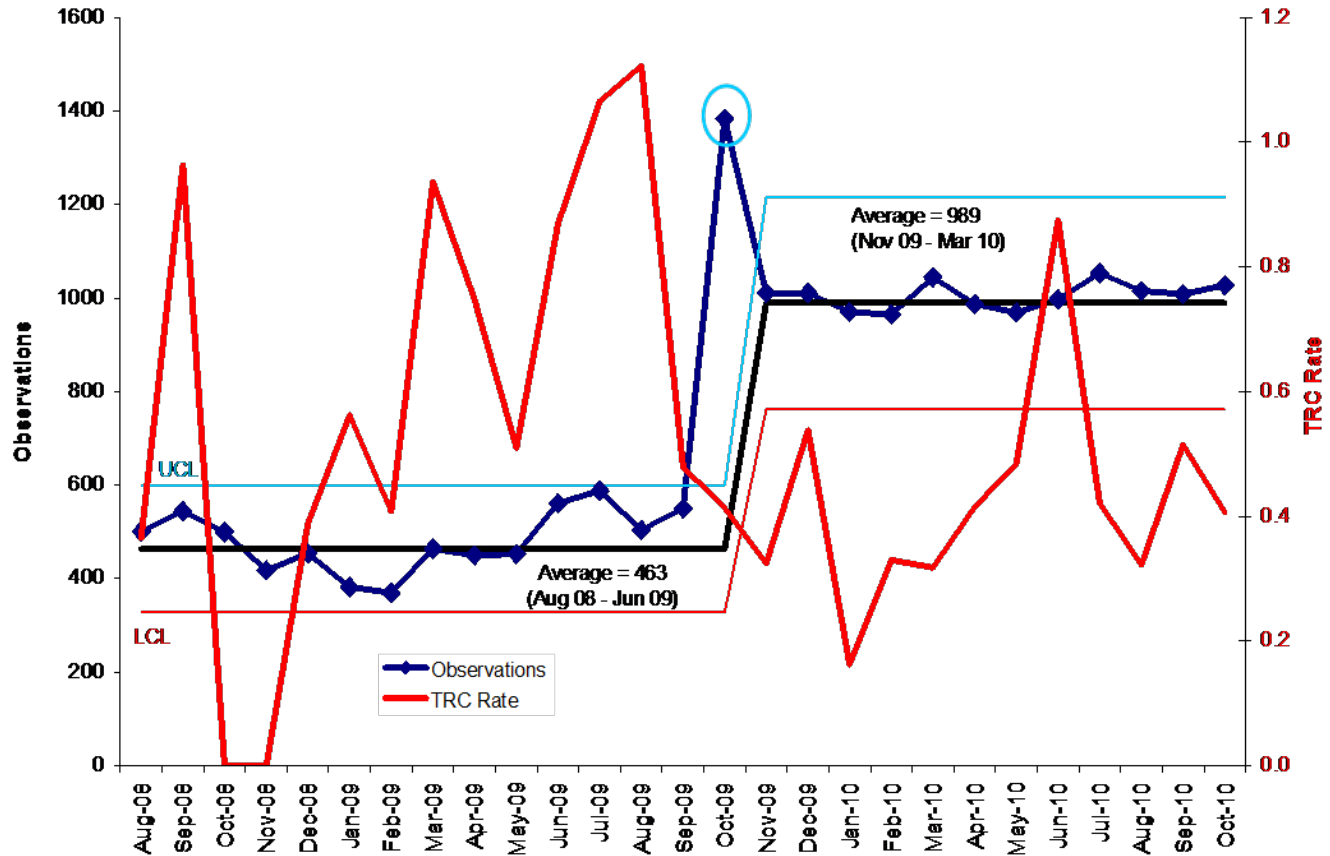
Source – INPO

This requires continual “refreshing” of training and a continuous focus on “what can go wrong”



Learnings - Monthly Management Field Observations Correlate to Safety Performance

Number of SRNS MFO Performed vs TRC Rate



Results – Safety and Productivity Go Hand in Hand

- “Safest” TRC Fiscal Year Rate for Operations & Subcontractors under current DOE Reporting structure (since 1985)
- Operations & Subcontractors achieved 11 million hours without a lost time injury – recognized by National Safety Council
- Construction currently at > 24 million hours without a lost time injury (since June 1998)
- VPP STAR of Excellence and Legacy of STARS, Awarded at ISM Work Shop, by DOE HSS





- “The H-Canyon box remediation program is leading the Site closer to disposing of 5,000 cubic meters of legacy TRU waste,” said Dr. David Moody, DOE Savannah River Operations Office Manager. “This milestone is due to hard work, consistently performed on time and with great focus on safety and detail by our workers.” Text goes here
- This M/S was completed a month early, on October 27, 2010

Results – Safety and Productivity Go Hand in Hand

- Achieved 36 percent in EM footprint reduction (over 113 square miles)
- Awarded \$413M in Subcontracts; \$155M to local area businesses
- Deactivated and decommissioned seven industrial structures (including K Cooling Tower) and remediated ten soil units.
- Ahead of schedule in the in closure of two production reactors.
- The Tritium Project continued its perfect record of ontime shipments for over 52 consecutive years.
- Made 81 shipments of transuranic (TRU) waste to WIPP, including the first remote-handled TRU.
- Safely received domestic and foreign used nuclear fuel (595 fuel assemblies)
- Dissolved > 624 kgs of HEU metal, which was blended down and sent to the Tennessee Valley Authority.

SRNS Shares Lessons Learned Complex Wide

- 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)
- 2010 DOE ISM Champions Workshop
- Communications
 - Website
 - Take 5
 - Spectrum
 - Lunch ‘n Learns
 - 2010 Calendar



Path Forward

- Continue To Implement “phased” SICAM process to ensure continuous improvement
 - Increase management field observations-presence in the field
 - Encourage use of “timeouts” when needed
 - Gather continuous feedback from Local Safety Improvement Teams and incorporate in work practices
 - Measure work performance and incorporate into work practices
 - Monitor Effectiveness using both leading and lagging indicators
- Share Lessons Learned – Site wide and Complex Wide

SRNS Sharing Lessons Learned through 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



Bottom Line - Watch Out for Those Gators

