Construction Safety Management





Elements of A Safety Program



Safety Program Development

- Assignment of responsibility
- Hazard identification and control
- Training and communication
- Documentation and enforcement of safety rules



Safety Program

- Maintenance of safe working conditions
- Setting performance goals
- Rewarding safety performance
- Reviewing circumstances involved in incidents
 - Taking appropriate corrective actions





Safety Program (continued)

- Establishing safety performance objectives for all levels of management
- Including safety as part of management performance reviews
- Measuring effectiveness



Benefits of a Safety Program



Benefits

- Reduced workers' compensation claims
- Reduced expenses related to injuries and illnesses
- Reduced absenteeism
- Lower employee complaints



Benefits (continued)

- Improved employee morale and satisfaction
- Increased productivity
- Reduction of hidden cost
- Reduced insurance cost





Consequences





Hidden Cost

- Workers' compensation cost
- Replacement and training cost for new or substitute employee
- Poor quality
- Penalties for non-compliance





Establishing Project-Specific Activities



Planning a Project

- Develop goals and objectives
- Define project team
 - Project manager
 - Site supervisor
 - Site safety
- Other programs







Roles and Responsibilities

- Supervisors/Management
 - Establish safe work practices
 - Enforce safety rules and regulations
 - Train employees how to avoid hazards
 - Enforce reporting work-related injuries, illnesses, and near misses
 - Investigate causes of incidents or near misses
 - Take the appropriate action to prevent recurrence
 - Ensure prompt medical attention



Roles and Responsibilities (continued)

Safety professional

- Develop and implement accident prevention programs
- Advise management on company policies and governmental regulations
- Evaluate effectiveness of existing safety programs
- Train management in safety observation techniques



Why Have a Plan?

- Designed to protect
 - Personnel
 - Environment
 - Public
 - Operation and Equipment



Why Have a Plan (continued)

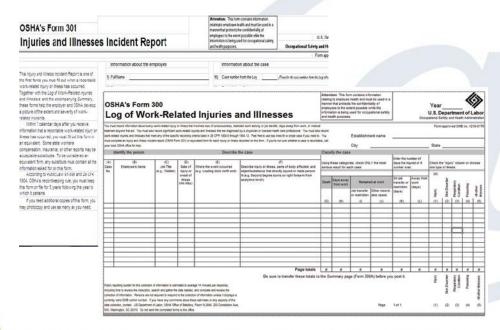
- Government regulations
 - OSHA
 - EPA
 - State/Local
- Public/Private requirements



Typical Programs

Recordkeeping

- OSHA 300 log and supplementary forms
- OSHA 301, accident investigations
- Workers' compensation cases
- Employee's medical history





- Personal Protective Equipment (PPE)
 - Proper use
 - Employee training
 - Enforcement
 - Dusty operations
 - Unknown hazards
 - Hazardous waste operations and emergency response



- Hazard Communication Program
 - Written program development and implementation
 - Chemical inventory
 - Communicate safe work methods for:
 - Jobs-specific activities
 - Non-routine tasks
 - Labeling requirements
 - MSDS
 - Employee training (contractors)



- Machine guarding
 - Make sure that machine guarding is:
 - Replaced and tested for proper function when removed for maintenance
 - Review electrical and mechanical interlocks to see if they work properly
- Equipment repair
 - Inspect and repair and/or replaced defective parts



Always Keep Safety Guards In Place



Lockout/Tagout

- Make sure that lockout/tagout procedures are established
- Employees trained

Others

- Confined-space entry
- Excavation
- Heavy equipment
- Air monitoring



Top Violations

Citation Reference

- 29 CFR 1910.1200 (e)(1)
- 29 CFR 1904.2 (a)
- 29 CFR 1903.2
- 29 CFR 1910.147

Description

Hazard Communication

Recordkeeping

Signage

Lockout/Tagout



Top Violations (continued)

Citation Reference

- 29 CFR 1910.212 (a)(1)
- 29 CFR 1910.215 (b)(9)
- 29 CFR Subpart I

Description

Machine Guarding

Abrasive Wheel Machinery

Personal Protective Equipment



Formulating the Plan

- Team effort required
 - Management
 - Supervisors
 - Laborers





Formulating the Plan (continued)

- Developing scope of work
- Identifying controls for reducing hazards
- Reviewing hazards of each task
 - Physical
 - Chemical
 - Biological



Formulating the Plan (continued)

Review

- Facility
- Operations
- Hazardous materials

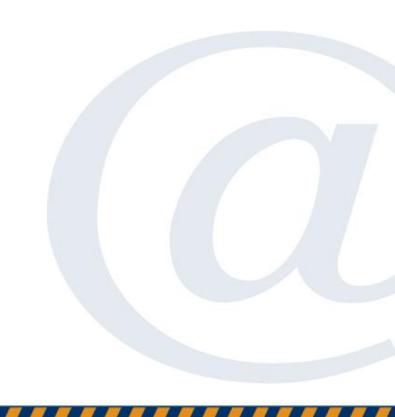
Points to consider

- Details of the plan
- Degree of action required
- Envision potential incidents
- Review previous incidents



Finalizing the Plan

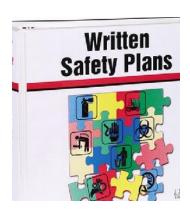
- "User-Friendly" Plan
- Final Review
- Outside Audit





Implementing the Work Plan

- Essential in reducing injuries and illnesses
- Maintains a safe environment
- Designed to protect employees, company's facilities, and local community







Work Plan (continued)

- Pre-entry briefing to alert personnel of hazards
- Conduct job hazard analysis as appropriate
- Periodic safety inspection
 - Correct known deficiencies
- Must be available for review and updated as required



Preparing Scope of Work

- Teamwork
 - Brainstorming
- Project impact items
- Show stoppers
- Delegating responsibilities
- Project review





General Requirements

- Company policies
- Site description, background
- Site security
- Emergency response





Identifying Project-Specific Requirements

Job hazard analysis

- Select activities with highest risk
- Break activity into individual components
- Identify potential hazards in each component
- Develop procedures to eliminate/reduce hazard





Contractor Pre-qualification

- Must complete pre-qualification
 - Incident rates
 - Experience Modification Rates (EMR)
 - OSHA recordable cases
 - General company information
 - Safety programs
 - Medical surveillance programs
 - Management philosophy



Project Start-up

- Review contractor's
 - Scope of work
 - H&S plan
- Site-specific training
- Pre-construction meeting





Determine Contractor Relationship

- Identify who supervises contractor employees
- Must have on-site project supervisor/manager
- Must share responsibility/liability





Contractor Project Management

- Must share responsibility/liability
- Must be able to interpret/manage safety programs, solve problems effectively
- Must have skills to recognize legal, financial, and customer relations



Contractor-Management Responsibilities

- 29 CFR 1926.16(d)
 - "Where joint responsibilities exist, both the prime and their subcontractor or subcontractors, regardless of tier, shall be considered subject to the enforcement provisions of this Act"
- 29 CFR 1926.16(c)
 - "With respect to subcontracted work, the prime contractor and any subcontractor or subcontractors shall be deemed to have joint responsibility"



Develop Emergency Response

- Qualified to perform
- Equipment/Response time adequate
- Aware of operations and hazards





Problems with Emergency Response

- Guidelines NOT followed
- Improper initial response
- Non-functioning equipment
- Environmental conditions





Emergency Response Critique

- OSHA/EPA requirements
- Reviews incidents
- Develops new procedures
- Enhances training





Continual Improvement

- Guidelines must be created for improvement
 - Company policies
 - Contractors rules/procedures
 - H&S plan
- Learning from mistakes
- Safety must be measured and monitored



Reviewing Ongoing Operations

- Conduct site safety inspections
- Review training records and work permits
- Review air monitoring data
- Review how deficiencies are detected and corrected
- Conduct progress meetings



Summary

- Eliminate hazards
- Reduce risks when hazards cannot be eliminated
- Provide warning devices
- Develop and implement procedures and training







Summary (continued)

Engineering controls

- Preferred
- Permanent
- Not as dependent on human errors as other types of controls, and is less likely to fail
 - Problem is usually corrected for good



Summary (continued)

- Accountability must be present
- Management commitment must be visible
- Teamwork is a requisite for success
- "Paper" safety programs are not acceptable



Risk & Safety Management Contact

If you have any questions or would like Risk and Safety assistance with your policy, please contact us:

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