Poster is available for download at: https://www.osha.gov/Publications/poster.html



Job Safety and Health IT'S THE LAW!

All workers have the right to:

- A safe workplace.
- Raise a safety or health concern with your employer or OSHA, or report a workrelated injury or illness, without being retaliated against.
- Receive information and training on job hazards, including all hazardous substances in your workplace.
- Request an OSHA inspection of your workplace if you believe there are unsafe or unhealthy conditions. OSHA will keep your name confidential. You have the right to have a representative contact OSHA on your behalf.
- Participate (or have your representative participate) in an OSHA inspection and speak in private to the inspector.
- File a complaint with OSHA within 30 days (by phone, online or by mail) if you have been retaliated against for using your rights.
- See any OSHA citations issued to your employer.
- Request copies of your medical records, tests that measure hazards in the workplace, and the workplace injury and illness log.

This poster is available free from OSHA.

Employers must:

- Provide employees a workplace free from recognized hazards. It is illegal to retaliate against an employee for using any of their rights under the law, including raising a health and safety concern with you or with OSHA, or reporting a work-related injury or illness.
- Comply with all applicable OSHA standards.
- Report to OSHA all work-related fatalities within 8 hours, and all inpatient hospitalizations, amputations and losses of an eye within 24 hours.
- Provide required training to all workers in a language and vocabulary they can understand.
- Prominently display this poster in the workplace.
- Post OSHA citations at or near the place of the alleged violations.

FREE ASSISTANCE to identify and correct hazards is available to small and mediumsized employers, without citation or penalty, through OSHA-supported consultation programs in every state.



Contact OSHA. We can help.

1-800-321-OSHA (6742) • TTY 1-877-889-5627 • www.osha.gov

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HANDOUT #2 Employers Must Provide and Pay for PPE



Personal Protective Equipment (PPE)

The Occupational Safety and Health Administration (OSHA) requires that employers protect you from workplace hazards that can cause injury or illness. Controlling a hazard at its source is the best way to protect workers. However, when engineering, work practice and administrative controls are not feasible or do not provide sufficient protection, employers must provide personal protective equipment (PPE) to you and ensure its use.

PPE is equipment worn to minimize exposure to a variety of hazards. Examples include items such as gloves, foot and eye protection, protective hearing protection (earplugs, muffs), hard hats and respirators.

Employer Obligations

- Performing a "hazard assessment" of the workplace to identify and control physical and health hazards.
- ✓ Identifying and providing appropriate PPE for employees.
- Training employees in the use and care of the PPE.
- Maintaining PPE, including replacing worn or damaged PPE.
- Periodically reviewing, updating and evaluating the effectiveness of the PPE program.

Workers should:

- ✓ Properly wear PPE
- ✓ Attend training sessions on PPE
- ✓ Care for, clean and maintain PPE, and
- ✓ Inform a supervisor of the need to repair or replace PPE.

Employers Must Pay for Personal Protective Equipment (PPE)

On May 15, 2008, a new OSHA rule about employer payment for PPE went into effect. With few exceptions, OSHA now requires employers to pay for personal protective equipment used to comply with OSHA standards. The final rule does not create new requirements regarding what PPE employers must provide.

The standard makes clear that employers cannot require workers to provide their own PPE and the worker's use of PPE they already own must be completely voluntary. Even when a worker provides his or her own PPE, the employer must ensure that the equipment is adequate to protect the worker from hazards at the workplace.

Examples of PPE that Employers Must Pay for Include:

- Metatarsal foot protection
- Rubber boots with steel toes
- Non-prescription eye protection
- Prescription eyewear inserts/lenses for full face respirators
- Goggles and face shields

- Fire fighting PPE (helmet, gloves, boots, proximity suits, full gear)
- Hard hats
- Hearing protection
- Welding PPE

HANDOUT #2 Employers Must Provide and Pay for PPE



Payment Exceptions under the OSHA Rule

Employers are not required to pay for some PPE in certain circumstances:

- Non-specialty safety-toe protective footwear (including steel-toe shoes or boots) and non-specialty prescription safety eyewear provided that the employer permits such items to be worn off the job site. (OSHA based this decision on the fact that this type of equipment is very personal, is often used outside the workplace, and that it is taken by workers from jobsite to jobsite and employer to employer.)
- Everyday clothing, such as long-sleeve shirts, long pants, street shoes, and normal work boots.
- Ordinary clothing, skin creams, or other items, used solely for protection from weather, such as winter coats, jackets, gloves, parkas, rubber boots, hats, raincoats, ordinary sunglasses, and sunscreen
- Items such as hair nets and gloves worn by food workers for consumer safety.
- Lifting belts because their value in protecting the back is questionable.
- When the employee has lost or intentionally damaged the PPE and it must be replaced.

OSHA Standards that Apply

OSHA General Industry PPE Standards

- 1910.132: General requirements and payment
- 1910.133: Eye and face protection
- 1910.134: Respiratory protection
- 1910.135: Head protection
- 1910.136: Foot protection
- 1910.137: Electrical protective devices
- 1910.138: Hand protection

OSHA Construction PPE Standards

- 1926.28: Personal protective equipment
- 1926.95: Criteria for personal protective equipment
- 1926.96: Occupational foot protection
- 1926.100: Head protection
- 1926.101: Hearing protection
- 1926.102: Eye and face protection
- 1926.103: Respiratory protection

There are also PPE requirements in shipyards and marine terminals and many standards on specific hazards, such as 1910.1030: Bloodborne pathogens and 1910.146: Permit-required confined spaces.

OSHA standards are online at www.osha.gov.

Sources:

- Employers Must Provide and Pay for PPE, New Jersey Work Environment Council (WEC)
 Fact Sheet
- OSHA Standards, 1910.132(h) and 1926.95(d)
- Employer Payment for Personal Protective Equipment Final Rule, Federal Register: November 15, 2007 (Volume 72, Number 220



Your Rights as a Whistleblower

You may file a complaint with OSHA if your employer retaliates against you by taking unfavorable personnel action because you engaged in protected activity relating to workplace safety or health, asbestos in schools, cargo containers, airline, commercial motor carrier, consumer product, environmental, financial reform, food safety, health insurance reform, motor vehicle safety, nuclear, pipeline, public transportation agency, railroad, maritime, motor vehicle safety, and securities laws.

Whistleblower Laws Enforced by OSHA

Each law requires that complaints be filed within a certain number of days after the alleged retaliation.

- Asbestos Hazard Emergency Response Act (90 days)
- Clean Air Act (30 days)
- Comprehensive Environmental Response, Compensation and Liability Act (30 days)
- Consumer Financial Protection Act of 2010 (180 days)
- Consumer Product Safety Improvement Act (180 days)
- · Energy Reorganization Act (180 days)
- Federal Railroad Safety Act (180 days)
- Federal Water Pollution Control Act (30 days)
- · International Safe Container Act (60 days)
- Moving Ahead for Progress in the 21st Century Act (motor vehicle safety) (180 days)
- National Transit Systems Security Act (180 days)
- Occupational Safety and Health Act (30 days)
- Pipeline Safety Improvement Act (180 days)
- · Safe Drinking Water Act (30 days)
- Sarbanes-Oxley Act (180 days)
- Seaman's Protection Act (180 days)
- Section 402 of the FDA Food Safety Modernization Act (180 days)
- Section 1558 of the Affordable Care Act (180 days)
- Solid Waste Disposal Act (30 days)
- Surface Transportation Assistance Act (180 days)
- Toxic Substances Control Act (30 days)
- Wendell H. Ford Aviation Investment and Reform Act for the 21st Century (90 days)

Unfavorable Personnel Actions

Your employer may be found to have retaliated against you if your protected activity was a contributing or motivating factor in its decision to take unfavorable personnel action against you. Such actions may include:

- Applying or issuing a policy which provides for an unfavorable personnel action due to activity protected by a whistleblower law enforced by OSHA
- Blacklisting
- Demoting
- Denying overtime or promotion
- Disciplining
- Denying benefits
- · Failing to hire or rehire
- · Firing or laying off
- Intimidation
- · Making threats
- Reassignment to a less desirable position, including one adversely affecting prospects for promotion
- Reducing pay or hours
- Suspension

Filing a Complaint

If you believe that your employer retaliated against you because you exercised your legal rights as an employee, contact OSHA as soon as possible because you must file your complaint within the legal time limits.

An employee can file a complaint with OSHA by visiting or calling the local OSHA office or sending a written complaint to the closest OSHA regional or area office. Written complaints may be filed by facsimile, electronic communication, hand delivery during business hours, U.S. mail (confirmation services recommended), or other third-party commercial carrier. The date of the postmark, facsimile, electronic communication, telephone call, hand delivery, delivery to a third-party commercial carrier, or in-person filing at an OSHA

office is considered the date filed. No particular form is required and complaints may be submitted in any language.

For OSHA area office contact information, please call 1-800-321-OSHA (6742) or visit www.osha.gov/html/RAmap.html.

Upon receipt of a complaint, OSHA will first review it to determine whether it is valid on its face. All complaints are investigated in accord with the statutory requirements.

With the exception of employees of the U.S. Postal Service, public sector employees (those employed as municipal, county, state, territorial or federal workers) are not covered by the Occupational Safety and Health Act (OSH Act). Non-federal public sector employees and, except in Connecticut, New York, New Jersey, the Virgin Islands, and Illinois, private sector employees are covered in states which operate their own occupational safety and health programs approved by Federal OSHA. For information on the 27 State Plan states, call 1-800-321-OSHA (6742), or visit www.osha.gov/dcsp/osp/index.html.

A federal employee who wishes to file a complaint alleging retaliation due to disclosure of a substantial and specific danger to public health or safety or involving occupational safety or health should contact the Office of Special Counsel (www.osc.gov) and OSHA's Office of Federal Agency Programs (www.osha.gov/dep/enforcement/dep_offices.html).

Coverage of public sector employees under the other statutes administered by OSHA varies by statute. If you are a public sector employee and you are unsure whether you are covered under a whistleblower protection statute, call 1-800-321-OSHA (6742) for assistance, or visit www.whistleblowers.gov.

How OSHA Determines Whether Retaliation Took Place

The investigation must reveal that:

- The employee engaged in protected activity;
- The employer knew about or suspected the protected activity;
- The employer took an adverse action; and
- The protected activity motivated or contributed to the adverse action.

If the evidence supports the employee's allegation and a settlement cannot be reached, OSHA will generally issue an order, which the employer may contest, requiring the employer to reinstate the employee, pay back wages, restore benefits, and other possible remedies to make the employee whole. Under some of the statutes the employer must comply with the reinstatement order immediately. In cases under the Occupational Safety and Health Act, Asbestos Hazard Emergency Response Act, and the International Safe Container Act, the Secretary of Labor will file suit in federal district court to obtain relief.

Partial List of Whistleblower Protections

Whistleblower Protections under the OSH Act

The OSH Act protects workers who complain to their employer, OSHA or other government agencies about unsafe or unhealthful working conditions in the workplace or environmental problems. You cannot be transferred, denied a raise, have your hours reduced, be fired, or punished in any other way because you used any right given to you under the OSH Act. Help is available from OSHA for whistleblowers.

If you have been punished or discriminated against for using your rights, you must file a complaint with OSHA within 30 days of the alleged reprisal for most complaints. No form is required, but you must send a letter or call the OSHA Area Office nearest you to report the discrimination (within 30 days of the alleged discrimination).

You have a limited right under the OSH Act to refuse to do a job because conditions are hazardous. You may do so under the OSH Act only when (1) you believe that you face death or serious injury (and the situation is so clearly hazardous that any reasonable person would believe the same thing); (2) you have tried, where possible, to get your employer to correct the condition, and been unable to obtain a correction and there is no other way to do the job safely; and (3) the situation is so urgent that you do not have time to eliminate the hazard through regulatory channels such as calling OSHA. For details, see www.osha.gov/as/opa/ worker/refuse.html. OSHA cannot enforce union contracts or state laws that give employees the right to refuse to work.

Whistleblower Protections in the Transportation Industry

Employees whose jobs directly affect commercial motor vehicle safety or security are protected from retaliation by their employers for, among other things, reporting violations of federal or state commercial motor carrier safety or security regulations, or refusing to operate a vehicle because of violations of federal commercial motor vehicle safety or security regulations or because they have a reasonable apprehension of death or serious injury to themselves or the public and they have sought from the employer and been unable to obtain correction of the hazardous condition.

Similarly, employees of air carriers, their contractors or subcontractors who raise safety concerns or report violations of FAA rules and regulations are protected from retaliation, as are employees of owners and operators of pipelines, their contractors and subcontractors who report violations of pipeline safety rules and regulations. Employees involved in international shipping who report unsafe shipping containers are also protected. In addition, employees of railroad carriers or public transportation agencies, their contractors or subcontractors who report safety or security conditions or violations of federal rules and regulations relating to railroad or public transportation safety or security are protected from retaliation.

Whistleblower Protections for Voicing Environmental Concerns

A number of laws protect employees from retaliation because they report violations of environmental laws related to drinking water and water pollution, toxic substances, solid waste disposal, air quality and air pollution, asbestos in schools, and hazardous waste disposal sites. The Energy Reorganization Act protects employees

from retaliation for raising safety concerns in the nuclear power industry and in nuclear medicine.

Whistleblower Protections When Reporting Corporate Fraud

Employees who work for publicly traded companies or companies required to file certain reports with the Securities and Exchange Commission are protected from retaliation for reporting alleged mail, wire, bank or securities fraud; violations of SEC rules or regulations of the SEC; or violations of federal laws relating to fraud against shareholders.

Whistleblower Protections for Voicing Consumer Product Concerns

Employees of consumer product manufacturers, importers, distributors, retailers, and private labelers are protected from retaliation for reporting reasonably perceived violations of any statute or regulation within the jurisdiction of the Consumer Safety Product Safety Commission.

More Information

To obtain more information on whistleblower laws, go to www.whistleblowers.gov.

This is one of a series of informational fact sheets highlighting OSHA programs, policies, or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards and regulations, refer to Title 29 of the Code of Federal Regulations. Because some of these whistleblower laws have only recently been enacted, the final regulations implementing them may not yet be available in the Code of Federal Regulations but the laws are still being enforced by OSHA. This information will be made available to sensory-impaired individuals upon request. Voice phone number: (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.

Occupational
Safety and Health
Administration

U.S. Department of Labor

www.osha.gov (800) 321-0SHA (6742)

DWP FS-3638 02/2013

HANDOUT #3

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Handout #4

Find this online at: http://www.osha.gov/Publications/3334we-can-help-sm.pdf

Employer responsibilities

Employers have the responsibility to provide a safe workplace. Employers MUST provide their employees with a workplace that does not have serious hazards and must follow all OSHA safety and health standards. Employers must find and correct safety and health problems. OSHA further requires employers to try to eliminate or reduce hazards first by making changes in working conditions rather than just relying on masks, gloves, earplugs or other types of personal protective equipment. Switching to safer chemicals, implementing processes to trapharmful fumes, or using ventilation systems to clean the air are examples of effective

Employers MUST also:

 Prominently display the official OSHA Job Safety and Health – It's the Law poster that describes rights and responsibilities under the OSH Act. This poster is free and can be downloaded from www.osha.gov.

ways to get rid of or minimize risks.

- Inform workers about chemical hazards through training, labels, alarms, color-coded systems, chemical information sheets and other methods.
- Provide safety training to workers in a language and vocabulary they can understand.
- Keep accurate records of work-related injuries and illnesses.
- Perform tests in the workplace, such as air sampling, required by some OSHA standards.
- Provide required personal protective equipment at no cost to workers.*
- Provide hearing exams or other medical tests required by OSHA standards.







- Post OSHA citations and injury and illness data where workers can see them.
- Notify OSHA within 8 hours of a workplace fatality or within 24 hours of any workrelated inpatient hospitalization, amputation or loss of an eye (1-800-321-OSHA [6742]).
- Not retaliate against workers for using their rights under the law, including their right to report a work-related injury or illness.
- Employers must pay for most types of required personal protective equipment.

Who OSHA covers

Private sector workers

Most employees in the nation come under OSHA's jurisdiction. OSHA covers private sector employers and employees in all 50 states, the District of Columbia, and other



U.S. jurisdictions either directly through Federal OSHA or through an OSHA-approved state program. State-run health and safety programs must be at least as effective as the Federal OSHA program. To find the contact information for the OSHA Federal or State Program office nearest you, call 1-800-321-OSHA (6742) or go to www.osha.gov.

State and local government workers

Employees who work for state and local governments are not covered by Federal OSHA, but have OSH Act protections if they work in those states that have an OSHA-approved state program. The following 22 states or territories have OSHA-approved programs:

Alaska	Arizona	California
Hawaii	Indiana	lowa
Kentucky	Maryland	Michigan
Minnesota	Nevada	New Mexico
North Carolina	Oregon	South Carolin
Tennessee	Utah	Vermont
Virginia	Washington	Wyoming
Puerto Rico	_	

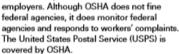
Five additional states and one U.S. territory have OSHA-approved plans that cover publi sector workers only:

Connecticut Illinois Maine New Jersey New York Virgin Islands

Private sector workers in these five states and the Virgin Islands are covered by Federal OSHA.

Federal government workers Federal agencies

must have a safety and health program that meets the same standards as private



Not covered under the OSH Act:

- Self-employed;
- Immediate family members of farm employers who do not employ outside employees:
- Workplace hazards regulated by another federal agency (for example, the Mine Safety and Health Administration, the Department of Energy, or Coast Guard).

You have the right to a safe workplace

The Occupational Safety and Health Act of 1970 (OSH Act) was passed to prevent workers from being killed or seriously harmed at work. The law requires that employers provide their employees with working conditions that are free of known dangers. The Act created the Occupational Safety nd Health Administration (OSHA), which sets and enforces protective workplace safety and health standards. OSHA also provides information, ining and assistance to workers and employers. Workers may file a complaint to have OSHA inspect their workplace if they believe that their employer is not following OSHA standards or there are serious hazards.

Contact us if you have questions or want to file a complaint. We will keep your information confidential. We are here to help you. Call our toll-free number at 1-800-321-OSHA (6742) or go to www.osha.gov.





1-800-321-OSHA (6742) TTY 1-877-889-5627 www.osha.gov

The law protects workers from retaliation when using their OSHA rights

The OSH Act protects workers who complain to their employer, OSHA or other government agencies about unsafe or unhealthful working conditions in the workplace or environmental problems. You cannot be transferred, denied a raise, have your hours reduced, be fired, or punished in any other way because you used any right given to you under the OSH Act. Help is available from OSHA for whistleblowers.

If you have been punished or retaliated against for using your rights, you must file a complaint with OSHA within 30 days from the date the retaliatory decision was both made and communicated to you. No form is needed, but you must call OSHA within 30 days of the alleged retaliation at 1-800-321-OSHA (6742) and ask to speak to the OSHA area office nearest you to report the retaliation.

We Are OSHA We Can Help

Workers' rights under the OSH Act Workers are entitled to working conditions that do not pose a risk of serious harm. To help assure a safe and healthful workplace, OSHA also provides workers with the right to:

- Ask OSHA to inspect their workplace;
- Use their rights under the law without retallation;
- Receive Information and training about hazards, methods to prevent harm, and the OSHA standards that apply to their workplace. The training must be in a language you can understand;
- Get copies of test results done to find hazards in the workplace;
- Review records of work-related injuries and flinesses; and
- Get copies of their medical records.



Workers can ask OSHA to inspect their workplace

Workers, or their representatives, may file a complaint and ask OSHA to inspect their workplace if they believe there is a serious hazard or that their employer is not following OSHA standards. A worker can tell OSHA not to let their employer know who filed the complaint. It is a violation of the OSH Act for an employer to fire, demote, transfer or retaliate in any way against a worker for filing a complaint or using other OSHA rights.

Written complaints that are signed by a worker or their representative and submitted to the closest OSHA office are more likely to result in an on-site OSHA inspection. You can call 1-800-321-OSHA (6742) to request a complaint form from your local OSHA office or visit www.osha. gov/pls/osha7/eComplaintForm.html to submit the form online. Completed forms can also be faxed or maide to the local OSHA office. Most complaints sent in online may be resolved informally over the phone with your employer.

When the OSHA inspector arrives, workers and their representatives have the right to:

- Go along on the inspection;
- Talk privately with the OSHA inspector; and
- Take part in meetings with the inspector and the employer before and after the inspection is conducted.

Where there is no union or employee representative, the OSHA inspector must talk confidentially with a reasonable number of workers during the course of the investigation



OSHA standards: Protection on the job



OSHA standards are rules that describe the methods that employers must use to protect their employees from hazards. There are OSHA standards for Construction work, Agriculture, Maritime operations, and General

Industry, which are the standards that apply to most worksites. These standards limit the amount of hazardous chemicals workers can be exposed to, require the use of certain safe practices and equipment, and require employers to monitor hazards and keep records of workplace injuries and illnesses.

Examples of OSHA standards include requirements to provide fall protection, prevent trenching cave-ins, prevent some infectious diseases, assure that workers

safely enter confined spaces, prevent exposure to harmful substances like asbestos, put guards on machines, provide respirators or other safety equipment, and provide training for certain dangerous jobs.

Employers must also comply with the General Duty Clause of the OSH Act, which requires employers to keep their workplace free of serious recognized hazards. This clause is generally cited when no OSHA standard applies to the hazard. inspection is conducted.

Where there is no union or employee representative the

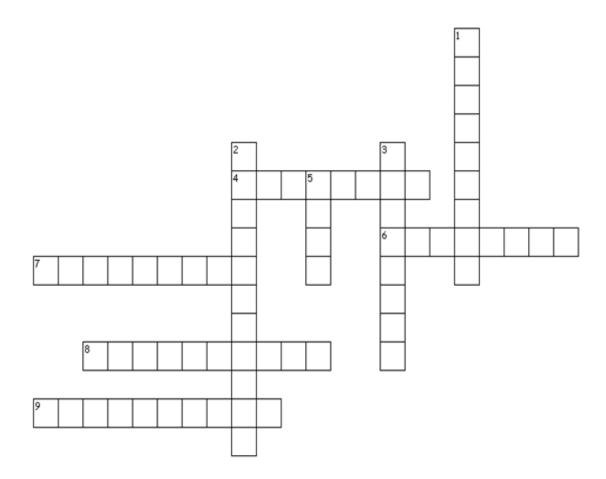
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April 2017

HANDOUT #4

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Topic 4: Workers Rights Practice Worksheet Crossword Puzzle



OSHA Provides Workers the Right to:

Across	
	4. Hazard and medical records
	6. Information about and illnesses in your workplace
	7. A safe and workplace
	8. Complain or request hazard from employer
	9. Participate in an OSHA
Down	
	1. Know aboutconditions
	2. Be free from for exercising safety and health rights
	3 as provided in the OSHA standards
	5. File a complaint with

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Appendix C: OPTIONAL Exercise Scenarios

Construction Industry Scenario

You are a construction worker for ABC, Inc., 1000 Sweet Road, Anytown, USA, 40001. ABC does non-residential plumbing, heating and air conditioning work. You have worked for ABC for 3 years. You, along with 7 co-workers, have been installing sheet metal ductwork in the lower level of the Anytown Shopping Mall, which is undergoing renovation, for the past few weeks. The site is located in the Northwest quadrant, in the basement of the anchor store, located at 555 Times Drive, in Anytown. One of your coworkers has been operating a 65-horsepower concrete cutting saw in the same area. The saw is being run in the propane mode. You and several coworkers get headaches from the fumes whenever the saw is used and have told your supervisor about the problem. The supervisor said that nothing could be done, because the General Contractor, CAB Management, has control over the site and this job will be complete in another month. You did some research and found out that exposure to propane in a confined, unventilated area can cause headaches, dizziness, difficulty breathing and unconsciousness. There is no ventilation or monitoring of the air in the area. After talking with coworkers, you decide to report the hazards.

OSHA FactSheet

Personal Protective Equipment

Personal protective equipment, or PPE, is designed to protect workers from serious workplace injuries or illnesses resulting from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards. Besides face shields, safety glasses, hard hats, and safety shoes, protective equipment includes a variety of devices and garments such as goggles, coveralls, gloves, vests, earplugs, and respirators.

Employer Responsibilities

OSHA's primary personal protective equipment standards are in Title 29 of the Code of Federal Regulations (CFR), Part 1910 Subpart I, and equivalent regulations in states with OSHAapproved state plans, but you can find protective equipment requirements elsewhere in the General Industry Standards. For example, 29 CFR 1910.156, OSHA's Fire Brigades Standard, has requirements for firefighting gear. In addition, 29 CFR 1926.95-106 covers the construction industry. OSHA's general personal protective equipment requirements mandate that employers conduct a hazard assessment of their workplaces to determine what hazards are present that require the use of protective equipment, provide workers with appropriate protective equipment, and require them to use and maintain it in sanitary and reliable condition.

Using personal protective equipment is often essential, but it is generally the last line of defense after engineering controls, work practices, and administrative controls. Engineering controls involve physically changing a machine or work environment. Administrative controls involve changing how or when workers do their jobs, such as scheduling work and rotating workers to reduce exposures. Work practices involve training workers how to perform tasks in ways that reduce their exposure to workplace hazards.

As an employer, you must assess your workplace to determine if hazards are present that require the use of personal protective equipment. If such hazards are present, you must select protective equipment and require workers to use it, communicate your protective equipment selection decisions to your workers, and select personal protective equipment that properly fits your workers. You must also train workers who are required to wear personal protective equipment on how to do the following:

- · Use protective equipment properly,
- Be aware of when personal protective equipment is necessary,
- Know what kind of protective equipment is necessary,
- Understand the limitations of personal protective equipment in protecting workers from injury,
- Put on, adjust, wear, and take off personal protective equipment, and
- Maintain protective equipment properly.

Protection from Head Injuries

Hard hats can protect your workers from head impact, penetration injuries, and electrical injuries such as those caused by falling or flying objects, fixed objects, or contact with electrical conductors. Also, OSHA regulations require employers to ensure that workers cover and protect long hair to prevent it from getting caught in machine parts such as belts and chains.

Protection from Foot and Leg Injuries

In addition to foot guards and safety shoes, leggings (e.g., leather, aluminized rayon, or otherappropriate material) can help prevent injuries by protecting workers from hazards such as falling or rolling objects, sharp objects, wet and slippery surfaces, molten metals, hot surfaces, and electrical hazards.

Protection from Eye and Face Injuries

Besides spectacles and goggles, personal protective equipment such as special helmets or shields, spectacles with side shields, and faceshields can protect workers from the hazards of flying fragments, large chips, hot sparks,

optical radiation, splashes from molten metals, as well as objects, particles, sand, dirt, mists, dusts, and glare.

Protection from Hearing Loss

Wearing earplugs or earmuffs can help prevent damage to hearing. Exposure to high noise levels can cause irreversible hearing loss or impairment as well as physical and psychological stress. Earplugs made from foam, waxed cotton, or fiberglass wool are self-forming and usually fit well. A professional should fit your workers individually for molded or preformed earplugs. Clean earplugs regularly, and replace those you cannot clean.

Protection from Hand Injuries

Workers exposed to harmful substances through skin absorption, severe cuts or lacerations, severe abrasions, chemical burns, thermal burns, and harmful temperature extremes will benefit from hand protection.

Protection from Body Injury

In some cases workers must shield most or all of their bodies against hazards in the work-place, such as exposure to heat and radiation as well as hot metals, scalding liquids, body fluids, hazardous materials or waste, and other hazards. In addition to fire-retardant wool and fireretardant cotton, materials used in whole-body personal protective equipment include rubber, leather, synthetics, and plastic.

When to Wear Respiratory Protection

When engineering controls are not feasible, workers must use appropriate respirators to protect against adverse health effects caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors. Respirators generally cover the nose and mouth or the entire face or head and help prevent illness and injury. A proper fit is essential, however, for respirators to be effective. Required respirators must be NIOSH-approved and medical evaluation and training must be provided before use.

Additional Information

For additional information concerning protective equipment view the publication, Assessing the Need for Personal Protective Equipment: A Guide for Small Business Employers (OSHA 3151) available on OSHA's web site at www. osha. gov. For more information about personal protective equipment in the construction industry, visit www.osha-slc.gov/SLTC/constructionppe/ index.html.

Contacting OSHA

To report an emergency, file a complaint or seek OSHA advice, assistance or products, call (800) 321-OSHA or contact your nearest OSHA regional or area office.

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For more complete information:



U.S. Department of Labor www.osha.gov (800) 321-OSHA

Hoja de Datos OSHA®

Equipo de Protección Personal

El equipo de protección personal (PPE – Personal Protection Equipment) está diseñado para proteger a los empleados en el lugar de trabajo de lesiones o enfermedades serias que puedan resultar del contacto con peligros químicos, radiológicos, físicos, eléctricos, mecánicos u otros. Además de caretas, gafas de seguridad, cascos y zapatos de seguridad, el equipo de protección personal incluye una variedad de dispositivos y ropa tales como gafas protectoras, overoles, quantes, chalecos, tapones para oídos y equipo respiratorio.

Responsabilidades del Empleador

Las normas principales del equipo de protección personal de OSHA se encuentran en Title 29 of the Code of Federal Regulations (CFR) (Título 29 del Código de Reglamentos Federales), Parte 1910, subpárrafo 1, y en reglamentos equivalentes en los estados que cuentan con planes estatales aprobados por OSHA. No obstante, puede encontrar los requisitos dl equipo de protección personal en otros textos como en las Normas de la Industria General. Por ejemplo, 29 CFR 1910.156, la Norma de Brigadas de bomberos, establece requisitos para el equipo de bomberos. Además, 29 CFR 1926.95 cubre la industria de la construcción. Los requisitos generales dl equipo de protección personal de OSHA exigen que los empleadores lleven a cabo una evaluación de los riesgos en sus lugares de trabajo para identificar los riesgos que existen y que requieren el uso del equipo de protección personal, para que brinden el equipo de protección personal adecuado a los trabajadores y que exijan que estos mismos hagan uso del equipo además de mantenerlo en condiciones sanitarias y fiables.

El uso del equipo de protección personal suele ser esencial, pero es generalmente la última alternativa luego de los controles de ingeniería, de las prácticas laborales y de los controles administrativos. Los controles de ingeniería implican la modificación física de una máquina o del ambiente de trabajo. Los controles administrativos implican modificar cómo y cuando los trabajadores realizan sus tareas, tales cómo los horarios de trabajo y la rotación de trabajadores con el fin de reducir la exposición. Las prácticas laborales implican la capacitación de los trabajadores en la forma de realizar tareas quereducen los peligros de exposición en el lugar de trabajo.

Como empleador, usted debe evaluar su lugar de trabajo con el fin de determinar si existen riesgos que requieran el uso del equipo de protección personal. Si existen estos riesgos, usted debe seleccionar el equipo de protección personal y exigir que lo utilicen sus trabajadores, comunicar sus selecciones del equipo de protección personal a sus trabajadores y seleccionar el equipo de protección personal que se ajuste a la talla de sus trabajadores. Debe también capacitar a los empleados que tienen que hacer uso del equipo de protección personal para que sepan como hacer lo siguiente:

- Usar adecuadamente el equipo de protección personal.
- Saber cuándo es necesario el equipo de protección personal.
- Conocer qué tipo del equipo de protección personal es necesario.
- Conocer las limitaciones del equipo de protección personal para proteger de lesiones a los empleados.
- Ponerse, ajustarse, usar y quitarse el equipo de protección personal.
- Mantener el equipo de protección personal en buen estado.

Protección de Lesiones Cerebrales

Los cascos pueden proteger a sus empleados de impactos al cráneo, de heridas profundas y de choques eléctricos como los que causan los objetos que se caen o flotan en el aire, los objetos fijos o el contacto con conductores de electricidad. Asimismo, el reglamento de OSHA requiere que los empleadores se cercioren de que los trabajadores cubren y protegen el cabello largo con el fin de evitar que se agarre en piezas de maquinaria como las correas y las cadenas.

Protección de Lesiones en los Pies y los Piernas

Además del equipo de protección de pies y del zapato de seguridad, las polainas (de cuero, de rayón aluminizado u otro material adecuado, por ejemplo) pueden ayudar a evitar lesiones y proteger a los trabajadores de objetos que se caen o que ruedan, de objetos afilados, de superficies mojadas o resbalosas, de metales fundidos, de superficies calientes y de peligros eléctricos.

Protección de Lesiones a los Ojos y a la Cara

Además de las gafas de seguridad y las gafas protectoras de goma, el equipo de protección personal tales como los cascos o protectores especiales, las gafas con Departamento de Trabajo de los EE.UU. Administración de Seguridad y Salud Ocupacional 2002 protectores laterales y las caretas pueden ayudar a proteger a los trabajadores de ser impactados por fragmentos, las astillas de gran tamaño, las chispas calientes, la radiación óptica, las salpicaduras de metales fundidos, así como los objetos, las partículas, la arena, la suciedad, los vapores, el polvo y los resplandores.

Protección de Pérdida Auditiva

Utilizar tapones para oídos u orejeras puede ayudar a proteger los oídos. La exposición a altos niveles de ruido puede causar pérdidas o discapacidades auditivas irreversibles así como estrés físico o psicológico. Los tapones para oídos de material alveolar, de algodón encerado o de lana de fibra de vidrio son fáciles de ajustar correctamente. Tapones de oídos moldeados o preformados deben ser adecuados a los trabajadores que van a utilizarlos por un profesional. Limpie los tapones con regularidad y reemplace los que no pueda limpiar.

Protección de Lesiones de los Manos

Los trabajadores expuestos a sustancias nocivas mediante absorción por la piel, a laceraciones o cortes profundos, abrasiones serias, quemaduras químicas, quemaduras térmicas y extremos de temperatura nocivos deben proteger sus manos.

Protección De Lesiones a Todo el Cuerpo

En ciertos casos los trabajadores deben proteger la mayor parte de, o todo, su cuerpo contra los peligros en el lugar de trabajo, como en el caso de exposición al calor y a la radiación así como contra metales calientes, líquidos hirvientes, líquidos orgánicos, materiales o desechos peligrosos, entre otros peligros. Además de los materiales de algodón y de lana que retardan el fuego, materiales utilizados en el equipo de protección personal de cuerpo entero incluyen el hule, el cuero, los sintéticos y el plástico.

Cuándo Usar la Protección Respiratoria

Cuando los controles de ingeniería no son factibles, los trabajadores deben utilizar equipo respiratorio para protegerse contra los efectos nocivos a la salud causados al respirar aire contaminado por polvos, brumas, vapores, gases, humos, salpicaduras o emanaciones perjudiciales. Generalmente, el equipo respiratorio tapa la nariz y la boca, o la cara o cabeza entera y ayuda a evitar lesiones o enfermedades. No obstante, un ajuste adecuado es esencial para que sea eficaz el equipo respiratorio. Todo empleado al que se le requiera hacer uso de equipos respiratorios debe primero someterse a un examen médico.

Información Adicional

Puede encontrar más información sobre el equipo de protección personal, incluyendo el texto completo de las normas de OSHA, en el Website de OSHA www.osha.gov. Además, Publicaciones que explican en mayor detalle el tema de PPE pueden obtenerse a través de OSHA. Personal Protective Equipment— OSHA 3077 (Equipo de Protección Personal) Se hallan disponibles en el Website de OSHA. Para más información sobre el equipo de protección personal en la industria de la construcción, visíte www.oshaslc.gov/SLTC/constructionppe/index.html.

Para Ponerse en Contacto de OSHA

Para presentar una queja por teléfono, comunicar una emergencia u obtener consejos, ayuda o productos de OSHA, contacte a su oficina de OSHA más cercana listada bajo "U.S. Department of Labor" en su guía telefónica o llame libre de cargos marcando el (800) 321-OSHA (6742). El número de teleprinter (TTY) es (877) 889-5627. Para presentar una queja en línea u obtener más información sobre los programas federales y estatales de OSHA, visite el Website de OSHA www.osha.gov.

Esta es una hoja de una serie de hojas informativas de datos enfocada en los programas, políticas o normas de OSHA. No impone ningún nuevo requisito de cumplimiento. Para una lista abarcadora de requisitos de cumplimiento de las normas o reglamentos de OSHA, refiérase al Título 29 del Código de Reglamentos Federales. Esta información estará a disponibilidad de las personas sensorialmente incapacitadas, a solicitud. El teléfono de voz es (202) 693-1999; el número del teléfono de texto (TTY) es (877) 889-5627.

Para información más completa:



Departamento del Trabajo de Estados Unidos www.osha.gov (800) 321-OSHA

10-hour Construction Outreach

Name:		Date:
	Knowledge Check: PPE	

- 1. Who is responsible for providing PPE?
 - a. The employer
 - b. The employee
 - c. OSHA
 - d. Workers' Compensation
- 2. Common causes of foot injuries include: crushing, penetration, molten metal, chemicals, slippery surfaces, and sharp objects.
 - a. True
 - b. False
- 3. Safety controls must meet the following order of priority:
 - a. Substitution, PPE, workaround, and administrative
 - b. Workaround, stop work, PPE, and engineering
 - c. Stop work, PPE, engineering, and substitution
 - d. Substitution, engineering, administrative, and PPE
- 4. Which type of hard hat would provide the most protection from electrical hazards?
 - a. Class A
 - b. Class C
 - c. Class E
 - d. Class G
- 5. The need for hearing protection is triggered at which decibel level?
 - a. When it exceeds 80 decibels
 - b. When it exceeds 90 decibels
 - c. When it exceeds 100 decibels
 - d. When it exceeds 110 decibels

- 6. Who is responsible for providing specialized work footwear?
 - a. The employer
 - b. The employee
 - c. OSHA
 - d. Insurance companies
- 7. Which of the following is considered approved eye protection?
 - a. Sun glasses
 - b. Prescription glasses
 - c. Reading glasses
 - d. Glasses meeting ANSI standard Z87
- 8. Which of the following is not considered PPE?
 - a. Rubber gloves
 - b. Glasses meeting ANSI Z87
 - c. Sports shoes
 - d. Hearing muffs



Accident Type:	Caught in or
	Between
Weather Conditions:	Clear
Type of Company:	Street Paving
	Contractor
Size of Work Crew:	1
Union or Non-union:	Non-Union
Worksite Inspections Conducted	Yes
(1926.20(b)(2)):	163
Designated Competent Person on Site	Yes
(1926.20(b)(2)):	
Employer Safety Health Program:	Yes
Training and Education for Employees	Yes
(1926.21(b)):	
Craft of Deceased Employee(s):	Ironworker
Age & Sex:	22-Male
Time on the Job:	1 day
Time on Task:	3 Hours

BRIEF DESCRIPTION OF ACCIDENT

A laborer was steam cleaning a scraper. The bowl apron had been left in the raised position. The hydraulically controlled apron had not been blocked to prevent it from accidently falling. The apron did fall unexpectedly and the employee was caught between the apron and the cutting edge of the scraper bowl. The apron weighted approximately 2500 pounds.

ACCIDENT PREVENTION RECOMMENDATIONS				



	6.11 6.01 .	1
Accident Type:	Collapse of Shoring	
Weather Conditions:	Clear	
Type of Operation:	Boring and Pipe Jacking	
77	Excavation	
Size of Work Crew:	4	
Collective Bargaining	Yes	
Competent Safety Monitor on	Yes	
Site:		/
Safety and Health Program in	No	A A DECEMBER
Effect:		10 Day
Was the Worksite Inspected	Yes	The state of the s
Regularly:	1 es	THE CONTRACTOR OF THE CONTRACT
Training and Education	Yes	A THE SAME OF THE
Provided:		The May
Employee Job Title:	Pipe Welder	182
Age & Sex:	62-Male	•
Experience at this Type of	18 years	
Work:	10 / Cui 3	
Time on Project:	21/2	

BRIEF DESCRIPTION OF ACCIDENT

Four employees were boring a hole and pushing a 20-inch pipe casing under a road. The employees were in an excavation approximately 9 feet wide, 32 feet long and 7 feet deep. Steel plates $8' \times 15' \times 34''$, being used as shoring, were placed vertically against the north and south walls of the excavation at approximately a 30 degree angle. There were no horizontal braces between the steel plates. The steel plate on the south wall tipped over, pinning an employee (who was killed) between the steel plate and the pipe casing. At the time the plate tipped over, a backhoe was being operated adjacent to the excavation.

ACCIDENT PREVENTION RECOMMENDATIONS			



Accident Type:	Crushed by Dump Truck Body	
Weather Conditions:	Clear, Warm	
Type of Operation:	General Contractor	
Size of Work Crew:	N/A	
Collective Bargaining	Yes	
Competent Safety Monitor on Site:	Yes	
Safety and Health Program in Effect:	Yes	
Was the Worksite Inspected Regularly:	Yes	
Training and Education Provided:	No	4 5. A.F.
Employee Job Title:	Truck Driver	3
Age & Sex:	25-Male	
Experience at this Type of Work:	2 Months	
Time on Project:	2 Weeks at Site	

BRIEF DESCRIPTION OF ACCIDENT

A truck driver was crushed and killed between the frame and dump box of a dump truck. Apparently a safety "over-travel" cable attached between the truck frame and the dump box malfunctioned by catching on a protruding nut of an air brake cylinder. This prevented the dump box from being fully raised, halting its progress at a point where about 20 inches of space remained between it and the truck frame. The employee, apparently assuming that releasing the cable would allow the dump box to continue up-ward, reached between the rear dual wheels and over the frame, and disengaged the cable with his right hand. The dump box then dropped suddenly, crushing his head. The employee had not received training or instruction in proper operating procedures and was not made aware of all potential hazards in his work.

ACCIDENT PREVENTION RECOMMENDATIONS					
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Accident Type:	Caught by Rotating Part	(2)
Weather Conditions:	Clear	
Type of Operation:	Telephone Line Installation	60
Size of Work Crew:	3	1
Collective Bargaining	No	== (1)
Competent Safety Monitor on Site:	Yes - Victim	13 NOV
Safety and Health Program in Effect:	Yes	The state of the s
Was the Worksite Inspected Regularly:	Yes	6
Training and Education Provided:	No	1
Employee Job Title:	Boring Machine Operator	
Age & Sex:	56-Male	
Experience at this Type of Work:	10 Years	
Time on Project:	5 Days	



BRIEF DESCRIPTION OF ACCIDENT

A three-man crew was installing an underground telephone cable in a residential area. They had just completed a bore hole under a driveway using a horizontal boring machine. The bore hole rod had been removed from the hole. While the rod was still rotating, the operator straddled it and stooped over to pick it up. His trouser leg became entangled in the rotating rod and he was flipped over. He struck tools and materials, sustaining fatal injuries.

ACCIDENT PREVENTION RECOMMENDATIONS			



Accident Type:	Cave-in	
Weather Conditions:	Warm, Clear	201
Type of Operation:	Excavator	
Size of Work Crew:	2	Par Maria Comment
Collective Bargaining	No	
Competent Safety Monitor on Site:	Yes	111 8 (B) 100 A
Safety and Health Program in Effect:	No	
Was the Worksite Inspected Regularly:	Yes	
Training and Education Provided:	No	
Employee Job Title:	Laborer	SINTE I IV
Age & Sex:	37-Male	
Experience at this Type of Work:	3 Years	11/1/25/12/
Time on Project:	2 Days	了在一个人。

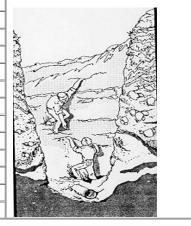
BRIEF DESCRIPTION OF ACCIDENT

An employee was installing a small diameter pipe in a trench 3 feet wide, 12-15 feet deep and 90 feet long. The trench was not shored or sloped nor was there a box or shield to protect the employee. Further, there was evidence of a previous cave-in. The employee apparently reentered the trench, and a second cave-in occurred, burying him. He was found face down m the bottom of the trench.

ACCIDENT PREVENTION RECOMMENDATIONS				



Accident Type:	Cave-in
Weather Conditions:	Cloudy and Dry
Type of Operation:	Trenching and excavation
Size of Work Crew:	4
Collective Bargaining	No
Competent Safety Monitor on Site:	Yes
Safety and Health Program in Effect:	Yes
Was the Worksite Inspected Regularly:	Yes
Training and Education Provided:	No
Employee Job Title:	Pipe Layer
Age & Sex:	32-Male
Experience at this Type of Work:	9 Months
Time on Project:	2 Weeks



BRIEF DESCRIPTION OF ACCIDENT

Employees were laying sewer pipe in a trench 15 feet deep. The sides of the trench, 4 feet wide at the bottom and 15 feet wide at the top, were not shored or protected to prevent a cave-in. Soil in the lower portion of the trench was mostly sand and gravel and the upper portion was clay and loam*. The trench was not protected from vibration caused by heavy vehicle traffic on the road nearby. To leave the trench, employees had to exit by climbing over the backfill. As they attempted to leave the trench, there was a small cave-in covering one employee to his ankles. When the other employee went to his co-worker's aid another cave-in occurred covering him to his waist. The first employee died of a rupture of the right ventricle of his heart at the scene of the cave-in. The other employee suffered a hip injury.

ACCIDENT PREVENTION RECOMMENDATIONS					

^{*}Clay and loam are terms not used any longer; Soil condition is now described using A, B, or C



Accident Type:	Caught in or between	
Weather Conditions:	Clear, dry	
Type of Operation:	Highway, street construction	
Size of Work Crew:	4	
Collective Bargaining	Yes	The way of
Competent Safety Monitor on Site:	Yes	
Safety and Health Program in Effect:	Yes	
Was the Worksite Inspected Regularly:	Yes	
Training and Education Provided:	No	
Employee Job Title:	Equipment Operator	
Age & Sex:	38-Male	
Experience at this Type of Work:	11 Months	
Time on Project:	1 Hour	

BRIEF DESCRIPTION OF ACCIDENT

An employee was driving a front-end loader up a dirt ramp onto a lowboy trailer. The tractor tread began to slide off the trailer. As the tractor began to tip, the operator, who was not wearing a seat belt, jumped from the cab. As he hit the ground, the tractor's rollover protective structure fell on top of him, crushing him.

ACCIDENT PREVENTION RECOMMENDATIONS				



Accident Type:	Caught between Backhoe Superstructure and Concrete Wall	
Weather Conditions:	Clear/Cool	
Type of Operation:	Excavation Contractor	a. 1
Size of Work Crew:	9	The second second
Collective Bargaining	Yes	Sir-Lin
Competent Safety Monitor on Site:	No	
Safety and Health Program in Effect:	No	
Was the Worksite Inspected Regularly:	No	THE STATE OF THE S
Training and Education Provided:	No	4 0 0 70
Employee Job Title:	Truck Driver	
Age & Sex:	34-Male	
Experience at this Type of Work:	Unknown	
Time on Project:	4 Days	
_		

Picture used may not be representative of a backhoe as indicated in the report

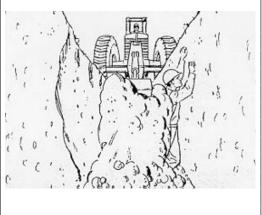
BRIEF DESCRIPTION OF ACCIDENT

ACCIDENT PREVENTION RECOMMENDATIONS

The contractor was operating a backhoe when an employee attempted to walk between the swinging superstructure of the backhoe and a concrete wall. As the employee approached the backhoe from the operator's blind side, the superstructure hit the victim crushing him against the wall.



Accident Type:	Trench Collapse
Weather Conditions:	Fair
Type of Operation:	Excavation Work
Size of Work Crew:	2
Competent Safety Monitor on Site:	No
Safety and Health Program in Effect:	No
Was the Worksite Inspected Regularly:	No
Training and Education Provided:	Inadequate
Employee Job Title:	Laborer
Age & Sex:	51-Male
Experience at this Type of Work:	6 Months
Time on Project:	2 Days



BRIEF DESCRIPTION OF ACCIDENT

An employee was working in a trench 4 feet wide and 7 feet deep. About 30 feet away a backhoe was straddling the trench when the backhoe operator noticed a large chunk of dirt falling from the side wall behind the worker in the trench, he called out a warning. Before the worker could climb out, 6 to 8 feet of the trench wall had collapsed on him and covered his body up to his neck. He suffocated before the backhoe operator could dig him out. There were no exit ladders. No sloping, shoring or other protective system had been used in the trench.

ACCIDENT PREVENTION RECOMMENDATIONS					



Accident Type:	Struck by/Caught between
Weather Conditions:	Clear/warm
Type of Operation:	Stacking Structural Steel
Size of Work Crew:	6
Competent Person on Site:	No
Safety and Health Program in Effect:	No
Was the Worksite Inspected Regularly by the Employer:	No
Training and Education Provided:	No
Employee Job Title:	Laborer
Age & Sex:	28-Male
Experience at this Type of Work:	4 Years
Time on Project:	5 Weeks



BRIEF DESCRIPTION OF ACCIDENT

Two laborers and a fork lift driver were staking 40-foot-long I-beams in preparation for structural steel erection. One laborer was placing a 2 X 4 inch wooden spacer on the last I-beam on the stack. The fork lift driver drove up to the stack with another I-beam that was not secured or blocked on the fork lift tines. The I-beam fell from the tines, pining the laborer between the fallen I beam and the stack of beams.

ACCIDENT PREVENTION RECOMMENDATIONS				

OSHA FactSheet

Trenching and Excavation Safety

Two workers are killed every month in trench collapses. The employer must provide a workplace free of recognized hazards that may cause serious injury or death. The employer must comply with the trenching and excavation requirements of 29 CFR 1926.651 and 1926.652 or comparable OSHA-approved state plan requirements.

An excavation is any man-made cut, cavity, trench, or depression in an earth surface formed by earth removal.

Trench (Trench excavation) means a narrow excavation (in relation to its length) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet (4.6 meters).

Dangers of Trenching and Excavation

Cave-ins pose the greatest risk and are much more likely than other excavation-related accidents to result in worker fatalities. Other potential hazards include falls, falling loads, hazardous atmospheres, and incidents involving mobile equipment. One cubic yard of soil can weigh as much as a car. An unprotected trench is an early grave. Do not enter an unprotected trench.

Trench Safety Measures

Trenches 5 feet (1.5 meters) deep or greater require a protective system unless the excavation is made entirely in stable rock. If less than 5 feet deep, a competent person may determine that a protective system is not required.

Trenches 20 feet (6.1 meters) deep or greater require that the protective system be designed by a registered professional engineer or be based on tabulated data prepared and/or approved by a registered professional engineer in accordance with 1926.652(b) and (c).

Competent Person

OSHA standards require that employers inspect trenches daily and as conditions change by a competent person before worker entry to ensure elimination of excavation hazards. A competent person is an individual who is capable of identifying existing and predictable hazards or working conditions that are hazardous, unsanitary, or dangerous to workers, soil types and protective systems required, and who is authorized to take prompt corrective measures to eliminate these hazards and conditions.

Access and Egress

OSHA standards require safe access and egress to all excavations, including ladders, steps, ramps, or other safe means of exit for employees working in trench excavations 4 feet (1.22 meters) or deeper. These devices must be located within 25 feet (7.6 meters) of all workers.

General Trenching and Excavation Rules

- Keep heavy equipment away from trench edges.
- Identify other sources that might affect trench stability.
- Keep excavated soil (spoils) and other materials at least 2 feet (0.6 meters) from trench edges.
- Know where underground utilities are located before digging.
- Test for atmospheric hazards such as low oxygen, hazardous fumes and toxic gases when > 4 feet deep.
- Inspect trenches at the start of each shift.
- Inspect trenches following a rainstorm or other water intrusion.
- Do not work under suspended or raised loads and materials.
- Inspect trenches after any occurrence that could have changed conditions in the trench.
- Ensure that personnel wear high visibility or other suitable clothing when exposed to vehicular traffic.

Protective Systems

There are different types of protective systems.

Benching means a method of protecting workers from cave-ins by excavating the sides of an

excavation to form one or a series of horizontal levels or steps, usually with vertical or near-vertical surfaces between levels. *Benching cannot be done in Type C soil.*

Sloping involves cutting back the trench wall at an angle inclined away from the excavation.

Shoring requires installing aluminum hydraulic or other types of supports to prevent soil movement and cave-ins.

Shielding protects workers by using trench boxes or other types of supports to prevent soil cave-ins. Designing a protective system can

be complex because you must consider many factors: soil classification, depth of cut, water content of soil, changes caused by weather or climate, surcharge loads (e.g., spoil, other materials to be used in the trench) and other operations in the vicinity.

Additional Information

Visit OSHA's Safety and Health Topics web page on trenching and excavation at www.osha.gov/SLTC/trenchingexcavation/index.html www.osha.gov/dcsp/statestandard.html

This is one in a series of informational fact sheets highlighting OSHA programs, policies or standards. It does not impose any new compliance requirements. For a comprehensive list of compliance requirements of OSHA standards or regulations, refer to Title 29 of the Code of Federal Regulations. This information will be made available to sensory-impaired individuals upon request. The voice phone is (202) 693-1999; teletypewriter (TTY) number: (877) 889-5627.

For assistance, contact us. We can help. It's confidential.



U.S. Department of Labor www.osha.gov (800) 321-OSHA (6742)

DOC FS-3476 9/2011