Indiana Safety & Health Conference
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Developing & Deploying Effective Fatality Prevention Audits

Redacted Handouts

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My Fatality Prevention Background

- Otis Elevator – mid 90's
- Service
- Steel
- Mining
- Heavy Manufacturing
- Worldwide - at all levels

Perspectives

- Based on my experience
- A Fatality Prevent Audit (FPA) process alone isn't the answer, it's part of the solution

Today's Agenda

- Introduction to Fatality Prevention
- Why do you need a Fatality Prevention Audit (FPA)?
- Designing and deploying the process
- Key skills required to be effective
- Measuring and communicating results
- Post FPA actions
- Your questions

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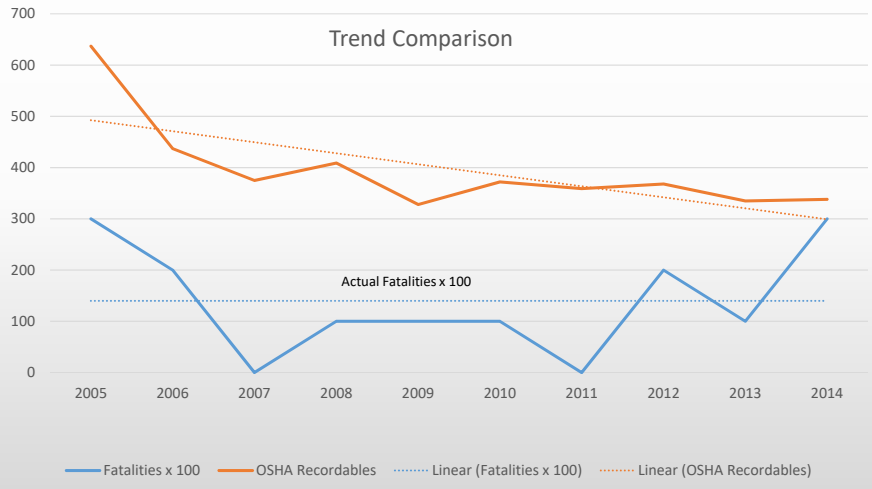
Fatalities vs. OSHA Recordable Injuries Dilemma



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Fatality/Serious Injury "Blind Spot" Indicators

- Measuring safety program "health" primarily by outcomes (injuries, fatalities, near misees, etc.)
- Measuring safety risk by outcome frequency
- Believing that regulatory compliance is sufficient
- Ineffective hazard recognition and risk assessment processes, controls and corrective actions – fatality risk not distinguished
- Risk reporting driven underground by culture

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Fatality/Serious Injury "Blind Spot" Indicators

- Using low level controls with fatality hazards
- Poor causal analysis – never get to "systems causes"
- Poor control validation processes
- Inability to accurately assess what is really going on
- Significant difference in risk perception between management and the safety staff

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Fatality Prevention Audits – Why?

Isn't this redundant, difficult, costly, etc.?

The fact is, most organizations need:

- Improved validation of fatality hazards and control effectiveness in the workplace – a reality check
- Assurance that the highest risks are always known by management
- An effective ongoing process to catch new fatality hazards
- A Safety Management System (SMS) effectiveness check
  - Especially the predictive elements

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Precursors of Fatalities

Fatalities typically occur when some or all of the following occur simultaneously…

Outcome

Op/Org

- **Fatality hazards exist**
- **Exposure or potential exposure**
- **No/low level or ineffective control**
  - No "bad day control", poor human factors/buy-in, etc.
  - Modified by: working alone, poor peer support/communication, lack of operational knowledge/discipline, etc.
- **Poor control validation/sustainability**
- **Changes impact decision-making and focus**
  - Production pressure, problems, distractions, long hours, etc.
- **Organizational/operational shortcomings come together to facilitate the above (latent failures)**

The first 3 are "Clear & Present Danger"

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FPA Calibration "Clear & Present Danger"

" An act, situation or condition foreseen to be a Direct Cause of a fatality or life threatening serious injury"

Observed condition or action, potential exposure or described approach associated with a fatality hazard

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Fatality Prevention Audits – What's Different?

Requires a change in mindset/approach

- Focus only on fatality hazards/situations
- Acceptable residual risk vs. conformance
- Process focus – "How" rather than "What"
- Actions and situations vs. conditions
- Not a paper-focused or cookie-cutter audit
- Ability to identify what people "really" do
- "Watch/show me" vs. "Tell me"
- Using Subject Matter Experts (SMEs)
- Keeping it personal
- Improved results must correlate with reduced fatality risk

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Fatality Prevention Audit Process

Phase 1 – Initial Developmet

FPA Development Steps

1. Get buy-in on FPA value and process needs
2. Assess present fatality hazards and controls
   - Your company and industry
3. Define the FPA process
4. Identify SMEs and potential auditors
   - Ability to identify what people “really” do
   - “Watch/show me” vs. “Tell me”
5. Develop FPA “tools”
6. Pilot the process and true-up
7. Provide training and field review

Getting Started

- **Fatality hazards**
- **Exposure or potential exposure**
- **No/low level or ineffective control**
  - No "bad day control", poor human factors/buy-in, etc.
  - Modified by: working alone, poor peer support/communication, lack of operational discipline, etc.
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Clearly Define The Process Expectations

Example Scope:

"To identify, prevent and/or control fatality hazards before they result in a fatality. The FPA process field-tests the effectiveness of safety programs that address fatality hazards and focusses primarily on issues that are visible, readily determined, and "Clear and Present Danger".

- The focus of this audit is program failure and ultimately SMS failure, *not* people failure.
- Entities audited are required to provide causal analysis of the findings and implement appropriate programmatic and SMS solutions.
- The FPA is not intended to be a full program or safety SMS Audit.

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Process Decisions To Be Made

- Rules
  - Example: There will be no employee names or punishment associated with the findings
- Number and type of protocols, questions, guidance, pass/fail - scoring, etc.
- Team make-up, size, etc.
- Audit days required – physical scope of audit
- Auditor qualification process
- Sample size required for an adequate representation
- Audited entity responsibilities - announced?
- Data tracking and process validation

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"Fatality Hazard"

An act, situation or condition where danger exists which could reasonably be expected to cause death or a life-threatening serious injury.

Look for a fatal level of "energy"

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Identification of "Subject Matter Experts"

- Those that are "expert" in:
  - The right way to do the job, operate/maintain the equipment, use the tools, skills required, etc.
  - The way the work really gets done
  - Where safety fits into the operational reality
- Typically
  - Maintenance staff (tradespeople)
  - First line supervisors
  - Planners/coordinators
  - Engineers
- Trade Union Representatives
  - Buy-in
  - Comfort with employees

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Development of "Field Tools"

- Audit Protocols
  - Questions specific to known fatality hazards and expected controls
  - Clear & Present Danger only
  - Divided by hazard class/topic (e.g., Working at Height, Railroad)
  - "Others" – not in process or previously unrecognized
- Challenges:
  - A reasonable number of questions per hazard class, buy-in to the right questions, the relative importance of each question (history), knowledge required to assess, etc.
- Field Guidance
  - What is expected in each situation defined by a protocol question

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Example Questions/Protocols

OK	NO	N/A	Hoisting & Rigging
D	1	☐	No inspection of lifting apparatus (4.7E)
D	2	☐	Slings not protected against sharp edges (4.7C)
D	3	☐	Slings bent at too sharp an angle (4.7C)
D	4	☐	Slings do not have sufficient strength for the load (4.7B)
D	5	☐	Knots tied in slings (4.7C)
D	6	☐	Improper installation or use of crosby clips (4.7C)
D	7	☐	Damaged slings not removed from service (4.7E)
D	8	☐	Working under suspended load (4.7E)
D	9	☐	Other

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Field Pilot the Process

- Conduct a "pilot" field assessment to verify:
  - Clarity/knowledge required
  - Appropriateness of "tools"
  - Ease of decision-making
  - Good fit for the organization
  - Time & team required to create an appropriate sample
  - True-up process

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Audit Team Selection

- SMEs, Safety Staff, Union Safety, Supervisors, etc.
- Assigned based on area of expertise
- Independence of auditors – fresh perspective
- Team divided into sub-teams
  - No more than two auditors per sub-team
- Area Supervisors encouraged to join field teams
- Regular de-briefs with entire team

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Auditor Qualifications & Training

- Pre-Qualification Criteria
  - Subject matter expertise
  - Good communicators, investigative mindset, savvy, open-minded, intestinal fortitude, etc.
- Training
  - Classroom
  - Field Practice and Evaluation (partial FPA at a site)
- Formal Approval Process
  - Field assessment by senior auditor
- Ongoing evaluation and calibration required

No Amount of Protocols and Guidance Can Replace a Good Quality Auditor!

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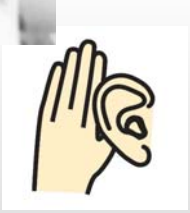
The Field Assessment - A Different Approach

- Select area of facility based on audit criteria
  - E.g., activities, staff, maintenance, start-up/shut-down
- Seek out activity – people working
- Observe actions from a distance
- Heads up approach - senses
- Interview workers
  - Split up if necessary – make
  - Introduction
- Interview wrap-up
  - Issues found – safer methods
  - Their thoughts
- Team members de-brief findings twice per day

Use Your Senses!



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Interviewing Process

Start with Open Questions

- Tell me about your job and responsibilities
- How do you go about…

Follow up with…

- Can you show me the steps?
- Is this how you typically do this? How often?
- Right way (what defines the right way)?
- How long have you been working this way?
- Is there serious injury potential here? Ever almost injured?
- How do you protect yourself?
- Do you ever have problems/issues – jams, etc. ?

Compare what they say and what you see to FPA expectations

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Gathering Data

Hierarchy of Information Value

1. Watching an actual work process
2. Having someone show you how they would do it
3. Listening to someone tell you how they do it

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Fatality Prevention Audit Process

Phase 2 – Adding Value After The Audit

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After The Audit

- Organizational decisions
  - Pass/Fail
  - Scoring (numbers can detract from the personal nature)
- Self-audits vs. Corporate or Independent audits
- Competed protocols/photos shared with audited entity leadership
- Presentations with photos – hard to deny
- Executive summary – goes to Sr. Management
- Systems causes and action plans created by audited entity leadership

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"Systems Thinking"

These are the questions that you ultimately need answered:

1. If we see it, why don't they?
2. If they see it, why haven't they fixed it?
3. If they've fixed it, why didn't it stay fixed?

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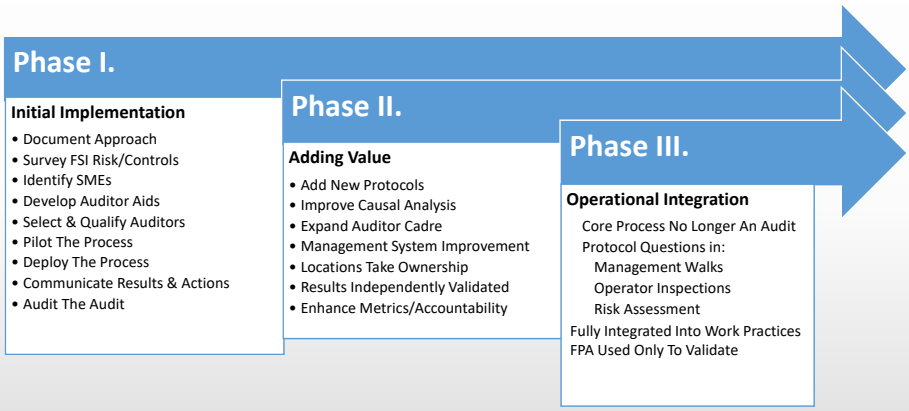
The FPA Evolution



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In Summation

- First pass with known hazards/controls and fresh perspective
  - Clear & Present Danger only
- Protocols and guidance based on known fatality hazards – add as you learn
  - Designed by Subject Matter Experts (SMEs)
- Training / Teams: SME's, Safety Staff, Union, 1st Line Supers, etc.
- Field verification of skills
- Fix situations and management system causes
- Reporting and accountability – to the top of organization Oversight – audit the process
- FPA findings should directly correlate to reduced fatality risk and a healthier SMS

Remember, Every FPA Finding is a Potential Fatality – Keep It High Order & Personal!

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Your Questions?

I Hope That You Can Use
This Information To Save A Life

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Check out our "Business Class" column in the
ASSE Professional Safety Journal

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