Strengthening STAR Quality

DOLLARS & SENSE

Presented by:
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Voluntary Protection Program Participants Association
Reg III
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Workshop Outline

- VPP Excellence Intro
- Management Systems Concepts
- Fundamental Elements
- Leading Metric Integration
- Principles of Accountability and Recognition
- References
Intro: Paul Esposito

- President of STAR Consultants, Annapolis MD
- In business since 1997
- Over 300 VPP Evaluations
- Certified Industrial Hygienist
- Certified Safety Professional
- Masters in H&S from Johns Hopkins
- Teaches numerous Seminars at VPPPA, ASSE and AIHA
- Currently Lead Instructor for ASSE’s Risk Assessment Certificate Program!
STAR Consultants, Inc.

STAR Provides both tools and consulting services for:

- VPP
- Management Systems
- Strategic Planning
- Auditing
- Risk Assessment
- Perception Surveys
- H&S Mentorship
- Employee Engagement and Recognition

STAR = Safety Through Accountability and Recognition
What Are The VPP Drivers?

- OSHA’s S&H Program Management Guidelines 1/26/1989 (currently being re-written)
- Revision 2009. Friday, Jan 9th.
VPP: S&H Excellence

VPP Applicants have

- a level of excellence
- VPP-quality management systems
  - Effectively identify,
  - analyze, and
  - prevent/control
- the prevention of workplace injuries and illnesses.

Much more than “0”
Strategic Goals and Objectives

Ownership

Accountability

Recognition

Behavior

Culture

Systems

Critical To Safety (CTS)

Risk Reduction

More Engineering and Substitution controls Less PPE

Investigation

Hazard Analysis

Inspection
Fundamental Elements

Nine Fundamental Elements

1) Employee Engagement;
2) Effective Safety Committees;
3) Worksite Analysis;
4) Inspections;
5) Incident Analysis;
6) Trend Analysis;
7) Hierarchy of Controls and
8) Goal and Objective Setting
9) Management Accountability.
**OSHA’s Program Management Guidelines - VPP Criteria**

### MANAGEMENT LEADERSHIP
- Management Commitment
- Policy
- Goals, Objectives and Planning
- Visible Top Management Leadership
- Responsibility and Authority
- Line Accountability
- Resources
- Contract Worker Coverage
- Written S&H Management System
- Annual Self-Evaluations

### WORKSITE HAZARD ANALYSIS
- Encouragement
- Engagement
- Participation
- (Committees)

- Routine Hazard Analysis
- Change Hazard Analysis
  - Pre-use Analysis
  - Baselines
- IH Program
- Routine Self-Inspections
- Reporting System
- Investigations
- Trend Analysis

### HAZARD PREVENTION & CONTROL
- Certified Professional Resources
- Hazard Elimination and Control Methods
  - Engineering
  - Admin
  - Work Practices/Rules/Discipline
  - PPE
- Process Safety Management
- Occupational Health Care
- Preventive Maintenance
- Tracking of Corrections
- Emergency Preparedness

### SAFETY & HEALTH TRAINING
- Managers
- Supervisors
- Employees
- Emergencies
- PPE

**30 Elements**
Approach for Each Element

★ Know your Strengths and Weakness
★ Have A Plan – Have an Owner
★ Multiple Metrics
★ Involve
  ★ Workers and Management
★ Recognize and Reward
## Malcolm Baldrige Approach

<table>
<thead>
<tr>
<th>LEVEL/CATEGORY:</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2.1* Goals &amp; Objectives (Action plans)</td>
<td>A. Ineffective</td>
<td>B. Developmental</td>
<td>C. Basic</td>
<td>D. VPP</td>
<td>E. World Class</td>
</tr>
<tr>
<td>1. Site H&amp;S goal is established for injury and illness rates.</td>
<td>1. Some descriptive goals exist, and are in part based on a review of injury and illness analysis and the ESP Work Plan.</td>
<td>1. Objectives have been established with input and support from all levels in the organization.</td>
<td>1. Some goals and objectives also stem from an analysis of incident root causes, inspection findings, worker concerns, maintenance safety issues, and other safety data.</td>
<td>1. Objectives are developed as part of a grass roots process, with agreement from the majority of the workforce.</td>
<td>1. Some goals and objectives are established for injury and illness rates.</td>
</tr>
<tr>
<td>2. Some objectives to support the goals are developed and documented.</td>
<td>2. Supporting objectives aim at a specific area of performance that can be measured or verified.</td>
<td>2. Departments each have established one or more objectives annually as part of the H&amp;S program.</td>
<td>2. Personnel at all levels can explain the desired results and measures for achieving H&amp;S program objectives.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Some goals are owned by Management (not H&amp;S).</td>
<td>3. Goals and objectives are communicated to workers.</td>
<td>3. The majority of managers, supervisors and the workforce can explain program goals and objectives and the measures to achieve them.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Goals and objectives are developed for most teams and committees.</td>
<td>4. Goals and objectives are developed for most teams and committees.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Some goals and objectives are owned by line management.</td>
<td>5. Some goals and objectives are owned by line management.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Step-by-Step, 5 Level Approach**
### OSHA Approach

#### How Assessed

<table>
<thead>
<tr>
<th>Yes or No</th>
<th>Interview</th>
<th>Observation</th>
<th>Doc Review</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Answering the Criteria

At least 2 out of 3 for each Criteria!
Step 2: Ranking System

★ Essential = A finding in this area must be addressed to achieve VPP STAR approval.

★ Suggested = While not a show-stopper, improvement in this area will help improve your program.

The Essential Findings help you focus on key elements to gain VPP approval!
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What are Management Systems?

How does Webster’s Dictionary define a system?

**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”
The Z10 OHSMS Model

Characterized by emphasis on continual improvement and systematic elimination of underlying or root causes of deficiencies.
What are SMSs
> Process Workshop: Inspections

- ID Inspection Categories and Criteria
- Schedule the Inspections
- DO THE INSPECTION
- Track Inspection Findings
- Measure Closure Rates
What are SMSs

> Process Workshop: Inspections

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
Management Systems

There are a number of tools used to define a management system...

- ISO 9004: Quality Management and Quality Assurance Elements
- ISO 14000: Environmental Management Systems
- OSHA’s H&S Program Management Guidelines
- DNV’s ISRS (ILCI)
- TQM (Malcolm Baldrige)
- Corporate Policy
- OHSMS (18000) – 2007 Rev
- ANSI Z10
- OSHA Form 33
- OSHA’s Performance Evaluation Profile (PEP)
- Canada Z1000

Others
SMS Similarities and Differences
> History of Common Safety Management Systems

• 1982: VPP (OSHA’s Voluntary Protection Program) established
• 1986: VPP criteria established (TED 8.1)
-pad 1989: OSHA’s Program Management Guidelines published
-pad 1992: British Health & Safety Commission publishes management of health and safety at work
-pad 1996: British standard BS 8800 launched, used as model OHSMS
-pad 1999: OHSAS 18001 Specification published based on BS8800
-pad 2000: OHSAS 18002 Guidelines published to assist in the implementation of OHSAS 18001
-pad 2002: ISO 19011 Guidelines for management systems auditing
-pad 2003: OSHA revises TED 8.4 VPP Implementation Strategies
-pad 2005: ANSI publishes Z10
-pad 2006: Canada Publishes Z 1000
-pad 2007: OHSAS Revised
-pad 2008: VPP revised CSP 03-01-003
-pad 2009: VPP Rules Updated
-pad 2012: ANZI Z-10 revised
-pad 2016: ISO 45000
-pad 2017: OSHA PMG Updated

Texas City: Tax code provision: industries achieving OSHA VPP certification, entitled to a 20 percent tax abatement
Basis for Management Systems

★ Dr. W Edwards Deming’s quality principles (Plan-Do-Check-Act),
★ Measuring and testing to predict typical results.

★ inputs + process + outputs
  ➢ by inspecting the inputs and the process more, the outputs can be better predicted, and inspected less.

★ Rather than use mass inspection
  ➢ look for cause-effect relationship
Three of his principles are particularly relevant to this discussion:

Principle #3. Cease dependence on inspection to achieve quality.

By inspecting the inputs and the process more, the outputs can be better predicted, and inspected less. Rather than use mass inspection, look for cause-effect relationship.
Three of his principles are particularly relevant to this discussion:

Principle #5: Improve constantly and forever the system of production and service.

It is a call for continuous improvement. If you can measure the process, results will take care of themselves.
Deming Principles

Three of his principles are particularly relevant to this discussion:

Principle # 10: Slogans like "Produce zero defects" and "Do it right the first time" are quite common.

But Deming stressed, they are also quite meaningless. At best, they are ignored. At worst, they infuriate people who understand the system causes errors not workers.
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9) Management Accountability.
Employee Engagement and Safety Committee

- Know your Strengths and Weakness
- Have A Plan – Have an Owner
- Multiple Metrics
- Involve
  - Workers and Management
- Recognize and Reward
Employee Involvement

Encouragement - Examples

- **Management Understanding** - Management acknowledges that employees have a vested interest in health and safety and are more likely to support programs they help develop.
- **Management Support** - Employees are given multiple (at least three), meaningful avenues for involvement “on the clock.”
- **Employee Activities** - Employees receive training, are involved in awareness programs, and help develop employee programs.
Committees

Description: Committee functions need to be standardized and documented. All committees should share certain operational activities in order to promote uniformity and consistently to achieve success.

- Both Management & Labor
- Driven by Action Plans
- Based on Safety Data Analysis
- Documented Charter
- Distribute Minutes
- Track Action Items

Assist the site in attaining success with Goals and Objectives
Committee Definition – > Myth or Reality

“A committee is a group that keeps minutes and loses hours” - Milton Berle

True or False
- A select group of members with a defined scope of responsibility
- You have a meeting, and employees turn in suggestions to Maintenance and H&S?
- Each Department representative is asked if they have something to discuss?
- Most members wait for the next meeting to contribute?
- A meeting of people sharing ideas
- A group of one or more persons who are appointed or elected to carry out a charge. The charge can be to investigate, to recommend or to take action.
Pro’s and Cons – What I’ve Seen

★★ Committee Process

★★ Pros:
- Top Management not only attends, but takes action items for themselves
- Workforce reps Chair the committees
- Training is part of every meeting (5-10 min)
- Operate to a Charter and Std Agenda
- Tracks Assignments

★★ Cons:
- Committee thinks they work for Safety
- There are no Operations Mgrs on the committee
- Most action items are assigned to Maintenance or Safety
- Committee is responsible, rather than assisting mgmt with their responsibilities

Others?
Meeting Minutes

**Content:**

- Members in attendance, and NOT in attendance
- Recording individual
- Minutes distribution
- List of action items – NEW
  - Documented discussions, decisions and actions, not just FYI info
  - OLD - Status of action items (due date, open, closed, delayed, in progress, etc.)
  - Name of individual who originated the action item.
  - Name of individual who is responsible for completing each action item
- Document the agenda
- Closure Data on G&O documented each meeting
- Continuing Education (training) for the committee – with pictures!
Have a Charter

- The charter is signed by the site leader.
- Before a Committee meets, the committee needs to be authorized by management to assemble and take on the tasks they are charged with.
- Understanding the charge is from management.
- So, What is a Charter?
Committee Charter Outline

🌟 Charter Elements

★ Mission Statement
  ➢ states purpose of committee

★ Goals and Objectives
  ➢ states goals of committee

★ Meeting Schedule
  ➢ outlines frequency of meetings

★ Quorum Rules
  ➢ minimum attendance requirements

★ Memberships Terms
  ➢ who and how long

★ Active Participation
  ➢ Each member

– Chair Selection
  • how are the selected

– Attendance Requirements
  • member minimum attendance

– Meeting Minutes
  • members in attendance, recording individual, minutes distribution, action items, status, etc.

– Salaried Participation
  • at least one member

– Data Review Analysis
  • trend analysis

Sample Charter
Expected Outcomes

★ Understand the Expectations of a Best Practice Safety Committee Process  
   ➢ Mission, Charter and Minutes

★ Perform a Maturity Exercise  
   ➢ Gain continuous improvement ideas

★ Encourage the Committee’s role in employee engagement opportunities
Employee involvement is:

- Being on a safety committee
- Reading a Job Hazard Analysis
- Attending Training
- Answering questions (being interviewed) during an incident investigation

Behavior changes through:

- Awareness
- Discipline

NOT
# Maturing Involvement to Ownership

<table>
<thead>
<tr>
<th>Involvement</th>
<th>Ownership</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct site inspections</td>
<td>Modify the inspection checklist or schedule</td>
</tr>
<tr>
<td>Conduct accident/incident investigations</td>
<td>Extend corrective actions to lessons learned in their area</td>
</tr>
<tr>
<td>Make control suggestions</td>
<td>Prioritize control implementation</td>
</tr>
<tr>
<td>Present at Safety Meetings</td>
<td>Develop a presentation for a Safety Meeting</td>
</tr>
</tbody>
</table>
Maturity Path Assessment Tool

Test the Maturity of Your Committee!

1. Employee Involvement
2. Maturity Level Exercise
# Level of Involvement

<table>
<thead>
<tr>
<th>Program</th>
<th>i</th>
<th>l</th>
<th>O</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suggestions (Hazard Reporting)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inspections</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Goals and Objective Setting</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Incident Investigation</td>
<td></td>
<td></td>
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<tr>
<td>Hazard / Ergo Analysis</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>First Aid / Emg Response</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Training</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Recognition</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
# Maturity Level

## Committee Expectations

1. Activities
2. Organization
3. Involvement

## Levels

1. Beginning
2. Developmental
3. Basic
4. VPP Level
5. World Class

<table>
<thead>
<tr>
<th></th>
<th>Level Achieved</th>
</tr>
</thead>
<tbody>
<tr>
<td>Committee Activities (1-5)</td>
<td></td>
</tr>
<tr>
<td>Committee Operations (1-5)</td>
<td></td>
</tr>
<tr>
<td>Engagement (1-5)</td>
<td></td>
</tr>
<tr>
<td>Overall Score (Add above)</td>
<td>0</td>
</tr>
<tr>
<td>Maturity Level (overall score / 15)</td>
<td>0</td>
</tr>
</tbody>
</table>
First Steps

- Design an agenda and minutes
  - Track OLD Business

- Get Training
  - Internal process and procedures
  - Ongoing by each Member

- Develop the Charter
  - Cain concurrence
  - Mgmt Signature a big deal – Party
  - Have the right parties

- Improve Visibility of Members
  - Present Minutes – accomplishments – to fellow staff
  - Special treats – Training, site visits, etc.
Final Exam: Committees

Should committee members wait for meetings to bring up safety hazard reports?

- Yes
- No
Final Exam: Committees

Are Management members on committees assigned action plans?

- Yes
- No
Final Exam: Committees

How often do safety committees need to meet?

- monthly
- regularly
- quarterly
Final Exam: Committees

What is a minimum frequency that action items are assigned to committee members?

- Weekly
- Monthly
- Quarterly
- Annually
Final Exam: Committees

☆ Should Committee Members wait for meetings to bring safety hazard reports on the agenda?
  ☆ Yes - No

☆ Are management members on committees assigned action items?
  ☆ Yes - No

☆ How often do committees meet?
  ☆ - Monthly - Regularly - Quarterly

☆ What is the minimum frequently that action items are assigned?
  ☆ - monthly - quarterly - annually

☆ For each committee member….
Fundamental Elements

 Nine Fundamental Elements

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5) Incident Analysis;
6) Trend Analysis;
7) Hierarchy of Controls and
8) Goal and Objective Setting
9) Management Accountability.
Hazard Identification

Criteria: Implement a process to assure that the site has appropriately addressed all operational hazards and complied with all applicable regulations.

- Baseline Surveys
- Industrial Hygiene Surveys
Change and Pre-Use Analysis

**Criteria:** Reviewing plans and design specifications of processes, facilities and equipment prior to construction, purchase, and operational use. This should occur at the time of equipment a process initial design, modification or change.
Worksite Analysis

Baseline Hazard Identification - Examples

- Baseline surveys - a survey of the entire facility starting at the beginning of the process where raw materials are brought into the facility through the finished product being shipped.

- PPE
- Confined Spaces
- Fall Protection
- Respiratory Protection
- Corporate Compliance Audits
- Hot Works Permit
- Hazard Communication
- Fire Suppression Systems
- Lockout / Tagout
- Ladders
- Hearing Conservation
- Bloodborne Pathogens

Etc…….
Worksite Analysis

Industrial Hygiene - Criteria

- Recognizing, evaluating, and controlling health risks to employees caused by chemical, biological, and physical agents in the work environment.
  - Qualitative Assessment
  - Quantitative Surveys / Sampling Plans
  - Documentation/Communication and Use of Results
  - IH Expertise
### Job Hazard Analysis - Example

#### Job Task: Planting a tree

**Equipment #: NA**

**Plant/Location: NA**

**PPE:** Leather gloves, safety glasses, safety shoes, dust mask

**Date Initiated:** Today

**Revised date:**

**Tools:** shovel, hammer

**Chemicals:** fertilizer

<table>
<thead>
<tr>
<th>Hazard Types</th>
<th>Job Task: Planting a tree</th>
<th>Equipment #: NA</th>
<th>Analysis done by: You</th>
<th>Reviewed by: You</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Contact, (struck with/by)</td>
<td>6. Fall</td>
<td>Plant/Location: NA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Electrical</td>
<td>7. Overexertion</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Spill Splash</td>
<td>8. Inhalation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Caught, (in/on/between)</td>
<td>9. Thermal</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Walking Surface</td>
<td>10. Environmental</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Physical</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Radiation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>#</th>
<th>Sequence of Job Steps</th>
<th>Potential Hazards</th>
<th>HT</th>
<th>CTS</th>
<th>Recommended Safe Practice</th>
<th>PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Select a site</td>
<td>1a. Underground utilities 1b. location of house, obstacles above</td>
<td>2</td>
<td>X</td>
<td>1a. Call local authorities 1b. Plan for growth</td>
<td>Leather gloves, safety glasses, safety shoes, dust mask</td>
</tr>
<tr>
<td>2</td>
<td>Collect and Inspect Tools</td>
<td>2a. Availability and condition of tools</td>
<td>1</td>
<td></td>
<td>2a. Check all equipment for damage, the repair and/or replace</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Dig hole</td>
<td>3a. Back strain 3b. Blisters</td>
<td>7</td>
<td>1</td>
<td>3a. Get help, dig hole with small shovel full of dirt 3b. Move smoothly &amp; slowly</td>
<td>Leather gloves, safety glasses, safety shoes</td>
</tr>
</tbody>
</table>
Hazard Prevention and Control

Safe Work Procedures

 Criteria: Procedures for safe work which are understood and followed by all affected parties, as a result of training, positive reinforcement, correction of unsafe performance, and, if necessary, enforcement through a clearly communicated disciplinary system.
### Hazard Prevention and Control

#### Safe Work Procedures - Example

Clearly communicate what you want people to do.

<table>
<thead>
<tr>
<th>POOR</th>
<th>BETTER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensure catwalk is clear of clutter.</td>
<td>Clear catwalk of clutter before use.</td>
</tr>
<tr>
<td>Use extreme caution.</td>
<td>Maintain guards in place.</td>
</tr>
<tr>
<td>Use lifting procedures.</td>
<td>Keep box at waist height, close to the body.</td>
</tr>
<tr>
<td>Ensure proper grip.</td>
<td>Grab box on the outside forward corners, fingers under the box.</td>
</tr>
<tr>
<td>Use hand tool.</td>
<td>Use pliers.</td>
</tr>
</tbody>
</table>
Assess your Worksite Analysis Program

- Review the Attached
  - VPPProfile™ Screen for Hazard Analysis

- What are the Strengths and Weaknesses
- Who owns this?
- Are their Improvement Strategies?
- Is Management Accountable?
- Are Employees Engaged?
## Risk Tolerability and Acceptability

unya added Risk Assessment? (coming in 2017)

<table>
<thead>
<tr>
<th>Risk Rating</th>
<th>Definition</th>
<th>Controls Required</th>
</tr>
</thead>
<tbody>
<tr>
<td>High (H)</td>
<td>Operation not permissible</td>
<td>Stop the job, use continuous oversight, or layers of protection</td>
</tr>
<tr>
<td>Serious (S)</td>
<td>High priority remedial action</td>
<td>Eliminate, isolate, substitute or barriers are preferable controls; followed by layers of protection</td>
</tr>
<tr>
<td>Medium (M)</td>
<td>Take remedial action at appropriate time</td>
<td>Use hierarchy of controls, and if only administrative or PPE are used, add layers of protection</td>
</tr>
<tr>
<td>Low (L)</td>
<td>Acceptable Risk</td>
<td>Remedial action discretionary; can rely on administrative and PPE controls</td>
</tr>
</tbody>
</table>
Fundamental Elements

Nine Fundamental Elements

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Inspections

**Criteria:** Conducting regular evaluations of the work environment to detect and correct unsafe or unhealthy conditions and Behaviors.

- Procedures in Writing
- Checklist
- Schedule
- Action Plans / Closure rates
- Conformance Rate (CTS)
- Improvement in trends
Worksite Analysis

Inspections - Examples

- Questions to ask when putting together an inspection program.
  - What will be inspected?
  - What will be the frequency of inspections?
  - Who should conduct inspections?
  - What kind of training will be required?
  - How will inspections be reported?
# Types of Inspections

- General Workplace Inspections
- Respiratory Protection
- Lockout/Tagout
- Crane/Hoist
- Fire Extinguishers
- Eye Wash Station
- Hot Work Permits
- Confined Space Entry Permits
- Emergency Response Team
- SCBA

- Various 29 CFR 1910 areas
- 29 CFR 1910.134 (b)(9)
- 29 CFR 1910.147 (c)(6)
- 29 CFR 1910.179(j)(ii)(a-b)
- 29 CFR 1910.157(e)(2)
- 29 CFR 1910.151(c)
- 29 CFR 1910.252
- 29 CFR 1910.146(d)(4)
- 29 CFR 1910.120
- 29 CFR 1910.120
Types of Inspections

- Fire Doors
- Forklifts
- Manlifs
- Powered Platforms
- Flammable Combustible Liquids
- Compressed Gasses
- Hazard Communication
- Hearing Conservation
- Etc...

- 29 CFR 1910.38
- 29 CFR 1910.178(q)(7)
- 29 CFR 1910.68(e)(1)
- 29 CFR 1910.66(g)
- 29 CFR 1910.106
- 29 CFR 1910.169
- 29 CFR 1910.1200
- 29 CFR 1910.95
## Inspection Inventory

- Has an inventory been completed?
- Responsible party named?
- Do they report metrics every month?

### Inspection (29 CFR) Inventory

<table>
<thead>
<tr>
<th>Type of Inspection</th>
<th>Citation &amp; Requirements</th>
<th>Criteria (what the inspector is looking for)</th>
<th>Frequency</th>
<th>Responsible Party</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Workplace Inspections</td>
<td>Various 29 CFR 1910 areas</td>
<td>Various OSHA Subparts and critical controls – checklist</td>
<td>Monthly</td>
<td></td>
</tr>
<tr>
<td>Respiratory Protection</td>
<td>29 CFR 1910.134 (b)(9)</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Lockout/Tagout</td>
<td>29 CFR 1910.147 (c)(6)</td>
<td>Each authorized party and each procedure</td>
<td>Annual</td>
<td></td>
</tr>
</tbody>
</table>
Fundamental Elements

Nine Fundamental Elements

1) Employee Engagement;
2) Effective Safety Committees;
3) Worksite Analysis;
4) Inspections;
5) Incident Analysis;
6) Trend Analysis;
7) Hierarchy of Controls
8) Goal and Objective Setting
9) Management Accountability.
Worksite Analysis

Accident Reporting, Investigation & Tracking

**Criteria:** Identifying the root causes of incidents, near-misses, accidents, injuries, and illnesses, and ensuring implementation of corrective actions via changes to equipment, work procedures, and training programs.

- Injury/Illness
- Incidents (Property Damage, Fires, Spills, etc.)
- Near Misses
- **Corrective THEN Preventive THEN Trend Reduction**
Worksite Analysis

Accident Reporting, Investigation & Tracking - Examples

☆ Things typical to an Accident/Incident Investigation Program
  ☆ Investigations occur for all incidents, near misses, spills etc.
  ☆ Investigator training is provided
  ☆ Causal factors rarely stop at “employee error” or “re-training”.
  ☆ Investigation data and reports are in writing.
  ☆ A causal factor/root cause analysis system is used.
  ☆ **Management system weaknesses are identified as root causes.**
  ☆ Discipline is rarely used when accidents happen.
  ☆ All corrective actions are recorded & tracked to closure.
  ☆ Trend analysis is performed on accident/incident investigation causal factors.
Definitions

- **Accident**: Unplanned event resulting in personal injury or property damage resulting from the failure of people, equipment, supplies, or surroundings to behave or react as expected.
- **Incident**: Causing loss or damage.
- **Causal/Contributing Factor**: Events or conditions which caused or increased the likelihood of an incident.
- **Root Cause**: Conditions or events, which, if eliminated or modified, will prevent reoccurrence of an incident.
- **Near Miss (Close Call)**: Potentially causing loss or damage, can include: unpracticed JSA procedure, safety maintenance report, inspection finding, employee report, etc.
OSHA’s Three “Cause” Levels

Basic Causes
- Management Safety Policy and Decisions
- Personal Factors
- Environmental Factors

Indirect Causes (symptoms)
- Unsafe Act
- Unsafe Condition

Direct Causes
- Unplanned Release of Energy and/or Hazardous Material

Most accidents are preventable by eliminating one or more “basic” causes

ACCIDENT
- Personal Injury
- Property Damage
Incident Scenario

☆ Napo:  **One Small Step.**

☆ What were the Direct Causes (Energy)

☆ What were the Contributing Factors?

☆ What were the management systems (root Causes) failures?
Fundamental Elements

Nine Fundamental Elements

1) Employee Engagement;
2) Effective Safety Committees;
3) Worksite Analysis;
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9) Management Accountability.
Worksite Analysis

Trend Analysis

Criteria: Analyzing workplace records (e.g. OSHA injury and illness log - most common form, maintenance logs, Job Safety Analysis and Ergonomic Analysis, etc.) to determine injury and illness trends over time, to that these patterns with common causes can be identified, corrected, and prevented.
Worksite Analysis

- Trend Analysis - Examples
- What programs can be a source of trends data?
  - OSHA Logs
    - Type
    - Department
    - Part, etc.
  - Accident investigation causal factors/root causes
  - Maintenance requests
  - Inspection findings
  - Employee concerns
  - Disciplinary actions
  - JSA Procedure/Behavior observations
What does this data tell you?

<table>
<thead>
<tr>
<th>INSPECTION / OBSERVATION LOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONTH</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td># / H / R</td>
</tr>
<tr>
<td>Inspection or Observation Category</td>
</tr>
<tr>
<td>A. General Work Area (housekeeping)</td>
</tr>
<tr>
<td>B. Aisles and Walkways</td>
</tr>
<tr>
<td>C. Chemical Storage</td>
</tr>
<tr>
<td>D. Confined Spaces</td>
</tr>
<tr>
<td>E. Electrical</td>
</tr>
<tr>
<td>F. Emergency Preparedness</td>
</tr>
<tr>
<td>Totals</td>
</tr>
</tbody>
</table>
## Trend Analysis

What is the significance of the highlighted

<table>
<thead>
<tr>
<th>INSPECTION LOG</th>
</tr>
</thead>
<tbody>
<tr>
<td>MONTH</td>
</tr>
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<td>Totals</td>
</tr>
</tbody>
</table>
## Conformance Rate (CR)

Calculate # of Safe / Total # of Observations (Obv): Each Category then TOTAL

<table>
<thead>
<tr>
<th>Inspection or Observation Category</th>
<th>Dept 1</th>
<th>Dept 2</th>
<th>Dept 3</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. General Work Area (housekeeping)</strong></td>
<td>6x3</td>
<td>4</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td><strong>B. Aisles and Walkways</strong></td>
<td>4X3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>C. Chemical Storage</strong></td>
<td>6X3</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>D. Confined Spaces</strong></td>
<td>4X3</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td><strong>E. Electrical</strong></td>
<td>8X3</td>
<td>2</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td><strong>F. Emergency Preparedness</strong></td>
<td>5X3</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>TOTALS</strong></td>
<td>99</td>
<td>32</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>
Conformance Rate (CR)
★ Calculate # of Safe / Total # of Observations (Obv): Each Category then TOTAL

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<td>0</td>
<td>0</td>
<td>1</td>
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<tr>
<td>C. Chemical Storage</td>
<td>6X3</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>D. Confined Spaces</td>
<td>4X3</td>
<td>2</td>
<td>1</td>
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<tr>
<td>E. Electrical</td>
<td>8X3</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>4</td>
</tr>
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<td>F. Emergency Preparedness</td>
<td>5X3</td>
<td>1</td>
<td>0</td>
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<td>32</td>
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</tr>
</tbody>
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9) Management Accountability.
Hazard Prevention and Control

Hazard Controls

Criteria: So that all current and potential hazards, however detected, are eliminated or controlled in a timely manner, establish procedures for that purpose, using the following measures:

- Engineering techniques where feasible and appropriate;
- Work rules and procedures are understood and followed;
- Provision of personal protective equipment; and
- Administrative controls, such as reducing the duration of exposure.
# Risk Avoidance: Hierarchy of Controls

<table>
<thead>
<tr>
<th>Protective Measure</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Avoidance, Elimination or Substitution | • Eliminate human interaction  
• Eliminate pinch points (increase clearance)  
• Automated materials handling (robots, conveyors, etc.)  
• Replace with less toxic compound  
• Replace/eliminate a reaction step, etc. |
| Engineering Controls                | • Re-Design  
• Tools  
• Barriers  
• Interlocks  
• Presence sensing devices (light curtains, safety mats, etc.)  
• Two hand controls, etc. |
### Protective Measure Examples

<table>
<thead>
<tr>
<th>Protective Measure</th>
<th>Examples</th>
</tr>
</thead>
</table>
| **Administrative Training, Procedures, and Awareness Means** | • Safe work procedures  
• Safety inspections  
• Training  
• Lights, beacons, and strobes  
• Computer warnings  
• Worker rotation  
• Signs and Labels  
• Beepers, horns and sirens, etc. |
| **Personal Protective Equipment (PPE)**                 | • Ear plugs, gloves, respirators,  
• Safety Glasses, face shields, etc. |
Select the Method of Control

- **Chose the control**
- **How reliable is the control?**

<table>
<thead>
<tr>
<th>Control</th>
<th>Method</th>
<th>Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Warning sign “Not an Exit”</td>
<td>Administrative</td>
<td>Low</td>
</tr>
<tr>
<td>Removable Barrier or Guard</td>
<td>Engineering</td>
<td>Moderate</td>
</tr>
<tr>
<td>Interlocked Barrier or Guard</td>
<td>Engineering</td>
<td>High</td>
</tr>
<tr>
<td>Hard Hat</td>
<td>PPE</td>
<td>Low</td>
</tr>
<tr>
<td>Reduce weight from 70 to 25 lbs.</td>
<td>Substitute</td>
<td>Very High</td>
</tr>
<tr>
<td>Pre-packaged materials</td>
<td>Avoid/Eliminate</td>
<td>Yes!</td>
</tr>
</tbody>
</table>
Defense in Depth

Layers of Protection
Fundamental Elements

Nine Fundamental Elements

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7) Hierarchy of Controls;
8) Goal and Objective Setting;
9) Management Accountability.
Management Commitment

Goals and Objectives

- Criteria: Establish and communicate a goal for the safety and health program and objectives for meeting that goal, so that all members of the organization understand the results desired and the measures planned for achieving them.

- ANSI Z10
  - Improving safety programs and management systems
  - Risk reductions
  - Culture
Goals and Objectives

“If You Don’t Know Where You Are Going, Chances Are You Will End Up Somewhere Else”

– Yogi Berra
Goals and Objectives

Policy
Brodest possible statement of purpose or function. It’s reason for being.

Goals
Statements that describe an improvement in performance toward meeting a policy

Objectives
- Measurable deliverables with a timetable
- Specific means by which the success of each goal is measured
- Quantifiable end results of planned activities
- Statements about what is to be accomplished by whom and when
- Often used as a basis for Recognition Programs

- Set policy, goals & objectives
- Communicate them
- Stick to them
- Review them
- Celebrate achievements
Sample: Policy, Goal or Objective

☆ Our Target is “0” injuries
☆ Improve employee involvement by 10%
☆ Put together a team to perform trend analysis on causal factors, quarterly.
☆ Go home as you came to work
☆ Complete incident investigations within 24 hours
☆ Do one JSA a month in each department
Goals

Where Goals are Derived.

✦ Mandates/Directives
✦ Self Evaluations/Assessments (e.g., VPP Elements)
✦ Trend Analysis
  ✦ Injury/Illness
  ✦ Accident/Incident Casual Factors
  ✦ Inspection Findings
  ✦ Employee Concerns
  ✦ Safety Maintenance Work Orders
  ✦ Job Safety Analysis Hazards List
  ✦ Etc.
Management Commitment

★ Objectives - Example

★ Goal: Improve our Hazard Identification Process to Reduce the Severity of Hazards by using the more substitution and engineering controls

★ Objective: “Engineering and Line Supervision will complete one job safety analysis each month in each department, with follow-up revision of safe work procedures and employee training by the following month. Ensure that at least one control is upgraded to an elimination, substitution or engineering control “
Objective – Example

Goal: Improve our Accident Investigation Process to prevent re-occurrence by better ID Root Causes.

Objective: “Supervisors will complete accident investigations within 72 hours. Ensure that at least 2 Root Causes are selected for all significant incidents, subject to QC review by the safety committee. Responsible parties will ensure 90% closure on action plans with 30 days.”
Maturity Path for Goals and Objectives

VPP- Track

Personnel can explain the desired results and measures for achieving goals and objectives

- Goals are supported by senior management.
- Goals and some objectives can be explained or paraphrased by a majority of the organization.
- A measurement system exists which reliably indicates progress on objectives toward the goal.
- Measurement systems are consistently used to manage work on objectives.

World-Class

The workforce fully embraces goals and objectives.

- The objectives can be easily explained by most of the workforce.
- Measures used to track objective progress are known to the workforce.
- Members of the workforce are active participants in the objective process.

Management 101

Management can provide or state goals or objectives

- S&H goals exist in writing.
- Goals relate to the S&H policy or vision.
- Objectives are designed to achieve the goal.
- The objective matches a deficiency identified in the assessment.
- Objectives are assigned to responsible individuals.
Workshop Outline

- VPP Excellence Intro
- Management Systems Concepts
- Fundamental Elements
- **Leading Metric Integration**
- Principles of Accountability and Recognition
- References
Sustainability (Level 5)

★ Balanced Set of Metrics

★ Multiple Safety Metrics in Each Quadrant

★ Complimentary Leading and Lagging Strategic

★ Measures, Targets and Initiatives

★ Accident Rates are Secondary

Kaplan and Norton, Harvard
While designed to help businesses identify overlapping strategies, with Performance management.

So, What are some safety topics in each quadrant or perspective

Typically 12-24 strategic objectives
Do We Measure Progress or Activity?

**Activity**
(good)

- The Committee held 12 meetings

**Progress**
(better)

- The Committee implemented 10 corrective actions

“or”
Use Metrics for Motivation

“What Gets Measured Gets Done.”

“What Gets Celebrated Gets Done Well.”
Metrics for Success

★ Multiple Metrics
★ Measure progress, not just actions.

★ Use the Attached “Management Accountability” worksheet
★ Can you identify multiple metrics for each?
★ Do you use metrics other than what is on the list?
## Suggested Starting Point: Leading Metrics

### ESH PM Report Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th># of Events</th>
<th># of Changes Identified/Needed</th>
<th>Closure Rate (From Date Closed)</th>
<th>Effectiveness (Control Type or conformance)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current Program Risk Assessment Changes to Controls</td>
<td>Actual: 0</td>
<td>Target: 20</td>
<td>Actual: 0</td>
<td>Target: 5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual: 5</td>
<td>Target: 30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Actual: 20%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Target: 15%</td>
</tr>
<tr>
<td>Monthly Safety Review - Incidents</td>
<td>Actual: 0</td>
<td>Target: 10</td>
<td>Actual: 10</td>
<td>Target: 5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual: 5</td>
<td>Target: 10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Actual: 10%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Target: 30%</td>
</tr>
<tr>
<td>Monthly Inspections/Discrepancies high risk control conformance</td>
<td>Actual: 20</td>
<td>Target: 10</td>
<td>Actual: 5</td>
<td>Target: 85%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual: 20</td>
<td>Target: 90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Actual: 93%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Target: 95%</td>
</tr>
<tr>
<td>Monthly Observations (Optional) conformance or % safe operations</td>
<td>Actual: 50</td>
<td>Target: 10</td>
<td>Actual: 20</td>
<td>Target: 95%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual: 0</td>
<td>Target: 90%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Actual: 93%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Target: 95%</td>
</tr>
<tr>
<td>Communication by Supervisors (ESH ToolBox)</td>
<td>Actual: 10</td>
<td>Target: 20</td>
<td>Actual: 5</td>
<td>Target: 5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Actual: 10</td>
<td>Target: 30%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Actual: 93%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Target: 95%</td>
</tr>
<tr>
<td>ESH Action Plan Status</td>
<td>Actual: 5</td>
<td>Target: 20</td>
<td>Actual: 5</td>
<td>Target: 5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### ESH PM Report Topics

<table>
<thead>
<tr>
<th>Topic</th>
<th>Awarded</th>
<th>Actual</th>
<th>Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>ESH Rewards &amp; Recognitions</td>
<td>50</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

Date Delivered: [Media Used to Deliver:]

Who was Recognized for what? (Describe below or attach copy):

If only one metric

---

Set Targets, Use Multiple Metrics, Achieve and Reward Greens
Workshop Outline

- VPP Excellence Intro
- Management Systems Concepts
- Fundamental Elements
- Leading Metric Integration
- Principles of Accountability and Recognition
- References
Management Commitment

★ Line Management Accountability

★ Criteria: Hold managers, supervisors, and employees accountable for meeting their responsibilities, so that essential tasks will be performed.
List the top two responsibilities that should be in a supervisors Job Description for Safety

<table>
<thead>
<tr>
<th>Responsibilities</th>
<th>Elements</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ID and Fix Hazards</td>
<td>Inspections</td>
</tr>
<tr>
<td></td>
<td>Hazard Analysis</td>
</tr>
<tr>
<td></td>
<td>Employee Involvement</td>
</tr>
<tr>
<td>2. Identify and Communicate</td>
<td>Training</td>
</tr>
<tr>
<td>Safe Work Procedures</td>
<td>Observations</td>
</tr>
<tr>
<td></td>
<td>Trend Analysis</td>
</tr>
<tr>
<td>3. Promote and Enforce</td>
<td>Recognition</td>
</tr>
<tr>
<td></td>
<td>Inspection</td>
</tr>
<tr>
<td></td>
<td>Discipline</td>
</tr>
<tr>
<td>4. Encourage Involvement</td>
<td>Employee Involvement in any element</td>
</tr>
<tr>
<td></td>
<td>Committee attendance</td>
</tr>
</tbody>
</table>
## Line Management Accountability

- **How would you measure each Responsibility?**

<table>
<thead>
<tr>
<th>Responsibilities</th>
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<th>Metric</th>
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<tr>
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<td>Employee Involvement</td>
<td></td>
</tr>
<tr>
<td>2. Identify and Communicate Safe Work Procedures</td>
<td>+ Training</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Observations</td>
<td></td>
</tr>
<tr>
<td></td>
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<td></td>
<td>Discipline</td>
<td></td>
</tr>
<tr>
<td>4. Encourage Involvement</td>
<td>Employee Involvement in any element</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Committee attendance</td>
<td></td>
</tr>
</tbody>
</table>

Attachment 6: Supervisor Scorecard
### Line Management Accountability

**How would you measure each Responsibility?**

<table>
<thead>
<tr>
<th>Responsibilities</th>
<th>Elements</th>
<th>Metric</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ID and Fix Hazards Closure</td>
<td>Inspections, Hazard Analysis, Employee Involvement</td>
<td>Volume and %</td>
</tr>
<tr>
<td>2. Identify and Communicate Safe Work Procedures</td>
<td>Training, Observations, Trend Analysis</td>
<td>Attendance/Quiz % at risk</td>
</tr>
<tr>
<td>3. Promote and Enforce</td>
<td>Recognition, Inspection, Discipline</td>
<td>% or # awarded, # violations, % before incident</td>
</tr>
<tr>
<td>4. Encourage Involvement</td>
<td>Employee Involvement in any element, Committee attendance</td>
<td># and % Attendance and ownership</td>
</tr>
</tbody>
</table>
Why focus on “0” accidents for recognition is not recommended?

- Drives underreporting and lack of learning
- One of the worst communicated goals of all time

Provide a safe and healthful workplace … emphasizing (measuring and rewarding risk reduction and continuous improvement of safety programs)
Why implement a recognition program?

- Incentive to do work safety
- Awareness to do the right thing

... change “incentive” to “recognition”

- Positive participation
- Doing the right thing
Recognition Programs

★ Tied to proactive involvement
  ➢ Hazard Identification, Inspections, Incident Analysis, Suggestions

★ Tied to achieving commitments (objectives)
  ➢ “Safe” Conformance rates
    – Especially critical to safety (CTS)
  ➢ Action Plan Volume and Closure
  ➢ Engineering, substitution and elimination

★ Based on **both** the individual and team

★ Threshold based

★ Minimize reliance on incidence rates
Measure and Compare

- Measure Program Performance
  - Quantitatively
  - Qualitatively
  - Track Continuous Improvement
- Compare Results
  - By Time
  - By Sites

Set minimum scores and track continuous improvement for re-evaluations. Communicate periodically to the workforce.
Paul A. Esposito, CIH, CSP

Mr. Paul A. Esposito is President of STAR Consultants, in business since 1997. During 2007 - 2012, he was Vice President for ESIS, Health, Safety and Environmental Services, the consulting arm of ACE INA insurance company. He is a Certified Industrial Hygienist (CIH), a Certified Safety Professional (CSP) in Safety and Health with a master’s degree in Safety and Health Management from Johns Hopkins University.

Mr. Esposito has over 35 years experience in the health and safety field. He has been involved in the development of corporate safety and health programs for a number of Fortune 500 companies, as well as the Navy, EPA and DOE. A member of AIHA’s Management Committee for fifteen years, Mr. Esposito has developed an Industrial Hygiene Program Performance Metric Manual for publication by the AIHA. In addition to program development and measurement, he has audited over 350 facilities and operations for SMS and has performed over 1000 facility inspections.

His auditing experience includes: manufacturing and business facility audits for insurance companies; military installation audits for Department of Defense facilities world wide; and audit protocol development and auditing for Fortune 500 Companies and government agencies (EPA, DOD, DOE). DOE used his VPP evaluation protocol as the template for their internal evaluation guide, and he also authored their recent revision. His focus the past fourteen years has been safety and health management systems audits and audit program development.

His VPP experience includes assisting over 350 VPP/OHSAS 18000-type site assessments within the past 25 years. Clients include GE, Lucent, Eaton, BorgWarner, Motorola, Department of Energy, NASA, Lockheed-Martin and a number of other companies with the development and implementation of their VPP program. He has performed numerous VPP application reviews and has assisted DOE and OSHA in on-site VPP evaluations. His company has also developed and sells an Excel based programs for audits and evaluations, as well as manuals to help sites perform VPP and SMS evaluations.

His training experience includes over 3000 classroom hours as and instructor for a variety of courses and clients. Some of his courses includes: Job Safety Analysis, Strategic Planning, Laboratory Safety, Inspections, Occupational Risk Management, Hazard Communications, Carcinogens, Respiratory Protections, Incident Investigations, Safety Management Systems Auditing, Hazwoper, Hearing Conservation, Industrial Hygiene, Lead Safety, Asbestos Awareness, Ergonomics, Safety Committee development, etc. This training has been provided for clients such as: General Electric, BorgWarner, Eaton Corporation, NSA, DOD, Navy, EPA, Army Corps of Engineers, National Gypsum, City of Scottsdale, Georgia Pacific, ARCO, Lockheed Martin, Bechtel etc.

Mr. Esposito, in addition to the above, is asked by many client to mentor ESH personnel worldwide, whether technical, management systems, cultural or behavioral. Mr. Esposito regularly presents training courses and seminars at conferences such as American Industrial Hygiene Association, Voluntary Protection Programs, American Society of Safety Engineers, and other seminars throughout the country and worldwide. He is also one of the lead instructors for ASSE’s Risk Assessment Certificate program.
Understanding VPP Requirements

- In order to complete your VPP library, I suggest you obtain:
  - VPP Program Management Guidelines
  - OSHA’s 12 Chapters (Draft Managing Worker Safety and Health)
    - [http://www.dolir.mo.gov/ls/oshaconsultation/ccp](http://www.dolir.mo.gov/ls/oshaconsultation/ccp)
  - DOE’s on-site review handbook