

“ISO 45001: Occupational Health and Safety Management System”



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Objectives

- ★ ISO 45001 and its Strengths and Weaknesses
- ★ Maturity Path Model: STAR
 - ★ Safety Through Accountability and Recognition
- ★ Metrics are the Key

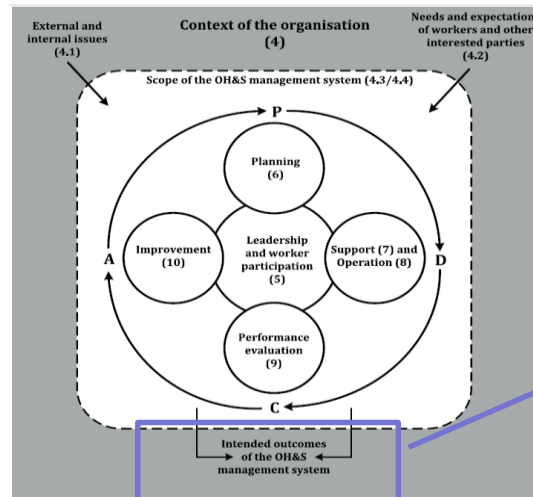
ISO 45001 OHSMS

★ Strengths

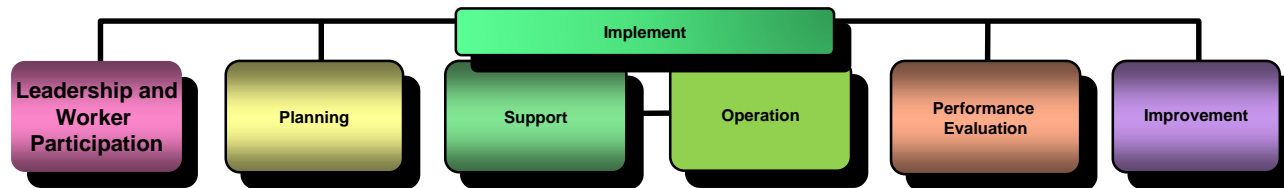
- ★ Finally! Leadership and Worker Participation!
- ★ Risk Assessment
- ★ Management Review
- ★ Continual Improvement

★ Weaknesses

- ★ Management Accountability
- ★ Safety Critical Equipment Maintenance
- ★ Industrial Hygiene
- ★ Occupational Medicine
- ★ Intended Outcomes Unclear

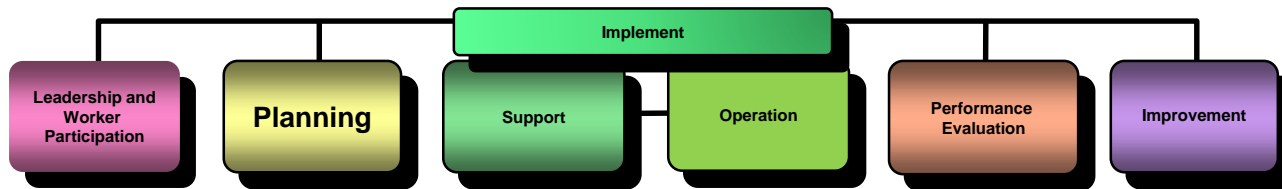


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Leadership will establish, implement and maintain an organizational commitment to the prevention of work-related injury and illness, as well as the provision of safe and healthful workplace and activities by the proactive continual improvement of OH&S performance.

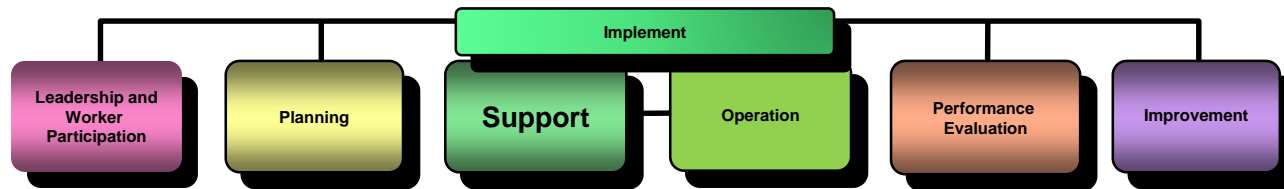
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When planning for the OH&S management system, the organization considers the criteria referred to in the Framework, the requirements referred to in stakeholders and the scope of its OH&S management system to determine the risks and opportunities that need to be controlled or mitigated.

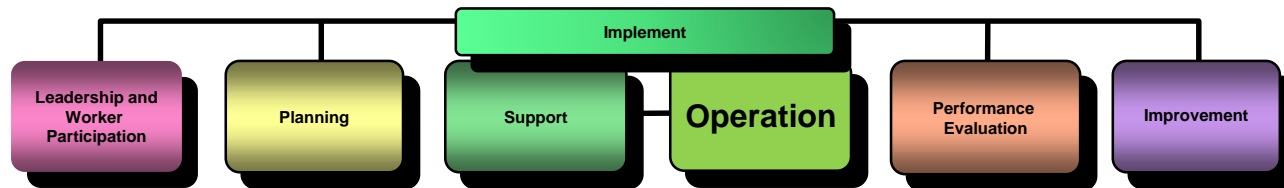
The emphasis for risk reduction is the implementation of substitution and engineering controls. Administrative and PPE controls are secondary in priority and backup to the other more effective controls and layers of controls.

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Includes providing resources, ensuring competence, communication and awareness of objectives, risks and controls, as well as document control.

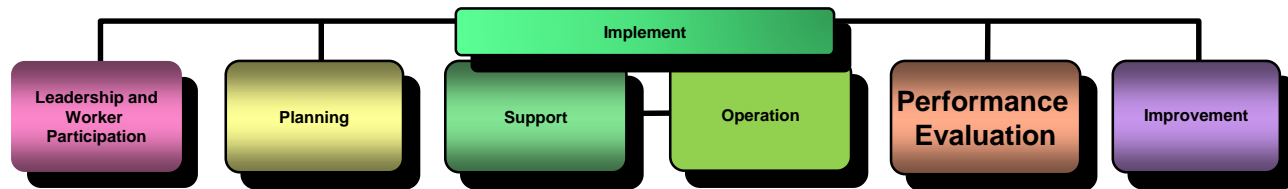
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This is the process to implement, control and maintain the hazard and risk reduction for all operations associated with the organization, both on and off site.

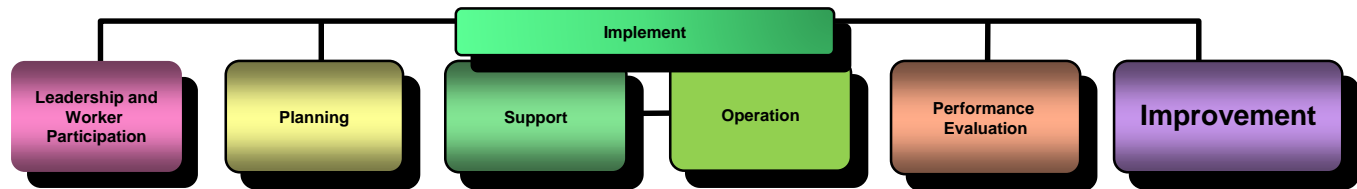
Includes preparation for, mitigation to and response to emergencies.

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OHS performance includes monitoring, measuring, analysis and evaluation across each element of the OHS management system.

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Improvement is defined as those actions necessary by Management to establish, implement, maintain and achieve the intended outcomes of the OHS management system.

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Fundamentals

What are Management Systems?

★ Process

- ★ “A series of actions, changes, or functions that bring about an end or result. To put through the steps of a prescribed procedure.”

★ System

- ★ “A group of interacting, interrelated or interdependent elements forming or regarded as forming a collective entity.”

★ NOT A “PROGRAM”

Inspection Process

★ What is the Goal of an Inspection Process?

1. Do the inspection
2. Identify Findings or non-conformances
3. Reduce the frequency of findings or non-conformances
4. Eliminate Accidents

Goal of an Inspection “Process”

1. Do Inspections

No: A part of inspections - Yes, but not the end point

2. Identify Findings or non-conformances

No: A part of inspections - Yes, but not the end point

3. Reduce the frequency of non-conformances

Yes! Is that how you measure the success of this process?



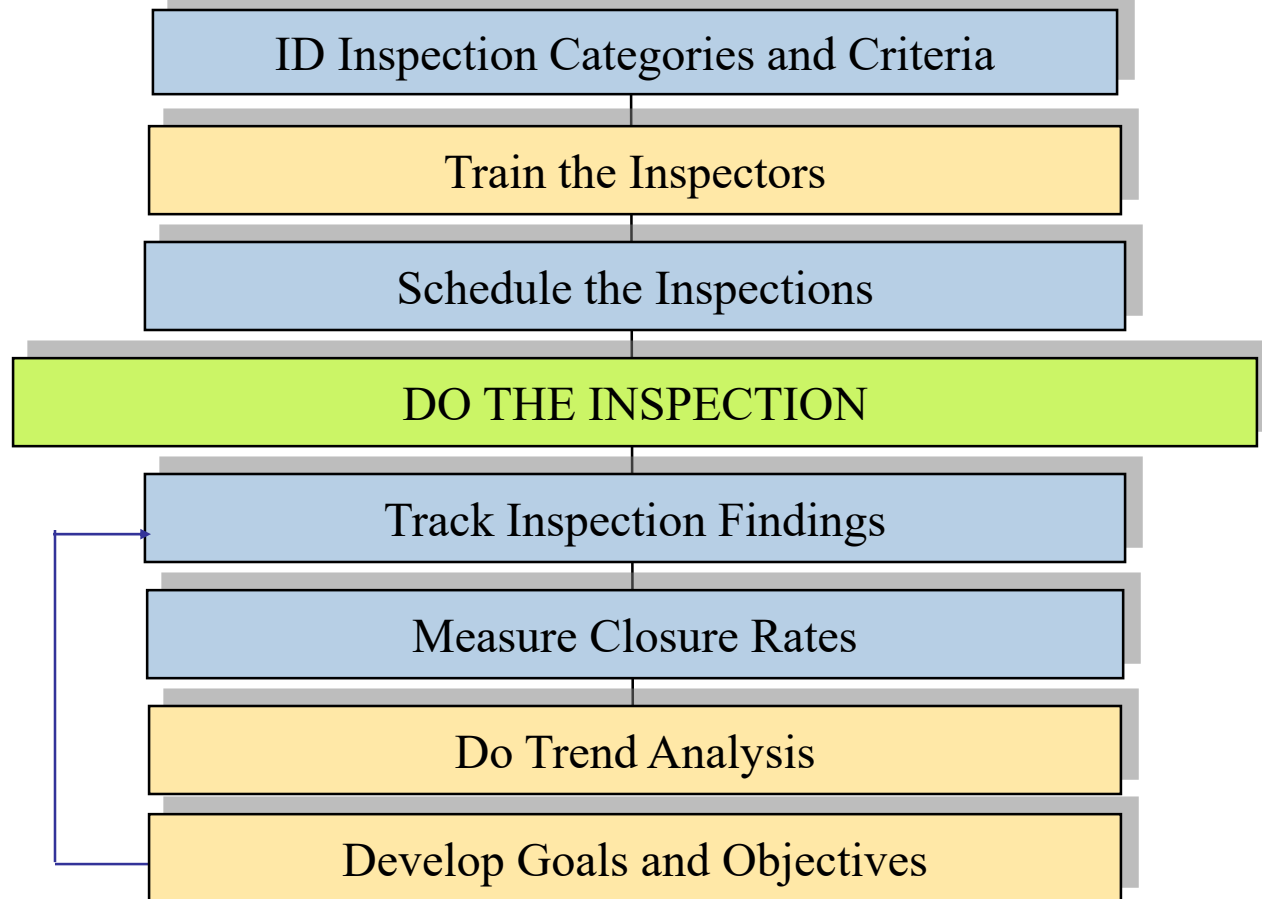
4. Eliminate accidents

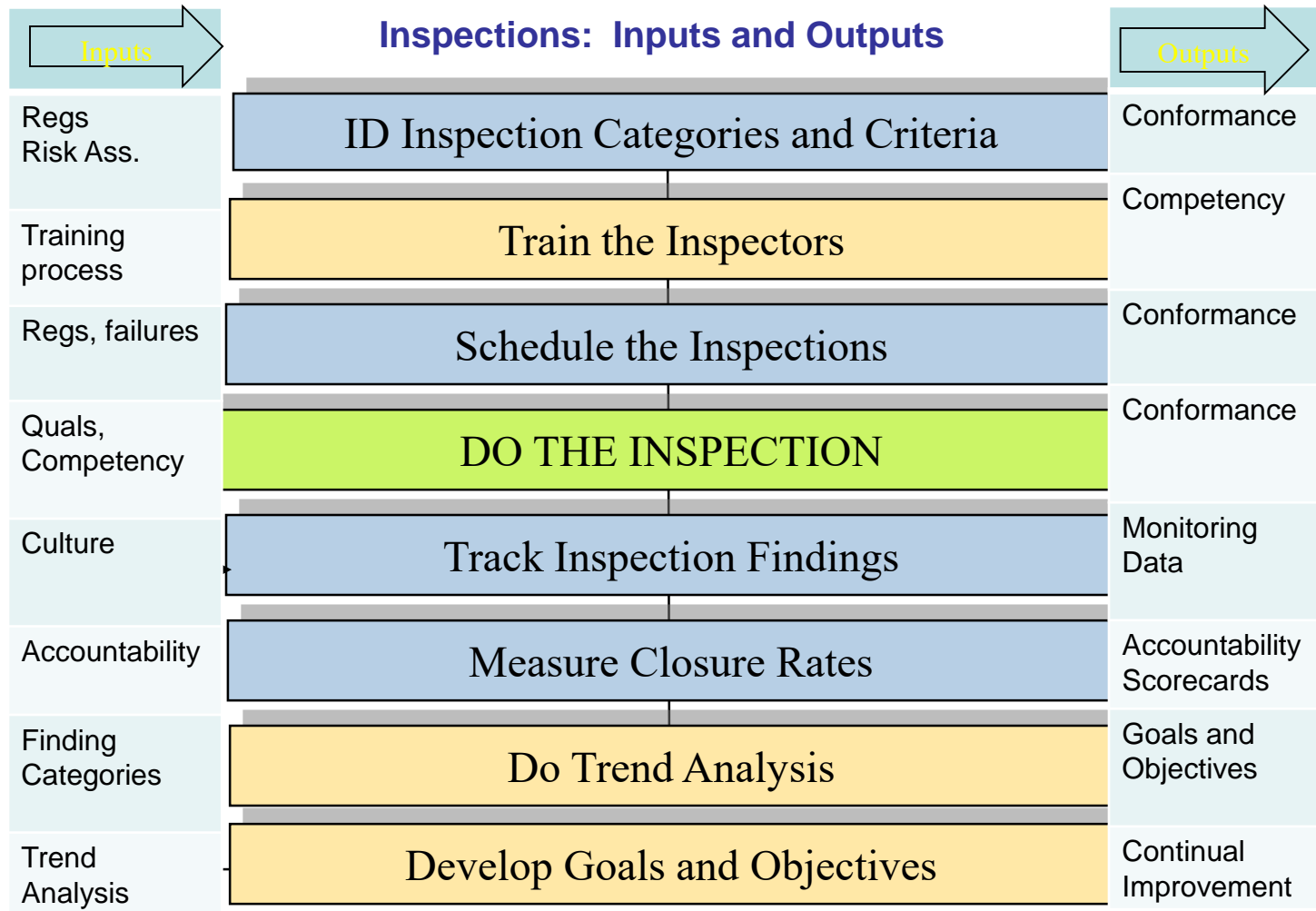
Not a bad answer – and this may be the overall expectation,
but not the goal of the part played by inspection process



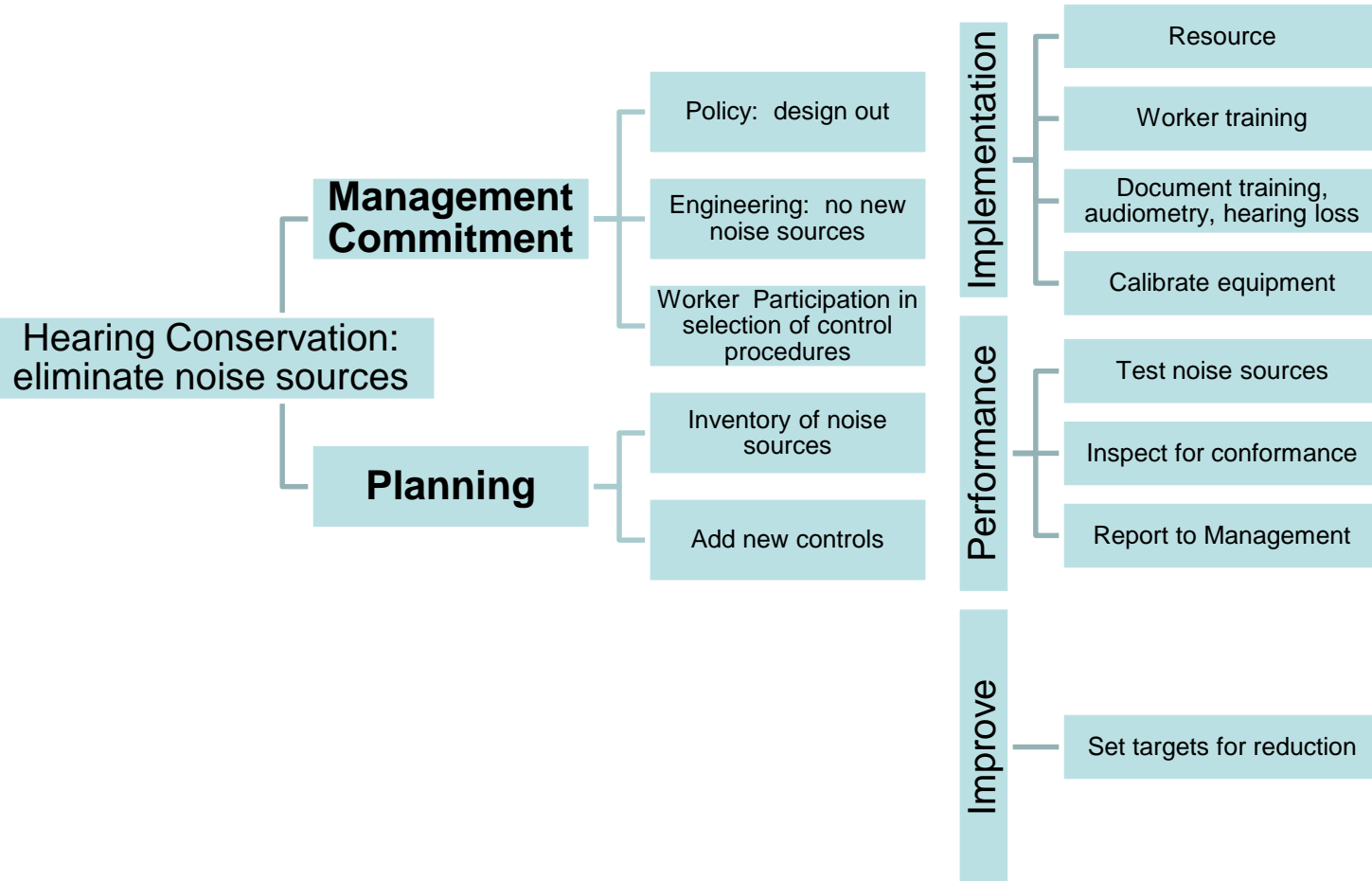
What are SMSs

> Process Workshop: Inspections





Requirements include all SMS



Notice: to effectively meet any requirement, you will need EACH aspect of the MS!

OSHA PMG

- ☆ 2016 Version
- ☆ Integrate where ISO 45001 has weakness
- ☆ Stronger Management Commitment and Worker Participation
- ☆ Weakness: Risk Assessment

Core Elements of the Safety and Health Program Management Guidelines

Management Leadership	<ul style="list-style-type: none">• Top management demonstrates its commitment to continuous improvement in safety and health, communicates that commitment to workers, and sets program expectations and responsibilities.• Managers at all levels make safety and health a core organizational value, establish safety and health goals and objectives, provide adequate resources and support for the program, and set a good example.
Worker Participation	<ul style="list-style-type: none">• Workers and their representatives are involved in all aspects of the program—including setting goals, identifying and reporting hazards, investigating incidents, and tracking progress.• All workers, including contractors and temporary workers, understand their roles and responsibilities under the program and what they need to do to effectively carry them out.• Workers are encouraged and have means to communicate openly with management and to report safety and health concerns without fear of retaliation.• Any potential barriers or obstacles to worker participation in the program (for example, language, lack of information, or disincentives) are removed or addressed.
Hazard Identification and Assessment	<ul style="list-style-type: none">• Procedures are put in place to continually identify workplace hazards and evaluate risks.• An initial assessment of existing hazards and control measures is followed by periodic inspections and reassessments to identify new hazards.
Hazard Prevention and Control	<ul style="list-style-type: none">• Employers and workers cooperate to identify and select options for eliminating, preventing, or controlling workplace hazards.• A plan is developed that ensures controls are implemented, interim protection is provided, progress is tracked, and the effectiveness of controls is verified.
Education and Training	<ul style="list-style-type: none">• All workers are trained to understand how the program works and how to carry out the responsibilities assigned to them under the program.• All workers are trained to recognize workplace hazards and to understand the control measures that have been implemented.
Program Evaluation and Improvement	<ul style="list-style-type: none">• Control measures are periodically evaluated for effectiveness.• Processes are established to monitor program performance, verify program implementation, identify program deficiencies and opportunities for improvement, and take actions necessary to improve the program and overall safety and health performance.
Coordination and Communication on Multiemployer Worksites	<ul style="list-style-type: none">• The host employer and all contract employers coordinate on work planning and scheduling to identify and resolve any conflicts that could impact safety or health.• Workers from both the host and contract employer are informed about the hazards present at the worksite and the hazards that work of the contract employer may create on site.

Maturity Model

Plan for Implementation

Score	Level of Safety and Health Program
5	Outstanding program
4	Superior program
3	Basic program
2	Developmental program
1	No program or ineffective program

Maturity Evaluation

★ Similar to the OSHA PEP and Form 33

MANAGEMENT LEADERSHIP and EMPLOYEE PARTICIPATION

Employee Participation

Employee participation provides the means through which workers identify hazards, recommend and monitor abatement, and otherwise participate in their own protection. [Guidelines, (b)(1) and (c)(1)]

1 - Worker participation in workplace safety and health concerns is not encouraged. Incentive programs are present which have the effect of discouraging reporting of incidents, injuries, potential hazards or symptoms. Employees/employee representatives are not involved in the safety and health program.

Score	Level of Safety and Health Program
5	Outstanding program
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Maturity Evaluation

★ Similar to the OSHA PEP and Form 33

MANAGEMENT LEADERSHIP and EMPLOYEE PARTICIPATION

Employee Participation

2 - Workers and their representatives can participate freely in safety and health activities at the worksite without fear of reprisal. Procedures are in place for communication between employer and workers on safety and health matters. Worker rights under the Occupational Safety and Health Act to refuse or stop work that they reasonably believe involves imminent danger are understood by workers and honored by management. Workers are paid while performing safety activities.

MANAGEMENT LEADERSHIP and EMPLOYEE PARTICIPATION

Employee Participation – (PEP)

- ☆ 3 - Workers and their representatives are involved in the safety and health program, involved in inspection of work area, and are permitted to observe monitoring and receive results. Workers' and representatives' right of access to information is understood by workers and recognized by management. A documented procedure is in place for raising complaints of hazards or discrimination and receiving timely employer responses.

MANAGEMENT LEADERSHIP and EMPLOYEE PARTICIPATION

Employee Participation – (PEP)

- ★ 4- Workers and their representatives participate in workplace analysis, inspections and investigations, and development of control strategies throughout facility, and have necessary training and education to participate in such activities. Workers and their representatives have access to all pertinent health and safety information, including safety reports and audits. Workers are informed of their right to refuse job assignments that pose serious hazards to themselves pending management response.

MANAGEMENT LEADERSHIP and EMPLOYEE PARTICIPATION

Employee Participation – (PEP)

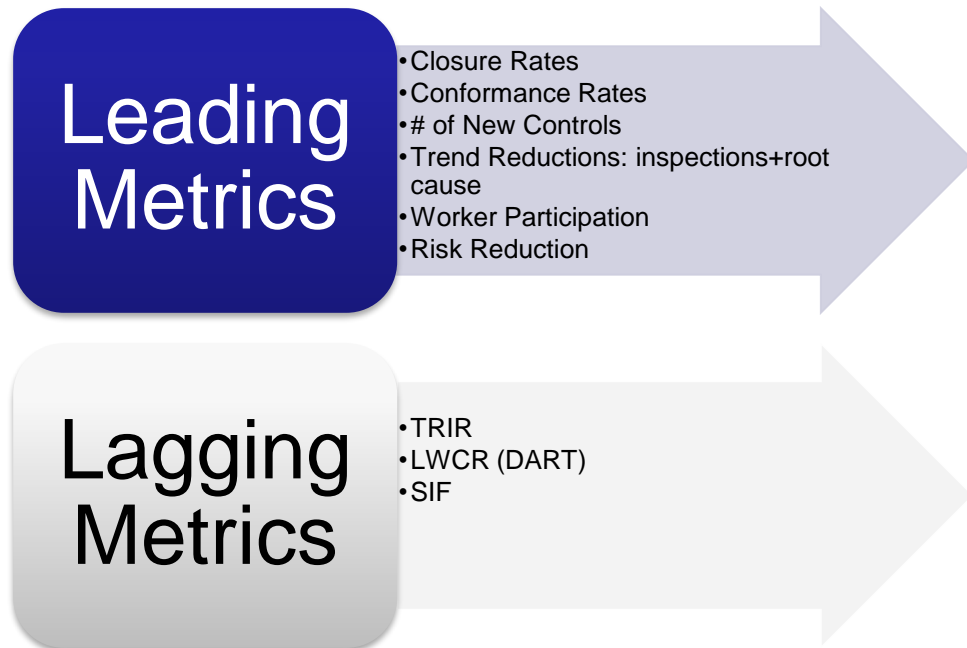
- ★ 5- Workers and their representatives participate fully in development of the safety and health program and conduct of training and education. Workers participate in audits, program reviews conducted by management or third parties, and collection of samples for monitoring purposes, and have necessary training and education to participate in such activities. Employer encourages and authorizes employees to stop activities that present potentially serious safety and health

Metrics

Measure the Right People on the Right Things

Management Accountability

- ★ Hold managers, supervisors, and employees accountable for meeting their responsibilities, so that essential tasks will be performed.
(OSHA PMG)



For a list of metrics, review my article in June 2018 *Professional Safety*: “The New Measure of Safety Performance”

Balanced Scorecard for Safety

- Budget
- Personnel
- WC

Financial



- STAR Scores
- STAR Action Plans
- Risk Reductions
- # New Controls

Process



Implementation Guides

- Incidence Rates
- SIF
- Worker Participation
- Worker Recognition

Customer



- Training Retention
- Training Attendance
- Closure Rates
- Conformance Rates
- Trend Reductions

Learning and Growth



Trend Analysis

★ Inspection and Observation non-conformances

- The YTD-Summary Sheet is an aggregate of all the information collected in the Monthly sheets

All Depts.,
Safety items and
scores

	559 maint	988 HR	550 prchs
SCORE	8%	1%	1%
HOUSEKEEPING/GOOD MANAGEMENT PRACTICES	90%	100%	100%
Floors & work areas are clean & dry	21	0	0
Aisle lines clearly marked	23	0	0
Aisles clean & free of tripping hazard	20	24	24
Work areas are clean	21	0	0
Workbenches/ desks clean	23	0	0
Sufficient lighting	23	0	0
Flashlight available and working	23	0	0
Stairs clear and clean	22	0	0
Material racks/ storage in place	20	0	0
jun / jul / aug / sep / oct / nov / dec / YTD summary / Score-Category			

Overall % for
Dept

If non-conformance is CTS =
label and count

% for Dept/Section

YTD-Summary

Incident Data Collection and Analysis

Incident	Injury	Causal Factor	Hazard	Energy	Root Cause	Severity Potential	Highest Control Failure



Hazard Failures



- Struck by
- Overexertion - chronic
- configuration design
-



Catastrophic Controls



- Engineering
- Administrative
- PPE
-

Supervisor's Scorecard

1 Risk Assessment

Choose the Department from drop-down menu.

Record the Task*, Date of Assessment, Changes Identified, type of control, the Owner* of the change, and the Date Closed (when applicable).

2 Monthly Incident Review

Choose the Department from drop-down menu.

Place an "X" under the Incident* or Near Miss* column.

Describe the Event.

Record the Date of Assessment, and Number of Changes Identified.

Choose the Control-Type* from drop-down menu.

Record the Owner* of the change, and the Date Closed (when applicable).

3 Monthly Inspections/Discrepancies

Choose the Department from drop-down menu.

Record the Task*, Date of Assessment, Number of Changes Identified, and the Owner* of the change.

4 Monthly Observations

Choose the Department from drop-down menu.

Record the Task*, Date of Assessment, Number of Changes Identified, and the Owner* of the change.

Supervisor's Scorecard



5 Supervisor Communication (Toolbox/Suggestions)

Choose the Department from drop-down menu.

Record the Task*, Initiation Date, Changes Identified, type of change, the Owner* of the change, and the Date Closed (when applicable).

6 EHS Action Plan Status

Choose the Department from drop-down menu.

Record the Initition Date and the Responsible Party*.

Describe the Action Item*.

Choose the applicable EHS Report Topic* from the drop-down menu.

Record the Percentage to Completion. Update as needed.

Record the Completed/Closed Date (when applicable).

Describe the Actual Results/Record any applicable Comments.

7 EHS Rewards & Recognitions

Choose the Department from drop-down menu.

Record the number of EHS rewards and recognitions given for each Department.

Supervisor's Scorecard

- ☆ Part of Supervisor's Performance Appraisal
- ☆ Part of Team based recognitions for workers.

Monthly Safety Data	# of Events		# of Changes Identified/Needed		Closure Rate (From Date Closed)		Effectiveness (Control Type) (% eng, sub, elim)		Conformance Rate		
EHS Report Topics	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Actual	Target	Description
Risk Assessment Changes to Controls	25	10	69	10	16%	100%	61%	100%			
Monthly Incident Review	8	10	35	10	25%	100%	86%	100%	63%	100%	Still closed at 90 days
Monthly Inspections/Discrepancies	20	10	100	10			58%	100%	37%	100%	number of findings, vs total number of observations
Monthly Observations (Optional)	20	10	33	10					93%	100%	Number at risk vs total number of observations.
Communication to Supervisors (EHS Tool)	21	10	189	10	29%	100%	77%	100%			
EHS Action Plan Status	5	10	0	10	60%	100%					
EHS Rewards & Recognition	40	10									
Incidence Rate (Incident Frequency)											
Incidence Rate (Lost Work Day Rate)											

Measuring the right things and the right people

Who should be measured on the closure rates of inspection findings?

- ☆ Safety only
- ☆ Maintenance only
- ☆ Operations only
- ☆ The supervisor and manager of the work area (unsafe condition) or person (unsafe behavior)

Measuring the right things and people

Who should be measured on the closure rate of inspection findings?

1. Safety only

★ No

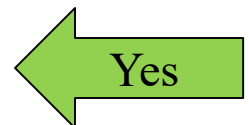
2. Maintenance only

★ No

3. Operations only

★ No

4. The supervisor and manager of the area (unsafe condition) or person (unsafe behavior)



Employee Participation

- ☆ Engagement is a superior level of participation
- ☆ Place the following in the correct column
 - ☆ Attend Safety committee
 - ☆ Chair safety committee
 - ☆ Perform a safety inspection
 - ☆ Revise the inspection checklist or schedule
 - ☆ Perform an accident investigation
 - ☆ Suggest corrective actions based on another department's lessons learned.

Participation	Engagement



Employee Participation

☆ Engagement is a superior level of participation

Participation	Engagement
Attend Safety committee	Chair safety committee
Perform a safety inspection	Revise the inspection checklist or schedule
Perform an accident investigation	Suggest corrective actions based on another department's lessons learned

Ex: Employee Involvement Options

- ★ Study a video and modify the checklist
- ★ Train other inspectors
- ★ Change the schedule (more or different)
- ★ Do inspections
- ★ Prioritize high risk findings
- ★ Determine high risk closure deadlines
- ★ Do the trend analysis
- ★ Recommend G&Os

ID Inspection Categories and Criteria

Train the Inspectors

Schedule the Inspections

DO THE INSPECTION

Track Inspection Findings

Measure Closure Rates

Do Trend Analysis

Develop Goals and Objectives

Recognition

Notice: nothing about incidence rates!

★ Individual

★ Ex: Passport

- ★ Multiple activities, each gets approved
- ★ Accumulates points.
- ★ Into as part of new employee orientation

Participate on an inspection
Attend a safety committee
Turn in a suggestion
Turn in a near miss
Do a behavior observation
Etc.

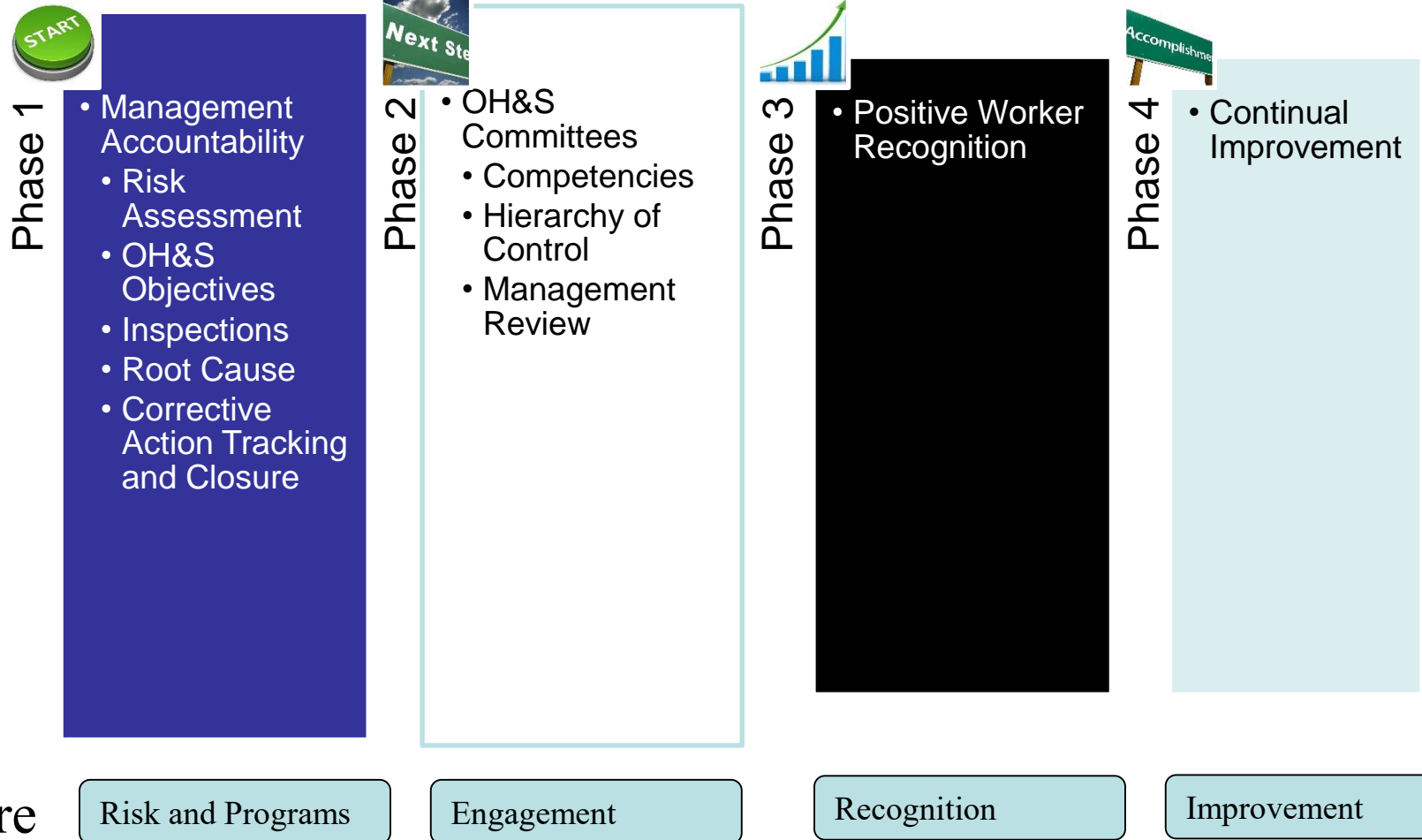
★ Team

- ★ Conformance Rate
- ★ Critical to Safety (CTS conformance Rate)
- ★ Training Retention
- ★ Etc.

Awards can be monthly or quarterly

Food, points, etc.

Getting Started



If possible, start with Management Accountability, then employee engagement, before recognition!

Objectives

- ✓ ISO 45001 Strengths and Weaknesses
- ✓ Maturity Path Model: STAR
 - ✓ Safety Through Accountability and Recognition
- ✓ Metrics are the Key
 - ✓ If the right people are measured on the right things.



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ISO 45001

Safety Through Accountability and
Recognition

Measuring the right people on the right things