Hazard Identification or Complacency?? Which is the Bigger Problem??

Speakers:
Brett James & Reginald Whitaker, CSP
Oklahoma Steel & Wire
“No matter how good it might look -- Sometimes it just doesn’t pay to be on the ground floor of a new idea”
Three Concerns of Every Business

- Production
  - Schedule jobs; Set-up & run jobs; Ship product; Order raw material
  - Measure parts; Check blueprints; QA inspection; Testing

- Safety
  - Monthly safety committee meeting; Quarterly inspection

- Quality

Need to make Highest Quality Product at LOWEST per Unit Cost in the SAFEST possible manner!!!!
Known Hazards We Should Know
OSHA Compliance

- GHS-Getting SDS’s, Proper Labeling, etc.
- Severe Injury Reporting to OSHA- Fatalities (8hr), Inpatient Hospitalizations (24hr), Amputations (24hr), Loss of eye(s) (24hr).
- Recording Keeping- OSHA Logs, Up to Date.
- Silica Dust Standard- 50 micrograms per cubic meter (ug/m3)
- ALL other compliance standards
Fix the cause, don’t lay the blame

When a incident or accident happens the most important thing is taking care of the injured employee FIRST..

If we are going to prevent accidents, we need to investigate the incidents.
Who, When, How, and What

- **Who** should conduct the investigation?
  - Supervisor, Employees, Safety Personal & Committee
- **When** incident investigations needs to be completed?
  - ASAP after the incident. (Employee First)
- **How** the investigation will be conducted?
  - Most use forms(fill in blanks)
- **What** will be done with the findings?
  - Reviewed by management team, safety committee, etc.
  - **Follow up on corrective actions**
  - **Analyze Results**
Unsafe Acts – Cause 90% of ALL incidents
Unsafe Conditions - Cause 10% of ALL incidents

Therefore Unsafe Acts must be investigated to find if cause is hazard identification and/or complacency.
Hazard Identification or Complacency??

Let’s Look at each one –
then we can try to answer the question.
1. A **hazard** is any source of potential damage, harm or adverse health effects on something or someone under certain conditions at work.

A **common way to classify hazards is by category:**
- **biological** - bacteria, viruses, insects, plants, birds, animals, and humans, etc.,
- **chemical** - depends on the physical, chemical and toxic properties of the chemical,
- **ergonomic** - repetitive movements, improper set up of workstation, etc.,
- **physical** - radiation, magnetic fields, pressure extremes (high pressure or vacuum), noise, etc.,
- **psychosocial** - stress, violence, etc.,
- **safety** - slipping/tripping hazards, inappropriate machine guarding, equipment malfunctions or breakdowns
Hazard ID -- First, Last and Always! (Because what you don’t know CAN HURT YOU!!!)
Hazard Controls

- **Good Housekeeping** – Get rid of the unnecessary clutter, clean and organize; keep area picked up, swept.

- **Safe Equipment** – Ensure guards are in place, machines are operating correctly, safety devices have not been bypassed.

  * **Safe Work Practices** – Follow the safe operating procedures that have been specified; no short-cuts.

- **Proper PPE** – Make sure that you (and those around you) have and use the right safety equipment to prevent injury.
Complacency

Some people have their head in the sand and ignore what is happening around them, what’s changed, what NEW hazards are there…
**Definition of COMPLACENCY.**

1. : self-satisfaction especially when accompanied by unawareness of actual dangers or deficiencies.

2. : an instance of usually unaware or uninformed self-satisfaction.

“Complacency is a sword of two edges. One edge kills hard earned successes while the other end stops future glories. Complacency is a murderer and a barrier!”

— Israelmore Ayivor, *The Great Hand Book of Quotes*
Complacency

* No matter how vigilant we are, as time goes by with no problems occurring, we become complacent and let our guard down.
* The more we do the same thing over and over (only if nothing changes)–the more COMPLACENT we become!
* Complacency is a natural function of the brain.
* The brain is designed to automate repetitive behavior.
* Complacency is not the result of apathy, carelessness, or a flaw in your personality; it is the way the brain functions.
* The brain constantly and unconsciously scans the environment for signs of danger.
* We notice and respond to what is unique, unusual, or threatening.
* However, repeated exposure to situations, even if they are potentially dangerous, dulls our defense mechanism and our awareness.
Managing Hazard Identification & Complacency

To ensure that accidents don’t happen:

• The hazards inherent in the operations must identified and assessed and be fully understood at ALL levels of the organization

  • Arrangements are in place to control these hazards and to deal with the consequences should the need arise

  • The necessary information, training, auditing and improvement process are in place
Activity or Condition which causes hazard release

Proactive control

Incident

Recovery Measures

Consequences

HAZARD

THREAT

BARRIER

MAIN EVENT

ACCIDENT

MITIGATION

RECOVERY

RESTORATION

COMPLACENCY
Escalation Factors are defined as:

Conditions that lead to increased risk due to loss of barriers or loss of recovery measures especially life saving or mitigating capabilities

- Abnormal operating condition e.g. critical standby equipment is under maintenance during an emergency
- Plant operating outside the design capacities
- Extreme environmental conditions - weather
- Incorrect operation of the plant due to unavailability of updated operating procedures
- Human error due to lack of competence or ineffective training
Examples Of Identifying & Managing Safety and Health Risk
## Examples Of Identifying & Managing Safety and Health Risk

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Threat</th>
<th>Barrier</th>
<th>Top Event</th>
<th>Recovery Measures</th>
<th>Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moving Vehicle</td>
<td>Slippery Road</td>
<td>Slow Down</td>
<td>Loss of Control</td>
<td>ABS</td>
<td>Accident, Injuries, Fatalities</td>
</tr>
</tbody>
</table>
### The Children & the Bull

**Hazard = the bull**

**Top Event = Loss of containment (escape of bull)**

<table>
<thead>
<tr>
<th>Threats/Complacency</th>
<th>Controls/Barriers</th>
<th>Escalation Factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>corroded fence</td>
<td>galvanized material</td>
<td>acid rain</td>
</tr>
<tr>
<td>rotting posts</td>
<td>treated wood</td>
<td>termites, age</td>
</tr>
<tr>
<td></td>
<td>metal posts</td>
<td>corrosion</td>
</tr>
<tr>
<td>bull leans on fence</td>
<td>barbed wire</td>
<td>anger (state of mind)</td>
</tr>
<tr>
<td>bull charges fence</td>
<td>barbed wire, 4 strands</td>
<td>Red Ball, barking dog</td>
</tr>
<tr>
<td></td>
<td>metal posts</td>
<td>yelling child, dog</td>
</tr>
<tr>
<td>falling tree limbs</td>
<td>prune trees</td>
<td>weather, age, insects</td>
</tr>
<tr>
<td>gate unlatched/open</td>
<td>sign, lock</td>
<td>ability to read,</td>
</tr>
<tr>
<td></td>
<td>vandalism</td>
<td></td>
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</table>
**The Children & the Bull**

- **Consequences** = multiple fatalities
- **Top Event** = Loss of containment (escape of bull)

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<tr>
<th>Recovery Measures</th>
<th>Escalation Factors</th>
<th>Escalation Factor Controls</th>
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</thead>
<tbody>
<tr>
<td>dog attack bull</td>
<td>dog not trained</td>
<td>send for regular training</td>
</tr>
<tr>
<td>run to car</td>
<td>panic situation</td>
<td>carry out simulation exercise</td>
</tr>
<tr>
<td>Horn scare the bull</td>
<td>Horn failed to work</td>
<td>Regular test horn</td>
</tr>
<tr>
<td>climb tree</td>
<td>Height phobia</td>
<td>Therapy and practice</td>
</tr>
<tr>
<td>run in different directions</td>
<td>panic situation</td>
<td>carry out simulation exercise</td>
</tr>
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</table>
Hazard Identification or Complacency??
Which is the Bigger Problem??

- They BOTH ARE BIG PROBLEMS
- They BOTH LEAD TO ACCIDENTS
- They BOTH ARE HARD ELIMINATE
- They BOTH CAN EXIST ALONE
- They BOTH ARE INDIVIDUAL CONTROLLED
- They BOTH DEPEND ON THE INDIVIDUAL’S ATTITUDE ABOUT SAFETY
Coincident or Not?

If,

\[ \begin{array}{cccccccccccc}
\end{array} \]

Equals,

\[
K + N + O + W + L + E + D + G + E = 96%
\]

\[
H + A + R + D + W + O + R + K = 98%
\]

Both are important, but the total falls just short of 100%

But,

\[
A + T + T + I + T + U + D + E = 100%
\]

Safety really is about attitude.
Change of INDIVIDUAL’s ATTITUDE is only way to fight HAZARD IDENTIFICATION & COMPLACENCY!
QUESTIONS
THANK YOU