Building Trust Between Clients & Suppliers

- Clients: 450
- Suppliers: 95,000
- Connections: 360,000
- Countries: 120+
- Workers: 3,000,000
Workplace Safety Operational Considerations

Consider this list to help encourage workplace safety. Recommendations include:

- Order and distribute PPE to employees
- Identify the process to distribute face coverings to parties entering facilities
- Implement rules regarding spaces where employees congregate in large numbers
- Implement OSHA workspace considerations
- Circulate policy to employees about reporting COVID-19 cases and workplace protocol
- Consider reporting obligations for employees who test positive
- Determine whether third-party access to facility will be limited
- Announcements at intervals reminding employees to sanitize common touch points
High-Reliability Safety Culture Development.....in 10 Minutes Per Person Per Week!

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Today’s Objectives

- Identify the objective of high-reliability operations.
- Identify the principles of high-reliability operations.
- Identify practical program components to operationalize high-reliability principles.
- Identify employee activities to achieve high-reliability principles.
“High-Reliability”

• A High-Reliability Organization views management, procedural, technical, and cultural factors as all playing a part in controlling the socio-technical system

• HRO proponents focus on the reliability of the system as a function of the relations between the components and their human operators (Haavik, 2011)

• Catastrophic accident prevention through:
  • Value of safety
  • Standardized and specific design and procedures
  • Limited trail and error
  • Redundancy
  • Decentralization
  • Exercise
  • Leading indicators
  • Integration of conditions and behaviors

(Boin & Schulman, 2008)
“High Reliability”

- High Reliability vs. Normal Accident Theory
- Methodical and systemic hazard controls applied consistently to avoid catastrophic results
- Applies to conditions and behaviors
- Allow for engagement and decentralization
- Validity
- Reliability
- High-Reliability vs. Compliance

(Boin & Schulman, 2008)
“High Reliability”

- Precedents
  - NASA
  - Naval Aviation
  - Nuclear Power Generation
  - Surgery
- “Cannot be contingent on implementation by geniuses”
HRO Principles

• Preoccupation with Failure
• Deference to Expertise
• Reluctance to Simplify
• Sensitivity to Operations
• Commitment to Resilience
Implementation
Hazard Analysis

- Risks
  - Strategic Risk
  - Operational Risk
  - External Risk
  - Hazard Risk
ERM

- Enterprise Risk Management

Efforts may intertwine (Risk Control leads to Risk Transfer)
Hazard Analysis

<table>
<thead>
<tr>
<th>Stagnant</th>
<th>Dynamic</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Don’t change</td>
<td>• Consistently change</td>
</tr>
<tr>
<td>* Require one Job Safety Analysis</td>
<td>• Require a Job Safety Analysis to determine hazard controls but require constant situational awareness to determine what hazard controls to use and when</td>
</tr>
<tr>
<td>* If the determined hazard controls are used, employees will be safe</td>
<td>• Multiple variables may apply (environmental, patient, visitor, equipment)</td>
</tr>
<tr>
<td>* If an incident occurs, it’s either because the hazard controls weren’t used properly or because the hazard controls were not sufficient</td>
<td>• If situational awareness is not maintained, the hazard could harm someone before they even realize to use the hazard control</td>
</tr>
<tr>
<td></td>
<td>• If an incident occurs, it could be because the hazard wasn’t identified in time, because the hazard control wasn’t used, because the hazard control wasn’t sufficient or a combination of these factors</td>
</tr>
</tbody>
</table>
Types of Hazards

- Conditions / Environmental
- Equipment / Materials
- Work Practices
- Patients / Visitors
Hazard Analysis - Heinrich

- Unsafe Acts: 88%
- Unsafe Conditions: 10%
- "Acts of God": 2%

Art

Science
Operational Excellence

Hierarchy of Controls

Regulatory Compliance (OSHA 29 CFR 1910)

Use of Hazard Controls

Avoidance of Dangerous States of Mind

Avoidance of the Four Critical Errors

Engagement, Observations & Inspections

Implementation of Hazard Controls (in order of precedence)

• Hazard Elimination
• Hazard Substitution
• Engineering Controls
• Administrative Controls
• Personal Protective Equipment

Training provided for all hazard controls as parts of the integrated work process

Legal Requirements

Specific hazard areas have specific regulations that are required by federal Department of Labor/OSHA law (examples – Respiratory Protection, Bloodborne Pathogens, PPE, HAZCOM and more)

Hazard areas that don’t have specific regulations are required to be controlled by the General Duty Clause; these hazard controls can be determined by the Hierarchy of Controls

*I want to work safely.”

“The System is making me work safely…..”

“The government is making me work safely....”

*I want to work safely.”

“The System is making me work safely…..”

“The government is making me work safely....”
Hearts and Minds

- 25% Defiantly Unsafe
- 50% Subject to local culture
- 25% Diligently Safe
Cultural Steps to Safety

- Know the hazards
- Know the controls
- Have access to controls
- Know how to maintain situational awareness to identify real-time hazards
- Know how to respond when hazards are identified
- Choose to follow safety protocols
- Choose to engage in safety improvements

High Reliability Operations enable each of these steps intrinsically
HRO Operationalization

- Infrastructure
- Hazard Analysis
- Risk Assessment
- Hazard Control
- Communication
- Leading Indicators
- Lagging Indicators
- Incident Analysis
Program Development

- Communication - Committees, Coaches, Huddles, and more
- Hazard Analysis / Risk Assessment
- Hierarchy of Controls
- Information Program
  - Leading Indicators / Incentive/Recognition Programs
  - Targeted Controls and Information
  - Lagging Indicators
    - Root Cause Analysis / Preventative and Corrective Actions

Accident Numbers
HRO Operationalization

Deference to Expertise

Preoccupation with Failure

Sensitivity to Operations

Reluctance to Simplify

Commitment to Resilience

Incident

Hazard Analysis
Risk Assessment
Job Safety Analysis

Information Program
- System Committee
- Weekly bulletins
- SharePoint Archive
- Campus Committees
- Emails
- Meetings
- Other

Hazard Control
- Conditions/Processes
  - Elimination of hazard
  - Substitution of hazard
  - Engineering / Physical separation of hazard
  - Administrative / Process change to lessen exposure
  - PPE / Prevent physical exposure
  - Training (using hazard control)
- Behaviors
  - Use of training
  - Avoidance of dangerous states of mind
  - Avoidance of critical errors

Lagging Indicators
- SafetyNet Reports
- Metrics
- Communication of hazards/events

Leading Indicators
- Hazards identified and controlled?
- Available, accessible, convenient?
- Information distribution?
- Inspections?
- Conditions corrected?
- Good catches/near-miss’s identified?
- Observations?
- Work practices corrected?
- Good catch/Near-miss’s identified?
- Investigations completed/Preventative measures implemented?

Investigations
- SafetyNet Investigation
- Investigation Metrics
- Preventative Action Plan
- Codification and communication of events
Program Development
Employee Safety – everyone participates, everyone communicates and everyone wins

Campus or Organization Leadership
- Set the vision, values and expectations; respond to requests for support

Safety Committee or Environment of Care Team
- “Big Picture” Indicators - # and types of leading indicators, # and types of lagging indicators and current initiatives

Employee Safety Committee (can communicate with other Committees as needed)
- Analyze operational indicators and make requests for support when needed

Department Leadership
- Delegation and development of leading indicators and local expectations and communication (set observation/inspection goals and more);
- Implement hazard controls or request support

Dual Accountability

Employees
- Develop leading indicators, (perform observations and more) provide feedback and input

Consult and Advise

Line Authority

Communication, Feedback, Input, Suggestions and more

Engage
Hazard Identification

- Employee engagement opportunity
- What hazards exist?
  - Conditions
  - Behaviors
  - Hazard identification challenges
  - Transitions
  - Individual Assessments
  - Management of Change
Hazard Control

- Training
- PPE
- Admin
- Engineering
- Substitution
- Elimination

Art
Science
Colonel Boyd’s OODA Loop

**Observe**
- Occ Disease or HIP
- Patient is infectious
- Patient symptoms
- Need hazard control or assistance

**Orient**
- Norms
- Training
- Hazard
- Risk
- Expectations

**Decide**
- Find PPE / Follow Procedures
- Protect Yourself

**Act**
- Treat Patient – Be careful!
- Need hazard control or assistance

Reassess situation
Gray Area

- When can Engineering and Administrative controls coincide?
- At what point do Engineering controls decrease personal accountability and safe behavior (complacency)?
- Are training and education the least effective controls or an all-inclusive necessity?
- Training requires controls and situational awareness
- Situational awareness can be taught and exercised
- Strategic planning concerns
- Cost vs. Benefit
Training

• Does training focus on the hazard or the behavior expectation?
  • Controls must be in place
  • Expectation must be set
  • Training ensures the control and the expectation are known
  • Inspections ensure the controls are in place
  • Observations ensure the expectations are performed
  • Operations and safety are not separate
Due Diligence

- Hazard controls must be:
  - Communicated
  - Trained
  - Available
  - Accessible
  - Convenient
  - Overseen
  - Dually Accountable
Communication and Engagement

- Human Resources/Organizational Development SME’s say that information must be presented 100 different ways to become hard-wired
- Educators say that it must be presented seven different ways seven times each
- Frequency
- Volume
- Reiteration
- Subliminal Effects
What are Indicators?

**Leading Indicators**
Predict future events and/or positive efforts towards the prevention of injuries and/or illnesses

**Lagging Indicators**
Come after the event has already happened
Leading Indicators

- Participation and Engagement
- Safety Performance
“Just Culture”

- “Can’t Kill Your Way to Victory”
  - Not playing ‘Gotcha!’
  - Not a punitive system
- Performance Issues vs. Safety Issues
- Dual Accountability
Lagging Indicators

Indirect Costs (Short-staffing and more) → SafetyNet Report → SNIR

Effects on Employee Health → Injury
Effects on Employee Culture → Indirect Costs (Short-staffing and more)
Effects on Compliance → SafetyNet Report
Effects on Patient Care → SNIR

Open Medical Claim
Incurred Costs (Direct Costs) → Days Away, Restricted, and/or Transitional Duty (DART)

OHSA Recordkeeping Criteria → SNIR
OSHA Recordable TICR
Reliability and Validity
Implementations in order:
- Ongoing engagement
- Ongoing post-accident investigations
- Safety Committee
- Hazard Analysis
- Hazard Controls
- Information Program
- Observations/Inspections
- Continual Improvement

**Case Study - 1,500 Employee Acute-Care Hospital**
Full Circle

START

Hazard Analysis / Risk Assessment and Hierarchy of Controls implementation
Committees and Employee Engagement allow for buy-in – with hazards and risk analyzed and controls in place, safe behavior and safe conditions can become performance expectations.

Information Program
Provide recurring and consistent Safety messages, training, education, Bulletins, and more through all facets of communication.

Leading Indicators
Observations, Near-Miss Reporting, Inspections, and other leading indicators Provide insight into unsafe behavior and conditions as well as Overall program participation; this gives insight into the probability of future accidents.

Targeted Controls and Information
Using Leading Indicator data, hazard controls and information program material can be revisited to ensure effectiveness (if unsafe behavior exists with Patient Handling, do we have the best controls? Do we have information being communicated (training, education, oversight)?

Lagging Indicators/Preventative and Corrective Actions
Accident causes can be determined through Root Cause Analysis; information from this RCA can then be used in Hazard Analysis.

Safety First!
Engagement and Support
HRO Operationalization

Deferece to Expertise

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Sensitivity to Operations

Reluctance to Simplify

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- Investigation Metrics
- Preventative Action Plan
- Communication of hazards/events
Summary

Developing a Safety Culture (in 10 Minutes Per Week Per Person)!

1. Engage!
2. Prevent!
3. Communicate!
4. Validate!
5. Investigate!

10 Minutes a Week!
If each team member takes 10 minutes a week for safety, we can make a huge difference! This may be reporting a hazard or making a recommendation on a necessary hazard control. This may be communicating a safety expectation such as using PPE or following a particular process. This may be doing a quick inspection or observation to check for safety. There are many ways to help improve safety and each team member’s input is hugely valuable.
Questions?

- Questions?
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References