

American Society of Safety Engineers
Professional Development Conference June 3-6, 2012



**Fundamentals of SH&E:
Basic Safety Management 101G**

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BASIC SAFETY MANAGEMENT ELEMENTS





BASIC ELEMENTS

What are the elements that make up an effective basic safety management plan?

- Management/Policy
- Recordkeeping
- Loss Analysis
- Safety & Health Education/Training
- Safety & Health Inspections/Surveys
- Accident/Incident Reporting & Investigations
- Plan & Programs Review



MANAGEMENT





MANAGEMENT

- The employer has the responsibility of providing a workplace free of any recognized hazards
- A successful safety management plan must rest on a solid foundation of management commitment and support



MANAGEMENT

- Is there a difference between commitment and support?
- Commitment
 - To pledge or assign to some particular course or use
- Support
 - To provide resources
 - Uphold, advocate, champion



MANAGEMENT



- Management must thoughtfully and thoroughly develop a safety and health policy that can be understood, believed and sets the tone for action.



MANAGEMENT

- Does management understand what the policy means?
- The policy should be short, sweet, and to the point. Preferably approximately a half page.
- To be effective, management must establish challenging (realistic) goals for that particular organization/industry.



MANAGEMENT

- Must assign responsibility (with authority) and hold accountable personnel for implementing the plan
- Must participate in safety forums, meetings, educational processes
- Management must “walk the talk”





RECORDKEEPING



RECORDKEEPING



- What records should be retained and why?
- Occupational Safety & Health Administration (OSHA) requires that employers with more than ten (10) employees maintain records.



RECORDKEEPING

- If the employer has ten (10) or less employees, they must maintain records if they have been requested to participate with the Bureau of Labor Statistics (BLS) in their annual survey of occupational illnesses and injuries.



RECORDKEEPING

- Records serve as a source of support for managing the safety management plan. May be beneficial in strengthening other safety management programs. Loss/trend analysis
- Records can serve as support during legal or other evidentiary proceedings.





RECORDKEEPING

- Management should determine what records should be retained and for what period of time. For example:
 - OSHA requires OSHA 300 Logs be retained for a period of five (5) years, plus current year.
- Management should designate a person(s) to maintain what records and where.

A screenshot of the OSHA Form 300, titled "Log of Work-Related Injuries and Illnesses". The form is a table with multiple columns for recording details of incidents, including date, location, description, and classification. The bottom of the form is labeled "OSHA Form 300".



RECORDKEEPING

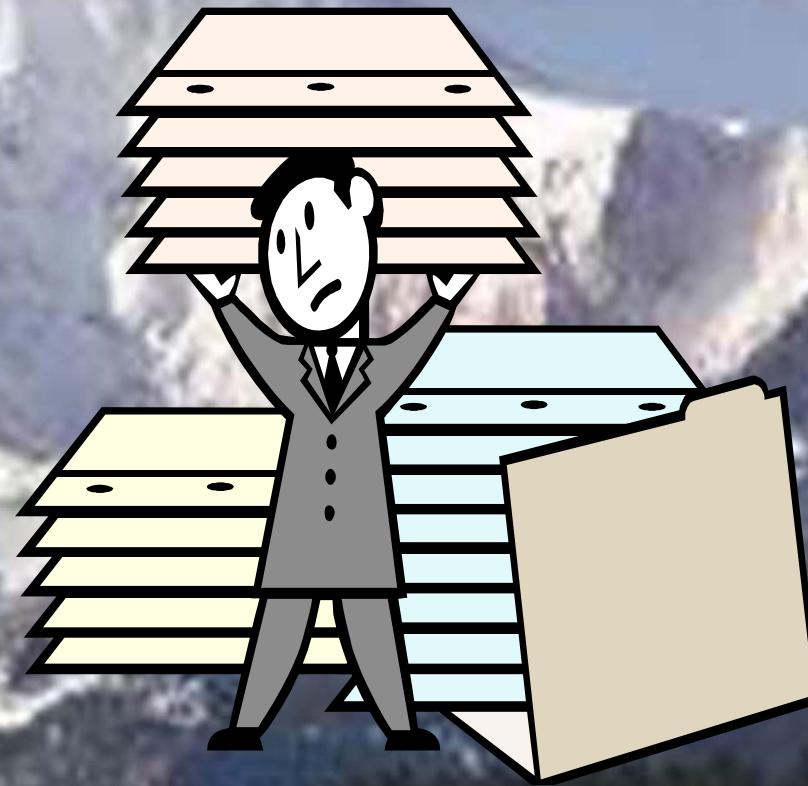
- Records kept should be
 - OSHA 300, Log of Work-Related Injuries and Illnesses
 - OSHA 300A, Summary of Work-Related Injuries and Illnesses

A screenshot of OSHA Form 300, titled 'Log of Work-Related Injuries and Illnesses'. The form includes a header section for company information and a large table with columns for 'Date', 'Description of Injury or Illness', 'Employee Name', 'Job Title', 'Department', 'City and State', 'OSHA 300 Code', 'Days Away from Work', 'Job Transfer or Restriction', 'Medical Treatment Received', and 'Other Information'. The table contains several rows of data, including dates, descriptions of incidents, and employee details. The form is labeled 'OSHA Form 300' at the bottom.



RECORDKEEPING

- Accident/incident reports & investigations (OSHA 301, Injury and Illness Incident Report)
- State reports
- First aid





RECORDKEEPING

- Property damage/losses
- Liability losses
- Motor vehicle liability/damage/losses/maintenance
- Security losses
- Inspections/surveys
- Safety meetings or other related meetings





RECORDKEEPING

- Education/training records
- Equipment inspection/maintenance
- What retention period for each would be sufficient?
- What other records should be retained?



LOSS ANALYSIS





LOSS ANALYSIS

- **What is loss analysis?**
- **The means of studying statistical data (favorable and/or unfavorable) to determine trends or identify problem areas**
- **Why do loss analysis?**
- **Mistakes or errors result in damaged products, production delays, or employee accidents/incidents that effect profit**



LOSS ANALYSIS

- Two (2) basic types
 - Trend
 - Job Safety Analysis (JSA)





LOSS ANALYSIS

- **Trend**
 - Used to identify trends indicated by statistical data gathered from other program components
 - Accident/incident data
 - Inspection/survey data
 - Indicate where problem areas exist and where to allocate limited resources



LOSS ANALYSIS

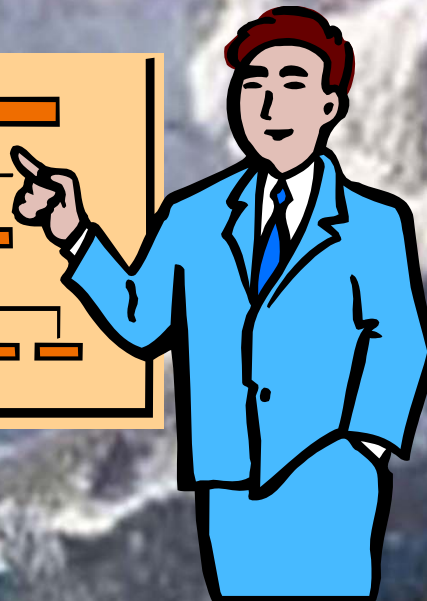
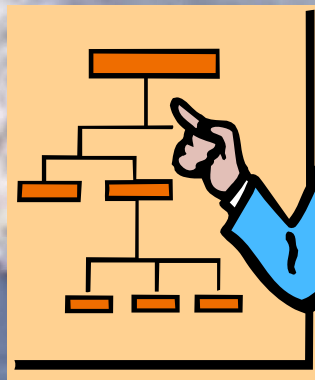
- **Conducting a Trend Analysis**
- **Select the data to be analyzed**
 - Injury, inspection/survey, etc. data
- **Determine time period**
 - Monthly, quarterly, annually
- **Identify similarities**
 - Injuries, job functions, etc.
- **Develop corrective actions**





LOSS ANALYSIS

- **Job Safety Analysis (JSA)**
 - Identifying the hazard associated with a job task and applying measures to protect the employee(s) or to eliminate or control (minimize) the hazard





LOSS ANALYSIS

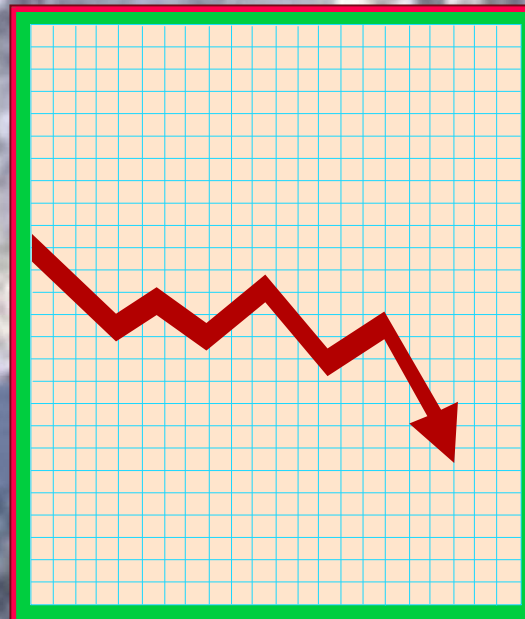
- Solutions could include
 - Physical changes
 - Machine guards, process layout, etc.
 - Change in procedures
 - The way the job is performed, etc.





LOSS ANALYSIS

- Management should designate a person(s) responsible for conducting the analysis
- Including time frames and job tasks





SAFETY & HEALTH EDUCATION/TRAINING



EDUCATION/TRAINING



- Safety & health education/training is provided to minimize and/or eliminate unsafe acts (behaviors) while performing tasks
- Used to identify hazards involved in tasks, as well as, procedures to avoid them

EDUCATION/TRAINING



- Who should receive education/training?
 - Management
 - Line
 - Middle
 - Senior



EDUCATION/TRAINING



- **Employees**
 - **New hires**
 - **Transferred**
 - **Continual**
 - **Temporary**
- **Contractors?**



EDUCATION/TRAINING



- How often should education/training be provided?
- Depending on the complexity of the subject and regulatory requirements
 - Quarterly
 - Semi-annually
 - Annually
 - Bi-annually
 - Tri-annually

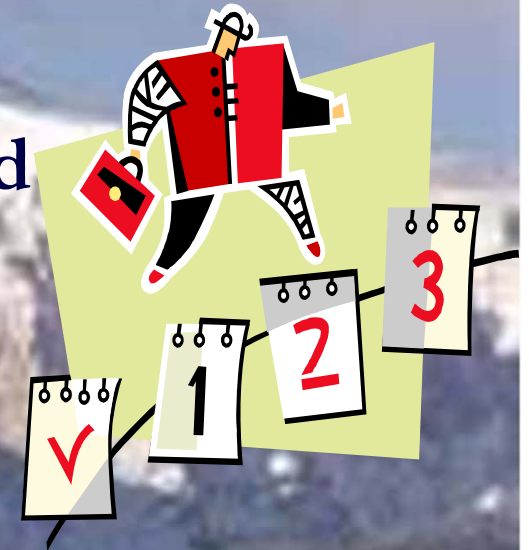


EDUCATION/TRAINING



Seven (7) Steps to Education/Training

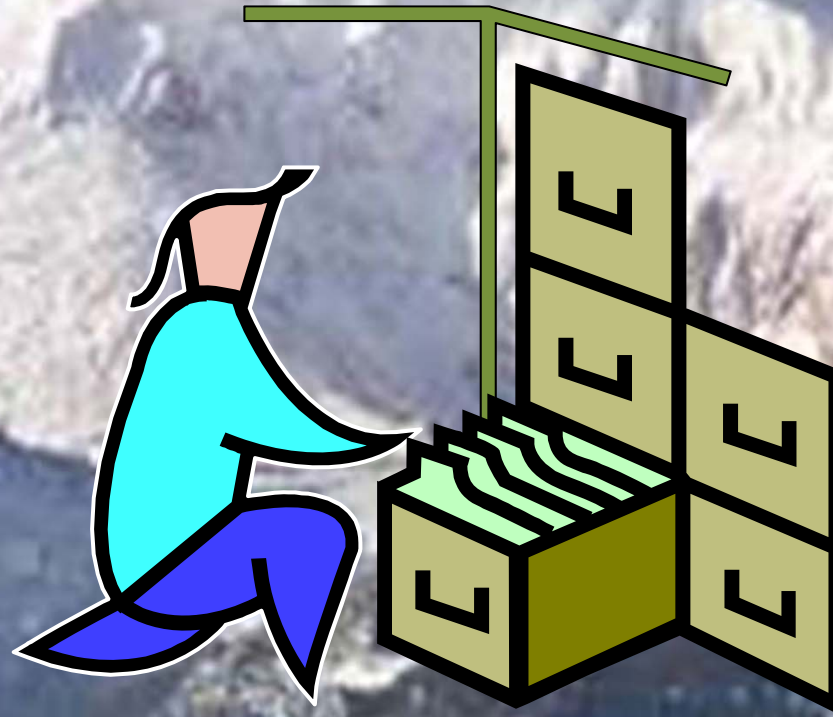
1. Determine if education/training is needed to solve the problem
2. Identify the education/training need
3. Identify the goals and objectives
4. Develop learning activities
5. Conduct the education/training
6. Evaluate education/training effectiveness
7. Improve the process



EDUCATION/TRAINING



- All training should be properly documented
- Who conducts the education/training process?





SAFETY & HEALTH INSPECTIONS/SURVEYS



INSPECTIONS/SURVEYS



- Inspections and surveys can be a proactive tool in identifying hazards and behaviors before the losses occur.
- Inspections and surveys can also be a reactive tool, such as a thorough inspection after an accident or incident has occurred to determine what else could go wrong.

INSPECTIONS/SURVEYS



- When to conduct inspections/surveys may be
 - Daily
 - Weekly
 - Monthly
 - Quarterly
 - Semi-annually
 - Annually
 - Special needs, i.e., plant turnarounds, non-routine activities, etc.
 - Follow-up



INSPECTIONS/SURVEYS



- Who should do the inspections/surveys?
 - Employees
 - Line managers
 - Mid managers
 - Safety & health staff
 - Safety committee
 - Insurance carrier
- Who else?



INSPECTIONS/SURVEYS



- Inspections/surveys should be properly documented
 - Checklists
 - Narratives
 - Follow-ups





ACCIDENT/INCIDENT REPORTING & INVESTIGATIONS





ACCIDENT/INCIDENT

- Why report and investigate?
 - Determine the cause
 - Uncover indirect incidents causes
 - Prevent similar incidents
 - Document facts
 - Cost information
 - Promote safety & health
 - Fact Find NOT Fault Find



ACCIDENT/INCIDENT



- Items to identify
 - Reporting requirements and procedures for both the employer and employees
 - Training?
 - Personnel responsible for investigations
 - Who should investigate?
 - Guidelines for how to conduct a thorough investigation
 - Training?



PLAN & PROGRAMS AUDIT/REVIEW



PLAN & PROGRAMS AUDIT/REVIEW



- The purpose of auditing or reviewing the safety management plan and its programs is to keep it working efficiently and effectively in preventing accidents, injuries, and other losses.
- Does the plan and its programs keep pace with the ever changing operating environment?



PLAN & PROGRAMS AUDIT/REVIEW

- Determine who will conduct the audit/review
- How often will the audit/review be conducted?
 - At least annually



PLAN & PROGRAMS AUDIT/REVIEW



- **Documentation**
 - All audits/reviews should be properly documented with the findings and the necessary actions to be taken.





OCCUPATIONAL HEALTH & SAFETY MANAGEMENT SYSTEMS



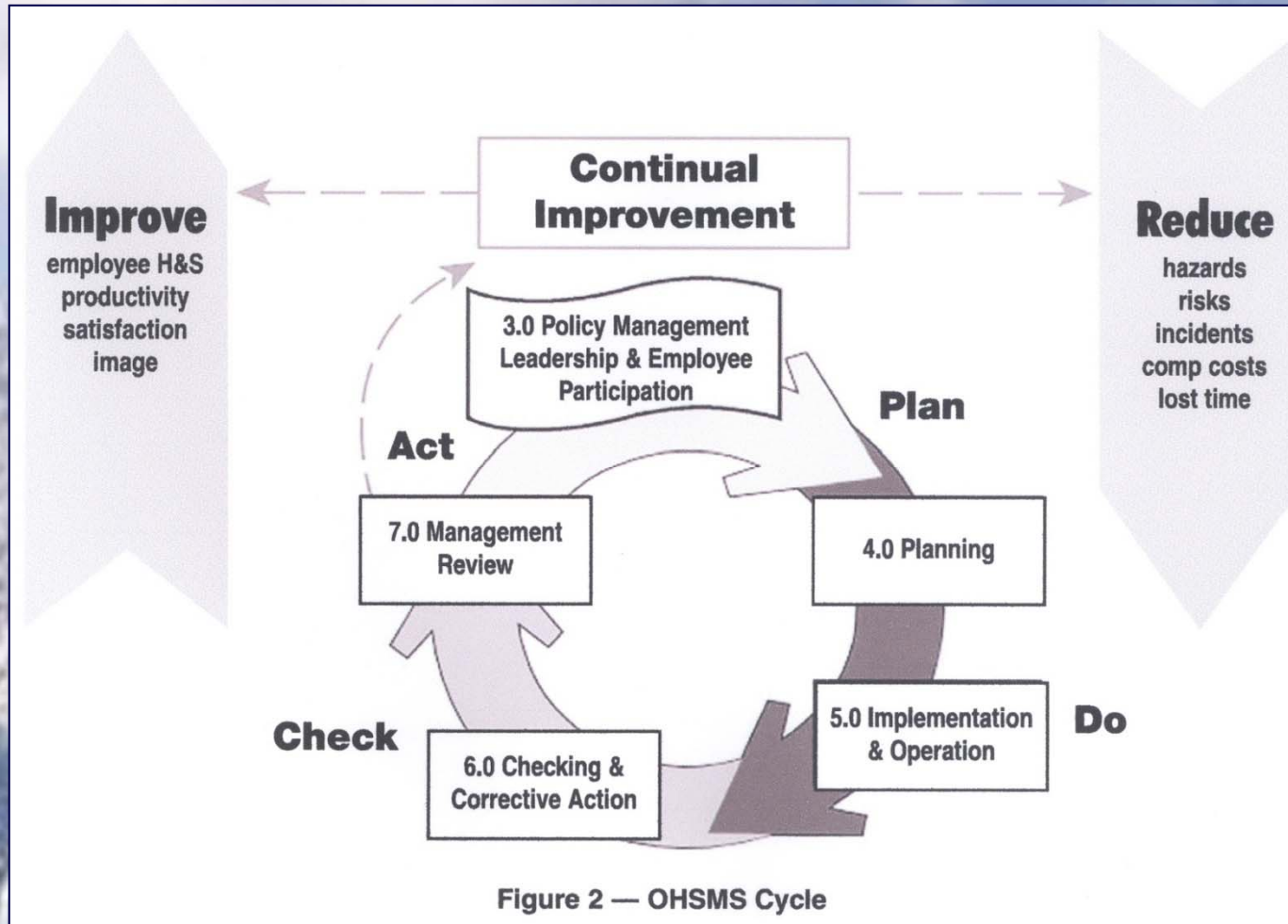
**ANSI/AIHA Z10-2005
OCCUPATIONAL HEALTH &
SAFETY MANAGEMENT
SYSTEMS**

ANSI/AIHA Z10-2005 ELEMENTS



- 1. Scope, Purpose, Application**
- 2. Definitions**
- 3. Management Leadership & Employee Participation**
- 4. Planning**
- 5. Implementation & Operation**
- 6. Evaluation & Corrective Action**
- 7. Management Review**
- 8. Appendices**

ANSI/AIHA Z10-2005 ELEMENTS





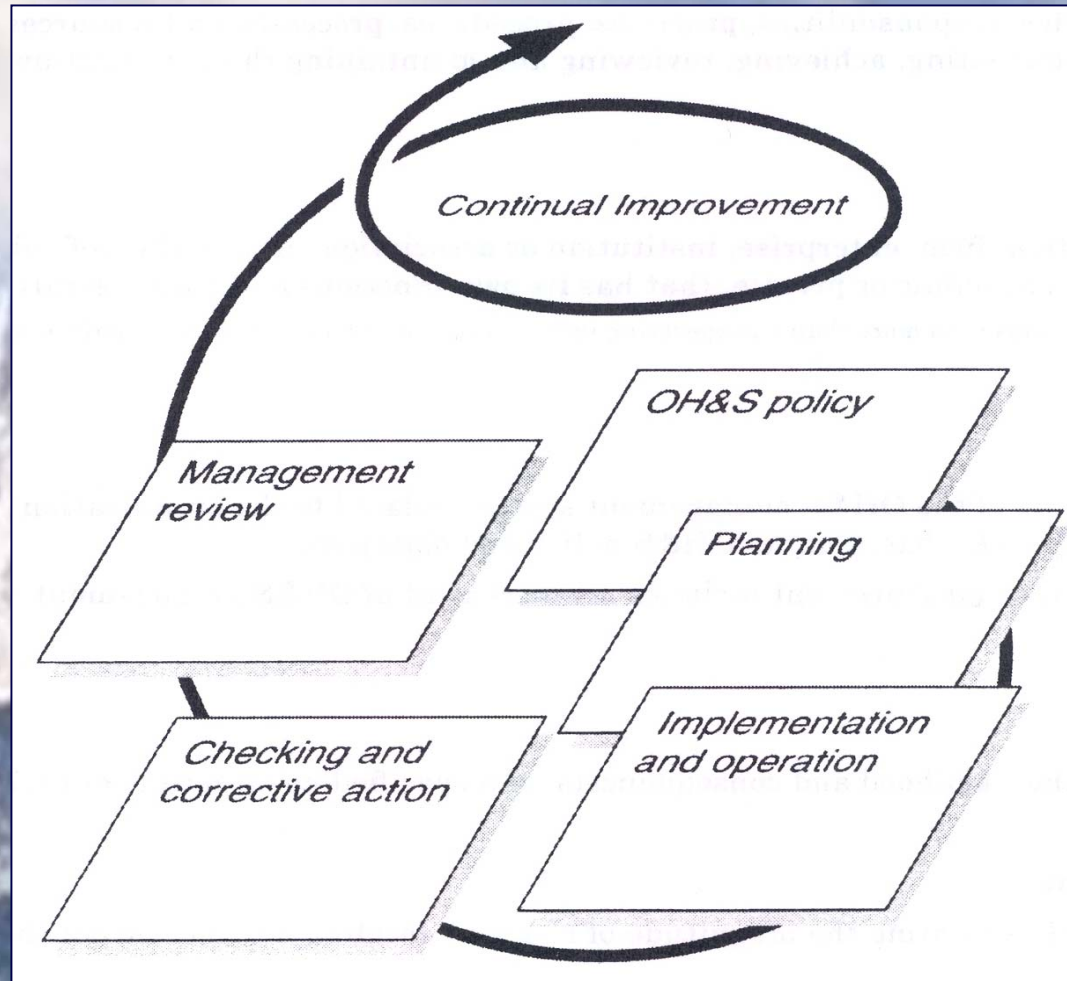
**OHSAS 18001
OCCUPATIONAL
HEALTH & SAFETY
ASSESSMENT SERIES**



OHSAS 18001 ELEMENTS

1. Scope
2. Reference publications
3. Terms & definitions
4. OH&S management system elements
 - General requirements
 - OH&S Policy
 - Planning
 - Implementation & operation
 - Checking & corrective action
 - Management review

OHSAS 18001 ELEMENTS





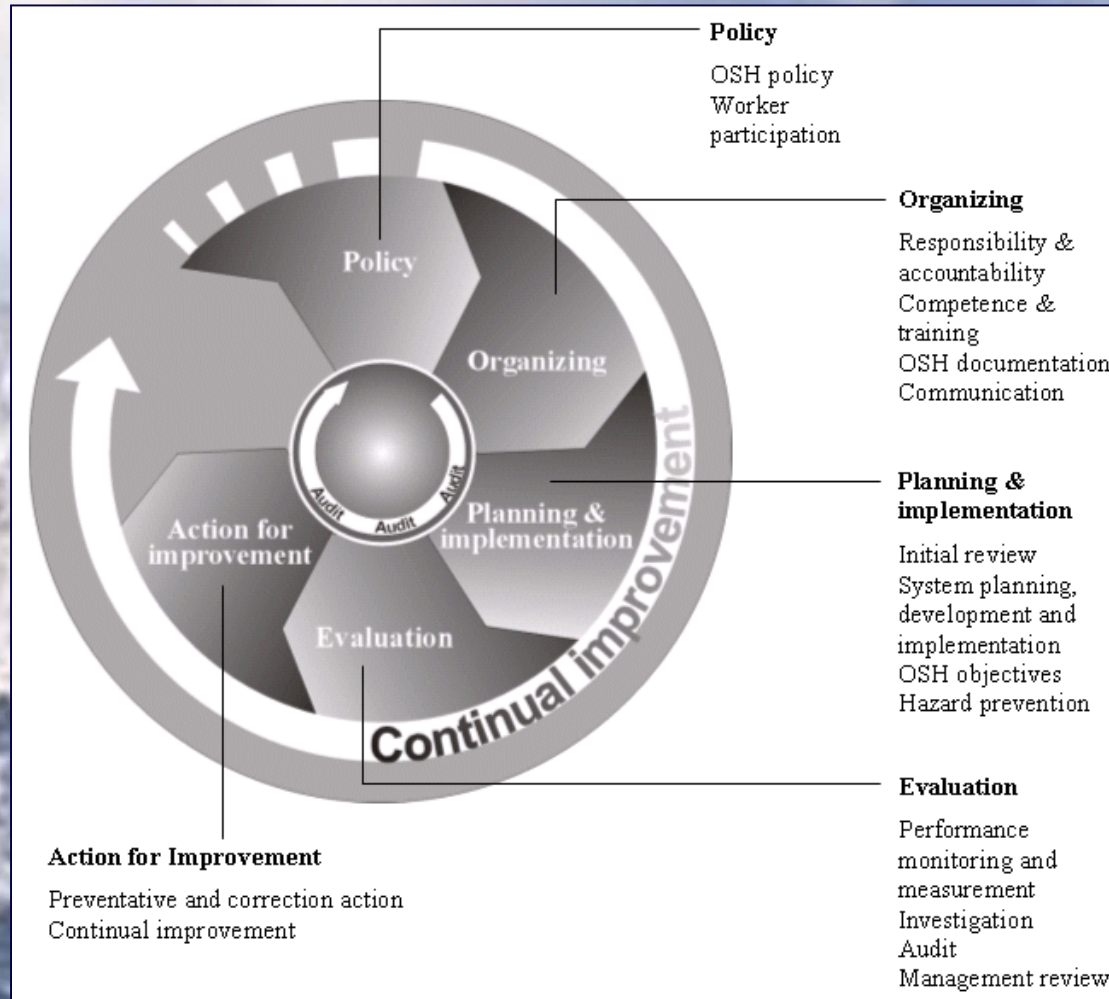
**ILO-OSH 2001
GUIDELINES
FOR
OCCUPATIONAL SAFETY &
HEALTH MANAGEMENT
SYSTEMS**

ILO-OSH 2001 ELEMENTS



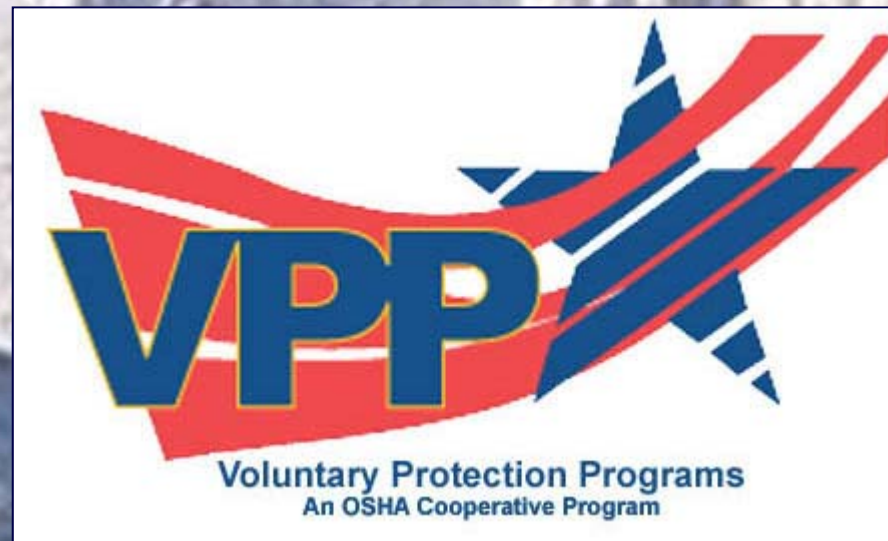
1. Objectives
2. National framework for OHS-MS
3. Policy
 - Organizing
 - Planning & implementation
 - Evaluation
 - Action for improvement

ILO-OSH 2001 ELEMENTS





VOLUNTARY PROTECTION PROGRAM (VPP)





VPP ELEMENTS

1. Management Leadership and Employee Involvement
2. Worksite Analysis
3. Hazard Prevention and Control
4. Safety and Health Training





**SEVEN GUIDING
PRINCIPLES TO
INTEGRATED
SAFETY
MANAGEMENT
(ISM)**



INTEGRATED SAFETY MANAGEMENT



1. Workforce Responsibility and Accountability

- Line management is responsible and accountable for the protection of employees, the public, and the environment. Everyone is responsible and accountable for the safe conduct of their activities.

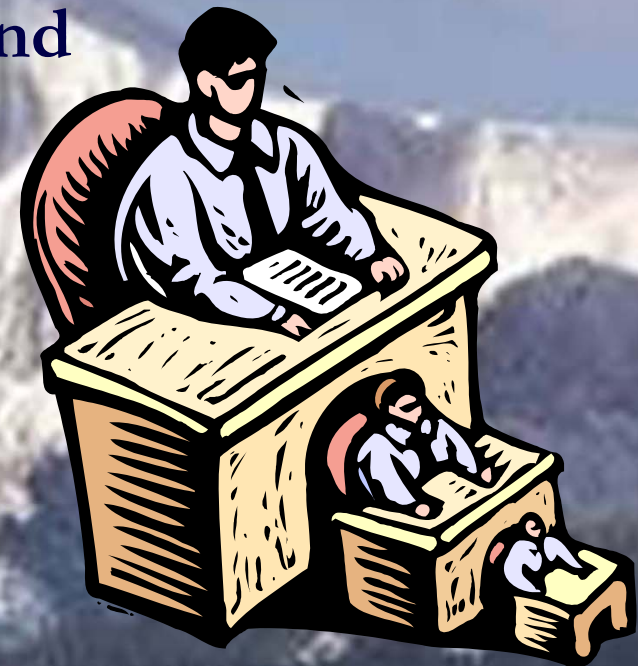


INTEGRATED SAFETY MANAGEMENT



2. Clear Roles, Responsibilities and Authorities

- There are clear roles and lines of responsibility, authority, and accountability at all levels of the organization to ensure protection of employees, the public, and the environment.

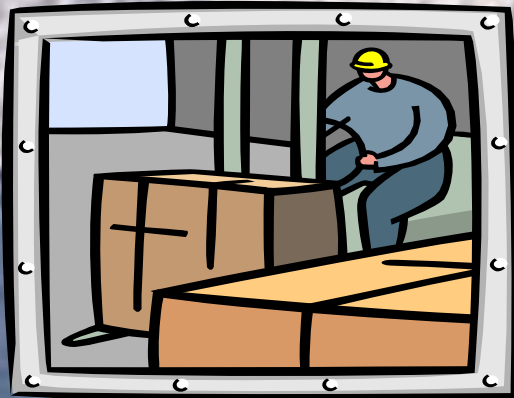


INTEGRATED SAFETY MANAGEMENT



3. Competence Commensurate with Responsibilities

- All employees have the experience, knowledge, skills, and abilities needed to perform their work safely and competently.



INTEGRATED SAFETY MANAGEMENT



4. Balanced Priorities

- Management will allocate resources to address safety, programmatic, and operational considerations. No work will be performed unless it can be performed safely.



INTEGRATED SAFETY MANAGEMENT



5. Identification of ES & H Standards and Requirements

- Hazards shall be evaluated and appropriate controls implemented before work is performed to provide adequate protection to employees the public, and the environment.



INTEGRATED SAFETY MANAGEMENT



6. Hazard Controls Tailored to Work Being Performed

- Engineered and administrative controls shall be in place to prevent and control work-associated hazards.



INTEGRATED SAFETY MANAGEMENT



7. Work Authorization

- No work will be performed unless it can be shown to be done safely.

U. S. Dept. of Energy





CORE FUNCTIONS



CORE FUNCTIONS

- **Define the Scope of Work**
 - Missions are translated into work, expectations are set, tasks are identified and prioritized, and resources are allocated





CORE FUNCTIONS

- Analyze the Hazards
 - Hazards are associated with the work identified, analyzed, and categorized





CORE FUNCTIONS

- **Develop and Implement Hazard Controls**
 - Applicable standards and requirements are identified and agreed-upon, controls to prevent/mitigate hazards are identified, the safety envelope is established, and controls are implemented





CORE FUNCTIONS

- **Perform Work Within Controls**
 - Readiness is confirmed and work is performed safely





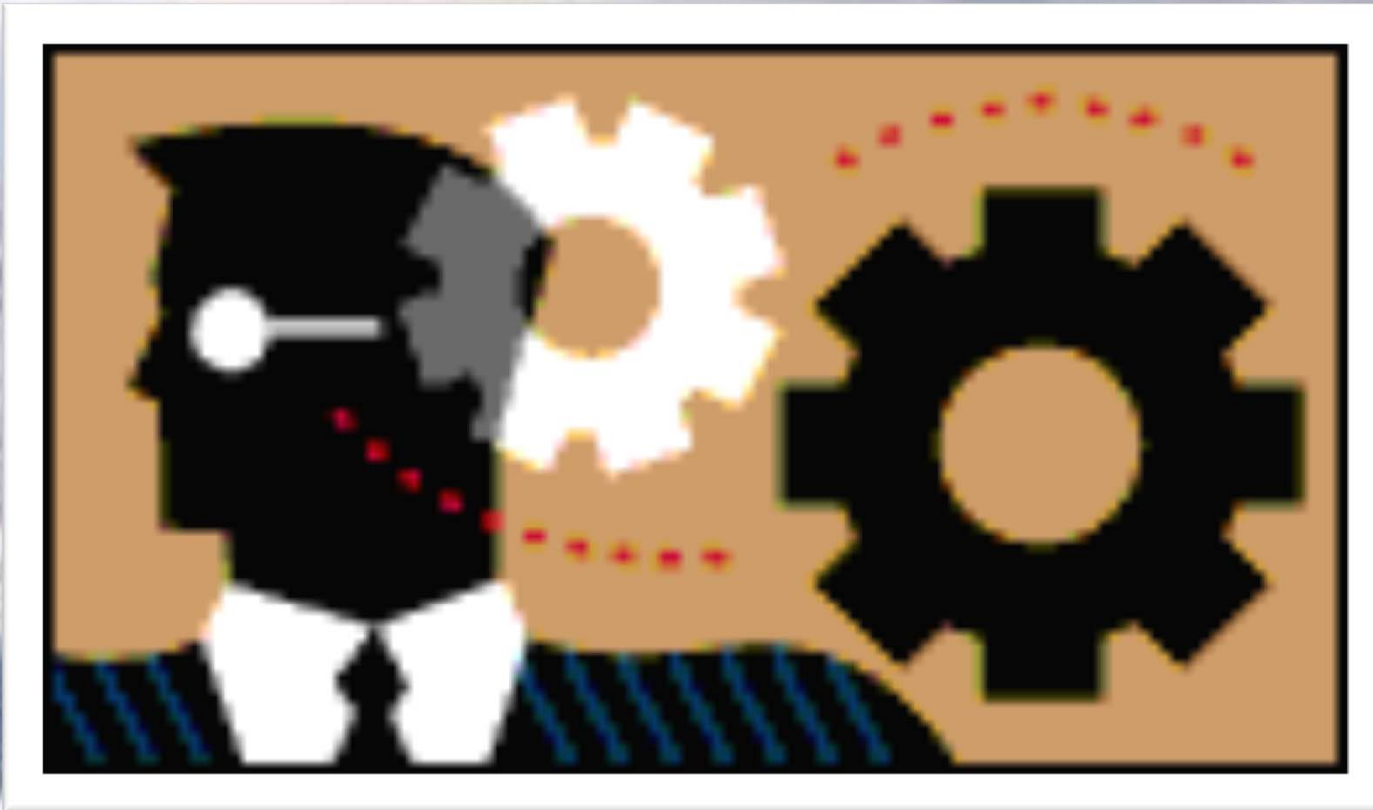
CORE FUNCTIONS

- **Provide Feedback and Continuous Improvement**
 - Feedback information on the adequacy of controls is gathered, opportunities for improving the definition and planning of work are identified and implemented, line and independent oversight is conducted, and, if necessary, regulatory enforcement actions occur
- U. S. Dept. of Energy





IN SUMMARY





IN SUMMARY

- To create an effective basic safety management plan, the organization must have these elements
 - Management/Policy
 - Recordkeeping
 - Loss Analysis
 - Safety & Health Education/Training
 - Safety & Health Inspections/Surveys
 - Accident/Incident Reporting & Investigations
 - Plan & Programs Review



Questions?



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