

# Successfully Implementing Safety Management Systems

Deborah R. Roy, MPH, RN, COHN-S, CET, CSP  
Corporate Director of Health, Safety & Wellness  
L.L.Bean, Inc.

## Objectives

At the completion of this session, participants will be able to:

1. Identify three safety management systems.
2. Discuss the steps that can be used to implement a safety and health management system.
3. List two examples of safety and health management system activities that could be used at your workplace.

## Poll

Is your company using a safety and health management system? Yes or no

If yes, which one?

- ANSI Z-10
- OHSAS 18001
- OSHA VPP

## Introduction

Safety and Health Management Systems as a best practice



## Definition

A Safety Management System has been defined as:

*“ a formal framework for integrating safety into day-to-day [ ] operations and includes safety goals and performance targets, risk assessments, responsibilities and authorities, rules and procedures, and monitoring and evaluation processes”.*

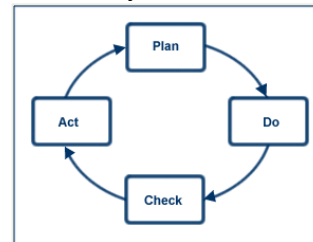
From: Canadian Railway Safety Act (CRSA).

<http://www.canlii.org/ca/sta/r-4.2/sec4.html>

## Principles of Management Systems

The key to a management system is the methodical and systematic control of business processes, in order to achieve pre-determined objectives.

- **Plan** – make plans;
- **Do** – carry out these plans;
- **Check** – check the actual results: do they fulfill the aims?;
- **Act** – correct where something has gone wrong and, where necessary or desirable, adjust the plans so that things go better from now on.



*The common key of different management systems: planning, process control, feedback, and adjustment can be found in this figure (the Deming circle).*

## Management Systems

- Concept of safety management systems is not new
- The idea is
  - to eliminate hazards/risks
  - and create a core value of a safe workplace



## Types of S&HMS

- OSHA VPP
- OHSAS 18001
- ANSI Z-10

## OSHA's Voluntary Protection Program (VPP)

- VPP started in 1982 and evolved into a management systems approach in the 1990s.
- The stated purpose of VPP is to:

*“Emphasize the importance of systematic management of OH+S, encourage improvement of safety and health programs, and provide recognition of existing excellence in safety and health programs”*

(Richardson 1,7).

## OSHA VPP

**The four major elements of VPP are:**

- Management Leadership / Employee Involvement
- Worksite Analysis
- Hazard Prevention / Control
- Safety and Health Training

(OSHA 2008)

## OSHA VPP

- VPP 's audit program includes an OSHA team
  - OSHA staff
  - volunteer Special Government Employees
- Approved sites are presented with
  - a plaque
  - a VPP flag
- These sites are also subjected to fewer inspections



## Occupational Health and Safety Assessment Specification OHSAS 18001

- This management systems methodology, based on the British system, was originally published in 1999 and was updated in 2007.
- The stated aim of OHSAS 18001 is:  
*“To assist organizations in managing and controlling their health and safety risks and improving their OH&S performance.”*

## OHSAS 18001

- The major elements of OHSAS 18001(2007) are:
  - OH&S policy
  - Planning for Hazard Identification
  - Implementation & Operation
  - Checking and Corrective Actions
  - Risk Assessment & Risk Control
  - Legal & Other Requirements
  - Continual Improvement
  - Objectives
  - OH&S Management Programs
  - Training

## OHSAS 18001

- The audit program for OHSAS is carried out by one of
  - several consulting firms approved by BSI called a Registrar
  - May result in certification



## ANSI Z-10

- Third is ANSI Z-10
  - published in 2005 as the first US consensus standard
  - Updated in 2012
- The stated goal of ANSI Z-10 is:

*“To use recognized management system principles, compatible with quality and environmental management system standards such as the International Standards Organization (ISO) 9000 and ISO 14000 series, as well as with principles adopted by the ILO, to encourage integration of safety into other business management systems (ASSE, 3).”*

## ANSI Z-10

- The major elements of Z-10 are:
  - Management leadership and employee participation
  - Planning
  - Implementation and operation
  - Evaluation and corrective action
  - Management review

(AIHA, 3)



## ANSI Z-10

- At time of publication there was no Z-10 certification scheme like other ISO standards or OHSAS 18001.
- Registrars who certify organizations for other standards are including Z-10.

## Major Differences

- ANSI Z-10 and OHSAS 18001 were written as
  - management system standards
  - require a risk assessment element
- VPP evolved over time
  - does not “require” risk assessment
- All safety and health management systems
  - *require compliance with the country regulations* except OSHA VPP
- VPP requires 3-year average of TCIR and DART

## How to Choose

Companies choose an S&HMS based on a variety of factors:

- Type of industry,
- Geographic location of parent company
- Existing standard certifications
  - such as ISO 9000
  - or 14000
- Existing OH+S programs and,
- Degree of recognition desired.



## How to Choose

- What is the norm?
  - OHSAS 18001, in some industries
  - OSHA VPP, companies in the US
  - System chosen from past experience



## Other Factors

- OSHA VPP audit conducted by some government employees
  - Some companies do not want to be involved with government.
  - VPP applications/audits are free which is not the case for other certifications.



## Other Factors

- OHSAS 18001 is considered
  - an international standard
  - used throughout the world for consistency
  - compatible with ISO 14001
- ANSI Z-10 was written as a
  - consensus standard
  - compatible with ISO 9001 and 14001
  - includes a wider variety of stakeholders, including organized labor.

## Why SMS Work?

### 1) Process improvement

- changes the focus of safety and health from a series of tasks → to a system
- requires management to commit to the long term program

## Why SMS work

### 2) Reduces both injuries and illnesses

- changes the conversation from zero injuries → to acceptable risk
- changes the metrics from lagging ones → to leading ones

## Why SMS work

### 3) Improves employee engagement

- Gradually transfers the responsibility for safety and health from the safety and health professionals to → everyone in the organization, including front line employees

## Why SMS work

### 4) Create culture change

- It changes the culture to one where safety is a value **not** a priority.



## Case Study - L.L.Bean

- Founded in 1912 – 1<sup>st</sup> Product – Bean Boot
- Annual sales 2011 - \$1.5 Billion
- Headquarters & Flagship Store – Freeport, Maine
- 5,000 Year Round Employees and 5,000 more during Peak
- 30 retail & outlet stores in U.S.
- 2 Manufacturing facilities in Maine
- 3 call centers plus Home Agents – Maine
- Distribution Center Complex- 3 facilities– Freeport, Maine
- Global operations



## L.L.Bean

- L.L.Bean has had:
  - seven sites in three different industry groups that achieved OSHA VPP status since 2007, and
  - five sites remain VPP star status at this time.
- Working on achieving VPP status on two more facilities by 2015.





## L.L.Bean Results

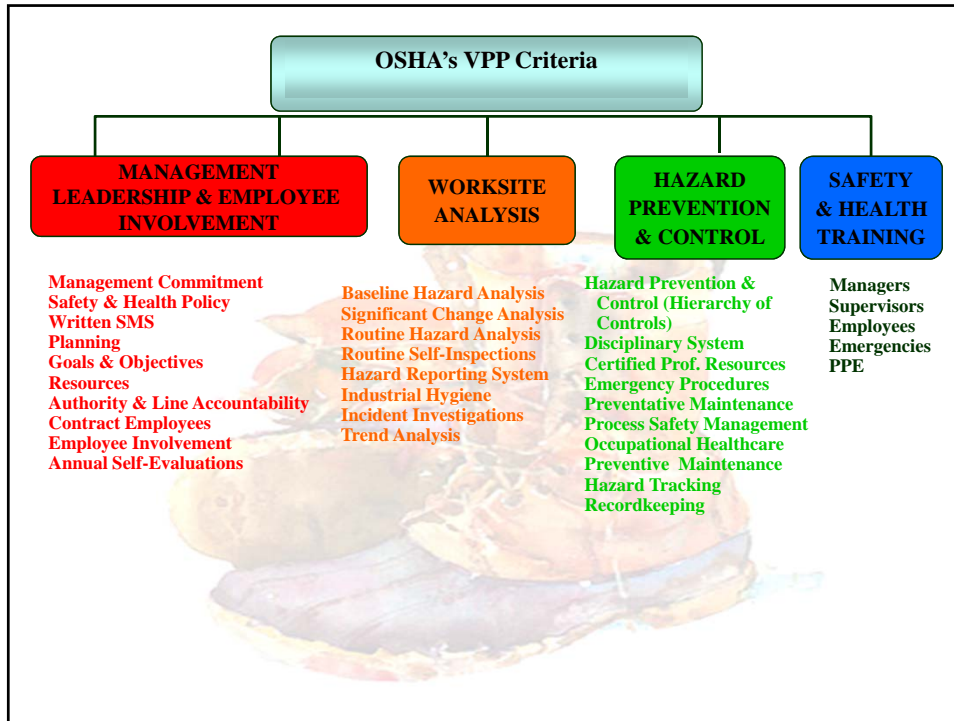
- Benefits far exceed the significant reduction in work-related injuries and illnesses.
- Culture now includes an engaged workforce having translated the management systems approach into their everyday work lives.
- VPP further transformed the sites despite the fact that the company is privately owned, had a “safe and healthy living” value to start, and had a variety of safety and health programs in place.



## Implementation of an SMS

- Next, the VPP implementation steps will be used to illustrate the extent of the process.
- The implementation process for VPP, OHSAS 18001 and Z-10 is very similar.





## ROADMAP TO SAFETY

2013 INDIANA SAFETY AND HEALTH CONFERENCE & EXPO  
MARCH 11-13, 2013 | INDIANA CONVENTION CENTER

### Step 1 - Develop a facility level implementation team

- Develop area implementation team
  - senior management
  - corporate safety staff
  
- Team responsibilities -
  - provide direction for the implementation project
  - identify frontline supervisors/employees to become element owners
  - appoint element leads

## Step 2 - Assign element owners

- Four VPP high level elements
- 30 or more sub-elements
  - example, one of those elements is ‘management of change’. Another is ‘preventive maintenance’.
- Element owner assignments based on interest or skill set
  - The ‘preventive maintenance’ element in this case is typically assigned to a facilities frontline supervisor.

## Element Owners

- Element owner – champion/expert on topic
- Corporate Safety staff provides training to element owners
- Element owner
  - develops budget
  - includes employees to assist in their tasks
  - develops any required written program
  - organizes any required training
- Element owners update Implementation team

## Getting element owners up to speed

- Magnitude of the tasks can initially be overwhelming
- Corporate Safety staff response
  - have the group list all safety related programs that they are aware already exist in the facility.
    - listed on post-it notes
    - place post-it notes on an art board that lists the elements
    - many of the elements already exist, which need to be completed from scratch?

## Step 3 - Plan a Kick-off event



- A kickoff event can inform all employees of overall plans in a creative way.
- Examples include:
  - DVD introducing VPP and an audience participation game to energize employees
  - Employee testimonials from other company VPP sites



## **Step 4 - Perform baseline assessment**

- Baseline assessment involves
  - facility tour
  - review of documentation
  - review of injury/illness data
- Issues found should be compared to the type of hazards that are typical in that industry
- At L.L.Bean, process completed by Corporate Safety staff and by SGEs
  - For example, an SGE who works at one of the call centers will do a review of a distribution building.



## **Step 5 - Implementation of elements**

- Element owners work with committees to complete the documentation, tasks or training needed.
- Implementation team and employee population is kept involved and informed.
- At L.L.Bean, this has involved a variety of games and activities that make learning fun and keep the employees engaged.

## **Step 6 - Arrange for a mock audit**

- After several months of implementation, the site may be ready for a mock audit.
  - Can be done by an SGE, Corporate Safety staff or safety staff from a different location
  - OSHA mentoring, mock audit
  - A mock audit allows for development of a list of recommendations. Then the site can assign responsibilities and complete the items.

## **Step 7 - Complete application**

- OSHA VPP - application required for audit approval
- Application prepared by Implementation Team, reviewed by Corporate Safety.
- Once approved by OSHA, a date can be scheduled for site visit

## Step 8 - Final review

- Implementation Team - review all elements
  - information needed by the OSHA audit team should be accessible and organized.
- Employees given final information
  - audit process
  - employee interviews

## Step 9 - OSHA audit

- Week long audit
  - facility walk through
  - interviews with employees and management
  - review of documents
- The OSHA team completes audit report
- Reports submitted for approval
  - OSHA Regional office
  - Washington
- TCIR and DART rates included



## Step 10 - Celebration

- Approval from OSHA
- Recognition event
- OSHA provides a VPP flag and plaque which is presented to the site by an OSHA official.



## Maintaining status

- Annual report
- Maintain 3 year average of TCIR and DART below industry average
- Another OSHA audit required every 3 to 5 years.



## Conclusion

- Safety and health management systems can be a powerful way to change the safety culture in your organization.
- Using a comprehensive safety and health program that identifies and eliminates risks will significantly reduce injuries, illnesses and deaths in the workplace.
- The elements and implementation steps are similar for all SMS.



## Review of Objectives

Identify three safety management systems.

Discuss the steps that can be used to implement a safety and health management system.

List two examples of safety and health management system activities that could be used at your workplace.



## Bibliography

- American Industrial Hygiene Association (AIHA). *Occupational Health and Safety Management Systems. ANSI/AIHA Z-10-2005*. Fairfax, VA: AIHA, 2005.
- American Society of Safety Engineers (ASSE). *The Compass. ANSI Z-10*. Des Plaines, IL: ASSE, Summer 2005.
- British Standards Institute (BSI). *Occupational health and safety management systems – Specification, OHSAS, 18001:1999*. London: BSI, 2002.
- Canadian Railway Safety Act (CRSA, 4 (1)). (retrieved March 28, 2012) (<http://www.canlii.org/ca/sta/r-4.2/sec4.html>).



## Bibliography

- Occupational Safety and Health Administration (OSHA). 2008. *VPP policy and procedures*. (retrieved March 28, 2012) [http://www.osha.gov/dcsp/vpp/vpp\\_policy.html](http://www.osha.gov/dcsp/vpp/vpp_policy.html)
- Petersen, D. *Techniques of safety management: A systems approach*. 4<sup>th</sup> ed. Des Plaines, IL: American Society of Safety Engineers, 1993.
- Richardson, M. *Preparing for the voluntary protection programs: Building your star program*. New York: John Wiley and Sons, Inc., 1999.



## **ROADMAP TO SAFETY**

2013 INDIANA SAFETY AND  
HEALTH CONFERENCE & EXPO  
MARCH 11-13, 2013 | INDIANA CONVENTION CENTER

# Questions?

Deb Roy  
L.L.Bean, Inc.  
(207) 552-4017  
droy7@llbean.com