7 Insights into Safety Leadership

CWEA – November 5, 2020
7 Insights into Safety Leadership

1. Safety as a core value and strategy.
2. Start with attention to serious injuries and fatalities.
3. Leadership sets safety improvement in motion.
4. Culture sustains performance - for better or for worse.
5. Understanding core safety concepts.
6. Understanding the role of behavior in safety.
Insight 1

Safety Leads Business Performance

“If you want to understand how Alcoa is doing, you need to look at our workplace safety figures.”

— Paul O’Neill
Insight 1
Research Basis

Safety, Productivity, Quality
- Product Quality
- Service Quality
- Workgroup Efficiency
- Workgroup Performance
- Customer Satisfaction
- Safety Performance

Employee Engagement
- Turnover Intention
- Absenteeism
- Organizational Citizenship
- Individual Job Performance
Polling Question

On a scale from 1 - 5 ...

To what extent would you say your organization currently has a “Leading with Safety” business strategy?

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Insight 2

Focus on Serious Injuries and Fatalities (SIF)
Serious Injuries and Fatalities

Occupational Fatalities and Non-Fatalities from 1993 to 2014
Serious Injuries and Fatalities

Question 1

Is the Heinrich triangle accurate descriptively?
Serious Injuries and Fatalities

The traditional Heinrich triangle is accurate descriptively.

This triangle represents the data from six organizations between 2008-2009.
Serious Injuries and Fatalities

Question 2

Is the Heinrich triangle accurate predictively?

- Do less serious injuries have similar or different potential to be SIF’s?
- Do SIF’s have different kinds of characteristics and causes than less serious injuries?
Serious Injuries and Fatalities

The traditional Heinrich triangle is not accurate predictively:

- Not all injuries have SIF potential
- A reduction of injuries at the bottom of the triangle does not correspond to an equivalent reduction of SIFs

• Of 300 sampled injuries, 64 had the potential to be SIFs

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Illustration

A. Carpenter smashes his thumb with a hammer and sustains a deep cut requiring 8 stitches.

B. Carpenter’s thumb contacts a hand grinder and sustains a deep cut requiring 8 stitches.

Key Ideas

- “Potential” - Which of these situations had greater potential to affect the carpenter for the rest of his life?
- “Different Causes” - What is the difference in the situations?
The New View

Traditional

• Works from the bottom-up
• Prioritizes based on recordability
• Misses valuable information about SIF exposure
• Allows SIF exposure to accumulate

New

• Works from the inside-out
• Utilizes SIF potential events to uncover valuable information
• Prioritizes based on risk
• Boosts leader credibility
Serious Injuries and Fatalities

Top 5 Takeaways from our 2010 SIF Study

• Frequency and severity are inversely correlated
• Single events are meaningful and contain crucial information.
• Reducing recordable injuries does not assure reducing SIFs; and reducing SIFs does not assure reducing other injuries.
• SIFs have identifiable precursors.
• SIF reduction is likely to follow a systematic concerted effort by leadership to re-focus the organization’s attention and systems and build capability to reduce SIF exposure.
Insight 3
Leadership Sets Improvement in Motion
Insights 1+2+3
Leading for SIF Prevention

Core Understanding
Learning from Incidents
Responding to Precursors
Systems Integration
Measurement
Decision Making
Leading the Paradigm Shift
Leading SIF Prevention
Alignment
Safety Leadership
Risk Reduction

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SIF Maturity Model

- Foundational Elements:
  - Core Understanding – 2010 SIF Study; Why a special focus on SIF prevention is needed
  - Measurement – Establish SIF-A and SIF-P rates; establish leading indicators
  - Decision Making – Strategically selecting a set of decisions to assess and improve

- Safety Leadership Elements:
  - Alignment – Calibrate foundational elements at all levels, establish definitions
  - Leading the Paradigm Shift – Communicating why a special focus on SIF prevention is needed and creating buy-in to the change
  - Leading SIF Prevention – Integrating SIF concepts into leadership practices; helping all levels of leadership identify how their role changes

- Risk Reduction Elements:
  - Learning from Incidents – Improve learning process and align with SIF potential
  - Responding to Precursors – Proactively identifying and mitigating precursors within each leader’s sphere of influence and control
  - Systems Integration – Integrating SIF concepts and approaches into each leader’s safety mechanisms

SIF System Integration - SIF concepts are used in / applied to / reflected in:
  - Business planning
  - Incident investigations
  - Field visits
  - Safety observations
  - Risk assessments
  - Purchasing
  - Equipment design
  - Safety leadership training
  - Metrics
  - Leadership communications
  - Culture – it’s part of the common language
  - Risk management

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Polling Question

On a scale from 1 - 5 ...

To what extent would you say your organization currently has the appropriate focus and resources on preventing serious & fatal injuries (SIF’s)?
Insight 4
Culture Sustains Improvement

The culture you want is the one that unlocks discretionary energy

"Human beings have discretionary energy which they can give or not give. They give it to you if you treat them with dignity and respect."

— Paul O’Neill

Organizational Climate

Safety Climate

Weak-----------------------------Strong

Weak

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What type of culture do we need?

<table>
<thead>
<tr>
<th>Strong Safety Climate</th>
<th>Strong Organizational Climate</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Healthy communication channels: up, down &amp; across</td>
<td>• Co-workers trust and respect each other</td>
</tr>
<tr>
<td>• Senior leaders’ value for safety “gets through” to people on the front lines</td>
<td>• Workers and supervisors have mutual trust &amp; respect</td>
</tr>
<tr>
<td>• Exposure to risk at the front lines is “visible” to senior leaders</td>
<td>• There is trust in management</td>
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</tbody>
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Assessing your Culture & Leadership

% Positive by Role and Topic

*This visual displays the percent of people within each role who responded in agreement with a topic, overall.

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Insight 5
Leaders Need To Understand Safety Fundamentals

Understanding Variation

Understanding Injury Causation

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Insight 5
Leaders Need To Understand Safety Fundamentals

• Leaders who understand this insight show evidence of understanding general concepts
  • Systems views vs. Singular views
  • Standards & Management Systems,
  • Role clarity & Accountability
  • Best practice sharing & innovation

• In addition to general concepts, leaders need to understand the specific, evidence-based mechanisms of safety improvement.
A Systems View of Causation

- Policies
- Leader Decisions
- Cultural Factors
- Facility Design
- Safety Systems
- Regulations
- Individual Decisions
- Environment
- Verifications
- Tools
- Personal Factors
- Engineering
- Information
- Maintenance
- Management Decisions

Work as written (the procedure)
Work as it happened (reality)

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Insight 6

Behavior …

A different role than most expect.
Insight 6

Understanding the Role of Behavior in Safety

BEHAVIOR...

A different role than most expect

1. Pinpoint Behavior/Exposures
2. Observe & Give Feedback
3. Discuss & Gather Feedback
4. Prioritize & Solve Problems

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Polling Question

On a scale from 1 - 5 ...

To what extent would you say your organization currently views behavioral contributions to injuries?

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Insight 7

Cognitive Bias Affects Safe Decision Making™

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The 2015 Safe Decision Making™ Study

In 2015, six companies set out to explore decision making as a strategy for accelerating safety performance improvement.

- Each company contributed data from fatal and life altering events
  - Investigation reports
  - Interview transcripts
  - Live interviews

- Ten additional, deeply investigated SIFs from CMA, NASA, MSHA, and DOE

- Incidents from 16 organizations, 60 total incidents, 600+ decisions

- Phase 1 of the study took 11 months and averaged 30 hours per case
Managerial Decisions Have Leverage

A decision is defined as a choice between alternatives.

- We believe decisions are connected and everyone makes decisions that impact safety.
- The key to improving safety is to figure out which ones have the greatest leverage.

64% of decisions were made above the front line.
Pivotal Decisions Have More Leverage

A pivotal decision is defined as a significant opportunity to change the course of events. It can:

- Set the stage for a series of other decisions
- Create the circumstances surrounding the incident
- Pre-determine, anchor, or set defaults for subsequent decision(s)

- 92% of pivotal decisions were made above the front line

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85% of the Decisions had Opportunity for Bias

Cognitive bias is defined as a systematic deviation from rational judgement

Top 5 Cognitive Biases by Level

- Overconfidence in Others: 134
- Availability: 97
- Status Quo: 51
- Normalization of Deviance: 33
- Overconfidence in Self: 40

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Decision Network Diagram

A set of interrelated decisions across time

Level 1

Site Manager
Corporate Safety

Level 2

Incident
Supervisor

Level 4

Site Safety
Corporate Function

Level 5

Larger Circle = Pivotal Decision

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Polling Question

On a scale from 1 - 5 ...

To what extent would you say your organization currently understands how decision making at every level and timeframe influences safety events?
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Thank You for Participating!

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