

WSC April, 2024

Safety Improvement Through Safety Management Systems

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Objectives

By the End of This Session, You Will Be Able To:

- Understand how Safety Management Systems are beneficial
- Identify ways to get Management Commitment
- Know the importance of and ways to get workers involved
- Identify hazards
- Prioritize your hazard findings
- Improve the effectiveness of your training system
- Evaluate your system to make improvements
- Know resources available to you

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The Foundation for This Presentation

- Using this as our framework
 - It's from OSHA and it's **FREE** ☺
 - LOTS of good resources on the website

SETTING STRATEGIES

CORE ELEMENTS

NINE STEP-AN-STEP SYSTEM

SAFETY AS A CORE VALUE

EXPLORE TOOLS

CASE STUDIES

ADDITIONAL RESOURCES

DOWNLOAD THE RECOMMENDED PRACTICES



Safety and Health Programs
Step-by-Step Guide |
Occupational Safety and Health
Administration [osha.gov]

Recommended Practices for
Safety and Health
Programs

OSHA
Occupational Safety and Health Administration
www.osha-slc.com/management
OSHA 3001 October 2014

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Alliance Laundry Systems *Leading performance* | Who we are | Who we serve | What we offer | Our brands | Invest in Laundry | Sustainability

Global
Committed to globalization, serving ~170 countries via ~650 distributors and 9 direct offices.

5
Premium brands
Speed Queen, THERMOMAX, Bushnell, CANTON

#1
World's no.1 commercial laundry equipment manufacturer

1.4 million ft²
(130,000 m²) production facilities in US, Czech Republic, China

2.5X
2.5 times bigger than our next competitor

3 million+
Installed base of over 3 million commercial laundry machines

4,000+
Employees

4

About Hoffmaster

What We Do:

- Manufacturer and supplier of convenient and sustainable disposable tableware
- Founded in 1947 as a paper napkin manufacturer
- Locations across North America

What We Sell:

Who We Serve:


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Introduction

Safety Improvement Through Safety Management Systems

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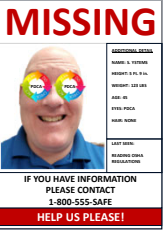
Why Systems?



- Can you be completely compliant with the OSHA regulations and still have
 - A lot of injuries?
 - A severe incident?

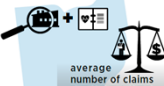
WHY?

What's Missing?




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Why Systems?




average number of claims
DECREASED
52%



cost per claim
DECREASED
80%



average lost time per claim
DECREASED
87%




claims
DECREASED
88%

Source: Ohio Bureau of Workers' Compensation (2011), Ohio 21(d) SHARP Program Performance Assessment.

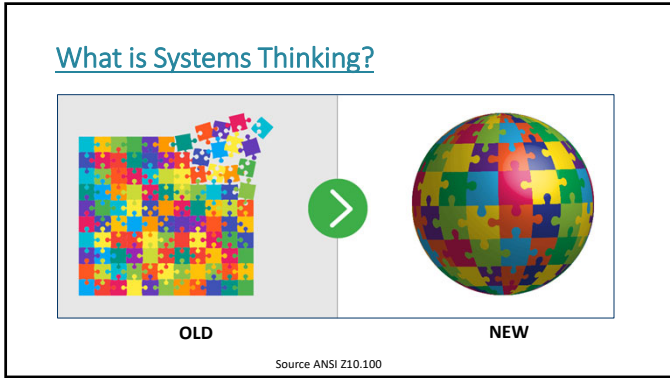
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What is Systems Thinking?

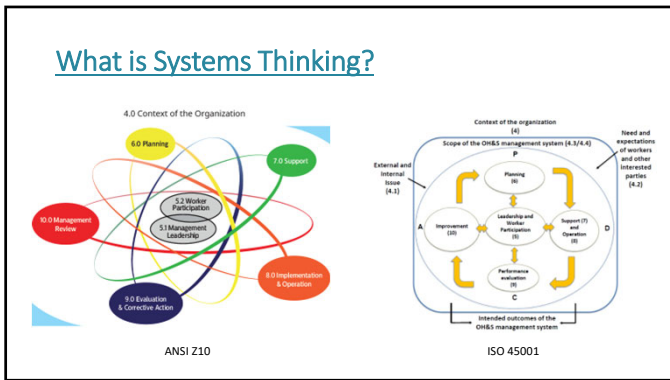


SAFETY EMERGES

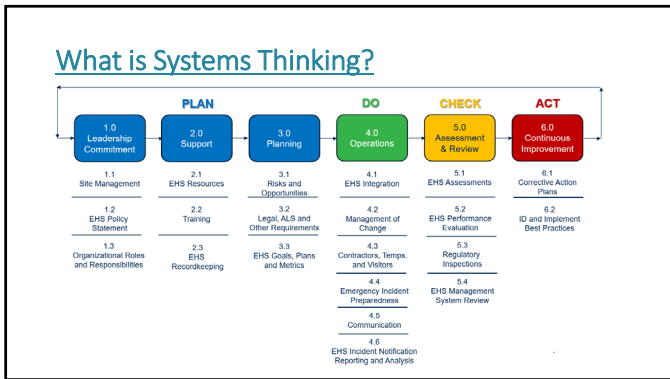
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Introduction

What Questions or Comments Do You Have?

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Management Leadership

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Leadership: What is It?


Safety 101: The Golden Rule.....

- Love Your Neighbor As Yourself. Who is your neighbor?
- Do Unto Others As You Would Have Them Do Unto You.

**People Don't Care How Much You Know
Until They Know How Much You Care**


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Management Leadership: What is It?



Safety is Integrated into the business.
Safety may be #1 or it may be equal to Quality, Production, Waste Reduction, Cost, etc.

This does NOT remove an individual's responsibility to work in a safe manner.

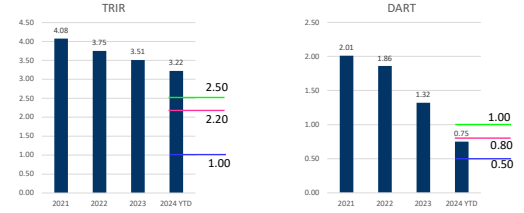


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Ways to Get Management Support

*Graphs are fictitious for this presentation

- Develop / Use Graphs to Get Attention
 - BLS Comparisons

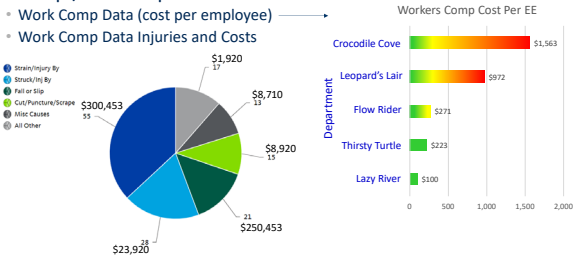


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Ways to Get Management Support

*Graphs are fictitious for this presentation

- Develop / Use Graphs to Get Attention
 - Work Comp Data (cost per employee)
 - Work Comp Data Injuries and Costs



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Ways to Maintain Management Support

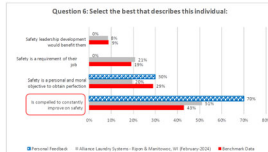
- Tie Safety Performance into management reviews and compensation
 - 5-S / 6-S audit scores
 - Risk Reduction Scores (ergonomics?)
 - Safety Compliance / Safety Management System Audit Improvement
 - Participation in Safety Improvement Projects (Green Belt projects)
- Hire a Consultant (get recommendations from other EHS Professionals first)



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Ways to Maintain Management Support

- Utilize OSHA On-Site Consultation for small businesses
 - WisCon in Wisconsin for small businesses
 - Less than 250 people one site or 500 people Corporate wide
 - [WisCon - Workplace Safety Program](#)
- Conduct employee perception surveys
- Conduct Safety 360 Degree Reviews for Leaders



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Management Leadership

What Questions or Comments Do You Have?

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Hazard Prevention & Control

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Safety is a Pyramid Scheme

Hierarchy of Controls

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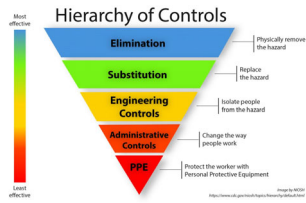
Exercise

Scenario:

- You have some HVAC equipment on the roof that needs periodic preventative maintenance (PM) and is coming due for replacement.
 - The PM maintenance work for the new HVAC system will meet OSHA's definitions of "Infrequent" and "Temporary".
 - When the current HVAC system is being serviced, the person is working within 15 ft. of the roof edge.
 - The roof is 20 ft. above the ground level below.
- You have a seat at the table to discuss options when replacing the current equipment. What options exist to make things safe for your Maintenance Team to PM the new system?

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Exercise



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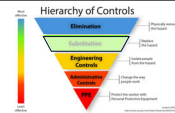
Exercise



- Options**
1. Move the equipment to ground level and duct into side of building.

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Exercise



- Options**
1. Move the equipment to ground level and duct into side of building.
 2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.

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Exercise





Options

1. Move the equipment to ground level and duct into side of building.
2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.
3. Reinstall on roof and also install guardrail between work area and roof edge.

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Exercise






Options

1. Move the equipment to ground level and duct into side of building.
2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.
3. Reinstall on roof and also install guardrail between work area and roof edge.
4. Reinstall on roof and create "Designated Area".

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Exercise



Options

1. Move the equipment to ground level and duct into side of building.
2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.
3. Reinstall on roof and also install guardrail between work area and roof edge.
4. Reinstall on roof and create "Designated Area".
5. Reinstall on roof where work will be done greater than 15 ft. from edge and train team not to work closer. (Does not apply to HVAC contractors or when major work is being done).

<https://www.osha.gov/laws-regs/standardinterpretations/2020-06-12>

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Exercise






Options

1. Move the equipment to ground level and duct into side of building.
2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.
3. Reinstall on roof and also install guardrail between work area and roof edge.
4. Reinstall on roof and create "Designated Area".
5. Reinstall on roof where work will be done greater than 15 ft. from edge and train team not to work closer.
6. **Reinstall on roof with anchors, require travel restraint and train.**

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Exercise

Options

1. Move the equipment to ground level and duct into side of building.
2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.
3. Reinstall on roof and also install guardrail between work area and roof edge.
4. Reinstall on roof and create "Designated Area".
5. Reinstall on roof where work will be done greater than 15 ft. from edge and train team not to work closer.
6. Reinstall on roof with anchors, require travel restraint and train.
7. **Reinstall on roof with anchors, require fall protection (with edge protection) and train.**

[3M DBI-SALA Leading Edge Awareness video \(youtube.com\)](https://www.youtube.com/watch?v=3M-DBI-SALA)

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Exercise

Expense \$ / Safety Team | Capital \$\$\$ / Engineering / Many People

High

Value / Impact

Low

Low | Effort / Money | High

BIG Wins

Major Projects

Significant Reduction in Risk
In 1 or more categories

Quick Wins

**Thankless Tasks
Money Pit
Time Sucker**

Minor Reduction in Risk
In 1 category

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Exercise (For This 1 HVAC System)

Options

1. Move the equipment to ground level and duct into side of building.
2. Install the equipment on the side of the building but on a 6 ft. high platform with walkway and railings.
3. Reinstall on roof and also install guardrail between work area and roof edge.
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6. Reinstall on roof with anchors, require travel restraint and train.
7. Reinstall on roof with anchors, require fall protection (with edge protection) and train.

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Create SMARTER Objectives

S Specific	The objective details exactly what needs to be done.
M Measurable	The objective's achievement or progress can be measured.
A Achievable	The objective and time frame is accepted by those responsible for achieving it.
R Realistic	The objective is possible to attain within the time frame.
T Time-Bound	The time period for achieving the objective is clearly stated.
E Evaluate	List the time frame or target date to re-evaluate to determine if the objective was clearly met or needs to be adjusted.
R Readjust	Readjust and repeat the above until satisfied with outcome.

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Remember to Assess Non-Routine Work

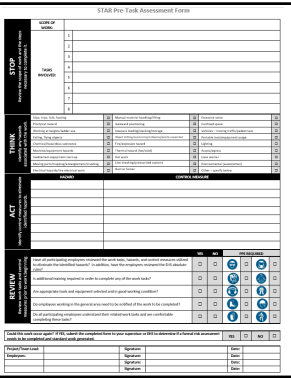
- The risk of fatalities and serious injuries are not always reduced by reducing unsafe acts, near misses and minor accidents.
- Fatalities and severe injuries are often the result of
 - Non-Routine Work or
 - Upset Conditions and
 - Involve high energy (electricity / machines / falls \geq 11 ft.)

Heinrich / Bird Incident Triangle
[Accident triangle - Wikipedia](#)

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Remember to Assess Non-Routine Work

- Fatalities and severe injuries are often the result of Non-Routine Work or Upset Conditions.
- Of greater risk are the following:
 - New employees
 - Contractors / Temps
 - Employees working ≥ 12 hrs. per day
 - (Total – not just for you)
 - Risk takers / Risk taking culture



The STAR Pre-Task Assessment Form is a structured checklist for job preparation. It includes sections for 'STOP' (Safety), 'THINK' (Task), 'ACT' (Action), and 'REVIEW' (Reflection). It contains various checkboxes and a grid for tracking completion of different tasks.

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Hazard Prevention and Control

What Questions or Comments Do You Have?

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Worker Participation



The Worker Participation Wheel is a circular diagram with six segments: Worker Participation, Hazard Identification and Reporting, Hazard Prevention and Control, Education and Training, Program Evaluation and Improvement, and Management Leadership. Each segment contains specific sub-points related to that area. The center of the wheel states: 'Results in better design, implementation and evaluation.'


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Worker Participation




- What it ***Doesn't*** Look Like:
 - EE's complaining about safety issues with no suggestions for correction.
 - EE's feeling like they are communicating but "not heard" and nothing changes.
 - Known Safety issues are evident to the workforce and no mitigation occurs to fix known safety issues.
 - EE's can see and hear that Management is more concerned with the production numbers, so worker's feel - why bother trying to get involved?
 - As the "Safety Cop" walks the floor, workers are quickly adjusting PPE.
 - Safety glasses on top of the head (Ceiling Watchers)
 - Ear Plugs hanging around the neck (Plug Jewelry)

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Worker Participation Facts



- Worker's have much to gain from a successful EHS program and the most to lose if the program fails.
 - In other words – they have skin in the game.
- Workers also know the hazards they face on a day-to-day basis while working.
 - Sounds like we have a great resource at our fingertips!
 - Don't forget – if you work within a Union Shop, it is important that the Union be involved in the safety program.

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Worker Participation – What it ***Does*** Look Like




- Safety Committees are run by production workers.
 - Project Work vs Auditing/Inspecting Team
 - A log or tracker is kept to celebrate the committee successes!
- A process exists to report incidents, close/calls/near misses, hazards and other safety/health concerns that are responded to promptly.
 - Near Miss Report cards / Yellow or Gold Cards
- Employees know the status of corrective actions/preventative actions on their concerns.
- Workers are empowered to shut down a machine for unsafe conditions.

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How to Encourage Worker Participation – Show You Care!

- Workers have access to the tools they need to work safe.
 - Safety Data Sheets
 - Results of any Industrial Hygiene/Noise Survey Test Results are Posted
- JSA/JHA's Available and Trained
- Correct PPE and Ample Quantities of PPE for all Workers
- Written LOTO Procedures Available and Trained
- Correct Tools for the Task are Available and Trained on How to Use Tools
 - Knives; Allen Wrenches; Rags; etc.
- Near Miss Reporting Tool – Can be Combined with Incident Reporting or Property Damage
 - Yellow / Gold Cards




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Involve Workers in All Aspects of the Program




When working through the development of the Safety program, involve the safety committees/other workers/union on the journey and set goals for what needs to be accomplished.




Have workers participate in the development of JSA/JHA's or risk assessments to help define the best way to perform tasks safely.



Teach workers how to complete site inspections on Ladders; Trip Hazards; Chemical Labelling, etc.



Facilitate Incident Investigations with worker involvement during the investigation as well as providing ideas regarding corrective/preventative action.



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Worker Participation Barriers & Tips to Remove Barriers

What is standing in the way of this participation?

PRODUCTION!

- Language Barriers
- Worker's feeling they are "Safety Dumb"




Tip #1

- Meet with Management
- Discuss the benefits to the business.
- Develop a schedule on shift and agree to a time limit for the proposed participation.
- Invite Management to drop into any scheduled EE meetings.
- Track Worker Participation & Tasks/Projects Completed by Workers



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Worker Participation Barriers & Tips to Remove Barriers



Tip #2

- Provide an Interpreter for Language barriers.
- Can be an onsite Interpreter
- Can be Goggle
- Vendors available that can translate PowerPoints; Policies/Procedures into 2nd language.

Tip #3

- Train the Safety Committees
- You already conduct monthly safety training – take it to another level with more detail on safety topics.
- Any worker that shows interest in a safety topic – put that worker in charge!
- Example: Shipping / Receiving worker wants to reduce property damage by becoming a lift trainer. Train that worker to be the head of the entire Powered Industrial Truck program!

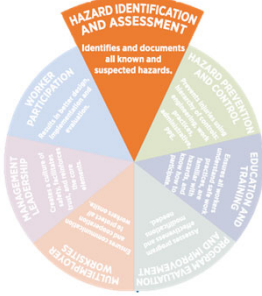
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Worker Participation

Questions?

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Hazard Identification & Assessment



The diagram is a circular wheel with seven segments, each representing a key component of hazard identification and assessment. The segments are:

- HAZARD IDENTIFICATION AND ASSESSMENT** (top, orange): Identifies and documents all known and suspected hazards.
- EDUCATIONAL AND TRAINING** (right, green): Focuses on training workers on hazards and safe work practices.
- RISK ASSESSMENT** (bottom-right, blue): Evaluates the severity and likelihood of hazards.
- MULTIPLIER** (bottom, purple): Considers factors that increase the severity of hazards.
- MANAGEMENT** (bottom-left, red): Involves management in identifying and controlling hazards.
- LANGUAGE** (left, yellow): Ensures that all workers understand safety information.
- WORKER PARTICIPATION** (top-left, light blue): Encourages workers to report hazards and participate in safety decisions.

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Core Elements of this Topic;

- Procedures are put in place to continually identify workplace hazards and evaluate risks.
- Safety and health hazards from routine, nonroutine, and emergency situations are identified and assessed.
- An initial assessment of existing hazards, exposures, and control measures is followed by periodic inspections and reassessments, to identify new hazards.
- Any incidents are investigated with the goal of identifying the root causes.
- Identified hazards are prioritized for control.

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Hazard Identification Collecting existing information

- Historical injuries associated with the process.
- Research previous citations / inspections within the same industry
- Obtain manuals and evaluate service records
- Any previous assessments (guarding, PPE, JSA / JHAs)
- Any existing Safety and Health Programs
- OSHA 300 logs or Workers Comp records
- Input from operators, setup, sanitors, maintenance.

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Hazard Identification Check the most frequently cited standards in your industry

Occupational Safety and Health Administration

CONTACT US | FAQ | FEEDBACK | LANGUAGE

OSHA | STANDARDS | ENFORCEMENT | TOPICS | OSHA 300 RECORDS | NEWS

Frequently Cited OSHA Standards

Use this search to determine the most frequently cited Federal or State OSHA standards for a specified 6-digit North American Industry Classification System (NAICS) code.

The data shown reflects OSHA citations issued by the Federal or State OSHA during the specified fiscal year; see definitions. If you are interested in obtaining the NAICS code for a particular industry, references are available on the NAICS Manual. This manual contains descriptions of every NAICS sector.

An Industry Profile for OSHA Standard list is also available which shows NAICS classifications having the most occurrences of citations for a specified OSHA standard.

Select number of employees in establishment
 ● 99 ● 1-9 ● 1-19 ● 1-99 ● 20-99 ● 50-99 ● 100-249 ● 1-249 ● 250+

Federal or State Jurisdiction
 Federal

NAICS: (Submit empty for NAICS list)

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Conduct incident investigations

- This includes injuries, illnesses, near-misses, etc.
- Create a plan and procedure to be followed for all incidents.
- Ensure that investigations occur immediately.
- Determine who will be involved and train investigation teams in the system selected (root cause, 5 why, SCAT, Bowtie, Fault Tree, etc.).

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Identify hazards associated with emergency and nonroutine situations

Identify foreseeable emergency scenarios and nonroutine tasks, account for types of material and equipment in use and the location within the facility.

- Fires and explosions
- Chemical releases
- Hazardous material spills
- Startups after planned or unplanned equipment shutdowns
- Nonroutine tasks, such as infrequently performed maintenance activities
- Structural collapse, Disease outbreaks, Weather emergencies and natural disasters, Medical emergencies, and Workplace violence

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Characterize the nature of identified hazards, identify interim control measures, and prioritize the hazards for control

- Perform a risk analysis and assign Severity and Probability
- Implement interim controls, working as high up the hierarchy of controls as possible.
- Prioritize the risks and address them in order that is grounded in sound decision making. Greatest Risks (combination of severity and probability = risk) addressed first.

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Hazard Identification and Assessment

What Questions or Comments Do You Have?

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Education and Training



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Definition of Education & Training

- Ensure all workers understand safe work practices, are familiar with hazards in the workplace and know how to participate.
 - Understanding Safe Work Practices
 - Tools: Work Instructions; ISA/JHA; policies and procedures; SDS's, etc.
 - Familiar with Hazards – Types of hazards workers encounter on the job and what to do when those hazards are encountered.
 - Tools: Risk Assessments; hazard evaluations, etc.
 - Participation – What is the expectation of the worker to participate? What are the mandatory trainings? Is there a passing score?
 - Tool: Training calendar; Posted / Discussed Expectations



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How Do You Know What to Train?

- What is Required?
 - Conduct a Training Needs Assessment vs. the OSHA standards. Every topic may not apply to every site / business.
 - Example: Your location doesn't have any flammable chemicals.
- What is the Best Practice or Industry Standard?
 - Example: It is a requirement to report all incidents/near misses, etc. Is there a timeframe to report? Does it have to be in 24 hours?
- Once the list of training topics is developed, determine how often training will be provided for each topic.

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Develop Method of Training for Each Topic

- New Hire Orientation
 - How many topics will be covered?
 - How long will it take to perform orientation?
 - What training method will be used for each topic?
- Not every topic should be handled with PowerPoint. Sometimes "death by PowerPoint" sets in.
 - LOTO - At machine
 - Hazard Communication - SDS location & Chemical Storage Area
 - Emergency Response - Walk the Exit Routes
 - PPE - Location where PPE is obtained
 - Hoist / Sling Usage - At a Hoist
- Computer based Training
 - Computer based training may work well for such topics as Bloodborne Pathogens. However, when talking about emergency response, it might be better to walk the exit routes with the workers.

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Who to Train?

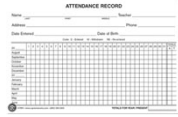
- Workers
 - The workers that will be exposed to risks and hazards all need to be trained on every topic identified in the Training Needs Assessment.
- Supervisors/Leads
 - Supervisors/Leads are the "front line". They need to be able to answer questions when you aren't onsite.
- Site Leadership
 - Plant Manager, CI Manager, Maintenance Manager, etc. need to support the training and knowledge, so they need to be trained.
- Office Workers
 - If office workers visit a production floor, they need some production level training.
 - Office workers that do not visit a production floor also need to be trained on things such as Ergonomics, Emergency Response etc.



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Tracking Attendance

- No matter what group of workers is being trained, attendance shall be documented and tracked.
 - What doesn't get documented – didn't happen.
- Once training is completed, anyone who missed the initial training, follow-up shall be completed to ensure 100% have attended.
 - FMLA/STD workers: Keep a list of missed workers due to FMLA/STD and train those workers before they begin their first shift back to work.



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How to Measure Training Effectiveness

- Training effectiveness has been a topic struggled with for years.
- Ideas to Measure Training Effectiveness
 - Post Training Quizzes
 - 1-N-1 Discussions after Training
 - Observations of Trainees
 - Have behaviors changed since receiving training?
 - Are more questions being asked to better understand the topic?
 - Will training approach or discussion points require upgrading after evaluating questions?



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Education and Training

Questions?

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Program Evaluation and Improvement

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Program Evaluation- Key Elements

- Monitor Performance and Progress;
 - Track lagging indicators (injuries, exposures, workers compensation claims)
 - Track leading indicators (participation, suggestions, corrective actions, maintenance issues, completed training, audit results)
- Verify the program is implemented and is operating
 - Initially and at least annually evaluate that program is operating as intended
 - Verify core elements are implemented; injury investigations, inspections, progress tracking, and necessary information is getting reported/collected.
- Correct any program shortcomings
 - Take action on identified issues
 - Work collectively with managers and employees, across departments.
 - Check for systems in place for managing change.

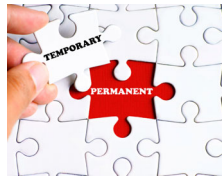
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Multiemployer Worksites

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Communication and Coordination

- All parties in multi-employer worksites have obligations for safety. Many times, these are outlined before work starts and delineated in written contract.
- Take action with any knowledge of hazards you become aware of and put those actions in writing.
- Coordinate who is going to be in charge of what.
- Host employers should create policies / programs that delineate expectations of contractors while on your jobsite.

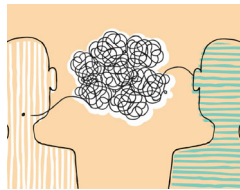


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Establishing effective communication and coordination

Important terminology;

- Host Employer
- Contractor
- Staffing Agency
- Temporary Worker
- Controlling Employer
- Correcting Employer
- Creating Employer
- Exposing Employer



- Create easy and direct methods for all parties to transmit concerns to you.
- Regularly exchange information between parties.
- Know responsibilities and who to contact when things outside of your responsibility are missed.
- Perform walkthroughs together before commencement and as needed.
- Evaluate that what was agreed upon is what is happening in practice.

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Summary

- Safety Management Systems are beneficial to organizations and workers.
- Management Commitment is necessary to move the company forward. Find a way to get their attention then maintain it.
- Workers need to be involved to ensure the “new way” works well for them and is embraced.
- Hazards must be identified and assessed for their impact on the organization.

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Summary

- Prioritize your hazard findings using the Hierarchy of Controls and a value grid.
- Make sure your training system is adding value to your organization not just checking the box.
- Conduct periodic evaluations of your system and *always* look for a better way.
- Know that there are many resources available to you to help you on your journey!

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WSC April, 2024

Safety Improvement
Through Safety
Management Systems

What Questions or Comments Do You Have?

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