

FUNDAMENTALS OF AN EFFECTIVE SAFETY & HEALTH PROGRAM

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FUNDAMENTALS OF AN EFFECTIVE SAFETY & HEALTH PROGRAM

COURSE OBJECTIVES

Upon completion of this course, the participant:

- ☞ Will be able to identify the elements of an effective safety & health program

- ☞ Will be able to use the Division of Safety & Hygiene's 10-Step Business Plan in the workplace

- ☞ Will be aware of mandated governmental regulations

- ☞ Will recognize the value of a "safety culture" in the workplace

- ☞ Will be aware of the many and varied training requirements necessary to protect employees, the need for a thorough accident/incident investigation protocol, and the importance of documentation

- ☞ Will be able to identify additional sources of assistance for developing and implementing an effective safety & health program

FUNDAMENTALS OF AN EFFECTIVE SAFETY & HEALTH PROGRAM

AGENDA

DAY 1

8:30 Introduction

Background

Why have a safety program?

What is the downside of not having a safe operation?

What is a Safety Culture?

Difference between Occupational Safety & Health Administration
(OSHA) and Division of Safety & Hygiene, BWC

10-Step Business Plan (an overview)

Step 1: Visible, Active Senior Management Leadership

11:30 LUNCH

12:30 Step 2: Employee Involvement & Recognition

Step 3: Medical Treatment and Return-to-Work Practices

Step 4: Communication

Step 5: Timely Notification of Claims

Step 6: Safety & Health Process Coordination

Steps 7 & 8: Orientation and Training / Written and Communicated Safe
Work Practices (overview)

Hazard Communication

Lockout/Tagout

4:30 DISMISS

AGENDA continued

DAY 2

- 8:30 Steps 7 & 8 continued
- Personal Protective Equipment
 - Emergency Action/Response Plan
 - Hearing Conservation
 - Powered Industrial Trucks
 - Respiratory Protection
 - Ergonomics
 - First Aid Training
 - Bloodborne Pathogens
 - Confined Spaces
- 11:35 LUNCH
- 12:35 Steps 7 & 8 continued
- Accident Investigation
 - Additional programs
 - Division of Safety & Hygiene Services
- Step 9: Written Safety & Health Policy
- Step 10: Recordkeeping and Data Analysis
- Case Studies
- 4:30 DISMISS

BIOGRAPHICAL INFORMATION INSTRUCTORS

Ron Abrams, Safety Consultant (Independence) (216) 999-8662 (Voice-mail)

Ron is a Safety Consultant with the Independence Office of the Division of Safety & Hygiene. He formerly worked as investigator, then chief investigator, for the Cuyahoga County Coroner's office for 11 years. Ron's experience includes 5 years as safety Non-Commissioned Officer in the Ohio National Guard, and 3 years safety experience at the Perry Nuclear Power Plant. He holds a degree in Education from Kent State University.

Dennis Apple, Safety Consultant (Canton) (330) 471-0627 (Voice-mail)

Dennis joined the Division of Safety & Hygiene in 1998. He holds a degree in Environmental Safety Management from Kent State University. Dennis has previous work experience in public health, hazardous waste management, hazardous material transportation, and rail construction. Dennis holds professional certifications as a Senior Level Certified Hazardous Materials Manager (CHMM) and a Registered Sanitation (RS).

John Biedka, Safety Consultant (Warren) (330) 509-8958 (Cell)

John has over 10 years experience in safety, and over six years experience in environmental science and workers' compensation. He joined the BWC Division of Safety & Hygiene in December 1998. He holds a Bachelor of Science degree in Environmental Science from Slippery Rock University in Pennsylvania. He has worked with a number of industries, including precious metals, agricultural chemicals, environmental (Superfund remediation), aerospace and transportation.

Gary Constance, Safety Consultant (Governor's Hill) (330) 471-0627 (Voice-mail)

Gary is a Construction Safety Consultant that has been with the Division of Safety and Hygiene since 1980. He has an Associates Degree in Risk/Safety Management. Prior to being with the Division of Safety and Hygiene, he was with the US Navy in Safety and Maintenance. Gary is currently with the Governor's Hill Service Office.

Joan McAllister, Safety Consultant (Independence) (216) 586-9499 (Voice-mail)

Joan joined the BWC Division of Safety and Hygiene in 1998. She received an Associate of Science degree in Environmental Safety and a Bachelor of Science in Technology from Kent State University. She has 3 years practical experience. In addition to training, Joan enjoys consulting in both Industry and Construction from the Independence office.

Scott Hayes, Industrial Hygienist (Toledo) (419) 327-9615 (Voice-mail)

Scott is an Industrial Hygienist who has been with the Division of Safety & Hygiene since 1992. Previously, he worked for a foundry/metal processing/fabrication plant, concentrating in the area of environmental health. Scott is a Certified Industrial Hygienist (CIH), has a Bachelor of Science degree in Environmental Health (Bowling Green State University) and a Masters of Science degree in Occupational Health from the Medical College of Ohio.

Tom Kelly, Industrial Hygienist (Warren) (330) 471-1804 (Voice-mail)

Tom is an Industrial Hygienist with the Warren Service Office who joined the Division of Safety & Hygiene in 1993. He holds a Bachelor of Science in Environmental Health Management. Tom is a Certified Safety Professional (CSP) and member of the ASSE Ohio Penn Chapter. He also has expertise in Behavior Based Safety and teaches the Leading the Change course.

Devin Keplinger, Industrial Hygienist (Columbus) (614) 898-2180 (Voice-mail)

Devin holds a Bachelor of Science in Natural Resources. He is an Industrial Hygienist with the Columbus North Service Office and formerly was with the Dept. of Health. Devin has been with the Division of Safety and Hygiene since 1991.

Ron Kruchan, Industrial Hygienist (Canton) (330) 471-0625 (Voice-mail)

Ron holds a B.S. degree in Chemistry, Biology minor, from Kent State University. Ron worked for the Occupational Safety and Health Administration for 10 years as an Industrial Hygienist. He also worked for Westinghouse as an Industrial Hygienist, and did training for 5 years. He joined the Division in 1994.

Gary Loschelder, Safety Consultant (Independence) (216) 999-1088 (Voice-mail)

Gary joined the Division of Safety & Hygiene in 1998, after serving over 39 years in various phases of safety in both the private and public areas. For 29 years, Gary worked in the second largest school district in Cuyahoga County (Cleveland). As an administrator for 13 of those years, he handled OSHA compliance under House Bill 308 (Public Employment Risk Reduction Act), apprenticeship continuing education, driver education and vocational and industrial safety education. As a teacher for 17 years, Gary taught secondary woodworking classes and developed and taught vocational carpentry. Prior to his work with the school system, he was a union carpenter.

John McClain, Industrial Hygienist (Mansfield) (419) 327-9633 (Voice-mail)

John has been with the Division of Safety and Hygiene since 1993. He holds a Bachelor of Science in Safety Science and is a member of the ASSE and NSMS. John was formerly with PPG Industries as a Safety Supervisor.

Tom Morris, Industrial Hygienist (Cincinnati) (513) 670-5005 (Voice-mail)

Tom holds a Master of Science degree in Environmental and Industrial Hygiene from the University of Cincinnati College of Medicine and a Bachelor of Science degree in biology from the University of Cincinnati. Tom is a Certified Industrial Hygienist (CIH) with over 20 years experience in industrial hygiene and toxicology.

Don Mullins, Safety Consultant (Columbus) (614) 641-8658 (Voice-mail)

Don has been with the Division of Safety and Hygiene since 1972. He has expertise in Industrial Shop Safety and is a Certified Fire Inspector. Before joining The Division of Safety and Hygiene, Don was involved with Fabrication Shop Safety. Don is also a member of the ASSE.

Natalie Reno, Industrial Hygienist (Independence) (216) 999-9652 (Voice-mail)

Natalie holds a Bachelor of Science in Environmental Health. She has been with the Division of Safety and Hygiene since 1985. Before joining the Division of Safety and Hygiene, she was a R&D Lab Tech and had experience in hazardous waste management and PPE permeation studies. Natalie is also a member of the ACGIH.

Will Satterfield, Safety Consultant (Cincinnati) (513) 610-3649 (Voice-mail)

Will joined the Division of Safety & Hygiene in 1992 as a safety consultant, currently working out of the Governor's Hill (Cincinnati) office. He holds a Master of Science degree in Safety Management from West Virginia University and is certified as an Associate Safety Professional by the Board of Certified Safety Professionals (BCSP).

Jim Scholl, Industrial Hygienist (Columbus) (614) 641-8054 (Voice-mail)

Jim has a Master of Business Administration and a Bachelor of Science in Biology. He is an Industrial Hygienist in the Columbus South Service Office and joined the Division of Safety and Hygiene in 1993. Previous to the Division of Safety and Hygiene, Jim was a Public Health Sanitarian. Jim is a Certified Industrial Hygienist (CIH), a Registered Sanitarian and a member of the ABIH

D.C. Skinner, Loss Prevention Manager (Toledo) 1-800-628-5768 (Office)

D.C. joined the Division of Safety & Hygiene in 1990 after serving 20 years in the U.S. Air Force as an industrial hygienist. D.C. became Regional Supervisor in 1991, Regional Manager in 1992 and District Manager in July 1996. D.C. is a native of East Lansing, Michigan, and holds a B.S. degree in Environmental Health from Ferris State University (Big Rapids, Michigan). He is also a certified Occupational Health and Safety Technologist by the American Board of Industrial Hygiene and Board of Certified Safety Professionals.

Karl Spires, Safety Consultant (Zanesville) (614) 823-9095 (Voice-mail)

Karl is assigned as an Industrial Safety Consultant with the Zanesville office of the Division of Safety & Hygiene. Karl has over 24 years experience in the safety field with the Division in both industrial and construction safety. Prior to joining the Division, Karl worked as a welder and heavy equipment operator.

Tom Wilson, Safety Consultant (Independence)

(216) 999-9320 (Voice-mail)

Tom is a Safety Consultant serving customers in the Cleveland area. He joined the Division of Safety and Hygiene in 1993. Tom holds a degree in Industrial Management, and has 28 years experience in private industry with a utility company.

AWARENESS SURVEY

These topics and more will be discussed during the next two days.

How many can you answer correctly?

1. The purpose of an accident investigation is to discover who was at fault.
T or F?
2. Company presidents/owners are immune to injuries when walking through their facilities.
T or F?
3. OSHA injury (200/300) logs should be kept for a period of _____ years.
4. The Division of Safety & Hygiene and OSHA are synonymous.
T or F?
5. Exposures to hazardous chemicals should be controlled by using personal protective equipment.
T or F?
6. The Hazard Communication Standard (HAZCOM) applies only to workplaces having 10 or more employees.
T or F?
7. The biggest single cause of fatalities on the job is:
 - A. electrocution
 - B. violence
 - C. caught by machinery
 - D. motor vehicle accidents
8. A Job Safety Analysis can be used as a training tool.
T or F?
9. Who is ultimately responsible for maintaining an effective safety & health process?
10. What is a VSSR?
11. 100% compliance with OSHA Standards means you will have 100% safe operation.
T or F?
12. Having zero accidents means you have a safe operation.
T or F?

WHY HAVE A SAFETY PROCESS (PROGRAM)?

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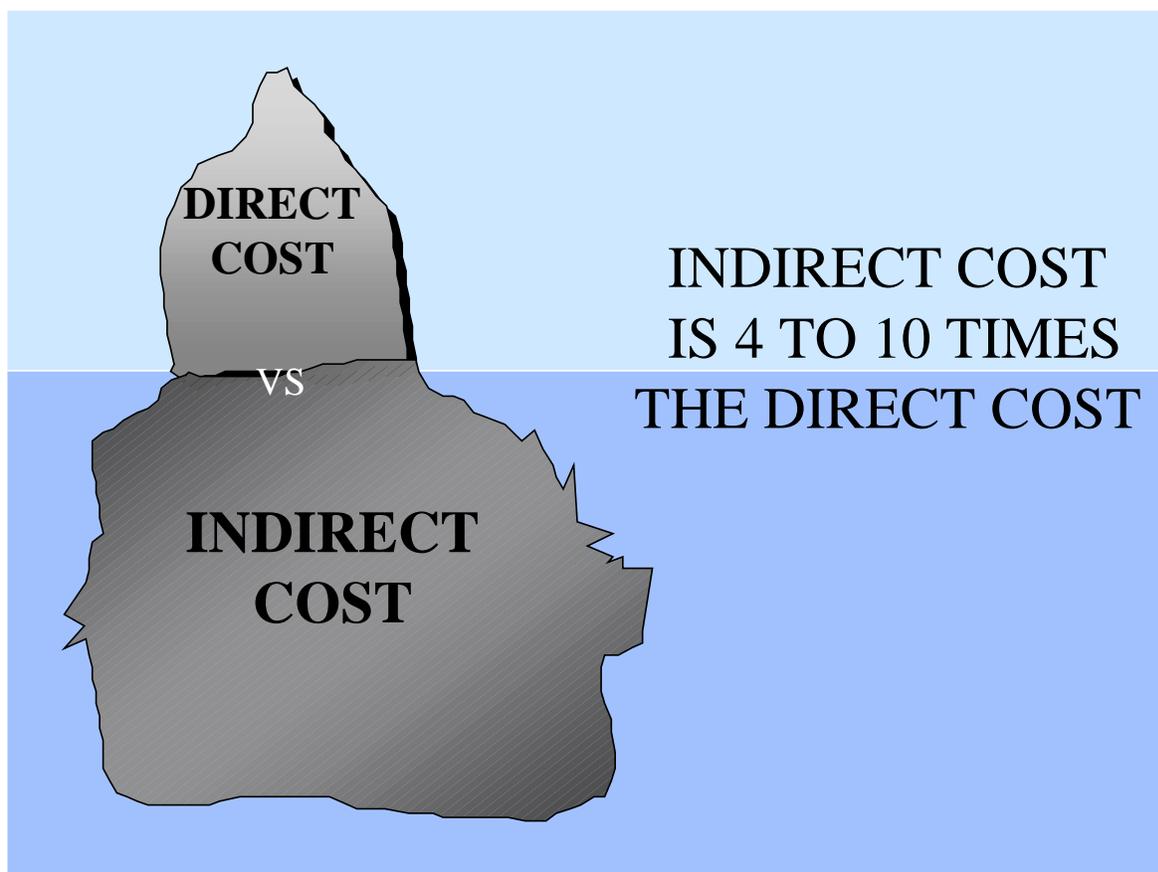
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DIRECT COST

- Medical
- Compensation Costs (Insured Costs)

INDIRECT COST

- Property Damage (Uninsured costs)
 - Tool and equipment damage
 - Product and material damage
 - Production delays and interruptions
 - Legal expenses
 - Expenditure of emergency supplies and equipment
 - Interim equipment rentals
 - Investigation time
- Uninsured Miscellaneous Costs
 - Wages paid for time lost
 - Cost of hiring and/or training replacements
 - Overtime
 - Extra supervisory time
 - Clerical time
 - Decreased output of injured worker upon return
 - Loss of business and goodwill

WHAT IS A SAFETY CULTURE?

Handwritten notes on lined paper:

- 1. Safety culture is the shared values, attitudes, and behaviors that determine how safety is viewed and practiced in an organization.
- 2. It is the way in which safety is embedded in the organization's culture.
- 3. Safety culture is the result of a long-term commitment to safety by all employees.
- 4. It is the way in which safety is viewed and practiced in an organization.
- 5. Safety culture is the way in which safety is viewed and practiced in an organization.
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- 13. Safety culture is the way in which safety is viewed and practiced in an organization.
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- 18. Safety culture is the way in which safety is viewed and practiced in an organization.
- 19. Safety culture is the way in which safety is viewed and practiced in an organization.
- 20. Safety culture is the way in which safety is viewed and practiced in an organization.

THE DIFFERENCES BETWEEN THE DIVISION OF SAFETY AND HYGIENE AND THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA)

Many employers in Ohio have used the services of the Ohio Division of Safety & Hygiene to assist them in creating and maintaining a safe and healthy workplace. However, some employers mistakenly believe that the Division of Safety & Hygiene is the same as OSHA (Occupational Safety & Health Administration).

There are 2 major differences between the Ohio Division of Safety & Hygiene and OSHA:

Division of Safety & Hygiene

Consultative agency
State of Ohio agency

OSHA

Compliance agency
Federal agency

The Division of Safety and Hygiene

The Division of Safety and Hygiene was created by an amendment to the Ohio Constitution in 1923. The amendment created the Division of Safety and Hygiene to assist Ohio employers in providing a safe and healthy workplace for Ohio employees. Currently, the Division is the accident-prevention agency of the Ohio Bureau of Workers' Compensation.

The Division offers a variety of services to help employers maintain safe and healthful workplaces for their employees. One purpose of the Division is to help reduce the number of injuries and occupational illnesses by providing employers with proactive, cost-effective assistance, which ultimately affects the claims costs and premium rates.

The Division of Safety and Hygiene is funded from premiums paid by employers who are insured for workers' compensation coverage under the state insurance fund and from assessments paid by self-insured employers. As a result, all services of the Division of Safety and Hygiene are available to employers and their employees at no additional charge.

It is important to note that the Division of Safety and Hygiene is a consultative agency and is neither affiliated with nor does it share company data with OSHA. The Division provides a wide variety of services from the service office locations across the state.

The Occupational Safety and Health Administration

The Occupational Safety & Health Administration (OSHA) was created by the United States congress in 1970 and is a federally funded agency.

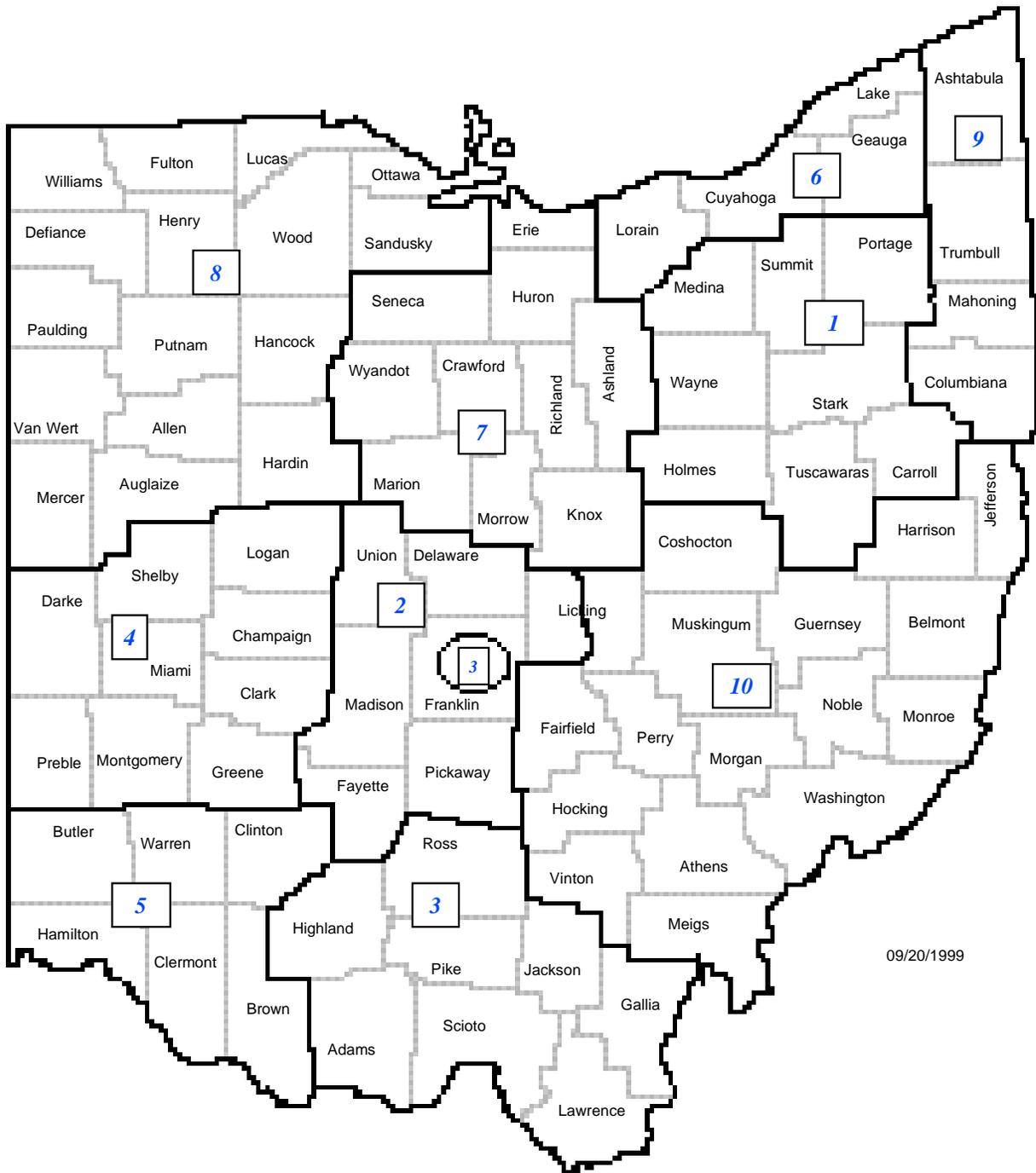
OSHA enforces federally established job safety and health standards throughout the United States. As part of their operation, OSHA:

- Encourages employers and employees to reduce workplace hazards and to implement new or improve existing safety and health programs
- Provides for research in occupational safety and health to develop innovative ways of dealing with occupational safety and health problems
- Maintains a reporting and recordkeeping system to monitor job-related injuries and illnesses
- Establishes training programs to increase the number and competence of occupational safety and health personnel

Safety & Hygiene Offices

- 1 Canton**
400 Third St. SE
Canton, OH 44702
(330) 471-0064
(330) 471-0057 Fax
- 2 Columbus North**
13430 Yarmouth Drive
Pickerington, OH 43147
(800) 644-6292 Toll Free
(614) 728-6457
(614) 728-2914 Fax
- 3 Columbus South**
13430 Yarmouth Drive
Pickerington, OH 43147
(800) 644-6292 Toll Free
(614) 728-3008
(614) 728-6472 Fax
- 4 Dayton**
Suite 140
3401 Park Center Dr.
Dayton, OH 45414-2577
(800) 962-7768
(937) 264-5230
(937) 264-5251 Fax
- 5 Governor's Hill**
8550 Governor's Hill Dr. Suite 450
Cincinnati, OH 45249-1390
(513) 583-7085
(513) 583-7080 Fax
- 6 Independence**
Rockside Center III, Building A
5990 West Creek Rd. Suite 140
Independence, OH 44131
(800) 828-1723
(216) 573-7200
(216) 573-7233 Fax
- 7 Mansfield**
240 Tappan Dr. North
PO Box 8051
Mansfield, OH 44906-8051
(419) 529-7603
(419) 529-4104 Fax
- 8 Toledo**
Suite 1236, Level 12
1 Government Center
Toledo, OH 43604
(800) 628-5768
(419) 327-8988
(419) 327-8998 Fax
- 9 Warren**
258 E. Market Street
Warren, OH 44481
(330) 306-4165
(330) 306-4173 Fax
- 10 Zanesville**
905 Zane St., PO Box 37
Zanesville, OH 43702-0037
(800) 898-6446 (office)
(800) 811-5497 (voice mail)
(740) 450-5161
(740) 450-5171 Fax

The numbers correspond with locations on the following map.



DSH Service Offices and Counties Served

DIVISION OF SAFETY & HYGIENE

10 STEP BUSINESS PLAN

This program is intended to help employers successfully manage their accident prevention program and reduce workers' compensation costs.

Step 1. Visible Active Senior Management Leadership

Step 2. Employee Involvement and Recognition

Step 3. Medical Treatment and Return to Work Practices

Step 4. Communication

Step 5. Timely Notification of Claims

Step 6. Safety & Health Program Coordination

Step 7. Orientation and Training

Step 8. Written and Communicated Safety Work Practices

Step 9. Written Safety and Health Policy

Step 10. Record Keeping and Data Analysis

STEP 1: Visible, Active Senior Management Leadership

“Visible senior management leadership that promotes the belief that the management of safety is an organizational value.”

Senior management must be role models to all employees for creating a safe work environment. Active leadership includes, as a minimum:

- Authorizing the necessary resources for accident prevention
- Discussing safety processes and improvements regularly during staff or employee meetings
- Ensuring that all members of management are held accountable for accident prevention activities, and for managing accident prevention processes
- Annually assessing the success of the safety process by utilizing perception surveys, personal interviews and behavior sampling strategies
- Encouraging employees to take an active part in maintaining a safe workplace

STEP 1: Visible, Active Senior Management Leadership

(continued)

How to show active leadership:

- Written safety policy affirming safety as a core value to the organization and assign roles and responsibilities.
- Establish short and long-term safety goals.
- Include safety as an agenda item in all regularly scheduled business meetings.
- Regularly review progress of the safety and health processes with supervisors and employees.
- Accompany supervisors, safety team members, or safety committee members during periodic departmental safety surveys.
- Review and discuss all accident investigation analyses with the supervisor or foreman.
- Personally present safety recognition awards to deserving employees.
- Participate, as a student, in employee safety training programs, such as safety management, hazard identification, and so forth.

Related Training Center courses

- GEN 126: “Measuring Safety Performance”
- GEN 375: “Behavior-Based Safety Systems”
- GEN 300: “Leading the Change to a Safety Culture”
- GEN 360: “Effective Safety Teams”

VIDEO

“What Gets Measured and Rewarded Gets Done”

(OCOSH Video Library: #660053)

Highlights of Video

- Supervisors are to be held accountable for the process they do, not the results. Having zero accidents with no process means nothing! Being lucky does not mean that you are a good supervisor!
- Safety Director DOES NOT do supervisor’s job. Supervisor is responsible for supervising his/her employees. And that includes safety.
- Safety Director does not do accident investigations. The role of the safety coordinator will be discussed later.
- Finally, all supervisors must be trained FIRST before line workers so the supervisors understand their role and responsibility.

Steps to Accountability for Supervisors

1. Define tasks required by supervisors

SCRAPE: System for Counting and Rating Accident Prevention Efforts
(Fixed set of safety activities)

SBO: Safety By Objectives
(Activities developed by manager and supervisor.)

MENU: Supervisor has a selection of activities from which to choose

2. Train the Supervisor

3. Measure the activities

4. Reward

EMPLOYEE INVOLVEMENT **AND RECOGNITION**

1. What does your company currently do to involve employees in safety management and recognize them for safe work practices?

2. What could you be doing?

STEP 2: Employee Involvement and Recognition

“Employee involvement and recognition that affords employees the opportunity to participate in the safety management process.”

Employee Involvement

- Labor/management safety and health teams. Handles problem-solving and makes recommendations to upper management for improvements.
 - Meeting regularly, but not less than quarterly
 - Reviewing investigations of accidents and causes of incidents resulting in injury, illness, or exposure to hazardous substances and recommending specific action plans for the prevention of future incidents
 - Recommending specific actions to be taken in response to employee safety suggestions
- Conduct accident investigations
- Conduct safety and health audits

STEP 2: Employee Involvement and Recognition

(continued)

Recognition Opportunities

Establish a program to identify and formally recognize employees for excellence in accident prevention. Possible recognition opportunities include:

- Consistently high contribution to safety and health
- Contribution to continuous improvement through participation in problem-solving, decision-making, or perception surveys
- Suggesting safety and health improvements or completing special safety and health projects

Two methods that encourage employees to use safe work practices and to integrate safety into the fabric of their jobs include:

- **Positive safe behavior reinforcement** - involves recognizing employees for their actions in integrating safety into business operations and making the right decisions.
 - Best method
 - Advise supervisors to recognize and praise at least one employee each day for following prescribed safe work practices or contributing support to the accident prevention systems
- **Negative safe behavior reinforcement** - involves disciplining employees for their actions or poor decisions. Disciplining is intended to discourage unsafe behaviors and decisions, with the intention of preventing this type of behavior in the future.
 - Use of negative reinforcement can lead to fault-finding and blaming employees. The result: safety is perceived as a negative by the supervisors and employees.

Related Training Center courses

- GEN 360: “Effective Safety Teams”

STEP 3: Medical Treatment & Return-To-Work Practices

“Early return-to-work strategies to help injured or ill workers return to work.”

Medical Treatment

- Employer informing the employees of the selected Managed Care Organization (MCO)
- Informing employees of procedures identifying where medical treatment can be obtained
- Immediate reporting of injuries and illnesses to a supervisor, on same work shift
- Investigation of all accidents within 24 hours to identify system or process improvements so corrective measures can be taken
- Regular supervisory communications with off-work employees while they are convalescing

STEP 3: Medical Treatment & Return-To-Work Practices

(continued)

Return-to-Work Policy

- Controls workers' compensation costs
- Benefits injured workers and their families
- Enhances the employer/employee relationship
- Accelerates the injured worker's recovery
- Maintains an experienced work force
- Promotes employee security

Establish an effective return-to-work process before a disabling injury occurs. Be proactive.

- Set up lines of communication within the organization and with medical providers
- Ensure all employees understand the modified-duty process and their responsibilities

STEP 3: Medical Treatment & Return-To-Work Practices

(continued)

Ways to implement a return-to-work policy:

- Define the employee's normal job requirements
- Decide if the job can be modified and to what extent.
- If modification of the normal job is not possible, identify other modified-duty opportunities on a limited or full-time basis
- Work closely with the claims administrator, employee and physician to determine the employee's capability of returning to work in a full or modified-duty capacity.

GUIDELINES FOR DEVELOPING A RETURN-TO-WORK POLICY

1. Organize a return-to-work team

Set up a group to coordinate information and support for the rehabilitation of injured employees. This group can cross-feed information on job positions available within the company. The group should include the case management coordinator, health care provider, safety director, and union representative.

2. Analyze tasks

Analyze the jobs and workstations to identify what tasks can be done differently and easier. Also identify non-essential elements of the task. Look at ways to redesign the operation. Video taping and photography are an excellent way to analyze workflow. A videotape can also assist the medical provider in determining if the injured worker can return to that particular job.

3. Develop alternative productive work assignments

Alternative work can be the worker's original job with modifications or reduced hours. It also can be a combination of the original job and tasks from other operations. The alternative work should be temporary, with the employee's understanding that as he/she improved medically, these alternative tasks will be reduced and eliminated. Avoid "busy work". Employees recognize this immediately and it will decrease the employees' sense of productivity and self-worth.

4. Implement loss prevention activities

Don't wait for an injury to occur before looking at the hazards of each task. Also, don't return an injured employee to the exact same operation that he/she was injured on. Make modifications. Ask the injured employee how to best modify the operation to reduce or eliminate the hazards.

5. Educate everyone

Explain the company's return-to-work policy to all the employees. Let them know these policies were developed to keep the valuable employee within the company. Make sure employees understand what to do if they are injured, and how they will be treated. Supervisors especially must be trained to support the company's return-to-work policy and should respond to employees' needs when injured and off work.

RETURNING AN INJURED EMPLOYEE BACK TO WORK QUICKLY CAN SAVE YOUR COMPANY MONEY

Scenario: An employee injures his back lifting a 50-pound box. The physician says the employee cannot lift boxes for at least 4 weeks.

Options: Most companies would let the worker stay off work for the entire 4 weeks. **This action can cost the employer \$12,500!** A better alternative is to have the worker return to work with transitional job duties. This can save the company money. How?

Let's say that the direct medical costs for the back injury (doctor's visit, x-rays) are \$500. After 7 days off work, the injury is classified as a "lost-time claim". Allowing the employee to remain off for 4 weeks will cost the employer \$500 (direct medical costs), **plus** "wage loss" [\$2,000 (100/day times 20 workdays)], **plus** the workers' compensation regulations require a "reserve" be set on all lost-time claims to cover future expenses (\$10,000 [5 times the wage loss already paid]).

The employer, by not having a progressive return-to-work program, **has incurred a \$12,500 liability** for one back injury.

The better alternative is to have the employee return to work in a transitional job setting; one where he does not have to lift anything. This is not a "make-work" situation. The employee should be productive. The employee will immediately see through any make-work job. By having the employee return to work in less than 8 days, the injury remains a "medical only" claim with no wage loss or reserve costs incurred.

STEP 4: Communication

“A program of regular communications on safety and health issues to keep all employees informed and to solicit feedback and suggestions.”

Communication includes:

- Quarterly written or verbal feedback (or both) to all employees on their accident prevention performance
- A process for upward communication as well as downward and throughout the organization
- Tools for communication, which could include memos, bulletin boards, staff and general meetings

IMPLEMENTATION

- Two-way street between the employer and the employees
- To be effective, “bottom-up” communications must be incorporated into your safety system
- Encourage employees to share their ideas and concerns on safety and health matters
- Ask them for their input in problem-solving

Best accident prevention ideas come from discussions with employees. Safety professionals realize that employees are close to the problems of the work place and, therefore, are extremely valuable in helping to solve problems and generate solutions.

STEP 4: Communication

(continued)

- **If you have languages other than English spoken in your facilities, you must ensure that all safety and health communications are provided to employees in the language they understand. In addition, some employees may not read and require verbal communication.**
- Encourage employees to inform you of accident prevention problems at the work site without fear of reprisal. It is crucial that a system of open, honest and trusting communications be developed and nurtured in order for a safety culture to exist.

Ways to enhance your communication process

- **Discussion method** - involves the supervisor or foreman sitting down with each employee on a regular basis to discuss safety concerns, suggestions, and ideas
- **Informal method** - involves an “open door” policy when it comes to employee safety and health concerns. Inform employees that the accident prevention coordinator or a supervisor is available to confidentially discuss their safety and health questions, problems, and suggestions.
- **Suggestions** - involves establishing a safety and health suggestion program. Install a safety suggestion box in the work area. Some companies provide a form for employees to use when submitting their suggestions. Employees should not be required to sign their name to their suggestions.

STEP 4: Communication

(continued)

- **Safety meetings** - provides an opportunity for supervisors and employees to discuss safety issues

- **Written communications** - it is important to confirm in writing key information. Information can be of three types: motivational, developmental or informational.
 - In-house company newsletter - many companies have an in-house company newsletter where the accident prevention information is provided on a regular basis

 - Safety and health booklets - give to employees at work or mail to their homes

 - Accident alert notices - use to inform employees of causes for accidents and how they can be prevented. Discuss the alert notices with employees, post notices on the safety bulletin board, or send to individual employees

- **Postings** - there are two types of postings:
 - Safety bulletin boards - used for posting safety related policies, notices, articles, meeting schedules, meeting minutes, memos, etc.

 - Safety signs - a constant reminder of safe work practices, dangerous conditions, and special precautions. Safety signs are often posted on machinery, entrances to work areas, and in high hazard areas.

STEP 5: Timely Notification of Claims

Internal Reporting

- Employee should notify employer of any worker compensation claims filed
 - Employer will have to certify claim
 - Employer needs to track progress of claim

External Reporting

- Employees have 2 years in Ohio to file a claim
- The longer a claim is delay in reporting, the more it costs

Benefits of Early Reporting

- Prevents delays and/or confusion in the claim process
- Reduces potential for fraud or abuse
- Reduces potential for litigation
- Allows accurate information to be gathered
- Provides benefits to employee in a timely manner

Related Training Center courses

- GEN 310: "Controlling Workers' Compensation Costs"
- GEN 311: "Controlling Costs Through Claims Management"

WHAT IT COSTS TO DELAY REPORTING WORKERS' COMPENSATION CLAIMS

The Hartford Financial Services Group published a lag-time study in 2000 which examined claim costs on 53,000 permanent partial and temporary claims between 1996 and 1999. Lag time is defined as the time between when the injury occurred and when the injury was reported to the insurance company.

The results indicated a progressive increase in claim costs with increased lag time.

The lowest costs were those claims reported within one week of injury. Claims reported within two weeks were 18% higher than at one week, within three weeks were 29% higher, within four weeks were 31% higher, and within five weeks were 45 % higher than the claims reported within one week of injury.

<i>Lag time</i>	<i>Cost of claim</i>
If claim is reported within one week	\$10,000
If claim is reported within two weeks	\$11,800
If claim is reported within three weeks	\$12,900
If claim is reported within four weeks	\$13,100
If claim is reported within five weeks	\$14,500

Source: Glen-Roberts Pitruzello, The Hartford Financial Services Group, "The High Cost of Delays: Findings on a Lag-time Study" NCCI Summer 2000 Issues Report

STEP 6: Safety and Health Process Coordination

“Assigning an individual the role of coordinating safety efforts for the company.”

Designate an individual as the accident prevention coordinator. The actual name of the position may vary (Safety Director, Safety Manager, Safety Coordinator, Safety Officer, etc.). What is important is that this person be given the responsibility and authority over the organization’s safety and health efforts.

- Does not assume operational responsibility for safety and health

- Supports line management, supervision, and employees to prevent accidents

- Duties should include:
 - Helping management and employees identify accident prevention and safety and health training needs

 - Helping supervisors make changes or develop strategies that improve safety and health

 - Identifying and communicating new safety and health requirements

 - Compiling injury and illness-related records

 - Tracking progress on safety and health-related projects

 - Working with employees to optimize safe work practices

STEP 6: Safety and Health Program Coordination

(continued)

4 SPECIFIC TASKS TO BE INVOLVED IN

1. No new chemicals should enter the facility without approval of the safety coordinator
2. No temporary employee should be hired without the involvement of the safety coordinator
3. No contract for services (i.e. roofing repair) should be let without the involvement of the safety coordinator
4. No new equipment / process should be purchased and/or implemented without the involvement of the safety coordinator

Source of Additional Help

“OSHA Handbook for Small Business” (OSHA publication)

“Job Hazard Analysis” (OSHA publication)

See page 11-6 for ordering information

Related Training Center courses

- GEN 302: “Train-the-Trainer”
- GEN 310: “Controlling Workers’ Compensation Costs”
- GEN 320: “OSHA Recordkeeping”

WHAT TYPE OF TRAINING IS REQUIRED TO PROTECT EMPLOYEES?

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____

PROGRAM CHECKLIST

(Do these programs apply to your company?)

Company: _____

Date: _____

PROGRAM	YES	NO	MAYBE
Hazard Communication (HAZCOM)			
Lockout/Tagout			
Personal Protective Equipment (PPE)			
Emergency Action / Response Plans			
Hearing Conservation			
Powered Industrial Trucks (Forklifts)			
Respiratory Protection			
Ergonomics			
First Aid			
Blood-Borne Pathogens			
Confined Spaces			
Accident Investigation			
* Equipment Operating Procedures			
* Heat Stress/Cold Stress			
* Radiation (ionizing, nonionizing, lasers)			
* Hot Work Permits			
* Fall Protection			
* Machine Guarding			
* Trenching Operations			
* Laboratory Chemical Safety			
* Process Safety Management			

* These programs may not be specifically discussed during the “Fundamentals” course. A description of each of these programs is located in Tab 7 & 8.

STEP 7: Orientation And Training

STEP 8: Written Programs

OBJECTIVES:

- Students will be able to list the primary training and programs needed to protect employees in the workplace
- Students will be able to identify basic requirements of each training element or program
- Students will be able to identify where to go for additional training, assistance and references for each area
- Students will have motivational information available to “sell” these programs to their top management

HAZARD COMMUNICATION (HAZCOM)

Purpose: To insure all employees are aware of the hazards from the chemicals they are in contact with. Examples of jobs requiring a HAZCOM program include manufacturing, warehouse operations, janitorial, laboratory, etc.

OSHA Standard:

- 29 CFR 1910.1200 (General Industry)
- 29 CFR 1926.59 (Construction – Refers to 1910.1200)

Written Program

- Identify responsibilities
 - Who is responsible for training
 - Who is responsible for ordering/maintaining MSDS
- Container labeling
 - Legible
 - Chemical name
 - Target organs
 - Manufacturer's name and address
- Material Safety Data Sheets (MSDS)
 - Where located
 - How to obtain
- Employee training
 - Frequency
 - Who conducts training
 - Who needs to be trained
- Chemical inventory
 - What company has on hand/quantity
 - Where located

HAZARD COMMUNICATION (HAZCOM)

(continued)

Employee Training

- Who needs to be trained
 - New hire orientation
 - Transfers
 - Temporary hires
 - New operations
 - New products
 - After accidents/incidents

- Training Topics
 - Overview of HAZCOM requirements

 - Chemicals present in workplace

 - Location/availability of written program

 - Health effects of chemicals

 - How to lessen or prevent exposures

 - Engineering controls the company is using

 - MSDSs
 - Location
 - How to read
 - Labeling requirements

Contractors

- Notification procedures
- Training contractors of company hazards
- Training company employees of contractor hazards

Source of Additional Help

“Chemical Hazard Communication” booklet (OSHA publication)

See page 11-6 for ordering information

Related Training Center courses

- IHY 212: “Hazard Communication”



The Clorox Company
 1221 Broadway
 Oakland, California 94588
 Tel. (510) 847-6100

Material Safety Data Sheet

I Product:		FORMULA 409 ALL PURPOSE CLEANER CLOROX ANTI-BACTERIAL ALL PURPOSE CLEANER										
Description:		LIGHT GREEN LIQUID										
Other Designations	Distributor	Emergency Telephone No.										
EPA Registration Number 5813-55	Clorox Sales Company 1221 Broadway Oakland, CA 94612	For Medical Emergencies call: Rocky Mountain Poison Center (800) 446-1014 For Transportation Emergencies Chemtrec (800) 424-9300										
II Health Hazard Data		III Hazardous Ingredients										
<p>CAUTION: EYE IRRITANT. Avoid eye and prolonged skin contact. Do not ingest.</p> <p>FIRST AID: EYE: Flush eyes with water for at least 15 minutes. Call physician if irritation occurs. SKIN CONTACT: Rinse skin with water. If irritation develops contact a physician. INGESTION: Drink a glassful of water to dilute. Call a physician. Do not induce vomiting. Do not give anything by mouth to an unconscious or convulsing person. INHALATION: Remove from area to fresh air. Seek medical attention if respiratory irritation develops or if breathing becomes difficult.</p> <p>No known medical conditions are known to be aggravated by exposure to this product. Under directed consumer use conditions this product is not expected to produce adverse health effects.</p> <p>KEEP OUT OF REACH OF CHILDREN</p>		<table border="1"> <thead> <tr> <th>Ingredients</th> <th>Concentration</th> <th>Worker Exposure Limit</th> </tr> </thead> <tbody> <tr> <td>Alkyl (C₁₂ 40%; C₁₄ 50% C₁₆ 10%) dimethyl benzyl ammonium chloride CAS #68424-85-1</td> <td>0.3%</td> <td>Not Established</td> </tr> <tr> <td>Ethylene Glycol Monobutyl Ether CAS #111-76-2</td> <td>0.5-5%</td> <td>25 ppm TLV-TWA 25 ppm PEL</td> </tr> </tbody> </table> <p>Substance can be absorbed through the skin and may contribute to overall exposure.</p> <p>None of the ingredients in this product is on the IARC, NTP or OSHA carcinogen lists.</p> <p>TLV-TWA – Threshold Limit Value – Time Weighted Average. Source: ACGIH 1995-1996. PEL – Permissible Exposure Limit. Source : OSHA</p>		Ingredients	Concentration	Worker Exposure Limit	Alkyl (C ₁₂ 40%; C ₁₄ 50% C ₁₆ 10%) dimethyl benzyl ammonium chloride CAS #68424-85-1	0.3%	Not Established	Ethylene Glycol Monobutyl Ether CAS #111-76-2	0.5-5%	25 ppm TLV-TWA 25 ppm PEL
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Ethylene Glycol Monobutyl Ether CAS #111-76-2	0.5-5%	25 ppm TLV-TWA 25 ppm PEL										
IV Special Protection and Precautions		V Transportation and Regulatory Data										
<p>No special protection or precautions have been identified for using this product under directed consumer use conditions.</p> <p>The following recommendations are given for production facilities and for other conditions and situations where there is increased potential for accidental, large-scale or prolonged exposure:</p> <p>Hygienic Practices: Wear safety glasses and gloves. Discontinue exposure to product if irritation or other adverse reactions develop.</p> <p>Engineering Controls: Use general ventilation to minimize exposure to mist.</p> <p>Work Practices: Avoid eye and skin contact. Do not inhale vapor or mist.</p>		<p>U.S. DOT Hazard Class: Not restricted</p> <p>U.S. DOT Proper Shipping Name: Compound, Cleaning, Liquid. Not restricted.</p> <p>EPA – SARA Title III/CERCLA: Bottled product is not reportable under Sections 311/312; contains chemicals regulated under Section 313 (ethylene oxide = trace, glycol ethers < 5%); and contains chemicals (glycol ethers < 5%, ethylenediaminetetracetic acid <1.0%, ethylene oxide = trace, and sodium hydroxide < 0.5%) which are regulated under Section 304/CERCLA.</p> <p>TSCA Status: All components of this product are on the TSCA Inventory.</p>										
VI Spill or Leak Procedures		VII Reactivity Data										
<p>Spill Procedures: Caution! Floors may become slippery. Wear appropriate protective equipment and NIOSH/MSHA approved respirator where mist or vapors of unknown concentrations may be generated (self-contained breathing apparatus preferred.)</p> <p>Dike and contain spill with inert material (sand, earth, etc.) and transfer the liquid and solid separately to containers for recovery or disposal. Keep spill out of sewers and open bodies of water.</p>		<p>Stable under normal use and storage conditions.</p> <p>Avoid strong oxidant or reducing agents.</p>										
VIII Fire and Explosion Data		IX Physical Data										
<p>Flash Point: >200F</p> <p>Fire Extinguishing Agents: Foam, Dry Chemical, Water, CO₂. Must wear NIOSH/MSHA approval self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.</p> <p>Unusual Fire and Explosion Hazards: Products of combustion are toxic.</p>		<p>pH 11.5-13.0</p> <p>Specific Gravity 1.01 @ 25C</p> <p>Solubility in Water Soluble</p>										

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DATE PREPARED 3/97
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LOCKOUT/TAGOUT

Purpose: To protect employees from unexpected release of stored energy

- Mechanical
- Hydraulic
- Chemical
- Gravity
- Electrical
- Pneumatic
- Thermal
- Any other sources of stored energy

OSHA Standard

- 29 CFR 1910.147 (Lockout/Tagout)
Note: Standard does not apply to construction sites (does apply to yards and fabrication shops)

Written program

- Identify all sources of energy for each piece of equipment
- Each employee has own lock and key. Supervisor may have second key, but well-established procedures must be in place for when the second key can be used
 - Verify employee is not at the facility
 - Make reasonable effort to inform employee that lock has been removed
 - Ensure employee is informed about the action before returning to work in the facility
- Procedures reviewed annually (not by one performing lockout/tagout)
- Outside contractors

Employee Training

- Methods of identifying energy sources
- Shut down / start-up procedures
- Lockout procedures

Sources of Additional Help

“Control of Hazardous Energy” booklet (OSHA publication)
See page 11-6 for ordering information
Manufacturer of equipment

Related Training Center courses

- SAF 105: “Mechanical Power Press”
- SAF 107: “Electrical Hazard Recognition and Abatement”
- SAF 109: “Lockout / Tagout”
- SAF 106: "Machine Guarding"

PERSONAL PROTECTIVE EQUIPMENT (PPE)

Purpose: To develop set policies and procedures for providing personal protective equipment and clothing to employees when hazards can not be eliminated.

Hierarchy of Controls

- Engineering controls
 - Ventilation
 - Isolation
 - Change process
 - Substitution

- Administrative controls
 - Rotating workers
 - Housekeeping & maintenance
 - Work practices

- PPE (last resort)

Performance Standards

- Most OSHA standards are Compliance (i.e., The standard spells out exactly what you are to do, when you are to do it, etc.)

- Performance standards spell out the objectives to be achieved, and you figure out how to get there)

OSHA Standards

- 29 CFR 1910.132 (Basic Standard)
- 29 CFR 1910.133 (Eye/Face)
- 29 CFR 1910.135 (Head)
- 29 CFR 1910.136 (Foot)
- 29 CFR 1910.137 (Electrical)
- 29 CFR 1910.138 (Hand)

PERSONAL PROTECTIVE EQUIPMENT (PPE)

(continued)

Program elements

- Workplace assessments: Know what hazards are
- Assessments documented
- Job safety analysis: Analyze each task for specific hazards

Training

- When/where PPE is necessary
- Proper care and limitations of PPE
- How to properly wear PPE
- Employee must demonstrate understanding of training
- Documentation: Includes name, date, subject

PPE: Employer-purchased PPE vs. employee owned

- If equipment is not job-specific (i.e., safety shoes), then cost of equipment is negotiable between employer and employee. If equipment is job-specific (welding helmet), then employer is responsible for furnishing equipment at no cost to employee
- Employer is responsible for insuring all equipment meets requirements, regardless of who bought or owns it

Source of Additional Help

“Personal Protective Equipment” booklet (OSHA publication)
See page 11-6 for ordering information

Related Training Center courses

- SAF 120: “Personal Protective Equipment Selection Criteria”

JOB SAFETY ANALYSIS

Job:		Date:
Title of Worker Who Performs Job:	Foreman/Supervisor:	Analysis By:
Department:	Section:	Reviewed By:
Required and/or Recommended Personal Protective Equipment		
Sequence of Basic Job Steps	Potential Accidents or Hazards	Recommended Safe Job Procedures

EMERGENCY ACTION / RESPONSE PLANS

Purpose: To develop a plan to deal with emergencies in the workplace(such as chemical spills, tornadoes, fires, etc.).

Two distinct and separate OSHA Standards:

- 29 CFR 1910.38 (Emergency Action Plan)
- 29 CFR 1910.120 (Emergency Response Plan)

Emergency Action Plan

- Can only be used if you evacuate the facility AND INDIVIDUALS DO NOT RE-ENTER, but wait for a outside contractor to respond to incident
- **Plan Elements**
 - If 10 or less employees, plan can be oral
 - Employees know contents of plan
 - Emergency escape procedures
 - Critical operations that cannot be shut down
 - Employee accountability
 - Rescue and medical duties
 - Method of reporting emergencies
 - Plan should include responsibilities (i.e., who to brief fire department upon arrival), maps of piping and drainage system, MSDSs, etc.
- **Employee Training:**
 - Designated employees trained to assist in evacuation
 - Fire hazards present in facility
 - Periodic practice evacuations

EMERGENCY ACTION / RESPONSE PLANS

(Continued)

Emergency Response Plan:

- **Company MUST** have a formal response plan if anyone re-enters the facility or if the company's employees contain/clean up the spill.

- **Plan Elements**
 - Pre-emergency planning and coordination with outside parties
 - Personnel roles, lines of authority, combination
 - Safe distances/places of refuge
 - Site security
 - Evacuation routes
 - First aid
 - Emergency reporting
 - PPE/ equipment
 - Use of state/local resources

- **Employee Training**
 - First Responder Awareness Level (Notification only)
 - First Responder Operations Level (Defensive containment)
 - Hazardous Materials Technician/Specialist (Stops spills, clean-up, decontamination)
 - On-Scene Incident Commander

Sources of Additional Help

“How to prepare for Workplace Emergencies” booklet (OSHA publication)

“Hazardous Waste and Emergency Response” booklet (OSHA publication)

See page 11-6 for ordering information

Related Training Center courses

- IHY 212: “Hazard Communication”
- IHY 317: “Hazardous Waste - Awareness”
- IHY 335: “Hazardous Waste - Operations”
- IHY 318: “Hazardous Waste - Technician”
- IHY 319: “Hazardous Waste - Refresher”

HOW TO SET UP AN EMERGENCY ACTION PLAN

(Items to consider when developing a plan)

1. Employee input
2. Plan comprehensive enough to deal with all expected situations
3. MSDSs available on all material. Will they be available in an emergency?
4. Emergency escape procedures and route assignments
5. Employee assembly area and accountability procedures
6. Sufficient employees trained to assist in evacuation
7. Handicapped employees considered. Who will assist them?
8. Who will remain to shut down critical operations
9. Clear chain of command established
10. Who is assigned to meet emergency response personal (i.e. fire department)
 - MSDSs available for fire department
 - Diagrams of piping systems, locations of chemical hazards, and sewer drains
11. Emergency phone numbers valid and available
 - Procedures if phones are inoperative
12. Who needs to be notified
 - Company officials
 - Local officials
 - EPA/OSHA
 - Outside contractor to clean-up spill
13. Who is designated to speak to news media
14. Site security
15. Alarm systems
16. Employees trained
17. Evacuation plans regularly practiced
18. Rescue procedures

Note: All the above actions need to be considered if everyone just evacuates and does not re-enter, contain or clean-up the spill. **ANY** response by company employees in working with the spill requires an emergency response plan, training, equipment, and so forth. Many companies have found that unless they have over 100 employees, they do not have the resources (staffing or financial) to deal with a spill themselves.

HEARING CONSERVATION

Purpose: To protect employees from effects of hazardous noise.

OSHA Standards

- 29 CFR 1910.95 (General Industry)
- 29 CFR 1926.52 (Construction)

Workplace Monitoring

- **85 decibels A-weighting (dBA) or greater**
 - Time Weighted Average (TWA) for workshift
 - Implement a hearing conservation program (General industry only. Construction action level is 90 dBA)
 - Conduct baseline and annual audiometric tests
- **Above 90 dBA**
 - Time Weighted Average (TWA) for workshift
 - Hearing protection is mandatory

Recordkeeping

- Workplace noise measurements: 2 years
- Audiometric records: duration of employment

Employee Training

- Conducted annually
- Effects of hazardous noise
- Purpose of hearing protectors, advantages and disadvantages of various types
- Instructions of selection, fitting, use and care

Source of Additional Help

“Hearing Conservation” booklet (OSHA Publication)
See page 11-6 for ordering information

Related Training Center courses

- IHY 204: “Basic Industrial Noise and Hearing Conservation”
- IHY 223: “Industrial Hygiene Instrumentation and Monitoring”

POWERED INDUSTRIAL TRUCKS

Purpose: To provide a formal employee training program for operators of forklifts and other powered industrial trucks.

OSHA Standard: 29 CFR 1910.178

Written Program: Standard does not specify a written program is required

Employee Training: New training requirements established December 1998

Elements of Training

- Formal classroom training
- Demonstrations (on exact equipment employee will use)
- Practice (on exact equipment employee will use)
- Evaluation (both on an obstacle course AND under actual working conditions and situations employee will operate forklift)

Instructor Requirements

- Forklift instructors DO NOT have to be certified (no such designation). The OSHA standard says that training must be "...under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence."

POWERED INDUSTRIAL TRUCKS

(continued)

Refresher Training

- “If the operator has been observed to operate the vehicle in an unsafe manner”
- “The operator has been involved in an accident or near-miss incident”
- “The operator has received an evaluation that reveals that the operator is not operating the truck safely”
- “The operator is assigned to drive a different type of truck”
- “A condition in the workplace changes in a manner that could affect safe operation of the truck”
- “An evaluation of each powered industrial truck operator’s performance shall be conducted at least once every three years”

Sources of Help: Manufacturer of equipment

Related Training Center courses

- SAF 307: “Powered Industrial Trucks (Developing a Training Program)”

RESPIRATORY PROTECTION

Purpose: To identify operations where air-borne concentrations of chemicals and physical agents exceed specific health standards and to provide for respiratory protection for those employees exposed

OSHA Standard: 29 CFR 1910.134

Written Program

- Workplace monitoring
- Worksite specific procedures for selection and use of respirators
- Employee training
- Maintenance and storage of respirators
- Medical surveillance
- Fit testing

Employee Training

- Location/operations requiring respirators
- How to handle emergency situation
- Employer explanation why engineering controls are not implemented
- How to select a respirator
- Fit testing
- Limitations of a respirator
- Cleaning and storage

Source of Additional Help

“Respiratory Protection” booklet (OSHA publication)
See page 11-6 for ordering information

Related Training Center courses

- IHY 207: “Respirator Fit Testing”
- IHY 209: “Respiratory Protection”

ERGONOMICS

Purpose: To identify operations in the workplace that may pose a health hazard to employees from repetitive motion and to modify those operations in some manner to reduce the risks to the employees

Principles

- With industrialization, jobs became more repetitive, and exceeded the capabilities of the workers.
- Design workplace to fit the worker, rather than making the worker fit the workplace.
- Simple solutions can often be the best solutions.

OSHA Standard:

- None. New standard being proposed by OSHA
- Other sections of the OSHA act, such as the “General Duty Clause”, have been applied to the workplace. This section [Section 5.(a) of the OSHA Act] states that each employer “shall furnish to each of his employees employment and a place of employment which are free from **recognized** hazards that are causing or are likely to cause death or serious physical harm to his employees.”
- Repetitive motion injuries and back/shoulder injuries have long been a recognized hazard. Failure of the employer to address these hazards can be cited under the General Duty Clause.

ERGONOMICS

(continued)

Examples of ergonomic disorders

- Carpal Tunnel Syndrome (irritation of the median nerve as it is compressed by surrounding tissue and bony structures in the wrist)
- Tendinitis (inflammation of the tendons)
- Trigger Finger (inflammation of the tendon at the joint of any finger)
- Vibration Syndrome (symptoms associated with prolonged and repeated exposure to vibration from hand tools)
- Bursitis (inflammation of a joint, such as shoulder or knee)
- Disc degeneration (back discs stretched, torn, frayed and worn down)

Related Training Center courses

- ERG 213: “Ergonomics - Advanced”
- ERG 215: “Ergonomics for Office Environments”
- SAF 125: “Safety & Ergonomics for the Health Care Industry”
- ERG 219: “Ergonomics: Developing an Effective Process”

VIDEO

“Industrial Ergonomics”

OCOSH Video Library: #620052

1. Watch for situations where solutions shown in the video may be applied to your operation.
2. Remember: “Many times, Ergonomics is common sense engineering”. Any organization with creative employees can devise modifications so that workers may “work smarter, not harder.”
3. See how alterations to the workstation need not be costly. The key is to allow for the variables that exist among us all. Our goal is to fit the job to the worker not the reverse.
4. Note that individuals who can work without stressors are safer and more productive.
5. During the demonstration on lifting be reminded that “there is no safe way to lift”, only a safer way.(The only safe way is no lift!) It is best to eliminate any manual handling whenever feasible. Put the stress onto “mechanical assists” e.g. carts, hoists, conveyors, forklifts, etc.

FIRST AID

Purpose: To establish a formalized program within a company to deal with workplace injuries

OSHA Standard: 29 CFR 1910.151

Requirement: At least one individual per shift is to be trained in first aid, unless the facility is in “near proximity” to medical service. “Near proximity” is usually defined as 3-4 minute response time

Written Program: None required by OSHA

Training/Equipment

- First Aid Responders trained. Should be certified by Red Cross or other competent agency
- First aid supplies available

Recordkeeping

- OSHA 200 Log
- Workers’ Compensation Claims

Emergency eye-washes and showers

- Evaluate operations to determine need
- Eye washes must have 15 minutes of water flow
- 0.4 gallons/minute flow

Sources of Help: Local Red Cross

Related Training Center courses

- GEN 380: “First Aid in the Workplace”

BLOODBORNE PATHOGENS

Purpose: To identify employees and operations where exposure to blood-borne pathogens (Hepatitis and HIV) may occur and to develop plans to protect those employees so exposed

OSHA Standard: 29 CFR 1910.1030

Written Exposure Control Plan

- Identify tasks where personnel are at risk (first aid responders automatically included)
- Universal precautions to be taken by first aid responders (and janitorial staff) to include PPE
- Disposal or laundering of contaminated items (Can not be sent home with worker)
- How Hepatitis-B vaccinations are to be administered within 24 hours
 - Pre-planned procedures
 - Company pays

Employee Training

- Initial and annual training
- Training shall be interactive with knowledgeable health care provider (can't just show video)
- Generic training inappropriate unless supplemented by employer
- Documentation kept for 3 years
 - OSHA 200 Log: Classified as injury if:
 - Work-related that involves transfer or restriction of work
 - Or, results in medical treatment beyond first aid, including Hepatitis B vaccination

Sources of Additional Help

Local Red Cross, local hospitals

“Occupational Exposure to Bloodborne Pathogens” booklet (OSHA publication)

See page 11-6 for ordering information

Related Training Center courses

- IHY 220: “Bloodborne Pathogens”

CONFINED SPACES

Purpose: To identify confined spaces within a facility that may pose a hazard to any employee entering them and to develop a formalized plan to address how employees will enter these areas.

OSHA Standard: 29 CFR 1910.146

Differences between confined space and permit-required confined space

- **Confined Space**
 1. Is large enough so an employee can enter and perform work
AND
 2. Has limited or restricted means of entry or exit
AND
 3. Is not designed for continuous human occupancy

- **Permit-Required Confined Space:** Meets the conditions above, **PLUS**
 - Contains, or has the potential to contain, hazardous atmosphere
 - Contains material that has the potential to engulf entrant
 - Has internal configuration such that an entrant could become trapped or asphyxiated
 - Contains any other recognized serious health or safety hazard (noise, moving parts, electrical, poor visibility)

Workplace Evaluation: Employer **shall** evaluate facility to identify any confined spaces and permit-required confined spaces. If permit-required confined spaces are present, the employer **shall**:

- Inform employees by posting signs, or other methods, of the existence, location and danger
- If employees **ARE NOT** to enter permit-required confined spaces, then employer **shall** take effective measures to prevent entry
- If employees are to enter, then employer **shall** develop a written confined space entry program

CONFINED SPACES

(continued)

Written Program

- Measures to prevent unauthorized entry
- Means to identify and evaluate hazards before entry
- Procedures for safe operations
- Provision of equipment (testing and monitoring, communication, PPE, rescue)
- Designate employees by role (i.e., entrants, attendants, entry supervisors, atmosphere monitoring) and describe training for each
- Procedures for summoning rescue personnel. Rescue service **shall** be pre-selected and evaluated

Contractor requirements: Employer must:

- Inform contractor that space is a permit-required confined space and contractor must comply with the permit-required entry program
- Tell the contractor why the space is permit-required
- Apprise the contractor of procedures that the employer has implemented
- Contractor must inform employer of procedures contractor will use

Employee Training

- Training shall establish employee efficiency
- Certification must be available for inspection
- Four classifications of training:
 - **Authorized entrants** (enters confined space)
 - **Attendants** (watches authorized entrant)
 - **Entry Supervisor** (gives permission to enter)
 - **Rescue and Emergency Services** (rescues entrants)
NOTE: Using “911” for rescue is not considered adequate

Related Training Center courses

- IHY 214: “Confined Space Assessment and Work”

ACCIDENT INVESTIGATION

Purpose: To develop training for employees to investigate accidents and incidents occurring within the workplace and to develop skills for the prevention of like or similar accidents or incidents.

OSHA Standard: 29 CFR 1904 (Applies only to recordkeeping, not investigation)

Recordkeeping

- OSHA Form 101 (or equivalent) must be completed within 6 working days after injury/illness is reported
- Workers' compensation form can be used in place of OSHA 101 if equivalent (and if claim is filed in timely manner)
- Insure connection between individual who processes workers' compensation claims and the safety coordinator

Elements of Accident Investigation Procedures

- Identification (employee name, date/time of accident, dept., etc.)
- Accident location, physician's name, hospital information
- Accident description
 - What happened
 - Witnesses
 - Equipment/machinery involved
 - Employer's statement to incident
- What will be done to prevent recurrence
- Investigations should take place within 24 hours of accident

OSHA Notification

Within 8 hours of a death or 3 hospitalizations as a result of the same accident

Related Training Center courses

- GEN 314: "Accident Analysis I"

VIDEO

“ACCIDENT INVESTIGATION”

OCOSH Video Library: #620186

5 Steps in Accident Investigation

1. Investigate
2. Find Cause
3. Take Action
4. Document Findings
5. Follow-up

ADDITIONAL PROGRAMS / POLICIES / TRAINING

Following are some additional programs and policies that companies should consider when developing their health and safety programs. A thorough job task analysis to identify all potential health and safety concerns is imperative in order to insure all employees are properly trained and protected.

- **Operating Procedures For Each Piece Of Equipment**

Specific operating procedures should be established for each piece of equipment used by the company. Employees should be trained using these operating procedures to ensure consistency of training.

- **Heat Stress / Cold Stress**

Certain occupations may require very specific employee training, equipment, and procedures to prevent either heat stress or cold stress on the employees. Such occupations may include construction, meat packing, foundry, landscaping, etc. The employer is required to evaluate any potential hazards (including heat and cold) and develop procedures to protect their employees.

- **Radiation (ionizing, nonionizing)**

This area may include the use of lasers on construction sites, employees repairing scanning equipment, medical/dental x-rays, ultraviolet radiation (sun) for workers outside, and radar/communication equipment.

- **Crane / Hoist / Sling Inspections**

OSHA Standard 29 CFR 1910.179 & 1910.184

Program consists primarily of documented inspections of equipment. Employees are to be trained in proper inspection techniques in order to identify potential hazards. Depending upon equipment and use, inspections may be daily, monthly or from 1-12 months. Assistance can be obtained from the equipment manufacturer or commercial crane inspection companies.

ADDITIONAL PROGRAMS / POLICIES / TRAINING

(continued)

- **Hot Work Permit**

OSHA Standard 29 CFR 1910.252

Required if welding or gas cutting is performed in locations other than designated welding areas. Employers are to designate an authorized individual to inspect areas where welding or cutting are to be performed to identify any potential fire hazards. Depending on this inspection, a fire watch may be required for a set period of time after completion of the operation. A written permit (approval) is required.

- **Fall Protection**

OSHA Standard 29 CFR 1010.23: "Guarding Floor and Wall Openings"

OSHA Standard 29 CFR 1926, Sub-Part M: "Fall Protection"

OSHA Standard 29 CFR 1920.104: "Safety Belts, Lifelines, and Lanyards"

Protection is required to prevent employees from falling while performing work at heights. Situations include working over dangerous machinery or vats of liquid, roofing work, scaffolding, and aerial hoist operations. Also includes protection from floor openings and open-sided floors.

Related Training Center course

- SAF 114: "Fall Hazard Recognition, Avoidance and Protection"

- **Machine Guarding**

Dangerous moving parts in three basic areas require safeguarding:

1. *The point of operation:* that point where work is performed on the material, such as cutting, shaping, boring, or forming of stock.
2. *Power transmission apparatus:* all components of the mechanical system that transmit energy to the part of the machine performing the work. These components include flywheels, pulleys, belts, connecting rods, couplings, cams, spindles, chains, cranks, and gears.
3. *Other moving parts:* all parts of the machine which move while the machine is working. These can include reciprocating, rotating, and transverse moving parts, as well as feed mechanisms and auxiliary parts of the machine.

Suggested Proviso---**If it moves, GUARD IT!!!**

Related Training Center courses

- SAF 105: "Mechanical Power Press"
- SAF109: "Lockout / Tagout"
- SAF106: "Machine Guarding"

ADDITIONAL PROGRAMS / POLICIES / TRAINING

(continued)

- **Trenching Operations**

OSHA Standard 29 CFR 1926.651

OSHA Standard 29 CFR 1926.652

All trenching operations over 4 feet must comply with OSHA's standards on trenching and shoring for employee protection, including having a "competent person" supervising the operation. Host employers who have hired contractors for trenching work must insure the contractor knows and follows the appropriate OSHA requirements.

Related Training Center course:

- SAF112: "Trenching and Excavation"

- **Laboratory Chemical Safety**

OSHA Standard 29 CFR 1910.1450

Established if facility has laboratory facilities using hazardous chemicals (Example: Production plant having a quality control testing lab). Not required if laboratory only uses commercially prepared "kits" or "dip-and-read" testing. Plan requires a written Chemical Hygiene Plan, employee monitoring, medical surveillance, hazard identification, and recordkeeping.

MOST FREQUENTLY CITED OSHA STANDARDS

(October 2000 through Sept. 30, 2001)

General Industry

1. 1910.1200(e)(1) HAZCOM: Written program
2. 1910.212(a)(1) Machine guarding: Guarding Methods
3. 1910.151(c) Medical Services/First Aid: Drenching Facilities
4. 1910.212(a)(3)(II) Machine guarding: Point of operation
5. 1910.1200(h) HAZCOM: Information, Training
6. 1910.1200(h)(1) HAZCOM: Information, Training
7. 1910.1200(g)(1) HAZCOM: Safety Data Sheets
8. 1910.147(c)(1) Lockout/Tagout: Energy Control Program
9. 1910.23(c)(1) Guarding Floor/Wall Openings: Standard Railing
10. 1910.147(c)(1) Lockout/Tagout: Energy Control Procedure
11. 1910.305(b)(1) Wiring Methods: Cabinet Boxes
12. 1910.215(b)(9) Abrasive Wheel Machinery: Guard Adjustment
13. 1910.134(c)(1) Respiratory Protection: Written Program

Construction

1. 1926.501(b)(1) Fall protection: Unprotected Sides and Edges
2. 1926.100(a) Head protection: Protective Helmets
3. 1926.451(g)(1) Scaffolds: Fall Protection
4. 1926.652(a)(1) Excavations: Protective Systems
5. 1926.451(e)(1) Scaffolds: Platform Access
6. 1926.21(b)(2) Safety Training: Worker Instruction
7. 1926.451(b)(1) Scaffolds: Platform Construction
8. 1926.503(a)(1) Fall Protection: Training & Program
9. 1926.453(b)(2)(v) Aerial Lifts: Body Belt Use
10. 1926.1053(b)(1) Ladders: Portable Ladder Use
11. 1926.501(b)(13) Fall Protection: Residential Construction
12. 1926.20(b)(2) Accident Prevention Programs: Inspection by Competent Person

*Note: The General Duty Clause Section 5(a)(1) was ranked number 7th overall.
1904.2(a) Recordkeeping was ranked number 3 overall.

Access <http://www.osha.gov/>. Then click on Statistics and Inspections Data.

[Frequently Cited OSHA Standards](#) is a query tool which allows the user to determine the most frequently cited Federal and State OSHA standards for a given SIC code. The SIC code may be determined by accessing the online SIC Manual.

Source: The Occupational Safety and Health Administration

PROCESS SAFETY MANAGEMENT

OSHA Standard 29 CFR 1910.119

Process Safety applies to all businesses that produce, store, transport, or use highly hazardous chemicals at certain levels. Chemical and oil companies are the primary employers requiring a Process Safety Management program. However, other industries also must evaluate their processes for potential hazards.

Does this apply to you? It does if:

- Your process involves a flammable liquid or gas on site in one location in excess of 10,000 pounds (excluding liquids used solely for heating)
- or
- Your process involves one of 137 chemicals above a certain threshold quantity. What are these chemicals? See following pages for complete list.

29 CFR 1910.119 Appendix A

Title:	List of Highly Hazardous Chemicals, Toxics, and Reactives
Subpart & Title	H / Hazardous Materials

This appendix contains a listing of toxic and reactive chemicals which present a potential for a catastrophic event at or above the threshold quantity.

* CAS Number refers to the Chemical Abstracts Service reference number

CHEMICAL NAME	CAS NUMBER*	THRESHOLD QUANTITY (POUNDS)
Acetaldehyde	75-07-0	2500
Acrolein (2-Propenal)	107-02-8	150
Acrylyl Chloride	814-68-6	250
Allyl Chloride	107-05-1	1000
Allylamine	107-11-9	1000
Alkylaluminums	Varies	5000
Ammonia, Anhydrous	7664-41-7	10000
Ammonia solutions (>44% ammonia by weight)	7664-41-7	15000
Ammonium Perchlorate	7790-98-9	7500
Ammonium Permanganate	7787-36-2	7500
Arsine (Also called Arsenic Hydride)	7784-42-1	100
Bis (Chloromethyl) Ether	542-88-1	100
Boron Trichloride	10294-34-5	2500
Boron Trifluoride	7637-07-2	250
Bromine	7726-95-6	1500
Bromine Chloride	13863-41-7	1500
Bromine Pentafluoride	7789-30-2	2500
Bromine Trifluoride	7787-71-5	15000
3-Bromopropyne (also called Propargyl Bromide)	106-96-7	100
Butyl Hydroperoxide (Tertiary)	75-91-2	5000
Butyl Perbenzoate (Tertiary)	614-45-9	7500
Carbonyl Chloride (see Phosgene)	75-44-5	100
Carbonyl Fluoride	353-50-4	2500
Cellulose Nitrate (concentration >12.6% nitrogen)	9004-70-0	2500
Chlorine	7782-50-5	1500

CHEMICAL NAME	CAS NUMBER*	THRESHOLD QUANTITY (POUNDS)
Chlorine Dioxide	10049-04-4	1000
Chlorine Pentafluoride	13637-63-3	1000
Chlorine Trifluoride	7790-91-2	1000
Chlorodiethylaluminum (Also called Diethylaluminum Chloride)	96-10-6	5000
1-Chloro-2, 4-Dinitrobenzene	97-00-7	5000
Chloromethyl Methyl Ether	107-30-2	500
Chloropicrin	76-06-2	500
Chloropicrin and Methyl Bromide mixture	None	1500
Chloropicrin and Methyl Chloride mixture	None	1500
Cummene Hydroperoxide	80-15-9	5000
Cyanogen	460-19-5	2500
Cyanogen Chloride	506-77-4	500
Cyanuric Fluoride	675-14-9	100
Diacetyl Peroxide (Concentration >70%)	110-22-5	5000
Diazomethane	334-88-3	500
Dibenzoyl Peroxide	94-36-0	7500
Diborane	19287-45-7	100
Dibutyl Peroxide (Tertiary)	110-05-4	5000
Dichloro Acetylene	7572-29-4	250
Dichlorosilane	4109-96-0	2500
Diethylzinc	557-20-0	10000
Diisopropyl Peroxydicarbonate	105-64-6	7500
Dilaluroyl Peroxide	105-74-8	7500
Dimethyldichlorosilane	75-78-5	1000
Dimethylhydrazine, 1, 1-	57-14-7	1000
Dimethylamive, Anhydrous	124-40-3	2500
2, 4-Dinitroaniline	97-02-9	5000
Ethyl Methyl Ketone Peroxide (Also Methyl Ethyl Ketone Peroxide; concentration >60%)	1338-23-4	5000
Ethyl Nitrite	109-95-5	5000
Ethylamine	75-04-7	7500
Ethylene Fluorohydrin	371-62-0	1000

CHEMICAL NAME	CAS NUMBER*	THRESHOLD QUANTITY (POUNDS)
Ethylene Oxide	75-21-8	5000
Ethyleneimine	151-56-4	1000
Fluorine	7782-41-4	1000
Formaldehyde (Formalin)	50-00-0	1000
Furan	110-00-9	500
Hexafluoroacetone	684-16-2	5000
Hydrochloric Acid, Anhydrous	7647-01-0	5000
Hydrofluoric Acid, Anhydrous	7664-39-3	1000
Hydrogen Bromide	10035-10-6	5000
Hydrogen Chloride	7647-01-0	5000
Hydrogen Cyanide, Anhydrous	74-90-8	1000
Hydrogen Fluoride	7664-39-3	1000
Hydrogen Peroxide (52% by weight or greater)	7722-84-1	7500
Hydrogen Selenide	7783-07-5	150
Hydrogen Sulfide	7783-06-4	1500
Hydroxylamine	7803-49-8	2500
Iron, Pentacarbonyl	13463-40-6	250
Isopropylamine	75-31-0	5000
Ketene	463-51-4	100
Methacryaldehyde	78-85-3	1000
Methacryloyl Chloride	920-46-7	150
Methacryloyloxyethyl Isocyanate	30674-80-7	100
Methyl Acrylonitrile	126-98-7	250
Methylamine, Anhydrous	74-89-5	1000
Methyl Bromide	74-83-9	2500
Methyl Chloride	74-87-3	15000
Methyl Chloroformate	79-22-1	500
Methyl Ethyl Ketone Peroxide (concentration >60%)	1338-23-4	5000
Methyl Fluoroacetate	453-18-9	100
Methyl Fluorosulfate	421-20-5	100
Methyl Hydrazine	60-34-4	100
Methyl Iodide	74-88-4	7500
Methyl Isocyanate	624-83-9	250

CHEMICAL NAME	CAS NUMBER*	THRESHOLD QUANTITY (POUNDS)
Methyl Mercaptan	74-93-1	5000
Methyl Vinyl Ketone	79-84-4	100
Methyltrichlorosilane	75-79-6	500
Nickel Carbonyl (Nickel Tetracarbonyl)	13463-39-3	150
Nitric Acid (94.5% by weight or greater)	7697-37-2	500
Nitric Oxide	10102-43-9	250
Nitroaniline (para Nitroaniline)	100-01-6	5000
Nitromethane	75-52-5	2500
Nitrogen Dioxide	10102-44-0	250
Nitrogen Oxides (NO; NO ₂ , N ₂ O ₄ ; N ₂ O ₃)	10102-44-0	250
Nitrogen Tetroxide (Also called Nitrogen Peroxide)	10544-72-6	250
Nitrogen Trifluoride	7783-54-2	5000
Nitrogen Trioxide	10544-73-7	250
Oleum (65% to 80% by weight, also called Fuming Sulfuric Acid)	8014-94-7	1000
Osmium Tetroxide	20816-12-0	100
Oxygen Difluoride (Fluorine Monoxide)	7783-41-7	100
Ozone	10028-15-6	100
Pentaborane	19624-22-7	100
Peracetic Acid (concentration >60% Acetic Acid; also called Peroxyacetic Acid)	79-21-0	1000
Perchloric Acid (concentration >60% by weight)	7601-90-3	5000
Perchloromethyl Mercaptan	594-42-3	150
Perchloryl Fluoride	7616-94-6	5000
Peroxyacetic Acid (concentration >60% Acetic Acid; also called Peracetic Acid)	79-21-0	1000
Phosgene (also called Carbonyl Chloride)	75-44-5	100
Phosphine (Hydrogen Phosphide)	7803-51-2	100
Phosphorus Oxychloride (also called Phosphoryl Chloride)	10025-87-3	1000
Phosphorus Trichloride	7719-12-2	1000
Phosphoryl Chloride (also called Phosphorus Oxychloride)	10025-87-3	1000
Propargyl Bromide	106-96-7	100

CHEMICAL NAME	CAS NUMBER*	THRESHOLD QUANTITY (POUNDS)
Propyl Nitrate	627-3-4	2500
Sarin	107-44-8	100
Selenium Hexafluoride	7783-79-1	1000
Stibine (Antimony Hydride)	7803-52-3	500
Sulfur Dioxide (liquid)	7446-09-5	1000
Sulfur Pentafluoride	5714-22-7	250
Sulfur Tetrafluoride	7783-60-0	250
Sulfur Trioxide (also called Sulfuric Anhydride)	7446-11-9	1000
Sulfuric Anhydride (also called Sulfur Trioxide)	7446-11-9	1000
Tellurium Hexafluoride	7783-80-4	250
Tetrafluoroethylene	116-14-3	5000
Tetrafluorohydrazine	10036-47-2	5000
Tetramethyl Lead	75-74-1	1000
Thionyl Chloride	7719-09-7	250
Trichloro (chloromethyl) Silane	1558-25-4	100
Trichloro (dichlorophenyl) Silane	27137-85-5	2500
Trichlorosilane	10025-78-2	5000
Trifluorochloroethylene	79-38-9	10000
Trimethoxysilane	2487-90-3	1500

[57 CFR 7847, Mar. 4, 1992]

SPECIFIC CHEMICALS WITH INDIVIDUAL OSHA STANDARDS

2-Acetylaminofluorene	29 CFR 1910.1014
Acrylonitrile	29 CFR 1910.1045
alpha-Naphthylamine	29 CFR 1910.1004
4-Aminodiphenyl	29 CFR 1910.1011
Asbestos	29 CFR 1910.1001
Benzene	29 CFR 1910.1028
Benzidine	29 CFR 1910.1010
Cadmium	29 CFR 1910.1027
bis-Chloromethyl ether	29 CFR 1910.1008
Coal tar pitch volatiles; interpretation of term	29 CFR 1910.1002
Coke oven emissions	29 CFR 1910.1029
Cotton dust	29 CFR 1910.1043
1,2-Dibromo-3-chloropropane	29 CFR 1910.1044
3,3'-Dichlorobenzidine (and its salts)	29 CFR 1910.1007
4-Dimethylaminoazobenzene	29 CFR 1910.1015
Ethyleneimine	29 CFR 1910.1012
Ethylene oxide	29 CFR 1910.1047
Formaldehyde	29 CFR 1910.1048
Inorganic arsenic	29 CFR 1910.1018
Lead	29 CFR 1910.1025
Methyl chloromethyl ether	29 CFR 1910.1006
Methylenedianiline	29 CFR 1910.1050
beta-Naphthylamine	29 CFR 1910.1009
4-Nitrobiphenyl	29 CFR 1910.1003
N-Nitrosodimethylamine	29 CFR 1910.1016
beta-Propiolactone	29 CFR 1910.1013
Vinyl chloride	29 CFR 1910.1017

STEP 9: Written Safety and Health Policy

“A written safety and health policy signed by the top company official that expresses the employer’s values and commitment to workplace safety and health.”

(THIS IS THE EASIEST TO COMPLETE, BUT THE HARDEST TO LIVE WITH!)

- Signed by top executive

- Communicated to all employees, reviewed annually

- Policy should include
 - Company’s commitment to providing a safe workplace
 - Management, supervisors and employees responsibilities regarding organization’s commitment to workplace safety & health
 - Value of employee involvement to the safety process
 - Commitment to returning injured workers back to work at the earliest opportunity

Sample policies are presented on the following pages

SAMPLE #1

**COMPANY SAFETY POLICY
BIDWELL INTERNATIONAL**

It is my firm belief that the health and safety of each employee in this company must take precedence over all other considerations. Profitability at the expense of injured employees is not acceptable. The health and safety of each employee is a major responsibility. Although we have a Safety Director, this responsibility cannot be delegated to a single individual. All employees must share this obligation, both for themselves, and for their fellow workers. And all supervisors are to be held accountable to ensure each and every operation is conducted in a safe manner.

In support of this belief, certain health and safety policies have been established. These policies insure that all employees receive the maximum protection possible. That each and every one leaves here in the same physical condition as when they arrive each morning.

Although many of our policies are based on OSHA (Occupational Safety & Health Administration) standards, my purpose is to prevent illness and injury, and not to satisfy OSHA. Many of our policies go beyond these standards, in order to provide the best work environment possible. Each and every employee, from the janitor to the president, are required to follow these policies and are responsible for ensuring all unsafe conditions and operations are immediately corrected or reported to the proper individual.

In the event that an employee is injured, this company will do everything in its power to insure adequate medical care is provided and to return the employee back to work at the earliest opportunity. In addition to preventing physical pain and suffering, a safe work environment will go a long way to ensure this company remains profitable, thus allowing our company family to continue well into the future with a clear sense of pride, satisfaction and purpose. With the help and dedication of each employee, we can achieve this.

June 3, 2001

George A. Bidwell
George A. Bidwell
President

SAMPLE #2

RIVERBEND CERAMICS AND SUPPLIES

"Everything for the Hobbyist"

4632 South River Road
Columbus, Ohio 30829
(614) 555-4599 FAX: (614) 555-4597

COMPANY SAFETY POLICY

June 3, 2000

The safety and health of every employee in this organization is of primary importance. Work related injuries and illnesses must be prevented. In order to ensure a safe work environment, the following policy has been adopted.

- This company will comply with all State and Federal safety codes and regulations.
- Safety committees will be formed with employee representation. Membership of the committees will be on a rotating basis so that as many employees as possible can be involved.
- Regularly scheduled safety inspections will be made in order to discover and correct unsafe conditions and practices.
- Every accident and investigation will be investigated promptly and thoroughly with the aim of preventing the same or similar incident/ accident.
- Safety and health rules and regulations will be formulated and all employees, management and labor, shall be required to comply with them as a condition of employment.
- When workplace hazards cannot be eliminated, suitable personal protective equipment shall be issued to employees. Employees are required to properly wear this equipment.
- Each supervisor will be responsible for safety in their respective areas of responsibilities, and will be given the training, assistance, authority and support needed to fulfill this responsibility.

Joe E. Allen

Joseph E. Allen, President
Riverbend Ceramics

SAMPLE #3

ACME WIDGETS, INC.
414 S. Reynolds Road
Weston Corners, Ohio 44745
(419) 555-3727

Company Safety Policy

June 3, 2001

It is the policy of this company to conduct all of its operations and activities in a manner that will ensure proper safety & health protection for all employees. The prevention of occupational injuries and illnesses is of such consequence that it will be given precedence over operating productivity whenever necessary. All employees, management and labor, are required to support this process and employee involvement is essential for its success.

Ima Goodguy
Ima Goodguy
General Manager

STEP 10: Recordkeeping and Data Analysis

“Internal program verification to assess the success of company safety efforts, to include audits, surveys, and record analysis.”

- **Purpose**
 - Identify safety and health process problems
 - Help manage the compensation process
 - Provide information necessary for developing solutions to problems
 - Comparison of current data to previous experience
 - Comparison of current data to similar businesses

- **Caution:** Results-oriented data, such as frequency rates, severity rates, incident rates, costs of compensation, etc. relate trends and show the results of past effort. These numbers don't tell how or by what means the results were achieved.

- **Analysis Techniques**
 - Assess how the safety results were obtained
 - Conduct perception surveys to see how employees view the process
 - Assess effectiveness of accountability system
 - Use observation techniques to identify safe behavior
 - Assess effectiveness of communication procedures
 - Make all data available to all employees

STEP 10: Recordkeeping and Data Analysis

(continued)

- **Examples of recordkeeping**
 - OSHA 300/300A/301 forms (Work-Related Injuries and Illnesses). Change from OSHA 200/101 forms effective January 1, 2002.
Note: Public employers in Ohio have option to continue to use OSHA 200/101 forms or the new OSHA 300/300A/301 forms. Follow instructions for forms used
 - Workers' Compensation claims
 - Types and number of unsafe behaviors observed by supervisors or employees
 - Number of safe behavior recognition communications by supervisors or employees
 - Number of safety discussions conducted
 - Number of near misses reported
 - Number of dangerous operations completed successfully, e.g., lockout/tagout operations, confined space entries, etc.
 - Number of safety suggestions and problems solved
 - Number of safe miles driven without incident
 - Amount of material moved, installed, sawed, erected, etc., without incident

Individual company data that can be tracked will vary greatly depending on the nature of the business.

Related Training Center courses

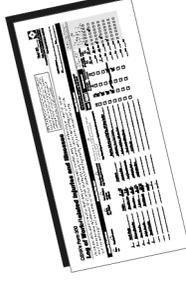
- GEN 126: "Measuring Safety Performance"
- GEN 310: "Controlling Workers' Compensation Costs"
- GEN 311: "Controlling Costs Through Claims Management"
- GEN 314: "Accident Analysis"
- GEN 320: "OSHA Recordkeeping"

OSHA Forms for Recording Work-Related Injuries and Illnesses

What's Inside...

In this package, you'll find everything you need to complete OSHA's *Log* and the *Summary of Work-Related Injuries and Illnesses* for the next several years. On the following pages, you'll find:

- ▼ **An Overview: Recording Work-Related Injuries and Illnesses** — General instructions for filling out the forms in this package and definitions of terms you should use when you classify your cases as injuries or illnesses.
- ▼ **How to Fill Out the Log** — An example to guide you in filling out the *Log* properly.
- ▼ **Log of Work-Related Injuries and Illnesses** — Several pages of the *Log* (but you may make as many copies of the *Log* as you need.) Notice that the *Log* is separate from the *Summary*.
- ▼ **Summary of Work-Related Injuries and Illnesses** — Removable *Summary* pages for easy posting at the end of the year. Note that you post the *Summary* only, not the *Log*.
- ▼ **Worksheet to Help You Fill Out the Summary** — a worksheet for figuring the average number of employees who worked for your establishment and the total number of hours worked.
- ▼ **OSHA's 301: Injury and Illness Incident Report** — Several copies of the OSHA 301 to provide details about the incident. You may make as many copies as you need or use an equivalent form.



Take a few minutes to review this package. If you have any questions, **visit us online at www.osha.gov** or **call your local OSHA office**. We'll be happy to help you.



An Overview: Recording Work-Related Injuries and Illnesses

The Occupational Safety and Health (OSH) Act of 1970 requires certain employers to prepare and maintain records of work-related injuries and illnesses. Use these definitions when you classify cases on the Log. OSHA's recordkeeping regulation (see 29 CFR Part 1904) provides more information about the definitions below.

The *Log of Work-Related Injuries and Illnesses* (Form 300) is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened.

The *Summary* — a separate form (Form 300A) — shows the totals for the year in each category. At the end of the year, post the *Summary* in a visible location so that your employees are aware of the injuries and illnesses occurring in their workplace.

Employers must keep a *Log* for each establishment or site. If you have more than one establishment, you must keep a separate *Log* and *Summary* for each physical location that is expected to be in operation for one year or longer.

Note that your employees have the right to review your injury and illness records. For more information, see 29 Code of Federal Regulations Part 1904.35, *Employee Involvement*.

Cases listed on the *Log of Work-Related Injuries and Illnesses* are not necessarily eligible for workers' compensation or other insurance benefits. Listing a case on the *Log* does not mean that the employer or worker was at fault or that an OSHA standard was violated.

When is an injury or illness considered work-related?

An injury or illness is considered work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work-relatedness is

presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception specifically applies. See 29 CFR Part 1904.5(b)(2) for the exceptions. The work environment includes the establishment and other locations where one or more employees are working or are present as a condition of their employment. See 29 CFR Part 1904.5(b)(1).

Which work-related injuries and illnesses should you record?

Record those work-related injuries and illnesses that result in:

- ▼ death,
- ▼ loss of consciousness,
- ▼ days away from work,
- ▼ restricted work activity or job transfer, or
- ▼ medical treatment beyond first aid.

You must also record work-related injuries and illnesses that are significant (as defined below) or meet any of the additional criteria listed below.

You must record any significant work-related injury or illness that is diagnosed by a physician or other licensed health care professional. You must record any work-related case involving cancer, chronic irreversible disease, a fractured or cracked bone, or a punctured eardrum. See 29 CFR 1904.7.

What are the additional criteria?

You must record the following conditions when they are work-related:

- ▼ any needlestick injury or cut from a sharp object that is contaminated with another person's blood or other potentially infectious material;
- ▼ any case requiring an employee to be medically removed under the requirements of an OSHA health standard;
- ▼ tuberculosis infection as evidenced by a positive skin test or diagnosis by a physician or other licensed health care professional after exposure to a known case of active tuberculosis.

What is medical treatment?

Medical treatment includes managing and caring for a patient for the purpose of combating disease or disorder. The following are not considered medical treatments and are NOT recordable:

- ▼ visits to a doctor or health care professional solely for observation or counseling;
- ▼ diagnostic procedures, including administering prescription medications that are used solely for diagnostic purposes; and
- ▼ any procedure that can be labeled first aid. (See below for more information about first aid.)

What do you need to do?

1. Within 7 calendar days after you receive information about a case, decide if the case is recordable under the OSHA recordkeeping requirements.
2. Determine whether the incident is a new case or a recurrence of an existing one.
3. Establish whether the case was work-related.
4. If the case is recordable, decide which form you will fill out as the injury and illness incident report.
You may use *OSHA's 301: Injury and Illness Incident Report* or an equivalent form. Some state workers compensation, insurance, or other reports may be acceptable substitutes, as long as they provide the same information as the OSHA 301.

How to work with the Log

1. Identify the employee involved unless it is a privacy concern case as described below.
2. Identify when and where the case occurred.
3. Describe the case, as specifically as you can.
4. Classify the seriousness of the case by recording the **most serious outcome** associated with the case, with column J (Other recordable cases) being the least serious and column G (Death) being the most serious.
5. Identify whether the case is an injury or illness. If the case is an injury, check the injury category. If the case is an illness, check the appropriate illness category.



What is first aid?

If the incident required only the following types of treatment, consider it first aid. Do NOT record the case if it involves only:

- ▼ using non-prescription medications at non-prescription strength;
- ▼ administering tetanus immunizations;
- ▼ cleaning, flushing, or soaking wounds on the skin surface;
- ▼ using wound coverings, such as bandages, BandAids™, gauze pads, etc., or using SteriStrips™ or butterfly bandages.
- ▼ using hot or cold therapy;
- ▼ using any totally non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc.;
- ▼ using temporary immobilization devices while transporting an accident victim (splints, slings, neck collars, or back boards).
- ▼ drilling a fingernail or toenail to relieve pressure, or draining fluids from blisters;
- ▼ using eye patches;
- ▼ using simple irrigation or a cotton swab to remove foreign bodies not embedded in or adhered to the eye;
- ▼ using irrigation, tweezers, cotton swab or other simple means to remove splinters or foreign material from areas other than the eye;
- ▼ using finger guards;
- ▼ using massages;
- ▼ drinking fluids to relieve heat stress

How do you decide if the case involved restricted work?

Restricted work activity occurs when, as the result of a work-related injury or illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

How do you count the number of days of restricted work activity or the number of days away from work?

Count the number of calendar days the employee was on restricted work activity or was away from work as a result of the recordable injury or illness. Do not count the day on which the injury or illness occurred in this number.

Begin counting days from the day after the incident occurs. If a single injury or illness involved both days away from work and days of restricted work activity, enter the total number of days for each. You may stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

Under what circumstances should you NOT enter the employee's name on the OSHA Form 300?

- You must consider the following types of injuries or illnesses to be privacy concern cases:
- ▼ an injury or illness to an intimate body part or to the reproductive system,

- ▼ an injury or illness resulting from a sexual assault,

- ▼ a mental illness,
- ▼ a case of HIV infection, hepatitis, or tuberculosis,
- ▼ a needlestick injury or cut from a sharp object that is contaminated with blood or other potentially infectious material (see 29 CFR Part 1904.8 for definition), and
- ▼ other illnesses, if the employee

independently and voluntarily requests that his or her name not be entered on the log.

You must not enter the employee's name on the OSHA 300 Log for these cases. Instead, enter "privacy case" in the space normally used for the employee's name. You must keep a separate, confidential list of the case numbers and employee names for the establishment's privacy concern cases so that you can update the cases and provide information to the government if asked to do so.

If you have a reasonable basis to believe that information describing the privacy concern case may be personally identifiable even though the employee's name has been omitted, you may use discretion in describing the injury or illness on both the OSHA 300 and 301 forms. You must enter enough information to identify the cause of the incident and the general severity of the injury or illness, but you do not need to include details of an intimate or private nature.

What if the outcome changes after you record the case?

If the outcome or extent of an injury or illness changes after you have recorded the case, simply draw a line through the original entry or, if you wish, delete or white-out the original entry. Then write the new entry where it belongs. Remember, you need to record the most serious outcome for each case.

Classifying injuries

An injury is any wound or damage to the body resulting from an event in the work environment.

Examples: Cut, puncture, laceration, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical, or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.





Classifying illnesses

Skin diseases or disorders

Skin diseases or disorders are illnesses involving the worker's skin that are caused by work exposure to chemicals, plants, or other substances.

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; friction blisters, chrome ulcers; inflammation of the skin.

Respiratory conditions

Respiratory conditions are illnesses associated with breathing hazardous biological agents, chemicals, dust, gases, vapors, or fumes at work.

Examples: Silicosis, asbestosis, pneumonitis, pharyngitis, rhinitis or acute congestion; farmer's lung, beryllium disease, tuberculosis, occupational asthma, reactive airways dysfunction syndrome (RADS), chronic obstructive pulmonary disease (COPD), hypersensitivity pneumonitis, toxic inhalation injury, such as metal fume fever, chronic obstructive bronchitis, and other pneumoconioses.

Poisoning

Poisoning includes disorders evidenced by abnormal concentrations of toxic substances in blood, other tissues, other bodily fluids, or the breath that are caused by the ingestion or absorption of toxic substances into the body.

Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other

gases; poisoning by benzene, benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays, such as parathion or lead arsenate; poisoning by other chemicals, such as formaldehyde.

All other illnesses

All other occupational illnesses.

Examples: Heatstroke, sunstroke, heat exhaustion, heat stress and other effects of environmental heat; freezing, frostbite, and other effects of exposure to low temperatures; decompression sickness; effects of ionizing radiation (isotopes, x-rays, radium); effects of nonionizing radiation (welding flash, ultra-violet rays, lasers); anthrax; bloodborne pathogenic diseases, such as AIDS, HIV, hepatitis B or hepatitis C; brucellosis; malignant or benign tumors; histoplasmosis; coccidioidomycosis.

When must you post the Summary?

You must post the *Summary* only — not the *Log* — by February 1 of the year following the year covered by the form and keep it posted until April 30 of that year.

How long must you keep the Log and Summary on file?

You must keep the *Log* and *Summary* for 5 years following the year to which they pertain.

Do you have to send these forms to OSHA at the end of the year?

No. You do not have to send the completed forms to OSHA unless specifically asked to do so.

How can we help you?

If you have a question about how to fill out the *Log*,

- visit us online at www.osha.gov or
- call your local OSHA office.

Calculating Injury and Illness Incidence Rates

What is an incidence rate?

An incidence rate is the number of recordable injuries and illnesses occurring among a given number of full-time workers (usually 100 full-time workers) over a given period of time (usually one year). To evaluate your firm's injury and illness experience over time or to compare your firm's experience with that of your industry as a whole, you need to compute your incidence rate. Because a specific number of workers and a specific period of time are involved, these rates can help you identify problems in your workplace and/or progress you may have made in preventing work-related injuries and illnesses.

How do you calculate an incidence rate?

You can compute an occupational injury and illness incidence rate for all recordable cases or for cases that involved days away from work for your firm quickly and easily. The formula requires that you follow instructions in paragraph (a) below for the total recordable cases or those in paragraph (b) for cases that involved days away from work, and for both rates the instructions in paragraph (c).

(a) To find out the total number of recordable injuries and illnesses that occurred during the year, count the number of line entries on your OSHA Form 300, or refer to the OSHA Form 300A and sum the entries for columns (G), (H), (I), and (J).

(b) To find out the number of injuries and illnesses that involved days away from work, count the number of line entries on your OSHA Form 300 that received a check mark in column (H), or refer to the entry for column (H) on the OSHA Form 300A.

(c) The number of hours all employees actually worked during the year. Refer to OSHA Form 300A and optional worksheet to calculate this number.

You can compute the incidence rate for all recordable cases of injuries and illnesses using the following formula:

$$\frac{\text{Total number of injuries and illnesses}}{\text{hours worked by all employees}} \div \frac{\text{Number of hours worked}}{200,000 \text{ hours}} = \text{Total recordable case rate}$$

(The 200,000 figure in the formula represents the number of hours 100 employees working 40 hours per week, 50 weeks per year would work, and provides the standard base for calculating incidence rates.)

You can compute the incidence rate for recordable cases involving days away from work, days of restricted work activity or job transfer (DART) using the following formula:

$$\frac{\text{Number of injuries in column H} + \text{Number of entries in column I}}{\text{Number of hours worked by all employees}} \times 200,000 \text{ hours} = \text{DART incidence rate}$$

You can use the same formula to calculate incidence rates for other variables such as cases involving restricted work activity (column (I) on Form 300A), cases involving skin disorders (column (M-2) on Form 300A), etc. Just substitute the appropriate total for these cases, from Form 300A, into the formula in place of the total number of injuries and illnesses.

What can I compare my incidence rate to?

The Bureau of Labor Statistics (BLS) conducts a survey of occupational injuries and illnesses each year and publishes incidence rate data by

various classifications (e.g., by industry, by employer size, etc.). You can obtain these published data at www.bls.gov or by calling a BLS Regional Office.

Worksheet

Total number of recordable injuries and illnesses in your establishment

$$\frac{\boxed{}}{\boxed{}} \times 200,000 = \boxed{}$$

Total recordable cases incidence rate

Hours worked by all your employees

Total number of recordable injuries and illnesses with a checkmark in column H or column I

$$\frac{\boxed{}}{\boxed{}} \times 200,000 = \boxed{}$$

DART incidence rate

Hours worked by all your employees



How to Fill Out the Log

The *Log of Work-Related Injuries and Illnesses* is used to classify work-related injuries and illnesses and to note the extent and severity of each case. When an incident occurs, use the *Log* to record specific details about what happened and how it happened.

If your company has more than one establishment or site, you must keep separate records for each physical location that is expected to remain in operation for one year or longer.

We have given you several copies of the *Log* in this package. If you need more than we provided, you may photocopy and use as many as you need.

The *Summary* — a separate form — shows the work-related injury and illness totals for the year in each category. At the end of the year, count the number of incidents in each category and transfer the totals from the *Log* to the *Summary*. Then post the *Summary* in a visible location so that your employees are aware of injuries and illnesses occurring in their workplace.

You don't post the Log. You post only the Summary at the end of the year.

OSHA's Form 300

Log of Work-Related Injuries and Illnesses

You must record information about every work-related death and about every work-related injury or illness that involves loss of consciousness, restricted work, activity or job transfer, days away from work, or medical treatment beyond first aid. You must also record significant work-related injuries and illnesses that are diagnosed by a physician or licensed health care professional. You must also record work-related injuries and illnesses that meet any of the specific recording criteria listed in 29 CFR Part 1904.8 through 1904.12. Feel free to use two lines for a single case if you need to. You must complete an Injury and Illness Incident Report (OSHA Form 301) or equivalent form for each injury or illness recorded on this form. If you're not sure whether a case is recordable, call your local OSHA office for help.

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



Year 20 _____

U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Establishment name XYZ Company
City Anytown State MA

Identify the person

(A) Case no. (B) Employee's name (C) Job title (e.g. Welder) (D) Date of injury or onset of illness (E) Where the event occurred (e.g. Loading dock north end)

(F) Describe injury or illness, parts of body affected, and object/substance that directly injured or made person ill (e.g. Second degree burns on right forearm from acetylene torch)

Classify the case

Using these four categories, check ONLY the most serious result for each case:

Death (G)

Days away from work (H)

Job transfer or restriction (K)

Away from work (L)

(I) Job transfer or restriction

(J) Other recordable cases

(M) Injury

(N) Skin disorders

(O) Respiratory conditions

(P) Poisoning

(Q) All other illnesses

1	Mark Babin	Welder	5 / 23 month/day	basement	fracture, left arm and left leg, fell from ladder	<input type="checkbox"/> (G) <input checked="" type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)
2	Shana Alexander	Foundry man	7 / 2 month/day	pouring deck	poisoning from lead fumes	<input type="checkbox"/> (G) <input checked="" type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)
3	Sam Sauder	Electrician	8 / 5 month/day	2nd floor stairwell	broken left foot, fell over box	<input type="checkbox"/> (G) <input checked="" type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)
4	Ralph Bocella	Laborer	9 / 17 month/day	packaging dept	Back strain lifting boxes	<input type="checkbox"/> (G) <input checked="" type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)
5	Jared Daniels	Machine opt.	10 / 23 month/day	production floor	dust in eye	<input type="checkbox"/> (G) <input checked="" type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)
						<input type="checkbox"/> (G) <input type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)
						<input type="checkbox"/> (G) <input type="checkbox"/> (H) <input type="checkbox"/> (I) <input type="checkbox"/> (J) <input type="checkbox"/> (M) <input type="checkbox"/> (N) <input type="checkbox"/> (O) <input type="checkbox"/> (P) <input type="checkbox"/> (Q)

Be as specific as possible. You can use two lines if you need more room.

Revise the log if the injury or illness progresses and the outcome is more serious than you originally recorded for the case. Cross out, erase, or white-out the original entry.

Choose ONE of these categories. Classify the case by recording the most serious outcome of the case, with column J (Other recordable cases) being the least serious and column G (Death) being the most serious.

Note whether the case involves an injury or an illness.



Summary of Work-Related Injuries and Illnesses



All establishments covered by Part 1904 must complete this Summary page, even if no work-related injuries or illnesses occurred during the year. Remember to review the Log to verify that the entries are complete and accurate before completing this summary.

Using the Log, count the individual entries you made for each category. Then write the totals below, making sure you've added the entries from every page of the Log. If you had no cases, write "0."

Employees, former employees, and their representatives have the right to review the OSHA Form 300 in its entirety. They also have limited access to the OSHA Form 301 or its equivalent. See 29 CFR Part 1904.35, in OSHA's recordkeeping rule, for further details on the access provisions for these forms.

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
(G) _____	(H) _____	(I) _____	(J) _____

Number of Days

Total number of days of job transfer or restriction _____ (K)

Total number of days away from work _____ (L)

Injury and Illness Types

Total number of . . . (M)

(1) Injuries	_____	(4) Poisonings	_____
(2) Skin disorders	_____	(5) All other illnesses	_____
(3) Respiratory conditions	_____		

Establishment information

Your establishment name _____
 Street _____
 City _____ State _____ ZIP _____

Industry description (e.g., *Manufacture of motor truck trailers*) _____
 Standard Industrial Classification (SIC), if known (e.g., *SIC 3715*) _____

Employment information

(If you don't have these figures, see the Worksheet on the back of this page to estimate.)

Annual average number of employees _____
 Total hours worked by all employees last year _____

Sign here

Knowingly falsifying this document may result in a fine.

I certify that I have examined this document and that to the best of my knowledge the entries are true, accurate, and complete.

Company executive _____ Title _____
 (_____) _____ / /
 Phone _____ Date _____

Post this Summary page from February 1 to April 30 of the year following the year covered by the form.

Public reporting burden for this collection of information is estimated to average 50 minutes per response, including time to review the instructions, search and gather the data needed, and complete and review the collection of information. Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number. If you have any comments about these estimates or any other aspects of this data collection, contact: US Department of Labor, OSHA Office of Statistics, Room N-3644, 200 Constitution Avenue, NW, Washington, DC 20210. Do not send the completed forms to this office.

Worksheet to Help You Fill Out the Summary

At the end of the year, OSHA requires you to enter the average number of employees and the total hours worked by your employees on the summary. If you don't have these figures, you can use the information on this page to estimate the numbers you will need to enter on the Summary page at the end of the year.

How to figure the average number of employees who worked for your establishment during the year:

- 1 **Add** the total number of employees your establishment paid in all pay periods during the year. Include all employees: full-time, part-time, temporary, seasonal, salaried, and hourly.
- 2 **Count** the number of pay periods your establishment had during the year. Be sure to include any pay periods when you had no employees.
- 3 **Divide** the number of employees by the number of pay periods.
- 4 **Round the answer** to the next highest whole number. Write the rounded number in the blank marked *Annual average number of employees*.

For example, Acme Construction figured its average employment this way:

For pay period... **Acme paid this number of employees...**

1	10		Number of employees paid = 830	1
2	0			
3	15		Number of pay periods = 26	2
4	30			
5	40		830 = 31.92	3
▼	▼		26	
24	20		31.92 rounds to 32	4
25	15			
26	+10		32 is the annual average number of employees	
	830			

How to figure the total hours worked by all employees:

Include hours worked by salaried, hourly, part-time and seasonal workers, as well as hours worked by other workers subject to day to day supervision by your establishment (e.g., temporary help services workers).

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If your establishment keeps records of only the hours paid or if you have employees who are not paid by the hour, please estimate the hours that the employees actually worked.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

_____ **Find** the number of full-time employees in your establishment for the year.

X _____ **Multiply** by the number of work hours for a full-time employee in a year.

_____ This is the number of full-time hours worked.

+ _____ **Add** the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal)

_____ **Round** the answer to the next highest whole number. Write the rounded number in the blank marked *Total hours worked by all employees last year*.



OSHA's Form 301 Injury and Illness Incident Report

This *Injury and Illness Incident Report* is one of the first forms you must fill out when a recordable work-related injury or illness has occurred. Together with the *Log of Work-Related Injuries and Illnesses* and the accompanying *Summary*, these forms help the employer and OSHA develop a picture of the extent and severity of work-related incidents.

Within 7 calendar days after you receive information that a recordable work-related injury or illness has occurred, you must fill out this form or an equivalent. Some state workers' compensation, insurance, or other reports may be acceptable substitutes. To be considered an equivalent form, any substitute must contain all the information asked for on this form.

According to Public Law 91-596 and 29 CFR 1904, OSHA's recordkeeping rule, you must keep this form on file for 5 years following the year to which it pertains.

If you need additional copies of this form, you may photocopy and use as many as you need.

Completed by _____ Date ____/____/____
 Title _____
 Phone (____) _____ Date ____/____/____

Attention: This form contains information relating to employee health and must be used in a manner that protects the confidentiality of employees to the extent possible while the information is being used for occupational safety and health purposes.



U.S. Department of Labor
Occupational Safety and Health Administration

Form approved OMB no. 1218-0176

Information about the employee

- 1) Full name _____
- 2) Street _____
City _____ State _____ ZIP _____
- 3) Date of birth ____/____/____
- 4) Date hired ____/____/____
- 5) Male Female

Information about the physician or other health care professional

- 6) Name of physician or other health care professional _____
- 7) If treatment was given away from the worksite, where was it given?
 Facility _____
 Street _____
 City _____ State _____ ZIP _____
- 8) Was employee treated in an emergency room?
 Yes No
- 9) Was employee hospitalized overnight as an in-patient?
 Yes No

Information about the case

- 10) Case number from the Log _____ (Transfer the case number from the Log after you record the case.)
- 11) Date of injury or illness ____/____/____ AM / PM
- 12) Time employee began work _____ AM / PM Check if time cannot be determined
- 13) Time of event _____
- 14) **What was the employee doing just before the incident occurred?** Describe the activity, as well as the tools, equipment, or material the employee was using. Be specific. *Examples:* "climbing a ladder while carrying roofing materials"; "spraying chlorine from hand sprayer"; "daily computer key-entry."
- 15) **What happened?** Tell us how the injury occurred. *Examples:* "When ladder slipped on wet floor, worker fell 20 feet"; "Worker was sprayed with chlorine when gasket broke during replacement"; "Worker developed soreness in wrist over time."
- 16) **What was the injury or illness?** Tell us the part of the body that was affected and how it was affected; be more specific than "hurt," "pain," or "sore." *Examples:* "strained back"; "chemical burn, hand"; "carpal tunnel syndrome."
- 17) **What object or substance directly harmed the employee?** *Examples:* "concrete floor"; "chlorine"; "radial arm saw." *If this question does not apply to the incident, leave it blank.*
- 18) **If the employee died, when did death occur?** Date of death ____/____/____

If You Need Help...

If you need help deciding whether a case is recordable, or if you have questions about the information in this package, feel free to contact us. We'll gladly answer any questions you have.

▼ Visit us online at www.osha.gov

▼ Call your OSHA Regional office and ask for the recordkeeping coordinator

or

▼ Call your State Plan office

Federal Jurisdiction

Region 1 - 617 / 565-9860
Connecticut; Massachusetts; Maine; New Hampshire; Rhode Island

Region 2 - 212 / 337-2378
New York; New Jersey

Region 3 - 215 / 596-1201
DC; Delaware; Pennsylvania; West Virginia

Region 4 - 404 / 562-2300
Alabama; Florida; Georgia; Mississippi

Region 5 - 312 / 353-2220
Illinois; Ohio; Wisconsin

Region 6 - 214 / 767-4731
Arkansas; Louisiana; Oklahoma; Texas

Region 7 - 816 / 426-5861
Kansas; Missouri; Nebraska

Region 8 - 303 / 844-1600
Colorado; Montana; North Dakota; South Dakota

Region 9 - 415 / 975-4310

Region 10 - 206 / 553-5930
Idaho

State Plan States

Alaska - 907 / 269-4957

Arizona - 602 / 542-5795

California - 415 / 703-5100

*Connecticut - 860 / 566-4380

Hawaii - 808 / 586-9100

Indiana - 317 / 232-3325

Iowa - 515 / 281-3661

Kentucky - 502 / 564-3070

Maryland - 410 / 767-2371

Michigan - 517 / 322-1851

Minnesota - 651 / 296-2116

Nevada - 702 / 687-3250

*New Jersey - 609 / 292-2313

New Mexico - 505 / 827-4230

*New York - 518 / 457-2574

North Carolina - 919 / 807-2875

Oregon - 503 / 378-3272

Puerto Rico - 787 / 754-2171

South Carolina - 803 / 734-9632

Tennessee - 615 / 741-2793

Utah - 801 / 530-6901

Vermont - 802 / 828-2765

Virginia - 804 / 786-6613

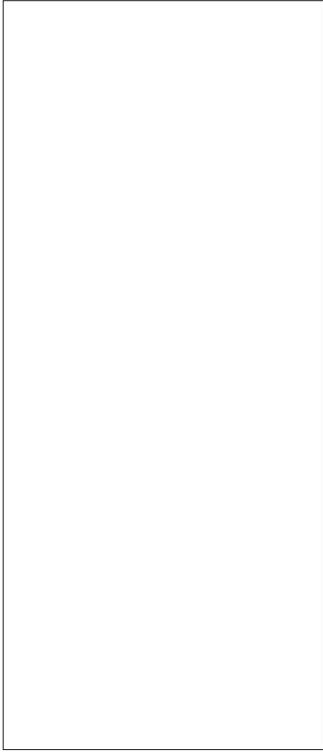
Virgin Islands - 340 / 772-1315

Washington - 360 / 902-5799

Wyoming - 307 / 777-7786

*Public Sector only





Have questions?

If you need help in filling out the *Log* or *Summary*, or if you have questions about whether a case is recordable, contact us. We'll be happy to help you. You can:

- ▶ Visit us online at: **www.osha.gov**
- ▶ Call your regional or state plan office. You'll find the phone number listed inside this cover.



Log and Summary of Occupational Injuries and illnesses					
<p>NOTE: This form is required by Public Law 91-596 and must be kept in the establishment for 5 years. Failure to maintain and post can result in issuance of citations and assessment of penalties. (See posting requirements on the other side of form)</p>					
<p>medical treatment (other than first aid) (See definitions on the other side of form)</p>					
Case or File Number	Date of Injury or Onset of Illness	Employee's Name	Occupation	Department	Description of Injury or Illness
Enter a nonduplicating number which will facilitate comparisons with supplementary records.	Enter Mo/Day	Enter first name or initial, middle initial, last name	Enter regular job title, not activity employee was performing when injury occurred or at onset of illness. In the absence of a formal title, enter a brief description of the employee's duties.	Enter department in which the employee is regularly employed or a description of normal workplace to which employee is assigned, even though temporarily working in another department at the time of injury or illness.	Enter a brief description of the injury or illness and indicate the part or parts of the body affected. Typical entries for this column might be: Amputation of 1st joint right forefinger; Strain of lower back; Contact dermatitis on both hands; Electrocutation - body.
(A)	(B)	(C)	(D)	(E)	(F)
PREVIOUS PAGE TOTALS =>					
TOTALS (Instructions on other side of form) =>					
OSHA No. 200					

**Occupational Safety and Health Administration
Supplementary Record of
Occupational Injuries and Illnesses**

U.S. Department of Labor



This form is required by Public Law 91-596 and must be kept in the establishment for 5 years.
Failure to maintain can result in the issuance of citations and assessment of penalties.

Case or File No.

Form Approved
O.M.B. No. 1218-0176

Employer

See OMB Disclosure
Statement on reverse.

1. Name

2. Mail address (No. and street, city or town, State, and zip code)

3. Location, if different from mail address

Injured or Ill Employee

4 Name (First, middle, and last)

Social Security No.

5. Home address (No. and street, city or town, State, and zip code)

6. Age

7. Sex (Check one)

Male _____

Female _____

8. Occupation (Enter regular job title, not the specific activity he was performing at the time of injury.)

9. Department (Enter name of department or division in which the injured person is regularly employed, even though he may have been temporarily working in another department at the time of injury.)

The Accident or Exposure to Occupational Illness

If accident or exposure occurred on employer's premises, give address of plant or establishment in which it occurred. Do not indicate department or division within the plant or establishment.

If accident occurred outside employer's premises at an identifiable address, give that address. If it occurred on a public highway or at any other place which cannot be identified by number and street, please provide place references locating the place of injury as accurately as possible.

10. Place of accident or exposure (No. and street, city or town, State, and zip code)

11. Was place of accident or exposure on employer's premises?

Yes _____

No _____

12. What was the employee doing when injured? (Be specific. If he was using tools or equipment or handling material, name them and tell what he was doing with them.)

13. How did the accident occur? (Describe fully the events which resulted in the injury or occupational illness. Tell what happened and how it happened. Name any objects or substances involved and tell how they were involved. Give full details on all factors which led or contributed to the accident. Use separate sheet for additional space.)

Occupational Injury or Occupational Illness

14. Describe the injury or illness in detail and indicate the part of body affected. (E.g., amputation of right index finger at second joint; fracture of ribs; lead poisoning; dermatitis of left hand, etc.)

15. Name the object or substance which directly injured the employee. (For example, the machine or thing he struck against or which struck him; the vapor or poison he inhaled or swallowed; the chemical or radiation which irritated his skin; or in cases of strains, hernias, etc., the thing he was lifting, pulling, etc.)

16. Date of injury or initial diagnosis of occupational illness

17. Did employee die? (Check one)

Yes _____

No _____

Other

18. Name and address of physician

19. If hospitalized, name and address of hospital

Date of report

Prepared by

Official position

WHERE OSHA REQUIRES RECORDS PER THE GENERAL INDUSTRY STANDARDS 29 CFR 1910

These are general guidelines to help you to determine where you must keep training records, maintenance records and written programs. Some standards do not say that records are specifically required, but it may be implied and/or recommended. There may be other standards specifically required by certain industries which are not covered in this list.

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1904	Occupational Injuries & Illness	No	No	Yes
1910.28	Scaffolds	No	Recommended	Yes
1910.38	Emergency Action	Yes	Recommended	No
1910.66	Powered Platforms	No	Yes	Yes
1910.68	Manlifts	No	Recommended	Yes
1910.95	Hearing Conservation	Recommended	Recommended	Yes
1910.96	Radiation	Yes	Recommended	Yes
1910.109	Explosives & Blasting Agents	Recommended	Yes	Yes
1910.119	Process Safety	Yes	Yes	Yes
1910.120	Hazwoper	Yes	Yes	Yes
1910.132 1910.133 1910.135 1910.136	Personal Protective Equipment	Yes	Yes	Yes
1910.137 1910.138	Personal Protective Equipment	Yes	Yes	Yes
1910.134	Respirators	Yes	Yes	Yes
1910.146	Confined Spaces	Yes	Yes	Yes
1910.147	Lockout/Tagout	Yes	Yes	Yes
1910.151	Medical & First Aid	No	Recommended	Yes

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1910.156	Fire Brigades	Yes	Yes	No
1910.157	Fire Extinguishers	Recommended	Recommended	Yes
1910.160	Fixed Extinguishing Systems	No	No	Yes
1910.164	Fire Detection Systems	No	Under Emergency Action Plan	Recommended
1910.165	Employee Alarm Systems	Yes	Recommended	Recommended
1910.177	Servicing Wheel Rims	Yes	Recommended	Recommended
1910.178	Powered Industrial Trucks	No	Recommended	Yes
1910.179	Cranes	No	Recommended	Yes
1910.180	Crawler Locomotive & Truck Cranes	No	Recommended	Yes
1910.181	Derricks	No	Recommended	Yes
1910.184	Slings	No	Recommended	Yes
1910.217	Mechanical Power Presses	Yes	Recommended	Yes
1910.218	Forging Machines	No	Recommended	Yes
1910.219	Mechanical Power-transmission Apparatus	No	No	Recommended
1910.253	Gas Welding	No	Recommended	Recommended
1910.254	Arc Welding	No	Recommended	Recommended
1910.255	Resistance Welding	No	Recommended	Yes
1910.264	Laundry Operations	No	Recommended	No
1910.266	Pulpwood Logging	Recommended	Yes	No
1910.268	Telecommunications	No	Yes	Yes

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1910.269	Electric Power Generation	Yes	Yes	Yes
1910.272	Grain Handling Facilities	Yes	Recommended	Yes
1910.331-.335	Electrical Safe Work Practices	Yes	Recommended	Recommended
1910.402-.440	Diving Operations	Yes	Yes	Yes
1910.1001	Asbestos	Yes	Yes	Yes
1910.1003-.1016	Carcinogens	Yes	Yes	Yes
1910.1017	Vinyl Chloride	Yes	Yes	Yes
1910.1018	Inorganic	Yes	Yes	Yes
1910.1020	Medical & Exposure Records	No	Recommended	Yes
1910.1025	Lead	Yes	Yes	Yes
1910.1027	Cadmium	Yes	Yes	Yes
1910.1028	Benzene	Yes	Yes	Yes
1910.1029	Coke Ovens	Yes	Yes	Yes
1910.1030	Bloodborne Pathogens	Yes	Yes	Yes
1910.1043	Cotton Dust	Yes	Yes	Yes
1910.1044	1,2-dibromo-3-chloropropane	Yes	Yes	Yes
1910.1045	Acrylonitrile	Yes	Yes	Yes
1910.1047	Ethylene Oxide	Yes	Yes	Yes
1910.1048	Formaldehyde	Yes	Yes	Yes
1910.1050	Methylene-dianiline	Yes	Yes	Yes
1910.1052	Methylene Chloride	Yes	Yes	Yes
1910.1200	Hazard Communications	Yes	Yes	No
1910.1450	Laboratories	Yes	Yes	Yes

George Kunz and Mike Marr prepared this document for the OSHA Recordkeeping Class.

WHERE OSHA REQUIRES RECORDS PER THE CONSTRUCTION STANDARDS 29 CFR 1926

These are general guidelines to help you to determine where you must keep training records, maintenance records and written programs. Some standards do not say that records are specifically required, but it may be implied and/or recommended. There may be other standards specifically required by certain industries which are not covered in this list.

Note: There are general industry standards that apply to construction as well as the following.

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1926.20	General Safety & Health Provisions	Yes	Recommended	Recommended
1926.21	Safety Training & Education	Recommended	Recommended	No
1926.24	Fire Protection & Prevention	Written	Recommended	No
1926.29	Acceptable Certifications	Recommended	No	Yes
1926.33	Exposure & Medical Records	Yes	Recommended	Yes
1926.35	Emergency Action Plan	Yes	Recommended	No
1926.50	First Aid	Yes	Yes	No
1926.53	Radiation	Yes	Recommended	Yes
1926.54	Lasers	Recommended	Yes	Recommended
1926.59	Hazard Communication	Yes	Recommended	Yes
1926.60	Methylene-dianiline	Yes	Yes	Yes
1926.62	Lead	Yes	Recommended	Yes
1926.64	Process Safety Management	Yes	Yes	Recommended
1926.65	Hazwoper	Yes	Yes	Yes
1926.103	Respirators	Yes	Yes	Yes

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1926.150	Fire Protection	Yes	Recommended	Yes
1926.156	Fixed Extinguishing Systems	Yes	Recommended	Yes
1926.158	Fire Detection Systems	No	Recommended	Yes
1926.159	Employee Alarm Systems	Recommended	Recommended	Yes
1926.251	Slings	No	No	Yes
1926.302	Powder Actuated Tools	No	Recommended	No
1926.350	Gas Welding & Cutting	No	Recommended	No
1926.351	Arc Welding & Cutting	No	Recommended	No
1926.404	Wiring Design & Protection	Yes	Recommended	Yes
1926.417	Lockout & Tagging Of Circuits	Yes	Recommended	No
1926.502	Fall Protection Systems Criteria & Practices	Yes	No	Yes
1926.503	Fall Protection Training Requirements	No	Yes	No
1926.550	Cranes & Derricks	No	No	Yes
1926.552	Material Hoists, Personnel Hoists & Elevators	Yes	No	No
1926.556	Aerial Lifts	No	Recommended	Recommended
1926.651	Excavations General Requirements	Yes	No	Yes
1926.652	Requirements for Protective Systems	Yes	No	No

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1926.800	Underground Construction	No	Recommended	Yes
1926.803	Compressed Air	Yes	Yes	Yes
1926.850	Demolition	Yes	No	No
1926.900	Explosives	Yes	Recommended	Yes
1926.901	Blaster Qualifications	No	Yes	No
1926.903	Underground Transportation Of Explosives	No	No	Yes
1926.905	Loading Of Explosives Or Blasting Agents	Yes	No	Yes
1926.955	Overhead Lines	No	Recommended	No
1926.1060	Ladder Training Requirements	No	Recommended	No
1926.1076	Qualifications Of Dive Teams	No	Recommended	No
1926.1080	Safe Practices Manual	Yes	No	No
1926.1081	Pre-Dive Procedure	Yes	No	Recommended
1926.1082	Procedures During Dive	Yes	No	No
1926.1083	Dive Records	Yes	No	No
1926.1090	Dive Equipment Records	No	No	Yes
1926.1091	Diving Injury Records	No	No	Yes
1926.1101	Asbestos	Yes	Yes	Yes
1926.1103-.1116	Carcinogens	Yes	Recommended	Yes
1926.1117	Vinyl Chloride	Yes	Yes	Yes
1926.1118	Inorganic Arsenic	Yes	Yes	Yes
1926.1127	Cadmium	Yes	Yes	Yes
1926.1128	Benzene	Yes	Recommended	Yes
1926.1129	Coke Ovens	Yes	Recommended	Yes

STANDARD	SUBJECT	IS A WRITTEN PROGRAM NEEDED	ARE TRAINING RECORDS NEEDED	ARE MAINTENANCE RECORDS NEEDED
1926.1144	1, 2-dibromo-3-chloropropane	Yes	Yes	Yes
1926.1145	Acrylonitrile	Yes	Yes	Yes
1926.1147	Ethylene Oxide	Yes	Yes	Yes
1926.1148	Formaldehyde	Yes	Yes	Yes

George Kunz and Mike Marr prepared this document for the OSHA Recordkeeping Class.

CASE STUDIES

You are the new safety director at the XYZ Company employing 75 people. The president has hired you to monitor the safety and health programs at the facility because their workers' compensation has doubled in the last two years. What are some of the issues that need to be addressed and how would you handle them?

While surveying the production floor you notice some employees wearing PPE (personal protective equipment) and others who are not. What types of questions should you ask the line and staff personnel?

You have compiled the information the president asked for but she says that the company "just cannot afford" to implement all these programs at once. What do you do?

List of Acronyms

ACGIH	American Conference of Governmental Industrial Hygienists
ADA	American with Disabilities Act
AI	Accident Investigation
ANSI	American National Standards Institute
BWC	Bureau of Workers Compensation
CFR	Code of Federal Regulations
CPR	Cardiopulmonary Resuscitation
CTD	Cumulative Trauma Disorder
CTS	Cumulative Trauma Syndrome
EPA	Environmental Protection Agency
ERGO	Ergonomics
HAZCOM	Hazard Communication
HFE	Human Factors Engineering
HPP	Health Partnership Program
JIT	Just In Time
JSA	Job Safety Analysis
IH	Industrial Hygienist
MSDS	Material Safety Data Sheet
NCCI	National Council on Compensation Insurance

NEC	National Electrical Code
NFPA	National Fire Protection Agency
NIOSH	National Institute for Occupational Safety and Health
OAC	Ohio Administrative Code
OCOSH	Ohio Center for Occupational Safety and Health
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit
PPE	Personal Protective Equipment
RSI	Repetitive Stress Injury
SBO	Safety By Objectives (Safety activities developed by manager and supervisor.)
SCRAPE	System for Counting and Rating Accident Prevention Efforts (Fixed safety activities supervisors must follow.)
S&H	Division of Safety and Hygiene
TLV	Threshold Limit Value
TWA	Time Weighted Average
VSSR	Violation of a Specific Safety Requirement
WC	Workers' Compensation

ORDERING OSHA STANDARDS

OSHA Standards are available through the Government Printing Office (GPO).

<u>CODE OF FEDERAL REGULATIONS (CFR)</u>	<u>COST</u>
--	-------------

General Industry Standards	\$55.00
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Part I
29 CFR 1900.1 through 1910.999
Stock Number 869-044-00104-7

General Industry Standards	\$42.00
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Part II
29 CFR 1910.1000 through end
Stock Number 869-044-00105-5

Construction Standards	\$45.00
------------------------	---------

29 CFR 1926
Stock number 869-044-00107-1

ORDERING OSHA PUBLICATIONS

Information products may be ordered by mail, telephone or fax, or purchased at one of 24 US Government bookstores. The stores in Ohio are listed below:

US Government Printing Office (GPO)
Room 207, Federal Building
200 N. High Street
Columbus, Ohio 43215
(614) 469-6956
(614) 469-5374 (FAX)

US Government Printing Office (GPO)
Room 1653
1240 E. 9th Street
Cleveland, Ohio 44199
(216) 522-4922
(216) 522-4714 (FAX)

GPO accepts prepayment by MasterCard, VISA, Discover Card, American Express, and GPO Deposit Account, as well as by check or money order. Make checks payable to "Superintendent of Documents".

Include stock number with order.

HOW TO ORDER OSHA 300 / 300A / 301 FORMS

OSHA 300 (Log of Work-Related Injuries and Illnesses), and OSHA 300A (Summary of Work-Related Injuries and Illnesses), and OSHA 301 (Injury and Illness Incident Report) can be obtained at no cost from any OSHA office. Or they can be obtained by mail. Mail your request to:

OSHA Region V Office
Room 3244
230 South Dearborn Street
Chicago, IL 60604

Forms and instructions are also available on the OSHA web site (www.OSHA.gov) and can be downloaded to your printer.

US Government Printing Office (GPO)
Room 207, Federal Building
200 N. High Street
Columbus, Ohio 43215
(614) 469-6956
(614) 469-5374 (FAX)

US Government Printing Office (GPO)
Room 1653
1240 E. 9th Street
Cleveland, Ohio 44199
(216) 522-4922
(216) 522-4714

The GPO accepts prepayment by MasterCard, VISA, Discover Card, American Express, and GPO Deposit Account, as well as by check or money order. Make checks payable to "Superintendent of Documents."

OSHA Publications Order Form

For a single, free copy, please circle the publication(s) desired, and mail form to address at bottom of form.

<u>Number</u>	<u>Name</u>
2209	OSHA Handbook for Small Business
3071	Job Hazard Analysis
3074	Hearing Conservation
3077	Personal Protective Equipment
3079	Respiratory Protection
3084	Chemical Hazard Communication
3088	How to prepare for Workplace Emergencies
3114	Hazardous Waste and Emergency Response
3120	Control of Hazardous Energy
3127	Occupational Exposure to Bloodborne Pathogens

Your Name: _____

Your Address: _____

Mail completed form to:
OSHA Publications Office
200 Constitution Ave., NW, Room N3101
Washington, DC 20210

BULLETIN BOARD POSTERS REQUIRED FOR OHIO EMPLOYERS BY STATE REGULATIONS

A packet of these posters can be obtained from:

Ohio Bureau of Job & Family Services
Bureau of Civil Rights
145 South Front Street
Columbus, Ohio 43215
(614) 644-2703

POSTER

Ohio Minimum Wage Law

Only employers whose annual gross volume of sales is \$150,000 or more and who are not covered by the federal Fair Labor Standards Act must post a summary of Ohio Minimum Fair Wage Standards Law

Poster: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/flsa.htm>

More info: <http://wagehour.bes.state.oh.us/>

Ohio Minor Labor Law

Posted in every room of any factory, workshop, or office where employees under eighteen years of age are permitted to work; and employers of minors must post names of employees under 18, including working hours, meal time, and time starting and ending work day.

More info: <http://wagehour.bes.state.oh.us/>

Ohio Fair Employment Practices Law

All employers of four or more employees must post in a conspicuous place. Law prohibits discrimination in employment practices relative to race, color, religion, sex, national origin, handicap, or ancestry.

More info: <http://www.state.oh.us/crc/>

Ohio Unemployment Compensation Law

Must be posted by all employers who contribute to the Ohio Unemployment Compensation Fund.

Occupational Safety & Health

Job Safety & Health Poster is required to be posted by all employers. Also, OSHA Form 300a, "Annual Summary", is required to be posted during the months of February, March and April.

Web: <http://www.osha-slc.gov/Publications/poster.html>

Equal Employment Opportunity

Required of all employers of 15 or more employees, all government contractors and subcontractors, regardless of number of employees.

Family and Medical Leave Act (FMLA)

Public agencies (including state, local, and federal employers), public and private elementary and secondary schools, as well as private sector employers who employ 50 or more employees in 20 or more work weeks and who are engaged in commerce or in any industry or activity affecting commerce, including joint employers and successors or covered employers.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/fmla.htm>

Employee Polygraph Protection Act (EPPA)

Any employer engaged in or affecting commerce or in the production of goods for commerce. Does not apply to federal, state and local governments, or to circumstances covered by the national defense and security exemption.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/eppa.htm>

**BULLETIN BOARD POSTERS REQUIRED FOR OHIO EMPLOYERS
BY FEDERAL REGULATIONS**

These posters can be obtained from:

US Dept. of Labor
200 N. High Street, Room 646
Columbus, Ohio 43215
(614) 469-5677

POSTER

Fair Labor Standards Act

Covers all retail employers engaged in interstate commerce with gross annual sales of \$362,500 and over. Non-retail employers are generally covered when sales exceed \$250,000. Poster covers minimum wage, overtime pay, equal pay for equal work, child labor, students, apprentices, and handicapped workers.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/flsa.htm>

Davis-Bacon Public Contracts Act

Any contractor/subcontractor engaged in contracts in excess of \$2,000 for the actual construction, alteration/repair of a public building or public work or building or work financed in whole or in part from federal funds, federal guarantee or federal pledge which is subject to the labor standards provisions of any of the acts listed in 29 CFR 5.1.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/davis.htm>

Walsh-Healy Public Contracts Act

Applies to all employers whose workers are engaged directly in production or furnishing of materials, supplies, or equipment amounting to more than \$2,500 under a government contract.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/sca.htm>

Migrant and Seasonal Agricultural Worker Protection Act (MSPA)

Each farm labor contractor, agricultural employer and agricultural association which employs any migrant agricultural worker.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/mspaensp.htm>

Notice to Workers with Disabilities/Special Minimum Wage Poster

Every employer having workers employed under special minimum wage certificates authorized by section 14(c) of the Fair Labor Standards Act.

Web: <http://www.dol.gov/dol/esa/public/regs/compliance/posters/disab.htm>

These posters can be obtained from:

Ohio Bureau of Workers' Compensation
30 W. Spring St.
Columbus, Ohio 43215
(614)466-1015

Ohio Workers' Compensation Fund

Must be posted by every employer subject to the law. Certificate furnished by the Bureau of Workers' Compensation must be posted for employees to see.

More info: <http://www.ohiobwc.com/>

Public Employment Risk Reduction Program

All public employers in Ohio must post this poster informing employees of their rights to a safe and healthy workplace under the Ohio Revised Code.

More info: <http://www.com.state.oh.us/>

SELF-INSPECTION CHECKLIST

The next 33 pages are from the OSHA Handbook for Small Businesses (Revised May 1997).

As noted, they are in the public domain, so you may copy them as needed in your workplace. Source credit is requested but not required.

Self-Inspection Checklists

These checklists are by no means all-inclusive. You should add to them or delete portions or items that do not apply to your operations; however, carefully consider each item as you come to it and then make your decision. You will also need to refer to OSHA standards for complete and specific standards that may apply to your situation. (**NOTE:** These checklists are typical for general industry but not for construction or maritime.)

OSHA Office of Training and Education
May 1997

SAFETY AND HEALTH PROGRAM

- ___ Do you have an active safety and health program in operation that deals with general safety and health program elements as well as management of hazards specific to your worksite?
- ___ Is one person clearly responsible for the overall activities of the safety and health program?
- ___ Do you have a safety committee or group made up of management and labor representatives that meets regularly and reports in writing on its activities?
- ___ Do you have a working procedure for handling in-house employee complaints regarding safety and health?

- ___ Are you keeping your employees advised of the successful effort and accomplishments you and/or your safety committee have made in assuring they will have a workplace that is safe and healthful?
- ___ Have you considered incentives for employees or workgroups who have excelled in reducing workplace injuries/illnesses?

PERSONAL PROTECTIVE EQUIPMENT

- ___ Are employers assessing the workplace to determine if hazards that require the use of personal protective equipment (for example, head, eye, face, hand, or foot protection) are present or are likely to be present?
- ___ If hazards or the likelihood of hazards are found, are employers selecting and having affected employees use properly fitted personal protective equipment suitable for protection from these hazards?

- ___ Has the employee been trained on ppe procedures, that is, what ppe is necessary for a job task, when they need it, and how to properly adjust it?
- ___ Are protective goggles or face shields provided and worn where there is any danger of flying particles or corrosive materials?
- ___ Are approved safety glasses required to be worn at all times in areas where there is a risk of eye injuries such as punctures, abrasions, contusions or burns?
- ___ Are employees who need corrective lenses (glasses or contacts) in working environments having harmful exposures, required to wear only approved safety glasses, protective goggles, or use other medically approved precautionary procedures?
- ___ Are protective gloves, aprons, shields, or other means provided and required where employees could be cut or where there is reasonably anticipated exposure to corrosive liquids, chemicals, blood, or other potentially infectious materials? See 29 CFR 1910.1030(b) for the definition of "other potentially infectious materials."
- ___ Are hard hats provided and worn where danger of falling objects exists?
- ___ Are hard hats inspected periodically for damage to the shell and suspension system?
- ___ Is appropriate foot protection required where there is the risk of foot injuries from hot, corrosive, or poisonous substances, falling objects, crushing or penetrating actions?
- ___ Are approved respirators provided for regular or emergency use where needed?
- ___ Is all protective equipment maintained in a sanitary condition and ready for use?
- ___ Do you have eye wash facilities and a quick drench shower within the work area where employees are exposed to injurious corrosive materials? Where special equipment is needed for electrical workers, is it available?
- ___ Where food or beverages are consumed on the premises, are they consumed in areas where there is no exposure to toxic material, blood, or other potentially infectious materials?
- ___ Is protection against the effects of occupational noise exposure provided when sound levels exceed those of the OSHA noise standard?
- ___ Are adequate work procedures, protective clothing and equipment provided and used when cleaning up spilled toxic or otherwise hazardous materials or liquids?
- ___ Are there appropriate procedures in place for disposing of or decontaminating personal protective equipment contaminated with, or reasonably anticipated to be contaminated with, blood or other potentially infectious materials?

FLAMMABLE AND COMBUSTIBLE MATERIALS

- ___ Are combustible scrap, debris, and waste materials (oily rags, etc.) stored in covered metal receptacles and removed from the worksite promptly?
 - ___ Is proper storage practiced to minimize the risk of fire including spontaneous combustion?
 - ___ Are approved containers and tanks used for the storage and handling of flammable and combustible liquids?
 - ___ Are all connections on drums and combustible liquid piping, vapor and liquid tight?
 - ___ Are all flammable liquids kept in closed containers when not in use (for example, parts cleaning tanks, pans, etc.)?
 - ___ Are bulk drums of flammable liquids grounded and bonded to containers during dispensing?
 - ___ Do storage rooms for flammable and combustible liquids have explosion-proof lights?
 - ___ Do storage rooms for flammable and combustible liquids have mechanical or gravity ventilation?
 - ___ Is liquefied petroleum gas stored, handled, and used in accordance with safe practices and standards?
 - ___ Are "NO SMOKING" signs posted on liquefied petroleum gas tanks?
 - ___ Are liquefied petroleum storage tanks guarded to prevent damage from vehicles?
 - ___ Are all solvent wastes and flammable liquids kept in fire-resistant, covered containers until they are removed from the worksite?
 - ___ Is vacuuming used whenever possible rather than blowing or sweeping combustible dust? Are firm separators placed between containers of combustibles or flammables, when stacked one upon another, to assure their support and stability?
 - ___ Are fuel gas cylinders and oxygen cylinders separated by distance, and fire-resistant barriers, while in storage?
 - ___ Are fire extinguishers selected and provided for the types of materials in areas where they are to be used?
-
- ___ Class A Ordinary combustible material fires.

 - ___ Class B Flammable liquid, gas or grease fires.

- Class C Energized-electrical equipment fires.
- Are appropriate fire extinguishers mounted within 75 feet of outside areas containing flammable liquids, and within 10 feet of any inside storage area for such materials?
- Are extinguishers free from obstructions or blockage?
- Are all extinguishers serviced, maintained and tagged at intervals not to exceed 1 year?
- Are all extinguishers fully charged and in their designated places?
- Where sprinkler systems are permanently installed, are the nozzle heads so directed or arranged that water will not be sprayed into operating electrical switch boards and equipment?
- Are "NO SMOKING" signs posted where appropriate in areas where flammable or combustible materials are used or stored?
- Are safety cans used for dispensing flammable or combustible liquids at a point of use?
- Are all spills of flammable or combustible liquids cleaned up promptly?
- Are storage tanks adequately vented to prevent the development of excessive vacuum or pressure as a result of filling, emptying, or atmosphere temperature changes?
- Are storage tanks equipped with emergency venting that will relieve excessive internal pressure caused by fire exposure?
- Are "NO SMOKING" rules enforced in areas involving storage and use of hazardous materials?

HAND AND PORTABLE POWERED TOOLS

Hand Tools and Equipment

- Are all tools and equipment (both company and employee owned) used by employees at their workplace in good condition?
- Are hand tools such as chisels and punches, which develop mushroomed heads during use, reconditioned or replaced as necessary?
- Are broken or fractured handles on hammers, axes and similar equipment replaced promptly?
- Are worn or bent wrenches replaced regularly?
- Are appropriate handles used on files and similar tools?

- ___ Are employees made aware of the hazards caused by faulty or improperly used hand tools?
- ___ Are appropriate safety glasses, face shields, etc. used while using hand tools or equipment which might produce flying materials or be subject to breakage?
- ___ Are jacks checked periodically to ensure they are in good operating condition?
- ___ Are tool handles wedged tightly in the head of all tools?
- ___ Are tool cutting edges kept sharp so the tool will move smoothly without binding or skipping?
- ___ Are tools stored in dry, secure locations where they won't be tampered with?
- ___ Is eye and face protection used when driving hardened or tempered spuds or nails?

Portable (Power Operated) Tools and Equipment

- ___ Are grinders, saws and similar equipment provided with appropriate safety guards?
- ___ Are power tools used with the correct shield, guard, or attachment, recommended by the manufacturer?
- ___ Are portable circular saws equipped with guards above and below the base shoe? Are circular saw guards checked to assure they are not wedged up, thus leaving the lower portion of the blade unguarded?
- ___ Are rotating or moving parts of equipment guarded to prevent physical contact?
- ___ Are all cord-connected, electrically operated tools and equipment effectively grounded or of the approved double insulated type?
- ___ Are effective guards in place over belts, pulleys, chains, sprockets, on equipment such as concrete mixers, and air compressors?
- ___ Are portable fans provided with full guards or screens having openings 1/2 inch or less?
- ___ Is hoisting equipment available and used for lifting heavy objects, and are hoist ratings and characteristics appropriate for the task?
- ___ Are ground-fault circuit interrupters provided on all temporary electrical 15 and 20 ampere circuits, used during periods of construction?
- ___ Are pneumatic and hydraulic hoses on power operated tools checked regularly for deterioration or damage?

Powder-Actuated Tools

- ___ Are employees who operate powder-actuated tools trained in their use and carry a valid operator's card?

- ___ Is each powder-actuated tool stored in its own locked container when not being used?
- ___ Is a sign at least 7 inches by 10 inches with bold face type reading "POWDER-ACTUATED TOOL IN USE" conspicuously posted when the tool is being used?
- ___ Are powder-actuated tools left unloaded until they are actually ready to be used?
- ___ Are powder-actuated tools inspected for obstructions or defects each day before use?
- ___ Do powder-actuated tool operators have and use appropriate personal protective equipment such as hard hats, safety goggles, safety shoes and ear protectors?

LOCKOUT/TAGOUT PROCEDURES

- ___ Is all machinery or equipment capable of movement, required to be de-energized or disengaged and locked-out during cleaning, servicing, adjusting or setting up operations, whenever required?

Where the power disconnecting means for equipment does not also disconnect the electrical control circuit:

- ___ Are the appropriate electrical enclosures identified?
- ___ Is means provided to assure the control circuit can also be disconnected and locked-out?
- ___ Is the locking-out of control circuits in lieu of locking-out main power disconnects prohibited?
- ___ Are all equipment control valve handles provided with a means for locking-out?
- ___ Does the lock-out procedure require that stored energy (mechanical, hydraulic, air, etc.) be released or blocked before equipment is locked-out for repairs?
- ___ Are appropriate employees provided with individually keyed personal safety locks?
- ___ Are employees required to keep personal control of their key(s) while they have safety locks in use?
- ___ Is it required that only the employee exposed to the hazard, place or remove the safety lock?
- ___ Is it required that employees check the safety of the lock-out by attempting a startup after making sure no one is exposed?
- ___ Are employees instructed to always push the control circuit stop button immediately after checking the safety of the lock-out?

- Is there a means provided to identify any or all employees who are working on locked-out equipment by their locks or accompanying tags?
- Are a sufficient number of accident preventive signs or tags and safety padlocks provided for any reasonably foreseeable repair emergency?
- When machine operations, configuration or size requires the operator to leave his or her control station to install tools or perform other operations, and that part of the machine could move if accidentally activated, is such element required to be separately locked or blocked out?
- In the event that equipment or lines cannot be shut down, locked-out and tagged, is a safe job procedure established and rigidly followed?

CONFINED SPACES

- Are confined spaces thoroughly emptied of any corrosive or hazardous substances, such as acids or caustics, before entry?
- Are all lines to a confined space, containing inert, toxic, flammable, or corrosive materials valved off and blanked or disconnected and separated before entry?
- Are all impellers, agitators, or other moving parts and equipment inside confined spaces locked-out if they present a hazard?
- Is either natural or mechanical ventilation provided prior to confined space entry?
- Are appropriate atmospheric tests performed to check for oxygen deficiency, toxic substances and explosive concentrations in the confined space before entry?
- Is adequate illumination provided for the work to be performed in the confined space?
- Is the atmosphere inside the confined space frequently tested or continuously monitored during conduct of work? Is there an assigned safety standby employee outside of the confined space, when required, whose sole responsibility is to watch the work in progress, sound an alarm if necessary, and render assistance?
- Is the standby employee appropriately trained and equipped to handle an emergency?
- Is the standby employee or other employees prohibited from entering the confined space without lifelines and respiratory equipment if there is any question as to the cause of an emergency?
- Is approved respiratory equipment required if the atmosphere inside the confined space cannot be made acceptable?
- Is all portable electrical equipment used inside confined spaces either grounded and insulated, or equipped with ground fault protection?

- ___ Before gas welding or burning is started in a confined space, are hoses checked for leaks, compressed gas bottles forbidden inside of the confined space, torches lighted only outside of the confined area and the confined area tested for an explosive atmosphere each time before a lighted torch is to be taken into the confined space?
- ___ If employees will be using oxygen-consuming equipment-such as salamanders, torches, and furnaces, in a confined space-is sufficient air provided to assure combustion without reducing the oxygen concentration of the atmosphere below 19.5 percent by volume?
- ___ Whenever combustion-type equipment is used in a confined space, are provisions made to ensure the exhaust gases are vented outside of the enclosure?
- ___ Is each confined space checked for decaying vegetation or animal matter which may produce methane?
- ___ Is the confined space checked for possible industrial waste which could contain toxic properties?
- ___ If the confined space is below the ground and near areas where motor vehicles will be operating, is it possible for vehicle exhaust or carbon monoxide to enter the space?

ELECTRICAL

- ___ Do you specify compliance with OSHA for all contract electrical work?
- ___ Are all employees required to report as soon as practicable any obvious hazard to life or property observed in connection with electrical equipment or lines?
- ___ Are employees instructed to make preliminary inspections and/or appropriate tests to determine what conditions exist before starting work on electrical equipment or lines?
- ___ When electrical equipment or lines are to be serviced, maintained or adjusted, are necessary switches opened, locked-out and tagged whenever possible?
- ___ Are portable electrical tools and equipment grounded or of the double insulated type?
- ___ Are electrical appliances such as vacuum cleaners, polishers, and vending machines grounded?
- ___ Do extension cords being used have a grounding conductor?
- ___ Are multiple plug adaptors prohibited?
- ___ Are ground-fault circuit interrupters installed on each temporary 15 or 20 ampere, 120 volt AC circuit at locations where construction, demolition, modifications, alterations or excavations are being performed?
- ___ Are all temporary circuits protected by suitable disconnecting switches or plug

- connectors at the junction with permanent wiring?
- Do you have electrical installations in hazardous dust or vapor areas? If so, do they meet the National Electrical Code (NEC) for hazardous locations?
 - Is exposed wiring and cords with frayed or deteriorated insulation repaired or replaced promptly?
 - Are flexible cords and cables free of splices or taps?
 - Are clamps or other securing means provided on flexible cords or cables at plugs, receptacles, tools, equipment, etc., and is the cord jacket securely held in place? Are all cord, cable and raceway connections intact and secure?

 - In wet or damp locations, are electrical tools and equipment appropriate for the use or location or otherwise protected?
 - Is the location of electrical power lines and cables (overhead, underground, underfloor, other side of walls) determined before digging, drilling or similar work is begun?
 - Are metal measuring tapes, ropes, handlines or similar devices with metallic thread woven into the fabric prohibited where they could come in contact with energized parts of equipment or circuit conductors?
 - Is the use of metal ladders prohibited in areas where the ladder or the person using the ladder could come in contact with energized parts of equipment, fixtures or circuit conductors?
 - Are all disconnecting switches and circuit breakers labeled to indicate their use or equipment served?
 - Are disconnecting means always opened before fuses are replaced?
 - Do all interior wiring systems include provisions for grounding metal parts of electrical raceways, equipment and enclosures?
 - Are all electrical raceways and enclosures securely fastened in place?
 - Are all energized parts of electrical circuits and equipment guarded against accidental contact by approved cabinets or enclosures?
 - Is sufficient access and working space provided and maintained about all electrical equipment to permit ready and safe operations and maintenance?
 - Are all unused openings (including conduit knockouts) in electrical enclosures and fittings closed with appropriate covers, plugs or plates?
 - Are electrical enclosures such as switches, receptacles, and junction boxes, provided with tightfitting covers or plates?

- ___ Are disconnecting switches for electrical motors in excess of two horsepower, capable of opening the circuit when the motor is in a stalled condition, without exploding? (Switches must be horsepower rated equal to or in excess of the motor hp rating.) Is low voltage protection provided in the control device of motors driving machines or equipment which could cause probable injury from inadvertent starting?
- ___ Is each motor disconnecting switch or circuit breaker located within sight of the motor control device?
- ___ Is each motor located within sight of its controller or the controller disconnecting means capable of being locked in the open position or is a separate disconnecting means installed in the circuit within sight of the motor?
- ___ Is the controller for each motor in excess of two horsepower, rated in horsepower equal to or in excess of the rating of the motor it serves?
- ___ Are employees who regularly work on or around energized electrical equipment or lines instructed in the cardiopulmonary resuscitation (CPR) methods?
- ___ Are employees prohibited from working alone on energized lines or equipment over 600 volts?

WALKING-WORKING SURFACES

General Work Environment

- ___ Is a documented, functioning housekeeping program in place?
- ___ Are all worksites clean, sanitary, and orderly?
- ___ Are work surfaces kept dry or is appropriate means taken to assure the surfaces are slip-resistant?
- ___ Are all spilled hazardous materials or liquids, including blood and other potentially infectious materials, cleaned up immediately and according to proper procedures?
- ___ Is combustible scrap, debris and waste stored safely and removed from the worksite properly?
- ___ Is all regulated waste, as defined in the OSHA bloodborne pathogens standard (1910.1030), discarded according to federal, state, and local regulations?
- ___ Are accumulations of combustible dust routinely removed from elevated surfaces including the overhead structure of buildings, etc.?
- ___ Is combustible dust cleaned up with a vacuum system to prevent the dust from going into suspension?
- ___ Is metallic or conductive dust prevented from entering or accumulating on or around

electrical enclosures or equipment?

___ Are covered metal waste cans used for oily and paint-soaked waste?

Walkways

___ Are aisles and passageways kept clear?

___ Are aisles and walkways marked as appropriate?

___ Are wet surfaces covered with non-slip materials?

___ Are holes in the floor, sidewalk or other walking surface repaired properly, covered or otherwise made safe?

___ Is there safe clearance for walking in aisles where motorized or mechanical handling equipment is operating?

___ Are materials or equipment stored in such a way that sharp projectives will not interfere with the walkway?

___ Are spilled materials cleaned up immediately?

___ Are changes of direction or elevation readily identifiable?

___ Are aisles or walkways that pass near moving or operating machinery, welding operations or similar operations arranged so employees will not be subjected to potential hazards?

___ Is adequate headroom provided for the entire length of any aisle or walkway?

___ Are standard guardrails provided wherever aisle or walkway surfaces are elevated more than 30 inches above any adjacent floor or the ground?

___ Are bridges provided over conveyors and similar hazards?

Floor and Wall Openings

___ Are floor openings guarded by a cover, a guardrail, or equivalent on all sides (except at entrance to stairways or ladders)?

___ Are toeboards installed around the edges of permanent floor openings (where persons may pass below the opening)?

___ Are skylight screens of such construction and mounting that they will withstand a load of at least 200 pounds?

- ___ Is the glass in the windows, doors, glass walls, etc., which are subject to human impact, of sufficient thickness and type for the condition of use?
- ___ Are grates or similar type covers over floor openings such as floor drains of such design that foot traffic or rolling equipment will not be affected by the grate spacing?
- ___ Are unused portions of service pits and pits not actually in use either covered or protected by guardrails or equivalent?
- ___ Are manhole covers, trench covers and similar covers, plus their supports designed to carry a truck rear axle load of at least 20,000 pounds when located in roadways and subject to vehicle traffic?
- ___ Are floor or wall openings in fire resistive construction provided with doors or covers compatible with the fire rating of the structure and provided with a self-closing feature when appropriate?

Stairs and Stairways

- ___ Are standard stair rails or handrails on all stairways having four or more risers?
- ___ Are all stairways at least 22 inches wide?
- ___ Do stairs have landing platforms not less than 30 inches in the direction of travel and extend 22 inches in width at every 12 feet or less of vertical rise?
- ___ Do stairs angle no more than 50 and no less than 30 degrees?
- ___ Are step risers on stairs uniform from top to bottom?
- ___ Are steps on stairs and stairways designed or provided with a surface that renders them slip resistant?
- ___ Are stairway handrails located between 30 and 34 inches above the leading edge of stair treads?
- ___ Do stairway handrails have at least 3 inches of clearance between the handrails and the wall or surface they are mounted on?
- ___ Where doors or gates open directly on a stairway, is there a platform provided so the swing of the door does not reduce the width of the platform to less than 21 inches?
- ___ Where stairs or stairways exit directly into any area where vehicles may be operated, are adequate barriers and warnings provided to prevent employees stepping into the path of traffic?
- ___ Do stairway landings have a dimension measured in the direction of travel, at least equal to the width of the stairway?

Elevated Surfaces

- ___ Are signs posted, when appropriate, showing the elevated surface load capacity?
- ___ Are surfaces elevated more than 30 inches above the floor or ground provided with standard guardrails?
- ___ Are all elevated surfaces (beneath which people or machinery could be exposed to falling objects) provided with standard 4-inch toeboards?
- ___ Is a permanent means of access and egress provided to elevated storage and work surfaces?
- ___ Is required headroom provided where necessary?
- ___ Is material on elevated surfaces piled, stacked or racked in a manner to prevent it from tipping, falling, collapsing, rolling or spreading?
- ___ Are dock boards or bridge plates used when transferring materials between docks and trucks or rail cars?

HAZARD COMMUNICATION

- ___ Is there a list of hazardous substances used in your workplace?
- ___ Is there a written hazard communication program dealing with Material Safety Data Sheets (MSDS), labeling, and employee training?
- ___ Is each container for a hazardous substance (i.e., vats, bottles, storage tanks, etc.) labeled with product identity and a hazard warning (communication of the specific health hazards and physical hazards)?
- ___ Is there a Material Safety Data Sheet readily available for each hazardous substance used?
- ___ Is there an employee training program for hazardous substances?

Does this program include:

- ___ An explanation of what an MSDS is and how to use and obtain one?
- ___ MSDS contents for each hazardous substance or class of substances?
- ___ Explanation of "Right to Know?"
- ___ Identification of where an employee can see the employers written hazard communication program and where hazardous substances are present in their work areas?
- ___ The physical and health hazards of substances in the work area, and specific protective measures to be used?

- Details of the hazard communication program, including how to use the labeling system and MSDS's?

Are employees trained in the following:

- How to recognize tasks that might result in occupational exposure?
- How to use work practice and engineering controls and personal protective equipment and to know their limitations?
- How to obtain information on the types selection, proper use, location, removal handling, decontamination, and disposal of personal protective equipment?
- Who to contact and what to do in an emergency?

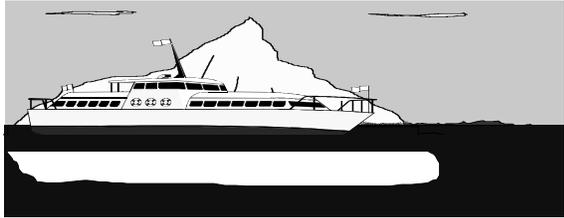
Fundamentals of an Effective Safety & Health Program

Why have a safety process (program)?

Program -- a list of events or a plan of what is to be done

Process -- forward movement, course, set of actions, method, procedure, operation

Hidden Costs of Injuries



What is a “Safety Culture”?

Three Safety Cultures

1. “Catch me if you can!”
2. “Just enough to get by”
3. “My employees are my most important asset. Safety saves money and increases production and profit!”

Tradition Safety vs Safety Culture

<p><u>Traditional Safety</u></p> <ul style="list-style-type: none"> ■ Compliance focused ■ Enforced by mgmt. ■ Punish unsafe behavior ■ Top down decisions ■ Dictate policy/procedures 	<p><u>Safety Culture</u></p> <ul style="list-style-type: none"> ■ Values focused ■ Exemplified by mgmt. ■ Positive reinforcement of safe behavior ■ Shared decisions ■ Delegate & empower
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Division of Safety & Hygiene

**Differences Between:
Safety & Hygiene and OSHA**

<p style="text-align: center;"><u>Safety & Hygiene</u></p> <ul style="list-style-type: none"> • Consultative • State of Ohio 	<p style="text-align: center;"><u>OSHA</u></p> <ul style="list-style-type: none"> • Enforcement • Federal
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Division of Safety & Hygiene

Division of Safety & Hygiene

**10-STEP
BUSINESS PLAN**
for
**Accident Prevention
and Cost Reduction**

072596GG

10 Step Business Plan

- Step 1. Visible Active Senior Management Leadership
- Step 2. Employee Involvement and Recognition
- Step 3. Medical Treatment and Return to Work Practices
- Step 4. Communication
- Step 5. Timely Notification of Claims
- Step 6. Safety & Health Program Coordination
- Step 7. Orientation and Training
- Step 8. Written and Communicated Safety Work Practices
- Step 9. Written Safety and Health Policy
- Step 10. Record Keeping and Data Analysis

Step 1: Visible, Active Senior Management Leadership

- > authorizing the necessary resources
- > discussing safety processes and improvements
- > holding management accountable for accident prevention activities and processes
- > annually assessing the success of the safety process
- > encouraging employee involvement.

Step 1: Visible, Active Senior Management Leadership

- > Written safety policy
- > Short & long term goals
- > Safety as an agenda item
- > Review progress with supervisors and employees
- > Accompany members on safety surveys
- > Review all accident investigations
- > Present safety recognition awards
- > Participate as a student in training programs

Step 2: Employee Involvement & Recognition

- What does your organization do now?
- What could your organization do?

Step 2: Employee Involvement & Recognition

Employee Involvement

- Labor / management safety teams
- Conduct accident investigations
- Conduct safety and health audits

Step 2: Employee Involvement & Recognition

Recognition Opportunities

- Establish program to recognize employees
- Positive safe behavior reinforcement
- Negative safe behavior reinforcement

Step 3: Medical Treatment & Return-to-Work Practices

Medical Treatment

- Inform employees of selected MCO
- Procedures for obtaining medical treatment
- Immediate reporting of injuries and illnesses to a supervisor
- Investigate all accidents within 24 hours
- Supervisory communication with off-work employees

Step 3: Medical Treatment & Return-to-Work Practices

Return-to-Work Policy

- Controls workers' compensation costs
- Benefits injured worker/families
- Enhances employer/employee relationship
- Accelerates worker's recovery
- Maintains an experienced workforce
- Promotes employee security
- BE PROACTIVE

Step 3: Medical Treatment & Return-to-Work Practices

Ways to Implement Return-to-Work Policy

- Define normal job requirements
- Decide if job can be modified
- Identify other opportunities
- Work with claims administrator, employee and physician to determine capabilities

Step 4: Communication

Communication includes:

- > Quarterly written and/or verbal feedback to all employees
- > Upward and downward communication systems
- > Tools for communication (memos, bulletin boards)

Step 4: Communication

Implementation

- > Two-way street
- > Bottom-up communication a must
- > Employees share ideas and concerns
- > Input in problem-solving
- > Use appropriate languages
- > Open, honest and trusting communication

Step 4: Communication

Enhancing Communication Process

- > Discussion method
- > Informal method
- > Suggestions
- > Safety meetings
- > Written communication
- > Postings

Step 5: Timely Notification of Claims

- Internal reporting
- External reporting
- Benefits of early reporting

Step 6: Safety & Health Process Coordination

What is the role of the safety coordinator?

Step 6: Safety Coordination

- Does not assume operational responsibility for safety & health
- Supports line management, supervisors and employees
- A CONSULTANT, NOT A "DOER"

Step 6: Safety Coordination

Duties should include:

- Help identify accident prevention and training needs
- Help supervisors make changes or develop strategies
- Identify and communicate new requirements
- Compile injury/illness data
- Track progress of safety projects

Step 6: Safety Coordination

Four specific tasks to be involved in

1. No new chemicals should enter facility without approval of the coordinator
2. No temporary employee should be hired without the involvement of the coordinator
3. No contract for services should be let without the involvement of the coordinator
4. No new equipment/process should be purchased and/or implemented without the involvement of the coordinator

Steps 7 & 8

Step 7: Orientation & Training
Step 8: Written Programs Practices
(combined)

What type of training is required to protect employees?

HAZARD COMMUNICATION

Written Program

- ◆ Responsibilities
- ◆ Labeling
- ◆ MSDS's
- ◆ Training
- ◆ Inventory



HAZARD COMMUNICATION

Employee Training

- ◆ Who needs training
- ◆ Topics to cover

Contractors

LOCKOUT/TAGOUT

Written Program

Employee Training



PERSONAL PROTECTIVE EQUIPMENT (PPE)

Hierarchy of controls

Performance standards

OSHA standards

Program elements

Training



EMERGENCY ACTION / RESPONSE PLANS

Action Plan

- ◆ Plan Elements
- ◆ Employee Training

Response Plan

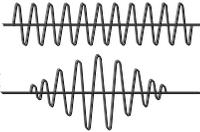
- ◆ Plan Elements
- ◆ Employee Training



HEARING CONSERVATION

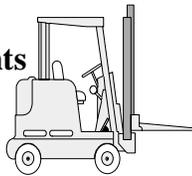
Program Elements

- ◆ Monitoring
 - ◆ 85 dBA vs 90 dBA
- ◆ Audiometric Testing
- ◆ Record Keeping
- ◆ Employee Training



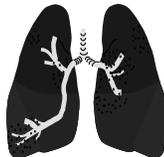
POWERED INDUSTRIAL TRUCKS

- Written Program
- Employee Training
- Instructor Requirements
- Refresher Training
- Timelines



RESPIRATORY PROTECTION

- Written Program
 - ◆ Workplace Monitoring
 - ◆ SOPs for selection/use
 - ◆ Employee Training
 - ◆ Maintenance & Storage
 - ◆ Medical Surveillance
 - ◆ Fit & Leak Testing
- Employee Training

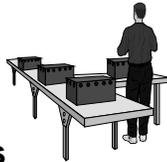


ERGONOMICS

Principles

OSHA Standard

Ergonomic Disorders



FIRST AID

OSHA Requirement

Written Program

Training & Equipment

Recordkeeping

Emergency Eye Washes/Showers



BLOODBORNE PATHOGENS

• **OSHA Requirement**

• **Written Exposure**

Control Plan

• **Employee Training**



CONFINED SPACE

- **Difference Between**
 - ◆ Confined Space
 - ◆ Permit Required Space
- **Workplace Evaluation**
- **Written Program**
- **Contractors**
- **Employee Training**



Accident Investigation

- **Recordkeeping**
- **Procedures**
- **Notification Procedures**



REVIEW

- Hazard Communication**
- Lockout/Tagout**
- Personal Protective Equipment (PPE)**
- Emergency Action/Response Plans**
- Hearing Conservation**
- Powered Industrial Trucks**

REVIEW *(Continued)*

- Respiratory Protection**
- Ergonomics**
- First Aid**
- Bloodborne Pathogens**
- Confined Spaces**
- Accident Investigation**

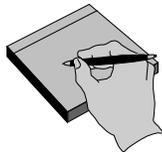
Services offered by Safety & Hygiene

- | | |
|--|--|
| <ul style="list-style-type: none">• On-Site Consulting• Training Center• Libraries<ul style="list-style-type: none">•Central•OCOSH•Video | <ul style="list-style-type: none">• Publications• All Ohio Safety & Health Congress• Safety Councils |
|--|--|

Step 9: Written Safety & Health Policy

Easiest to complete, but the hardest to live with

- Signed by top executive
- Communicated to all employees
- Includes:
 - Commitment to safety
 - Responsibilities
 - Employee involvement
 - Return-to-work commitment



Step 10: Recordkeeping & Data Analysis

- Purpose
- Caution
- Techniques
- Examples

Course REVIEW

- Why have a safety process**
- Hidden costs of injuries**
- Safety culture**
- 10-Step Business Plan**

Follow-up Activities



Crossing the bridge to a safer workplace

BWC's Division of Safety & Hygiene Training Center

The Division of Safety & Hygiene wants Ohio workplaces to be safer and healthier by reducing occupational injuries and illnesses. To accomplish this goal, the Training Center emphasizes the importance of applying what you learn in class to your workplace.

Effective July 1, 2003, class participants will have a list of follow-up activities to review as possible steps to take when they return to work. During or at the end of a class, you may choose from among these follow-up activities or customize your own activity as appropriate for your workplace.

When you complete a follow-up activity in your workplace, notify the Training Center. Following notification, a certificate with continuing education credits for the class will be sent to you. You must complete this notification process from your first class in order to be eligible to enroll in a second class.

(Please see details on reverse side.)



Examples of follow-up activities

- Develop or improve a training program on the class topic;
- Organize a new or improve an existing safety team;
- Conduct a safety audit on one or more machines at work;
- Analyze illness/injury trends;
- Find and document hazardous chemicals to add to Hazard Communication program.

Notification process

Provide the following information when notifying the Training Center of your completed activity:

1. Please describe the activity you completed at your workplace as a result of taking the class;
2. Who at your company was involved in this activity;
3. The impact of this activity on your company;
4. What barriers, if any, you encountered;
5. How you would like your certificate sent to you (e-mail, fax, or no certificate needed);
6. Please estimate the amount of time you spent on this activity.

Methods of notifying the Training Center will be provided when you attend the class.

Summary

1. Enroll in one class at a time;
2. Attend class;
3. Select a follow-up activity that is reasonable and manageable at your workplace;
4. Complete the activity;
5. Notify the Training Center;
6. Receive certificate with continuing education credits;
7. Enroll in another class.

Exceptions

- Safety Works for You, Modules 1-7 (See Division Services catalog for course description)
- Safety Works for Kids (See Division Services catalog for course description)
- Students who are unemployed

Fundamentals of an Effective Safety & Health Program

Follow-up Activities

- Use program checklist to evaluate needs at my workplace. Submit to management for review.
- Review OSHA 300 logs and identify accident and/or illness trends. Summarize my findings and submit to management for review and possible action.
- Review/improve company procedures to ensure that our safety coordinator is notified of all workers' compensation claims.
- Meet with management to discuss how the company can improve the safety & health communication process.
- Determine if my company has a lockout/tagout program. Are procedures written? Are they followed?
- Research to find out if forklift drivers are trained and whether their training is documented. If not, recommend training and/or develop documentation.
- If my company uses respirators, are respirator users being medically evaluated? If not, set up medical evaluations.
- If my company has confined spaces, is there a list of them? If so, review the company's list of confined spaces for completeness and accuracy. If no list exists, develop one.
- Meet with management or your supervisor to determine which steps from the 10 step business plan to implement.
- Evaluate/revise current safety programs.
- Evaluate/revise current safety training.
- If hearing protection is being worn, has noise monitoring been performed? Research this and present to management.

Activity Plan

	Activity	Other people involved	Target Deadline
<input type="checkbox"/>			

Notification of Completed Activity

Your name (please print) _____ Locator number of class _____ Date of class _____

PIN* _____ Class title _____ Location of class _____

* PIN: First letter of your last name, four digits representing your day & month of birth, the last four digits of your SSN. Example: G03059784

1. Please describe the activity you completed at your workplace as a result of taking the class.

1a. What category fits your activity most accurately? Check more than one, if it applies.

- Personal protective equipment
- Policies, procedures
- Management directive
- Training
- Housekeeping
- Inspections/audits/assessments
- Tools & equipment
- Recordkeeping
- Written program
- Injury/illness trends
- Safety team
- Safety culture
- Other _____

2. Who at your company was involved in this activity?

3. What impact did this activity have on your company?

4. What barriers, if any, did you encounter?

5. How would you like your certificate to be sent to you?

- E-mail (If so, please print on line below.) _____
- Fax (If so, please list on line below.) _____
- No thanks. I don't need one.

6. Please estimate the amount of time you spent on this activity.

- Less than 1 hour
- 1-3 hours
- 3-5 hours
- Over 5 hours

See reverse side for methods of notifying the Training Center of your completed activity.

Methods of notifying the Training Center of your completed activity

Internet: www.ohiobwc.com
Safety Services
Training Services

Training Center, scroll down to:
Reporting follow-up activity
Notification form

You can enter your information directly on the electronic Notification form.

E-mail: safety@bwc.state.oh.us

Fax: 614-365-4974

Call: 1-800-OHIOBWC (1-800-644-6292), follow the prompts for employer services, then safety services.

Mail: Ohio BWC Division of Safety & Hygiene Training Center
Attention: Contact Center
13430 Yarmouth Drive
Pickerington OH 43147

Statement of Attendance

(Student name)_____ attended the

(Class title)_____ class on

(Date)_____ at (Location) _____.

Instructor's signature

Note to student:

Please enter the class information above prior to asking the instructor to sign it.

After you notify the Training Center of your completed follow-up activity, a certificate with continuing education credits will be sent to you.

Training Center New Direction Student Questions & Answers

- Question: Several of us from our company attended this class. May we work on one follow-up activity together back at our workplace?
Answer: Yes, but each person needs to individually notify the Training Center of the completed activity.
- Question: If I am not sure what activity I will do back at the workplace, what should I write on the sign-in sheet?
Answer: Please write your most likely activity. It is OK to change your mind or modify the activity when you return to the workplace.
- Question: Do I have to do an activity on the list?
Answer: No, you can customize an activity that will benefit your workplace.
- Question: May I enroll in a second class if the follow-up activity from the first class is not complete?
Answer: Sorry, no.
- Question: Why are you restricting us to enrollment in one class at a time?
Answer: The DSH mission is to prevent injuries & illnesses. DSH is willing to invest resources in those students who contribute to that mission by improving the workplace through meaningful activities.
- Question: When I am limited to enrollment in one class at a time, how can I plan out my year of classes? Won't all the classes be full?
Answer: Plan out your classes with at least 4-6 weeks between them, pencil them on your calendar. Promptly after completing a class, begin your follow-up activity back at the workplace. When you notify the Training Center of your completed activity, send in your registration for your next class. Starting July 1, everyone will be "in the same boat;" that is, no one can sign up for more than one class at a time.
- Question: Do web-based classes have follow-up activities?
Answer: Yes, but you may enroll in a web-based class and a regular class simultaneously.
- Question: Can I be on a wait list for one class and be enrolled in another class?
Answer: No, you will have to choose whether to be on a wait list or to be enrolled in another class.
- Question: Is "one class at a time" by individual or by company?
Answer: By individual.

Question: Some activities may take longer than others, so it may take months to complete an activity.

Answer: Here's a suggestion: break down the activity into smaller, but nonetheless significant, steps. Report to the Training Center the first completed step.

Question: What about PDP companies? All PDP requires them to do is attend a class to meet their Step 6 requirement.

Answer: For Step 6 credit, BWC will accept the "Statement of Attendance" signed by your instructor.

Question: What is the fastest method to report my completed activity and get my updated status, so I may enroll in a future class?

Answer: All methods of reporting will take 1-2 days for updating your status, but you may send in your registration form for the future class along with your notification form. Within two weeks, you should receive a confirmation notice of your enrollment in the future class.

Question: Why do I have to write the intended follow-up activity on the sign-in sheet?

Answer: What you have written on the sign-in sheet will be reviewed by BWC staff members who are responsible for assuring high-quality classes.

Question: What is the purpose behind the new direction?

Answer: It is a way of measuring the effectiveness of the Training Center in reducing occupational injuries and illnesses.

Resources Available from the Division of Safety & Hygiene (DSH) Libraries

(800) 644-6292 (614) 466-7388

library@bwc.state.oh.us

www.ohiobwc.com

Safety training:

- Safety talks, outlines and scripts - DSH Safety leader's discussion guide, Training Center's One-hour safety presentations, reference books, web resources
- Videos – hundreds of safety and health topics
- Books and articles on training techniques

Machine and equipment safety:

- Safety standards (ANSI, NFPA, CGA)
- Books and articles on power presses, material handling equipment, lockout/tagout, etc.

Sample written programs:

- DSH program profiles and sample written programs
- Reference books
- Internet resources

Illness and injury statistics:

- Statistics from the U.S. Bureau of Labor Statistics
- National Safety Council's *Injury Facts*
- National Institute of Occupational Safety & Health (NIOSH) studies

Hazard communication and chemical safety:

- Chemical safety information
- Material safety data sheets (MSDSs)
- Sample written programs
- Videos
- Internet resources

Safety standards

- American National Standards Institute (ANSI) standards (including standards for construction, machinery and equipment, personal protective equipment)
- National Fire Protection Association (NFPA) fire codes (including the Life Safety Code and the National Electrical Code)
- Compressed Gas Association (CGA) standards

Other topics of interest (books, articles, magazines, videos and standards):

- Confined spaces
- Electrical safety
- Job safety analysis
- New employee orientation
- Powered industrial trucks
- Respiratory protection
- Scaffolds
- Spill response

Directories and lists of vendors of safety equipment

Occupational Safety & Health Administration (OSHA) regulations

Manual of Uniform Traffic Control Devices (MUTCD)

Recommendations of useful Internet sites

BWC publications

Saving You Time and Research

Requests for copies of OSHA standards, information on starting a safety committee, a video on accident investigation techniques -- these are some of the thousands of inquiries BWC's Division of Safety & Hygiene (DSH) libraries receive each year.

DSH has two libraries to serve you:

- The central library in the William Green Building in downtown Columbus;
- The resource center and video library located at the Ohio Center for Occupational Safety and Health (OCOSH) in Pickerington.

Both libraries are open 8 a.m. to 4:45 p.m., Monday through Friday. Your need for information does not require a visit to the library. You can phone, fax, or e-mail your requests and receive a quick response.

The central library provides free information services on the topics of occupational safety and health, workers' compensation and rehabilitation.

The OCOSH resource center provides similar services for those who visit OCOSH for meetings and training center classes.

Students from the DSH training center can use the services and collections of the libraries to assist with the completion of their course **follow-up activities**. The librarians have recommended a variety of resources for the follow-up activities and are available to answer questions and provide assistance.

The video library offers an extensive collection of videotapes to supplement your organization's safety and health training program. It is a convenient and popular source for Ohio employers to borrow quality occupational safety- and health-related training aids.

Visit our Web site at **www.ohiobwc.com**.

Central library
30 W. Spring St., Third Floor
Columbus OH 43215-2256
1-800-OHIOBWC
(614) 466-7388
(614) 644-9634 (fax)
library@bwc.state.oh.us

OCOSH resource center
13430 Yarmouth Drive
Pickerington OH 43147
1-800-OHIOBWC
Resource center (614) 728-6464
Video library (614) 644-0018