

Managing Workplace safety

As a supervisor or manager, you are responsible for the safety of your employees. Most supervisors feel a moral obligation to protect their employees, in addition to their legal responsibility to prevent workplace injuries and illnesses.

But there are other reasons to strive for an accident-free workplace. Workplace accidents are expensive. The real cost of an accident can be four to five times higher than expected, because of "hidden costs" such as:

- Productivity losses
- Facility damages
- Increased insurance costs
- Fines
- Legal settlements

Workplace safety will also benefit your company by improving morale and productivity. By taking this course, you will learn how you can protect your employees and contribute to your company's well-being.

In the United States, the Occupational Safety and Health Administration (OSHA) has jurisdiction over workplace safety issues. OSHA fines are usually determined according to the seriousness of a violation and whether or not a violation was willful on the part of the employer. It is important to understand that a given incident or inspection can yield numerous violations, so a fine's total can be substantial.

OSHA holds you legally responsible to maintain a safe workplace for your employees. But what if your company already has a Health and Safety Specialist—won't he/she take care of this for you? While this person may provide assistance, you are ultimately responsible for the safety of your employees and their work areas.

OSHA fines can range up to \$70,000 for each violation (The Occupational Safety and Health Act, 1970)

The following OSHA fines are fictional, but are based on representative cases. Match the penalty with the offense:

Failure to keep medical records
for the required period of time \$750

Maintaining a Safe Workplace

It is your job to serve as a safety role model and to set health and safety expectations for your employees. In maintaining a safe workplace, there are a number of areas you must carefully manage.

Training: Your employees have the training they need to work safely.

Controls: Hazard controls are adequate for the area, process, or equipment.

Work Practices: Your employees follow safe work practices and use appropriate hazard controls.

Emergencies: Your employees know what to do in the event of an emergency.

Investigations: Any incidents, whether an accident or near-miss, are investigated promptly.

Reporting: Any work-related illnesses or injuries are promptly reported.

How can you help your employees work safely? Train them. Safety knowledge can make a big difference!

Orientation: All new employees should have an orientation on basic safety issues at your company. This should include evacuation procedures, the number to call in the event of an emergency, and how to report safety suggestions. Employees should know that they must contact you immediately in the event of an accident or incident in your work area.

On the job training: You will need to ensure that your employees receive on-the-job (OJT) training. You, a peer trainer, or an area lead can point out specific job-related safety issues one-on-one with the employee as a part of overall job training.

Additional Resources: You may be asked to evaluate more specific health and safety training needs of your employees. It is your responsibility to ensure that your employees attend the appropriate classes, whether offered at your company or through external training resources.

As a supervisor, you have the responsibility of assessing potential hazards in your area and ensuring that hazard controls are adequate. One useful assessment method is job safety analysis or JSA. The JSA process includes three main steps: a review of each job to identify its specific tasks, a description of potential hazards associated with each task, and an evaluation of the hazard controls in place or needed.

Review the following JSA for a grinding castings job:

Task 1: Reach into metal box to right of machine, grasp casting, and carry to wheel.

Hazard: Strike hand on edge of metal box or casting; cut hand on burr. Drop casting on toes.

Solution: Provide gloves and safety shoes.

Task 2: Push casting against wheel to grind off burr.

Hazard: Strike hand against wheel. Flying sparks, dust, or chips. Not enough of wheel guarded. No dust removal system.

Solution: Provide larger guard over wheel. Install local exhaust system. Provide safety goggles and protectors.

Task 3: Place finished casting in box to left of machine.

Hazard: Strike hand against metal box or castings.

Solution: Provide for removal of completed stock.

In some cases, a JSA, including the identification and implementation of hazard controls, can be easily performed by one person. In other cases, additional support may be needed from a Health and Safety Specialist or a Safety Committee.

A JSA is conducted whenever:

- A new process or production area is planned.

- Machinery, equipment, tools, or workstations are added to an existing area.

- A change occurs in work procedures or personnel.

- Potential problems are identified

Engineering Controls

Once a workplace hazard is identified, you must control it to prevent injury or property damage. In any situation, a variety of hazard controls are possible. The most effective method of hazard control is to eliminate the hazard. You can accomplish this through the use

of engineering controls.

An engineering control is a modification to equipment or a work area to minimize or eliminate the hazardous condition.

Review the following information on some common engineering controls.

Substitute: Substitute an equivalent piece of equipment, chemical, etc. that creates less of a hazard than the existing item. For example, an old vacuum pump may have exposed moving parts, leak oil, and create quite a bit of noise. This pump could be replaced with a newer model that is designed with shielding around all moving parts, and that does not leak or create excessive noise.

Enclose / Isolate: Enclose/Isolate the hazardous part of the equipment. For example, an enclosure can be designed to minimize the noise produced by a piece of equipment. The enclosure can be designed with soundproofing materials that absorb the sound within the enclosure, preventing it from traveling into the work area.

Interlocks: Install interlocks on equipment to shut down potential hazards or hazardous areas when safety guards are removed or other access to hazardous areas is possible. For example, a radiation-producing machine should have an interlock on the access door to the radiation chamber. If someone opens the door while the radiation beam is operating, the beam will immediately shut down.

Ventilation: Provide adequate ventilation for the work area or process. For example, install a chemical fume hood for a task involving hazardous chemicals. As another example, re-balance the ventilation system in the area to supply greater air flow in areas where it is needed and less air flow where it is not needed.

Administrative Controls

When engineering controls are not feasible or not completely adequate to control hazards, administrative controls should be implemented.

An administrative control involves minimizing or eliminating a hazard through work practices or procedures. By ensuring that employees are aware of the hazards in your area and know how to work safely, you are implementing administrative controls.

The following are some common administrative controls:

Safe Work Practices: Incorporate safe work practices into the work procedures for each task. Develop a written plan to document these practices.

Adequate Training: Ensure that employees have adequate training to work safely, including formal courses and informal on-the-job training. Remember that many safety-related areas require annual refresher training.

Cross-Training: Cross-training employees so that jobs can be rotated. This can minimize the amount of time an employee spends performing a potentially hazardous task. For example, several employees in an electronics assembly area should be trained to perform various tasks so that one person does not have to do all of the fine manipulation, minimizing

the ergonomics hazard.

Breaks: Schedule breaks so that employees have adequate rest periods. For example, employees working in hot environments need periodic breaks in order to avoid heat stress. Breaks can help mitigate ergonomic hazards as well.

Personal Protective Equipment (PPE)

Our employees will need personal protective equipment (PPE) if engineering and administrative controls do not eliminate the hazards in your area. Appropriate PPE provides a barrier between the employee and the hazard or work environment.

Below are a few examples of PPE. The best rule of thumb is to design the work area or equipment with health and safety in mind. When hazards are identified, look for ways to design them out of the area, equipment, process or operation.

Head Protection: Hard hats protect the head from falling or flying objects, bumping against a fixed object or electrical shock. Class A hard hats protect against impact. Class B hats protect from impact and high-voltage shock. Class C hats are designed for lightweight comfort and impact protection. You must use the hat that is appropriate for hazards of your job.

Eye Protection: Eye protection shields the eyes from exposure to chemical, biological, and physical hazards. Examples include safety glasses, goggles, and face shields.

Hearing Protectors: Hearing protectors minimize noise exposure. Examples include earplugs and earmuffs.

Respirators: Respirators protect the lungs and respiratory system from airborne chemical and biological hazards. Examples include half-mask and full-face respirators, self-contained breathing apparatus (SCBA), and dust masks (filtering face piece respirators).

Gloves: Gloves protect the hands from exposure to chemical, electrical, biological, and physical hazards. Examples include general-purpose latex, electrical insulating, chemical-resistant, and cut-resistant gloves (e.g., Kevlar).

Body protection: Body protection shields the body from direct contact with chemical, biological, and physical hazards. Examples include Tyvek suits, laboratory coats, and cotton coveralls.

Ask your manager or Environmental Health and Safety (EHS) representative about obtaining PPE equipment.

Regular systematic safety inspections can help minimize the risk of potential incidents or accidents. Inspections should include equipment, work practices, and the work environment; however, conducting inspections is only half the task—following up with action items is equally important. You may do inspections on a daily or other periodic schedule. Inspections may also be conducted by third parties on a scheduled or as-needed basis.

After any inspection, an action plan to implement recommended improvements should be promptly developed. Assign action items to specific individuals to ensure completion. You will need to follow up on action items until they are complete.

ot only are you responsible for the safety of your employees during normal operations, you are also responsible for their safety during emergency situations. As a supervisor, you must make sure that your employees know what to do in the event of a fire, power outage, gas leak, medical incident, or any other emergency situation, including evacuation and notification of authorities.

Depending on your workplace, there may be other specific procedures that employees should follow, and you should train them in these procedures. If your company has an emergency response team or an evacuation team, these individuals will be your first resource in the event of an emergency. These employees must be given special training for their specific responsibilities.

ven with the best planning and preventive measures, accidents happen. When a workplace accident causes injury or illness, there are five measures (other than emergency response activities) that a supervisor should take.

Review the information below to see these five measures.

Record the occupational injury or illness.
Investigate the accident that caused the injury or illness.
Write a report of the investigation findings.
Report the accident to Workers' Compensation.
Follow up with the injured employee.

The following pages cover procedures and tips to help you perform these functions successfully

our company is required to maintain records relating to workplace employee injuries and illness, and these records may be kept on OSHA Form 300, also known as the 300 Log.

According to OSHA, incidents that must be recorded include any work-related fatalities, injuries, or illnesses. Minor injuries that require only first aid treatment do not need to be recorded. As a guideline, you must record injuries or illness that involve the following factors:

- Medical treatment (other than just first aid)
- Loss of consciousness
- Restriction of work or motion
- Transfer to another job

Your company does not currently have a custom OSHA 200 form. Please speak to your manager if you have questions regarding this form

2 of your 7 responses were incorrect. The questions are repeated below with the correct answers in green:

	Recordable	Non-recordable
Paper cut requiring first-aid	X	yes
Cumulative trauma disorder from repetitive motions during circuit board assembly	report	
Bruises and minor scrapes from a fall	X	no report
Skin burn caused by contact with		

sulfuric acid in a battery charging station, resulting in treatment at the hospital

Headache from eye fatigue

not
report

Loss of consciousness due to lack of oxygen in a confined space

report

Needle stick resulting in transmission of Hepatitis B virus to a health care worker

report

Some work-related illnesses are not immediately apparent. Illnesses should be recorded on the OSHA 300 log as soon as they are diagnosed, even if this occurs weeks or months after the illness-causing event.

Investigating the Accident

You are required by OSHA to investigate all accidents that you record on the OSHA 300 Log. It is an excellent practice to investigate non-recorded incidents and near-misses too.

An accident investigation determines:

- Causative or contributing factors

- Actions necessary to prevent similar incidents in the future

Thorough accident investigation requires you to interview all the employees involved, as well as any witnesses. You should interview these individuals separately, without delay.

Make sure you document the answers to all of these questions when you investigate an accident or near-miss.

- Who was involved, how experienced was this person, what kind of training did this person have?

- What happened - an accident or near miss? Describe the incident.

- Where was the incident at your site? Was it in an area with known hazards?

- When did it happen?

- How did it happen?

- Why did it happen?

Interviewing Tips

Interviewing witnesses and other employees following an accident takes practice and skill. These tips may help you build that skill:

- Ask open-ended questions (to avoid Yes/No answers)

- Don't interrupt a witness

- Take the fewest possible notes while the witness is speaking.

- Restate information the witness gives you to make sure you understand it correctly.

- Be sure to get answers to the basic interview questions (listed on the previous

page).

Rephrase questions the witness fails to answer.

Solicit ideas on ways to prevent future accidents.

Thank witnesses for their time, information, and suggestions.

PART I: TO BE COMPLETED BY EMPLOYEE/CONTRACTOR:

Name: _____ Ext: _____ Shift: _____

Job Title: _____ Supervisor/Sponsor: _____ Ext: _____

SSN: _____ Male / Female: _____ Age: _____

Date of Hire: _____

Contractor? **Y / N** Agency Name: _____

Time In Current Job: Less than 6 months 6 months to 1
year 1 year or more

Incident Occurred During: Regular Work Hrs? **Y / N** Overtime Hours? **Y / N**

Date of Incident: _____ Time of Incident: _____

Incident Location: _____ Did Incident Occur at Regular Work Location? **Y / N**

Names of Persons in Immediate Area at Time of Incident:

Describe in Detail the Sequence of Events that Caused or Contributed to the Incident:

Describe injury/illness and part of body affected _____

Describe object, substance, equipment, etc., involved in incident:

Did you notify Health Services of incident? **Y / N**

Was treatment rendered? **Y / N** By Whom?: _____

Employee Signature: _____

PART II: TO BE COMPLETED BY SUPERVISOR/MANAGER:

Reviewed employee's report of incident? **Y / N** Were other employees injured in this incident? **Y / N**

Has employee returned to work? **Y / N** Last day employee

worked: _____

Date of return/projected return: _____

Describe Primary Reason For Incident: _____

Contributing Factors: Describe any specific contributing factors based on employee/contractor's description of the incident and the results of your investigation.

Equipment:

Training:

Policy/Procedure:

Behavior:

Personal Factor:

Working Environment:

Ergonomics:

Are there other conditions which could cause the same type of Incident? **Y / N**

If yes, please describe: _____

Frequency of task performed (if applicable): _____

Type of training received on specific task: _____

Date of last training: _____

Action Items

Owner

Completion Date

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Name of Supervisor: _____

Ext: _____

Signature: _____

Investigating Near-misses

hy investigate non-recorded incidents and near-misses? Because the same factors that did not result in an accident at one time, may end up causing a major accident at another. If you react only to major accidents, you ignore the 99% of the incidents that occur in your operation — losing valuable opportunities to prevent major accidents. Your response to an incident, whether an accident or a near-miss, can influence whether or not the incident happens again.

The famous Heinrich study showed that for every accident resulting in a serious injury, there are about 29 resulting in only minor injuries and 300 resulting in no injuries.

Writing the Investigation Report

Once you have gathered as much information as possible, you will need to complete a written report. Many companies use OSHA Form 301 or the *Workers' Compensation First Report of Injury* form to ensure consistency. At a minimum, the form you use should include the information shown below.

Circumstances: Describes the incident, which includes the job that the employee was performing, as well as the area, equipment, and materials involved.

Factors: Describes the unsafe conditions and acts contributing to the incident.

Actions: Describes the actions to be taken to prevent recurrence, along with a completion schedule that includes the name of the person completing it.

Reporting to Workers' Compensation

In the event of an employee's injury or illness, you also need to activate the Workers' Compensation system in a timely manner. Within 24 hours, you must:

- Provide an *Employee's Claim for Workers' Compensation Benefits Form* to the employee
- Send a copy of the *Employer's First Report of Occupational Injury* to the Workers' Compensation insurance carrier or claims administrator

Many of the items requested on these forms will have been answered during the accident investigation, making this task easier. **Your Workers' Compensation insurance carrier or claims handler provides these forms.**

The form names and procedures vary among states, based upon state regulations/laws.

Follow-up

As a supervisor, **you are responsible for the follow-up of a work-related injury or illness that is covered by your company's Workers' Compensation policy. You must make sure that affected employees understand that medical costs and lost wages are provided, assuming that the claim is valid. You should also keep in contact with the employee to help him/her return to work.**

You can discipline an employee for unsafe acts at work, but you cannot discipline an employee because an accident occurred. Also, you cannot discriminate against an employee for filing a Workers' Compensation claim

It is possible that an employee may contact OSHA directly with a safety concern. As a result, an OSHA inspector may visit your site to talk to you and your employees and perform an inspection. You will not be

told which employee contacted OSHA. Even if you can guess who it might have been, you are prohibited by law from disciplining or discriminating against this person because of his/her call.

Although you may be busy and somewhat unpleasantly surprised by an inspector's visit, you should always be friendly and courteous. Always answer the inspector's questions truthfully. You can be held personally liable if you misrepresent the truth to an inspector. **Check with your supervisor for any company-specific procedures to follow for OSHA inspections**

You are prohibited from disciplining or discriminating against a person for bringing up any safety issues, whether to you, to someone else in your company, or to a third party.

In addition to encouraging employees to communicate openly with you on safety issues, you can also encourage them to get involved in safety-related committees or teams. Safety committees should include management and employee representatives, as well as labor representatives in a union environment. Additional personnel, such as a site Health and Safety Specialist or Area Engineer, may be able to provide valuable input. In some states, safety committees are required by OSHA.

1. Safety Committee

Safety Committee responsibilities can include:

- Performing periodic safety inspections.
- Addressing employee health and safety concerns.
- Promoting health and safety awareness.
- Reviewing incidents, including accidents and near-misses.

2. Evacuation Teams

Another way to involve employees in safety is to form Evacuation teams provide assistance to the site population in achieving a quick and orderly evacuation during emergency situations.

3. Emergency Response Teams

These are the primary responders to major spills of hazardous materials, medical incidents, and other safety and health-related incidents. These personnel require extensive training to ensure adequate preparation for any type of incident that could occur at your facility.

In which of the following tasks can most safety committee members participate, assuming they have had basic training? Select 'Yes' to the three correct answers below:

Area safety inspections	☐ *Yes
	☐ No
Industrial hygiene air monitoring	☐ Yes
	☐ *No
Accident investigation	☒ *Yes
	☐ No

Design and
installation of
fall protection
tie-off points

☐

Yes

☐

*No

Responding to
employee
safety
suggestions

*yes

If safety is everyone's responsibility, a safe workplace is everyone's reward. Attention to safe work procedures and general safety should be part of every employee's performance evaluation, at all levels of the organization. Safe behaviors can be reinforced by rewarding those who participate in health and safety activities, demonstrate knowledge of health and safety rules, and use proper health and safety reporting procedures.

Some examples of rewards include:

- Public recognition ("pat on the back")
- Letter of commendation for employee's file
- Safety recognition plaque
- Company merchandise or points towards merchandise purchases
- Items with a safety-related engraving (e.g., pencils, pens, mugs, etc.)
- Raffle tickets for a "big" prize (e.g., big-screen television, vacation trip, etc.)
- Free lunch vouchers or restaurant gift certificates

In addition to rewarding safe behaviors, you can reward useful safety suggestions. Focus on suggestions that present solutions to safety issues and provide the reward once the suggestion is successfully implemented.

Summary

Now let's view a summary of the topics we have covered in this course by reviewing the information below.

The main reasons for working towards an accident-free workplace are your legal responsibility and the high cost of accidents.

Remember, you are held legally responsible by OSHA to maintain a safe workplace for your employees.

Your responsibilities as a manager are to ensure:

- Employees are properly trained in safety procedures
- Hazard controls are adequate
- Safe Work Practices are implemented
- Emergency procedures are known
- Investigations are carried out promptly
- Work-related accidents are reported

- Potential hazards are assessed using a Job Safety Analysis
- Employees know what to do during emergency situations

Potential hazards should be controlled using either:

- engineering controls,
- administrative controls, or
- personal protective equipment.

Regular safety inspections must be carried out either periodically, daily, or by a third-party.

If an accident occurs, you should carry out the following steps:

- Record the occupational injury or illness
- Investigate the accident that caused the injury or illness
- Write a report of the investigation findings
- Report the accident to Workers' Compensation
- Follow up with the injured employee

Involve your employees in managing workplace safety by having employee safety committees and safety rewards.

Quiz

1. Factors to consider when choosing personal protective equipment include:

- ☐ Hazard resistance, fit, durability
- ☐ Fit, durability, color
- ☐ Durability, color, availability of sizes
- ☐ Availability of sizes, cost, color

2. What training is required for a new Chemical Technician?

- ☐ New hire orientation
- ☐ On-the-job training
- ☐ Chemical safety
- ☐ All of the above

3. Which of the following is NOT recordable on the OSHA 300 log?

- ☐ Paper cut
- ☐ Amputation
- ☐ Burn requiring medical care

☐ Cumulative trauma disorder

4. Which of the following is an engineering control?

- ☐ Respirator
- ☐ Safe work procedure
- ☐ Training class
- ☐ Chemical fume hood

5. Which group can assist with workplace inspections and accident investigations?

- ☐ Safety Committee
- ☐ Emergency Response Team
- ☐ Evacuation Team
- ☐ Employee Assistance Program

6. Whom does OSHA hold responsible for employee safety?

- ☐ CEO
- ☐ Environmental Health and Safety (EHS) Manager
- ☐ Supervisor/ Manager
- ☐ Employees

7. An administrative control is a(n)

- ☐ Procedure
- ☐ Piece of safety equipment
- ☐ Ventilation system
- ☐ Interlock

8. Which of the following fields is NOT typically included in a job safety analysis?

- ☐ Job steps
- ☐ Inspection checklist
- ☐ Potential hazards
- ☐ Hazard controls

9. How often should a Supervisor conduct informal inspections of the work area?

- ☐ Daily

☐ Weekly

☐ Monthly

☐ Yearly

10. Which of the following should be part of an accident investigation?

☐ Description of incident

☐ Contributing factors

☐ Follow-up actions

☐ All of the above