

Policies & Procedures

Reporting Accidents and Injuries and Obtaining Medical Care

1. All ACCIDENTS, NEAR MISS INCIDENTS AND INJURIES MUST BE REPORTED IMMEDIATELY TO THE JOB SUPERVISOR.
 - a. Failure to report an injury immediately will result in disciplinary action, and may result in denial of your claim for compensation.
 - b. Injuries not reported prior to leaving work will not be considered job-related injuries.
2. If an injury occurs, the company policy requires that you follow the procedure below for reporting the injury and obtaining medical care.
 - a. Immediately report the injury to your supervisor, no matter how minor. If the injury requires medical care (even first aid), or if you wish to see a doctor, the company must be notified immediately. The incident may be recorded on a first aid log, and an accident report may be completed. This is not a 'mark against you', but rather a 'mark in your favor' so that we can identify and correct hazards in the workplace. You will not be penalized for reporting any injury: you WILL be penalized for FAILURE to report an injury.
 - b. If the injury requires medical care (beyond first aid) or if you request to see a doctor, the necessary forms will be completed and you will be transported to an approved medical facility. **Under no circumstances are you to seek medical care on your own.** If you do not follow this procedure, and do seek medical care on your own, the company will not be responsible for any cost, and your claim to Workers' Compensation will be denied.
 - c. You will be required to submit to a drug test during the initial medical examination. You are required to be familiar with the company's Substance Abuse & Contraband Policy and to comply with this policy as a condition of employment.
 - d. If you feel the medical care provided was inadequate, or you are not satisfied with the evaluation of your injury, you have a right to a second medical opinion. If you desire a second opinion, you must notify the company, and arrangements will be made for this. A second opinion must be by a specialist rather than a general practitioner. You will be provided a list of company approved doctors, and an appointment will be made with the specialist you select. If you do not follow this procedure, and do seek additional medical care on your own, you will be responsible for the cost.

- e. If you report an injury but do not request medical care, and the injury begins to give you trouble after work hours, you have two choices:
 - 1. Wait until the following workday, report to work, and request to see a doctor. You will immediately be taken to obtain medical care.
 - 2. Call the company for assistance.

Under no circumstances are you to seek medical care on your own. If you do not follow this procedure, and seek medical care on your own, the company will not be responsible for any cost.

Substance Abuse & Contraband Policy

1. Policy Statement

We at the company recognize that our most valuable resource is our people. We also recognize that substance abuse in the work place is a serious problem. In order to protect our people, our physical resources, and others who may enter our workplace, the company has established a ZERO TOLERANCE POLICY regarding substance abuse and contraband materials in the workplace.

We will make every possible effort to discourage substance abuse and will establish procedures and rules designed to deter substance abuse in the workplace. Each employee will be informed of this policy, and of the rules and procedures of the company, and will be expected to comply with the rules and follow the procedures. Our ZERO TOLERANCE POLICY means ANY violation of the policy, rules or procedures shall result in IMMEDIATE DISCIPLINARY ACTION.

2. Application & Scope

This policy and the associated rules and procedures apply to any person located on company property.

“Company Property” is any property under the control of the company, or where employees are engaged in work related activities. This includes parking lots, yards or any area where an employee may carry out activities associated with their work. This also includes company vehicles and equipment, vehicles and equipment rented or leased by/ for the company, or lodging provided by/ for the company during the course of business (such as overnight accommodations when an employee is traveling on company business).

“Any person” includes employees, vendors, contractors or sub-contractors, and any other person on the property in the course of doing business with the company. It also includes any guest, visitor or relative of any such person when they are on the company property.

“Contraband” includes (but is not limited to) the following:

- a. Illicit or illegal drugs.
- b. Chemicals or other materials being used or intended for use specifically to induce an altered state of consciousness (such as concentrating and inhaling fumes or vapors in order to produce a chemically altered state of mind).
- c. Alcoholic beverages or any consumable including alcohol in its contents (including non-prescription medications).
- d. Prescription drugs prescribed to someone other than the person possessing them.
- e. Prescription drugs prescribed to an employee, but not reported to supervision or management.
- f. Materials, equipment or other items commonly recognized by the Law Enforcement Community as being drug related paraphernalia.

- g. Firearms or other weaponry, EXCEPT when secured in a personal vehicle or when authorized for possession during travel for personal protection. NOTE: Weapons carried in personal vehicles must remain in place, and must not be displayed or exhibited in a threatening or harassing manner. Such weapons shall not, under any circumstances, be brought into the workplace.

3. Searches and Drug Testing

Any employee or any person on company property may at any time be subject to search or testing for the presence of contraband. By accepting employment with the company, the employees agree to search or testing at any time, as a condition of employment. Entering company property subjects any person to search or testing at the discretion of company representatives.

Testing may include any method of sampling for the presence of drugs or alcohol which is recognized as a valid procedure, and which follows an acceptable protocol for collection, testing, and chain of custody. Verification of positive testing for drugs will be done by Gas Chromatograph Mass Spectrometry (GCMS), or any alternative which current technology makes available that provides at least the same level of confidence.

Testing may include (but is not limited to) any of the following:

- a. Any person injured in the workplace or in the course of work related activities, and requiring medical treatment, SHALL be tested.
- b. Testing of any or all persons involved in an accident or near-miss
- c. Pre-employment testing
- d. Random or scheduled testing
- e. Irregularly planned or periodic testing of a sample of the workforce
- f. Testing based on reasonable assumption of need

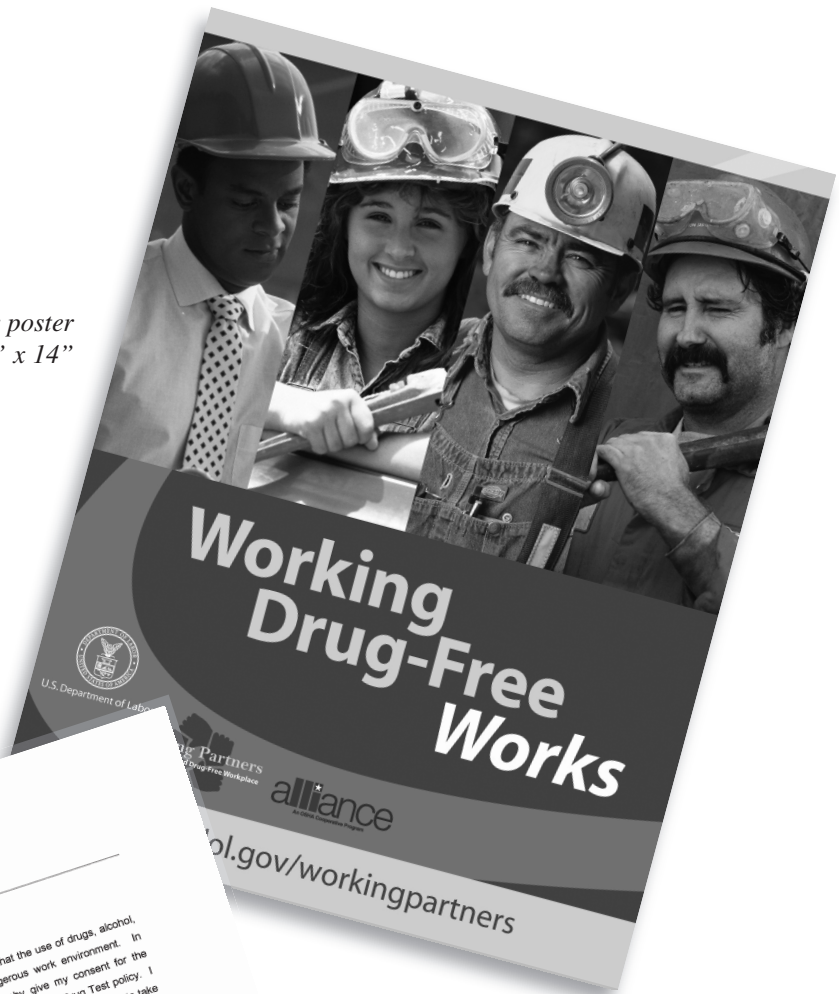
Searches may be conducted at any time to determine the presence of contraband. These searches may include (but are not limited to):

- a. Any company property, equipment, or vehicle.
- b. Personal search of any person on company property, including employees, vendors, contractors or sub-contractors, visitors.
- c. Property, equipment, containers, articles of clothing, or vehicles brought onto company property.

4. Training

- a. All employees shall be trained in the Substance Abuse & Contraband Policy, and each new employee shall be trained in the policy during the new orientation process.
- b. Each employee shall sign a form indicating understanding and intent to comply with the policy, as a condition of employment.
- c. Each employee shall also sign a consent form for drug testing and a release form authorizing release of the test information to the company. These forms will be maintained in the employee's personnel file.

Full color poster
11" x 14"



Drug Testing Consent Form

Company Name: _____

I, a employee/prospective employee of the Company, understand that the use of drugs, alcohol, and other controlled substances by employees creates a dangerous work environment. In consideration for my desire for a safe work environment, I hereby give my consent for the Company to conduct the drug tests it considers necessary as outlined in its Drug Test policy. I understand that this drug test is a condition for employment. I hereby allow the Company to take the necessary specimens from me to test for any controlled substance, and I authorize the laboratory or medical personnel retained by the Company for these tests to release the results to the Company for whatever use the Company deems appropriate. Further, I release the laboratory or medical personnel conducting the drug test, the Company, and the Company's employees, directors, officers, and successors from any liabilities, claims, and causes of action, known or unknown, contingent or fixed, that may result from this drug test. I agree not to file any lawsuit or other action to assert a claim.

I have read and understood this agreement, and I sign this without any coercion or duress by any individual or institution.

Print Employee Name

Employee Signature

Date: _____

LICA Safety Form - 0008 (9-07)

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Sample
Drug Testing
Consent Form

- d. Signs and / or posters describing the Substance Abuse & Contraband Policy shall be prominently posted where visitors, vendors and contractors can see them. Non-employees that regularly enter company property shall be provided with a copy of the policy, or summary of the policy.
- e. At least once a year, the Substance Abuse & Contraband Policy shall be included as a topic of regular safety meetings. Every company employee will sign a statement that they have reviewed the policy, understand it, and intend to comply. Any employee not in attendance shall be provided the information; shall review the information; and shall complete the signature sheet.
- f. Any revision of this policy shall be documented, and all employees shall be notified prior to implementation of the revision. During the annual review of the policy, particular note will be made of any revisions within the last year.

5. Rules of Conduct Regarding Substance Abuse & Contraband

These rules apply to any person on company property. Employees understand that compliance with these rules is a condition of employment. Any visitor to the company property is subject to the company policy, and specifically to these rules of conduct.

A member of management must approve any exception or exemption to any of these rules, in writing. Typically, this exception or exemption would be approved in advance.

- a. The solicitation, possession, sale, or use of alcohol, illicit or illegal drugs, or contraband is strictly prohibited on company property or while engaged in job related activities. This includes the abuse of chemicals or other materials for purposes of inducing an altered state of consciousness.
- b. The use of alcohol, illicit or illegal drugs, or other chemical abuse is prohibited when the residual effect of that use extends to the time an employee or other person enters the company property or begins work related activities.
- c. No one may possess or consume a prescription medication that has not been prescribed specifically for their personal use.
- d. Employees who are taking prescription medication must take the following steps:
 - 1. The medication must be in the original, labeled container.
 - 2. The employee must notify the immediate supervisor of the use of prescription medication immediately upon arrival at work. The supervisor will relay this information to the safety representative, who will assure that the medication will not adversely influence the ability of the employee to perform normal work activities.
 - 3. The employee will not begin work until this has been established. Employees taking medication which may impair their ability to perform their normal duties may be required to refrain from work, or may be assigned other duties, until they are fully capable of safely returning to work.

- e. Any employee who becomes aware that another person is not complying with any of the policies, rules or procedures regarding Substance Abuse & Contraband shall immediately notify a supervisor.
- f. Any employee who believes another person on company property is in possession of, is using, or is under the influence of a substance in violation of this policy, shall immediately report this to a supervisor.
- g. Employees who consume prescription or non-prescription medications, especially cough medications and elixirs containing alcohol, shall not take more than the recommended dose described on the label.
- h. Firearms and other weapons may not be brought into the workplace or onto company property.
 - 1. This prohibition will not be construed or applied so as to restrict an individual from carrying a weapon in their personal vehicle. However, that weapon must remain in the vehicle, and must not be brandished, displayed or exhibited in a dangerous, threatening or harassing manner. The weapon should not be handled at all while on company property or during job related activities.
 - 2. This prohibition will not be construed or applied so as to restrict an individual from carrying or normal use of any knife or tool necessary to their work, or the possession of a pocketknife or penknife typically carried for everyday use. In the event of any question, a supervisor or member of management will determine suitability. No tool or knife shall be used, brandished, displayed or exhibited in a dangerous, threatening or harassing manner.

6. Disciplinary Action

The following rules of disciplinary action will be followed without regard to job status, position in the company organization, or length of employment.

Most instances of drug abuse constitute a crime under state law. In keeping with the company's ZERO TOLERANCE POLICY, any violation of this policy which constitutes or involves criminal activity, or which may involve criminal activity, will be reported to the appropriate Law Enforcement Agency, and company representatives will cooperate as necessary to assist their investigation. This shall include (but is not limited to) releasing drug test results, copies of reports, or results of searches.

- a. Any employee using or under the influence of alcohol, drugs, controlled substances or chemicals shall immediately be suspended without pay. Upon confirmation by GCMS or comparable means, the employee shall be terminated.

Any non-employee using or under the influence of alcohol, drugs, controlled substances or chemicals shall immediately be removed from the property and shall not be allowed to return for any reason. If the person is employed by a company doing business with the company, that company shall be notified in writing of the incident within two workdays, and informed of the company's Substance Abuse & Contraband ZERO TOLERANCE POLICY. This prohibition shall continue for one year. A second incident by any employee of the same company shall result in termination of any business activity by the company on the company property.

- b. Any employee in possession of contraband on company property, which does not involve criminal activity, shall immediately be suspended for five working days, without pay. A second incident within one year shall result in immediate termination.

Any non-employee in possession of contraband on company property, which does not involve criminal activity, shall immediately be removed from the property and shall not be allowed to return for any reason. If the person is employed by a company doing business with the company, that company shall be notified in writing of the incident within two workdays, and informed of the company's Substance Abuse & Contraband ZERO TOLERANCE POLICY. A second incident by an employee of the same company shall result in termination of any business activity by the company on the company property.

- c. Any employee in possession of contraband on company property, which involves criminal activity, shall immediately be terminated, and turned over to the appropriate Law Enforcement Agency.

Any non-employee in possession contraband on company property, which involves criminal activity, shall immediately be removed from the property and turned over to the appropriate Law Enforcement Agency. If the person is employed by a company doing business with the company, that company shall be notified in writing of the incident within two workdays, and informed of the company's Substance Abuse & Contraband ZERO TOLERANCE POLICY. A second incident by an employee of the same company shall result in termination of any business activity by the company on the company property.

- d. Any employee or non-employee who knowingly allows another person to violate any part of this policy, and fails to report such a violation to the immediate supervisor, shall be subject to the same disciplinary action as the person who violates the policy.
- e. Any employee who refuses to submit to a drug or alcohol test, or who refuses to allow a search of person, property or vehicle shall immediately be terminated for failure to comply with mandatory company policy. Any non-employee who refuses to submit to a drug or alcohol test, or who refuses to allow a search of person, property or vehicle shall immediately be removed from company property and shall not be allowed to return for any

reason. If the person is employed by a company doing business with the company, that company shall be notified in writing of the incident within two workdays, and informed of the company's Substance Abuse & Contraband ZERO TOLERANCE POLICY. A second incident by any employee of the same company shall result in termination of any business activity by that company on the company property.

- f. Any employee who violates any other part of this Policy shall be subject to suspension without pay, for a period of two to five workdays, as determined by a member of management the safety director and the immediate supervisor. A second offense within one year shall result in a suspension of thirty days. A third offense within one year of the second offense shall result in termination

Any non-employee who violates any other part of this Policy shall be subject to removal from property and may be banned from return, dependent upon the seriousness of the offense. If the person is employed by a company doing business with the company, that company shall be notified in writing of the incident within two workdays, and informed of the company Substance Abuse & Contraband ZERO TOLERANCE POLICY. A second incident by any employee of the same company may result in termination of any business activity by that company on the company property.

7. Guidelines for Implementation

(These are guidelines rather than specific procedures. Each employer should develop specific procedures and identify primary resources for implementing these procedures.)

a. Drug Testing

1. When an employee or non-employee is subject to a test for drugs and alcohol, the employee will be informed of the procedure to be followed, and the reason for the test. The employee will review the Consent for Testing and Authorization for release of test results in the personnel file, and initial and date it. (This shall not be required before testing for persons involved in an accident or injury, or if such review involves any undue delay. It should be done at the earliest convenience.)
2. A reputable and qualified individual or organization, following established protocol for testing and chain of evidence, shall do all drug, alcohol or chemical abuse testing.
3. Before an employee is terminated on the basis of a drug screen (without the presence of any other evidence), verification shall be obtained by Gas Chromatograph / Mass Spectrometer or comparable procedure. Non-employees or their companies shall have the opportunity for the same verification, at their own cost.
4. All persons shall maintain confidentiality of test results. Results shall be reported by the testing agency to a single designated company official (with an alternate company representative noted), and shall be available to no one else except the tested employee, without the permission of that employee.

EXCEPTIONS to the requirement for confidentiality: When an employee has been terminated due to a violation of this policy, that information shall be available to Law Enforcement Agencies investigating possible criminal activity, and to prospective employers that contact the company for purposes of checking references. Where an accident or injury is involved, the insurance carrier shall be provided the results of the test, and any other information necessary.

b. Detaining & Searching

1. Under no circumstance shall an employee of the company physically detain any person in the course of carrying out this policy. If an employee decides to leave the premises to avoid testing or search, they should be informed that their refusal to submit to search or test shall result in immediate termination. A non-employee under the same conditions should be informed that they will be denied any future access to company property.
2. Unless circumstances prevent, Law Enforcement Agencies should do physical searches. Under no circumstances shall any person be subject to a physical, personal search by an employee of a different sex. Same sex employees shall always conduct physical body searches, when the company representatives carry out these searches.
3. No person shall be subject to a physical body search by the company representatives without TWO WITNESSES. These witnesses will sign and date a confirmation that they were present during all phases of the search.

c. Voluntary Reporting [Note to employer: this section is optional]

1. Any employee or non-employee may come forward voluntarily to report a personal problem with substance abuse, without fear of disciplinary action. This voluntary reporting may result in changes of job assignment due to safety factors, but should not result in demotion or termination as a punitive action. The company will assist in identifying available resources, and will assist the individual to engage in a program of rehabilitation.
2. Such voluntary reporting shall not be accepted as a means of avoiding implementation or consequences of the Search or Drug Testing clauses of this policy. Voluntary reporting must be done separate from any required search or test. Once a person is selected for search or testing, voluntary reporting may not be used to avoid such activities or their consequences.
3. The company will render any assistance possible to the employee, and will make special consideration regarding job assignment, time off for rehabilitation appointments, etc. This offer of special consideration is in response to the voluntary reporting of the problem and the desire of the company to assist employees who recognize a need for help.
4. The company assumes no responsibility for the problem, or the cost of the rehabilitation, except as determined on an individual basis and as outlined by company policy.
5. The company is not obligated to any specific action or financial commitment in this regard, and all assistance offered will be weighed against the responsibility of "THE COMPANY" to provide a safe and healthful workplace for all employees, as well as to maintain productivity.

Safety Rules

1. **General:**

- a. All specific safety rules, posted signs and instructions given by your supervisor are to be obeyed.
- b. “Horseplay” or practical jokes are prohibited
- c. All accidents, injuries, illnesses, or “near misses” must be immediately reported to Supervision.
- d. Any noted unsafe acts or conditions must be reported to Supervisor.
- e. Safe work practices and procedures must be followed. When in doubt about the correct way to perform a job, check with supervision.

2. **Clothing and personal protective equipment:**

- a. Shirts are required on all jobs. Tank tops and sleeveless shirts are not permitted. Loose, dangling or ragged clothing are not permitted.
- b. Sturdy shoes or boots of leather or rubber construction must be worn at all times. ANSI safety shoes or boots are recommended and may be required for specific activities. The wearing of sneakers, canvas-covered or athletic type shoes and sandals are not permitted.
- c. ANSI-approved hard hats must be worn when there are overhead obstructions, when there is a danger of materials from overhead or when specific project rules call for them.
- d. Proper eye and face protection must be worn while grinding, chipping, buffing, and welding or when there is danger of flying particles. ANSI-approved safety glasses must be worn at all times when specific project rules call for them.
- e. Suitable gloves must be worn when handling sharp and harmful materials. Gloves should not be worn when working on or around moving or rotating equipment.
- f. Rings, loose fitting watches, watch chains or other ornamental jewelry must not be worn when working on equipment. Long hair must be kept covered while working on or around machinery.

3. **Tools and Equipment:**

- a. All portable electric tools must be properly grounded or be of the double-insulated type. GFCI’s must be used, and the removal of the ground prongs on three-pronged plugs is prohibited.
- b. Equipment, machinery or power tools must only be operated by authorized personnel. Tools and equipment must be carefully inspected before each use to be sure they are in safe operating condition. Defective tools or equipment must be reported to supervision and tagged out of service using a “Do Not Operate” tag.
- c. Extension cords must be industrial grade and should not be pulled across sharp edges or other objects which will damage the insulation. Extension cords should be disconnected at the sockets.
- d. All hand tools must be maintained in good working condition regardless of ownership, personal or company.

- e. Power-actuated tools shall be stored, inspected and maintained as per the manufacturer's instructions.
 - f. Only those personnel trained and certified will be permitted to use power-actuated tools.
 - g. Safety guards or safety interlocks on tools must not be removed, by-passed or modified.
 - h. Damaged or unsafe tools and equipment must not be used and should be tagged "DO NOT USE." Damaged or unsafe tools and equipment should be repaired or replaced.
 - i. Tools and equipment should be kept in clean secure areas where they can not be damaged, lost or stolen
4. **Materials Handling:**
- a. Throwing or dropping tools or equipment is prohibited. Use a rope and tool pouch or bucket to raise or lower tools and equipment
 - b. Stay out from under suspended loads. Do not cause or permit a load to be carried over a person who is unaware of it or cannot get clear.
 - c. Do not attempt to lift objects that are too heavy to be lifted alone; ask for help. Use mechanical equipment when possible.
 - d. Work areas must be kept clean. Good housekeeping contributes to safety in handling material, whether by hand or mechanically. Used lumber must have all nails removed or bent over before stacking.
5. **Scaffolds and Ladders:**
- a. Scaffolds must be erected on sound, rigid footing, capable of carrying the maximum intended load without settling or displacement
 - b. Scaffolds more than 10 feet above the ground must have guardrails, midrails and toe boards. All scaffold planks must be scaffold grade or equivalent. Scaffold planks must extend over their end supports not less than six inches, nor more than twelve inches, or secured from movement.
 - c. Wheels on mobile scaffolds must be chocked, locked or secured from movement while men are working on the scaffold
 - d. Tubular welded frame scaffolds must be braced by cross-bracing, or diagonal braces, or both, for securing vertical members together laterally, and cross braces must be of such length as will automatically square and align vertical members so that the erected scaffold is always plumb, square and rigid. All brace connections must be made secure.
 - e. Generally, parts and sections of tubular metal scaffolds of one manufacturer must not be used with that of another manufacturer.
 - f. An access ladder or equivalent safe access must be provided to all scaffolds.
 - g. Never climb or descend a ladder with anything in your hands. Use a hand line for tools or equipment. Face the ladder while climbing or descending the ladder.
 - h. Metal ladders must not be used where they may contact electrical conductors.
 - i. Job-made ladders must be constructed for their intended use. Cleats must be inset into side rails ½ inch, or filler blocks used. Cleats must be uniformly spaced 12 inches apart.

6. **Housekeeping:**

- a. Form and scrap lumber, and all other debris, must be kept clear from all work areas.
- b. Combustible scrap and debris must be removed from the jobsite at regular intervals.
- c. Job materials must be stored in a manner so that walkways and aisles will not be blocked.
- d. Extreme care must be taken while working in muddy or wet areas.
- e. Smoking rules must be obeyed in all work areas. Smoking is only permitted in designated areas and may be prohibited on some jobsites.
- f. Strike-anywhere matches are prohibited in any company offices, shops or jobsites.
- g. Gasoline or other flammables must be stored in approved safety cans.
- h. All internal combustion engines must not be refueled while the engine is running or when it is hot.
- i. Fire extinguishers of the proper size and type must be placed on each job. Know where the nearest fire extinguisher is located and be prepared to use it when it is safe to do so and you have been trained to use fire extinguishers.

7. **Vehicles and Motorized Equipment:**

- a. No more than three people may ride in the cab of a truck at one time. Riding in the back of a pick-up truck is prohibited
- b. All company vehicles must be maintained in accordance with the company policy.
- c. A flagman must be used when backing a truck which has an obstructed rear view, and particularly when employees are working in the area.
- d. Only authorized operators may operate mobile or mechanical equipment and the equipment must be inspected each day before use.
- e. Riding or using mechanical lifts and hoists for activities/ tasks other than their intended design is prohibited.

UTILITY DAMAGE PREVENTION

POLICY STATEMENT

The company should take special precautions by following industry practices and prepare defensive documentation that will assist the heavy equipment operators, job site foremen and employees plan and execute an accident free excavation in their daily operations.

EXCAVATIONS

The company communicates with the local One-Call Service Center and the utility owners who are not members of the one-call center. The communication should take place 48 hours to 72 hours, but no more than 10 days (or per state/federal regulations) prior to the start of the excavation with documentation of the phone call, confirmation and follow up for the project.

The excavation route should be white lined (with white spray paint), flagged, staked or a combination of these to mark the dig site before the locator arrives on the project.

The company hand digs within 18 inches or 24 inches (depending on the state/federal regulations) horizontally on either side of the marked line.

The company requests new locations to again identify the underground facilities on all excavations incurring extended time requirements of 10 days or more (depending on the state/federal regulations) and following inclement weather.

The company makes photographs and/or videos after the utility has been marked, but before the excavation begins.

CRITICAL/HIGH PRIORITY EXCAVATIONS

The company may be required to excavate on or near critical or high-priority underground facilities. Hitting the utilities during the excavation could result in death, severe injury, or extensive property damage causing major power outages to thousands of consumers. Examples could be from catastrophic explosions from high pressure gas lines or underground petroleum lines, flooding, ground collapse from water lines, power transmission facilities and/or fiber optic communication cables.

The company must request a pre-excavation meeting on-site with the facility owner and prime contractor (if any).

The company will pot hole (hand digging, use of air knives or vacuum excavation techniques) to verify utility locates or mark-outs.

The company maps the coordinates of the marked locates in relation to a stationary object(s), such as a tree, fence, building, etc.

MACHINE OPERATORS/ FOREMEN

Objectives: The operators/foremen should support the company's objective on managing an accident-free work place to mitigate injuries and damage by following your excavation and locating procedures

PREPLANNING OF EXCAVATION PROJECT

The company will notify the local one-call service center and non-member facility owners (utility companies not part of the one call facility) 48 to 72 hours (or per state/federal regulations) before the job begins. The company will not allow any excavating of any kind, mechanical or by hand, without first obtaining locates. If private lines exist, they too must be properly located. The property managers or owners of private facilities can assist prior to calling for locates.

The company must have a thorough knowledge of the jurisdictional regulations in which the dig site is located and planned for accordingly. For example, in some metropolitan areas it is unlawful for contractors to touch water valves or other utility control devices.

The company must determine if the excavation involves critical or high-priority facilities. The company should specifically ask the owner to identify these in their bid specifications, or at least discuss with owner(s) and document it.

WHAT TO DO IF A DAMAGE DOES OCCUR

The company will immediately contact the Police and Fire Department emergency services in case excavation is required.

All damages, including kinking or sheath damage, must be reported immediately to a supervisor, operator or job site foreman.

The foreman, supervisor or operator will take pictures and complete reports to help document the damage and assist in resolving any claim that may be filed.

If a water line is damaged, the employees should attempt to stop the flow of water if allowed to do so within jurisdictional regulations at the site.

If a gas or power line is damaged, it may be necessary to leave the area immediately and notify other workers in the area and facility owners.

Complete Damage Investigation Report

EMPLOYEE ACCOUNTABILITY

The company employee should be advised that failure to perform any of the following procedures may result in disciplinary action.

1. Digging without obtaining locates
2. Smoking is not permitted in, or around, the excavation in case of gas leaks
3. Excavating, including hand digging, without locates for any or all facilities including private lines
4. Report any facility damage regardless of severity
5. Failure to check paperwork or equipment before leaving the shop or main office
"Obtain and learn the laws and regulations that pertain to excavating in your state"

Land Clearing Procedures

The purpose of this section of our Safety Manual is to present some issues that equipment operators and other personnel on clearing sites should keep in mind while performing their job.

There are many different types of equipment that could possibly be used in a clearing operation. Every operator on the clearing job should be familiar with the safe operating procedures in the manufacturers operator's manual for the equipment that is being used.

Before any work takes place on the site be sure to have the site checked for underground utilities. If there are underground utilities, be sure to take care to preserve the local marks. Also make sure if you have overhead utilities, everyone is aware of their existence and location.

Everyone on the site must be provided personal protection equipment appropriate for the work they are doing. Visitors should not be allowed on a clearing site but, if they must be there, they should have the proper personal protection equipment. Chipping and grinding equipment experience a lot of vibration. At the start of each shift and each time a machine is shut down, the operator should do a walk around inspection to look for parts that may be vibrating loose.

Keep the work area neat so that personnel working on the ground have freedom of movement without tripping over limbs, vines and other debris.

There are several things to look for while trying to recognize hazardous conditions on tree takedowns:

1. Dead trees or dead limbs. Parts of dead trees can fall on equipment and personnel.
2. Trees with multiple trunks growing from the stump. When taking down a tree with multiple trunks the additional trunks may split off and fall in a direction different from the main trunk of the tree.
3. Trees with severe amount of lean. These trees are especially dangerous for a chainsaw operator. While cutting a leaning tree, part of the trunk could snap off with a tremendous amount of force in the direction of the chainsaw operator.
4. Trees with a weak crotch at the top. When taking down these trees the weak crotch may split from the main trunk and fall backwards.
5. Trees with vines. Tops of trees may be connected to other trees with vines and can cause multiple trees to be pulled down.
6. Felling of trees. Make sure the direction you are falling the tree is clear of any utility lines or dead limbs which could be sprung back at you.

These are just a few of the conditions that make land clearing a hazardous occupation and point out the need to be extra cautious on clearing sites when falling trees.

1. As the trees are put on the ground do not move them about until the chainsaw operator has completed his work. The more a tree is moved the more likely it is to have tension on the trunk or limbs.
2. Do not jumble the tree up. Chainsaw work is hazardous enough without having to climb over trees and limbs to make a cut.
3. When feeding a hand fed chipper, be aware that some chippers have an unsafe side of the feed chute. When the butt of a limb meets the chipper disc the opposite end of the limb may whip about violently. Most late model chippers have a safety bar. It will stop or reverse the in-feed wheels.
4. When feeding horizontal grinders or tub grinders, debris may be thrown out of the machine. People on the ground should stay a safe distance from these machines.
5. When moving trees around on a site carry the load low. Do not lift a load over people on the ground.
6. In some parts of the country tree preservation has become an important issue. If you are on a site that had designated save trees, you must be careful not to damage those trees. A scarred trunk or broken limbs may lead to an expensive replacement tree.

Once again, land clearing is dangerous and everyone on the site must have safety foremost on their minds.

Excavation Procedures

Introduction

The Occupational Safety and Health Administration (OSHA) issued its first Excavation and Trenching Standard in 1971 to protect workers from excavation hazards. Since then, OSHA has amended the standard several times to increase worker protection and to reduce the frequency and severity of excavation-related accidents resulting in injuries and fatalities, yet they continue to occur.

To better assist excavation firms and contractors, OSHA has completely updated the existing standard to simplify many of the existing provisions, add and clarify definitions, eliminate duplicate provisions and ambiguous language, and give employers added flexibility in providing protection for employees. The standard is effective as of March 5, 1990.

In addition, the standard provides several new appendices. One appendix provides a consistent method of soil classification. Others provide sloping and benching requirements, pictorial examples of shoring and shielding devices, timer tables, hydraulic shoring tables, and selection charts that provide a graphic summary of the requirements contained in the standard.

This booklet highlights the requirements in the updated standard for excavation and trenching operations, provides methods for protecting employees against cave-ins, and describes safe work practices for employees.

Scope and Application

OSHA's revised rule applies to all open excavations made in the earth's surface, which include trenches.

According to the OSHA construction safety and health standards, a trench is referred to as a narrow excavation made below the surface of the ground in which the depth is greater than the width not exceeding 15 feet. An excavation is any man-made cut, cavity, trench, or depression in the earth's surface formed by earth removal. This can include excavations for anything from cellars to highways.

GENERAL REQUIREMENTS:

Planning for safety

Many on-the-job accidents are a direct result of inadequate initial planning. Correcting mistakes in shoring and/or slope after work has begun slows down the operation, adds to the cost, and increases the possibility of an excavation failure. The contractor should build safety into the pre-bid planning in the same way all other pre-bid factors are considered.

It is a good idea for contractors to develop safety checklists before preparing a bid, to make certain there is adequate information about the job site and all needed items are on hand.

These checklists should incorporate elements of the relevant OSHA standards, as well as other information necessary for safe operations.

Before preparing a bid, these specific site conditions should be taken into account:

- Traffic
- Nearness of structures and their conditions
- Soil
- Surface and ground water
- The water table
- Overhead and underground utilities
- Weather

These and other conditions can be determined by job site studies, observations, test borings for soil type or conditions, and consultations with local officials and utility companies.

Before any excavation actually begins, the standard requires the employer to determine the estimated location of utility installations –sewer, telephone, fuel, electric, water lines, or any other underground installations – that may be encountered during digging. Also, before starting the excavation, the contractor must contact the utility companies or owners involved and inform them, within established or customary local response times, of the proposed work. The contractor must also ask the utility companies or owners to find the exact location of the underground installations, workers must use safe and acceptable means. If underground installations are exposed, OSHA regulations also require that they be removed, protected or properly supported.

Note: Federal Law titled the “Comprehensive One-Call Notification Act of 1997” requires all states to establish local One-Call centers, and excavators must call the center prior to excavation per state regulations.

When all necessary specific information about the job site is assembled, the contractor is ready to determine the amount, kind, and cost of the safety equipment needed. A careful inventory of the safety items on hand should be made before deciding what additional safety material must be acquired. No matter how many trenching, shoring and backfilling jobs have been done in the past, each job should be approached with the utmost care and preparation.

Before Beginning the Job

It is important, before beginning the job, for the contractor to establish and maintain a safety and health program for the work site that provides adequate systematic policies, procedures, and practices to protect employees from, and allow them to recognize, job related safety and health hazards.

An effective program includes provisions for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards and potential hazards that may arise from foreseeable conditions. The program may be written or verbal, but it should reflect the unique characteristics of the job site.

To help contractors develop an effective safety and health program, in 1989, OSHA issued recommended guidelines for the effective management and protection of worker safety and health. The complete original text of the recommended guidelines is found in the Federal Register (54 FR (18): 3904-3916, January 26, 1989).

A copy of the guidelines can be obtained from the OSHA Publications Office, U.S. Department of Labor, 200 Constitution Avenue, N.W., Room N-3101, Washington, D.C. 20210, or from the nearest OSHA Regional Office.

To be sure safety policies are implemented effectively, there must be cooperation among supervisors, employee groups, including unions, and individual employees. Each supervisor must understand the degree of responsibility and authority he or she holds in a particular area. For effective labor support, affected unions should be notified of construction plans and asked to cooperate.

It is also important, before beginning work, for employers to provide employees who are exposed to public vehicular traffic with warning vests or other suitable garments marked with or made of reflectorized or high visibility material and to ensure that they wear them.

Workers must also be instructed to remove or neutralize surface encumbrances that may create a hazard.

In addition, no employee should operate a piece of equipment without first being properly trained to handle it and fully alerted to its potential hazards.

In the training and in the site safety and health program, it also is important to incorporate procedures for fast notification and investigation of accidents.

On-the-Job Evaluation

The standard requires that a competent person inspect, on a daily basis, excavations and the adjacent areas for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions. If these conditions are encountered, exposed employees must be removed from the hazardous area until the necessary safety precautions have been taken. Inspections are also required after natural (e.g., heavy rains) or man-made events, such as blasting, which may increase the potential for hazards.

Larger and more complex operations should have a full-time safety official who makes recommendations to improve the implementation of the safety plan. In a smaller operation, the safety official may be part-time and usually will be a supervisor.

Supervisors are the contractor's representatives on the job. Supervisors should conduct inspections, investigate accidents, and anticipate hazards. They should ensure that employees receive on-the-job safety and health training. They should

also review and strengthen overall safety and health precautions to guard against potential hazards, get the necessary worker cooperation in safety matters, and make frequent reports to the contractor.

It is important that managers and supervisors set the example for safety at the job site. It is essential that when visiting the job site, all managers, regardless of status, wear the prescribed personal protective equipment such as safety shoes, safety glasses, hard hats, and other necessary gear (see CFR 1926.100 and 102). Employees must also take an active role in job safety. The contractor and supervisor should make certain that workers have been properly trained in the use and fit of the prescribed protective gear and equipment, that they are wearing and using the equipment correctly, and that they are using safe work practices.

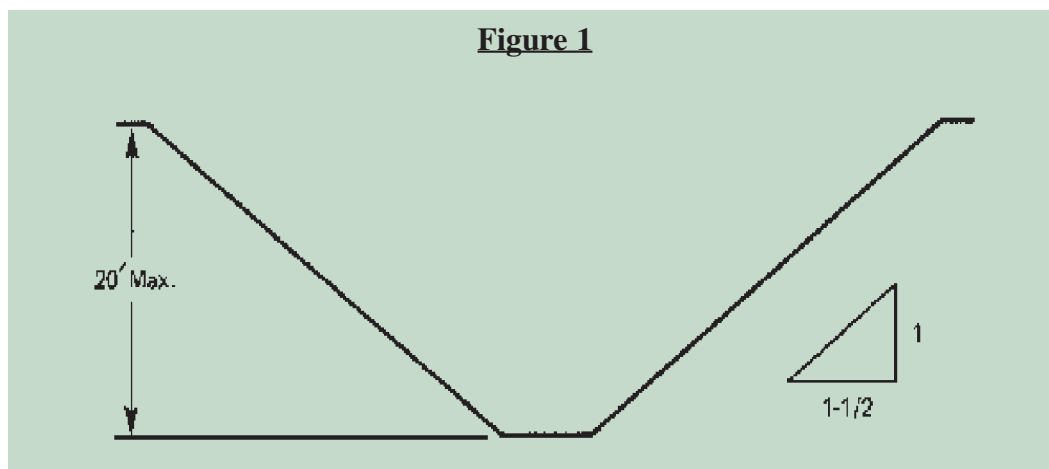
Cave-ins and Protective Support Systems

Support Systems

Excavation workers are exposed to many hazards, but the chief hazard is danger of cave-ins. OSHA requires that in all excavations employees exposed to potential cave-ins must be protected by sloping, or benching the sides of the excavation; supporting the sides of the excavation, or placing a shield between the side of the excavation and the work area.

Designing a protective system can be complex because of the number of factors involved – soil classification, depth of cut, water content of soil, changes due to weather and climate, or other operations in the vicinity. The standard, however, provides several different methods and approaches for designing protective systems that can be used to provide the required level of protection against cave-ins.

One method of ensuring the safety and health of workers in an excavation is to slope the sides to an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal). These slopes must be excavated to form configurations that are in accordance with those for Type C soil found in Appendix B of the standard. A slope of this gradation or less is considered safe for any type of soil (see Figure 1).

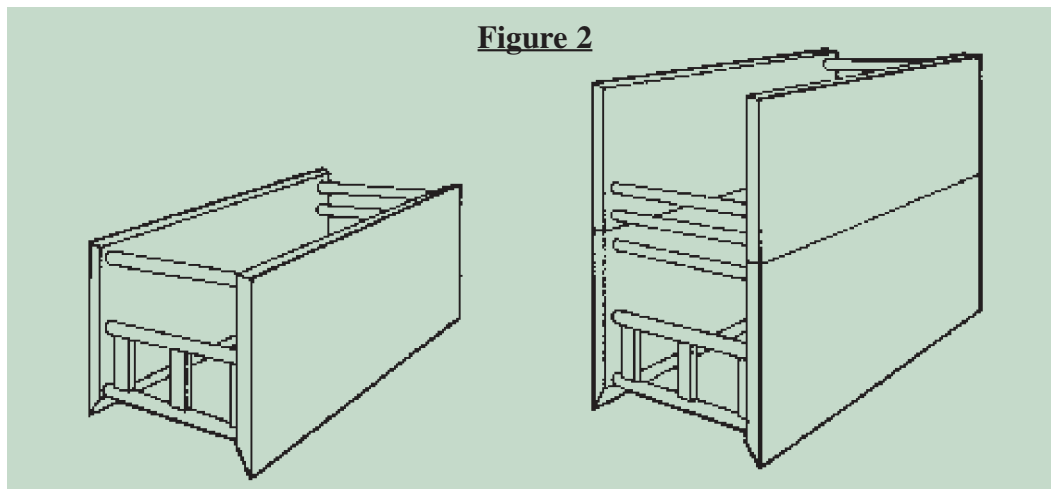


All simple slope excavations 20 feet or less in depth shall have a maximum allowable slope of 1 ½:1.

A second design method, which can be applied for both sloping and shoring, involves using tabulated data, such as tables and charts, approved by a registered professional engineer. These data must be in writing and must include sufficient explanatory information to enable the user to make a selection, including the criteria for determining the selection and the limits on the use of the data.

At least one copy of the information, including the identity of the registered professional engineer who approved the data, must be kept at the worksite during construction of the protective system. Upon completion of the system, the data may be stored away from the job site, but a copy must be made available, upon request, to the Assistant Secretary of Labor for OSHA.

Contractors also may use a trench box or shield that is either designed or approved by a registered professional engineer or is based on tabulated data prepared or approved by a registered professional engineer. Timber, aluminum, or other suitable materials may also be used. OSHA standards permit the use of a trench shield (also known as a welder's hut) as long as the protection it provides is equal to or greater than the protection that would be provided by the appropriate shoring system (see Figure 2).



The employer is free to choose the most practical design approach for any particular circumstance. Once an approach has been selected, however, the required performance criteria must be met by that system. The standard does not require the installation and use of a protective system when an excavation (1) is made entirely in stable rock, or (2) is less than 5 feet deep and a competent person has examined the ground and found no indication of a potential cave-in.

Safety Precautions

The standard requires the employer to provide support systems such as shoring, bracing, or underpinning to ensure the stability of adjacent structures, such as

buildings, walls, sidewalks or pavements.

The standard prohibits excavation below the level of the base or footing of any foundation or retaining wall unless: (1) a support system such as underpinning is provided, (2) the excavation is in stable rock, or (3) a registered professional engineer determines that the structure is sufficiently removed from the excavation and that excavation will not pose a hazard to employees.

Excavations under sidewalks and pavements are also prohibited unless an appropriately designed support system is provided or another effective method is used.

Installation and Removal of Protective Systems

The standard requires the following procedures for the protection of employees when installing support systems:

- Securely connect members of support systems
- Safely install support systems
- Never overload members of support systems
- Install other structural members to carry loads imposed on the support system when temporary removal of individual members is necessary. In addition, the standard permits excavation of 2 feet or less below the bottom of the members of a support or shield system of a trench if (1) the system is designed to resist the forces calculated for the full depth of the trench, and (2) there are no indications, while the trench is open, of a possible cave-in below the bottom of the support system. Also, the installation of support systems must be closely coordinated with the excavation of trenches.

As soon as work is completed, the excavation should be backfilled as the protective system is dismantled. After the excavation has been cleared, workers should slowly remove the protective system from the bottom up, taking care to release members slowly.

Materials and Equipment

The employer is responsible for the safe condition of materials and equipment used for protective systems. Defective and damaged materials and equipment can result in the failure of a protective system and cause excavation hazards.

To avoid possible failure of a protective system, the employer must ensure that (1) materials and equipment are free from damage or defects, (2) manufactured materials and equipment are used and maintained in a manner consistent with the recommendations of the manufacturer and in a way that will prevent employee exposure to hazards, and (3) while in operation, damaged materials and equipment are examined by a competent person to determine if they are suitable for continued use. If materials and equipment are not safe for use, they must be removed from service. These materials cannot be returned to service without the evaluation and approval of a registered professional engineer.

Other Hazards

Falls and Equipment

In addition to cave-in hazards and secondary hazards related to cave-ins, there are other hazards from which workers must be protected during excavation-related work. These hazards include exposure to falls, falling loads, and mobile equipment. To protect employees from these hazards, OSHA requires the employer to take the following precautions:

1. Keep materials or equipment that might fall or roll into an excavation at least 2 feet from the edge of excavations, or have retaining devices, or both.
2. Provide warning systems such as mobile equipment, barricades, hand or mechanical signals, or stop logs, to alert operators of the edge of an excavation. If possible, keep the grade away from the excavation.
3. Provide scaling to remove loose rock or soil or install protective barricades and other equivalent protection to protect employees against falling rock, soil, or materials.
4. Prohibit employees from working on faces of sloped or benched excavations at levels above other employees unless employees at lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.
5. Prohibit employees under loads that are handled by lining or digging equipment. To avoid being struck by any spillage or falling materials, require employees to stand away from vehicles being loaded or unloaded. If cabs of vehicles provide adequate protection from falling loads during loading and unloading operations, the operators may remain in them.

Water Accumulation

The OSHA standard prohibits employees from working in excavations where water has accumulated or is accumulating unless adequate protection has been taken. If water removal equipment is used to control or prevent water from accumulating, the equipment and operations of the equipment must be monitored by a competent person to ensure proper use.

OSHA standards also require that diversion ditches, dikes, or other suitable means be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Also, a competent person must inspect excavations subject to runoffs from heavy rains.

Hazardous Atmospheres

Under this provision, a competent person must test excavations greater than 4 feet in depth as well as ones where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected to exist, before an employee enters the excavation. If hazardous conditions exist, controls such as proper respiratory protection or ventilation must be provided. Also, controls used to reduce atmospheric contaminants to acceptable levels must be tested regularly.

Where adverse atmospheric conditions may exist or develop in an excavation, the employer also must provide and ensure that emergency rescue equipment, (e.g., breathing apparatus, a safety harness and line, basket stretcher, etc.) is readily available. This equipment must be attended when used.

When an employee enters bell-bottom pier holes and similar deep and confined footing excavations, the employee must wear a harness with a lifeline. The lifeline must be securely attached to the harness and must be separate from any line used to handle materials. Also, while the employee wearing the lifeline is in the excavation, an observer must be present to ensure that the lifeline is working properly and to maintain communication with the employee.

Access and Egress

Under the standard, the employer must provide safe access and egress to all excavations. According to OSHA regulations, when employees are required to be in trench excavations 4-feet deep or more, adequate means of exit, such as ladders, steps, ramps or other safe means of egress, must be provided and be within 25 feet of lateral travel. If structural ramps are used as a means of access or egress, they must be designed by a competent person if used for employee access or egress, or a competent person qualified in structural design if used by vehicles. Also, structural members used for ramps or runways must be uniform in thickness and joined in a manner to prevent tripping or displacement.

SUMMARY

Trenching and excavation work presents serious risks to all workers involved. The greatest risk, and one of primary concern, is that of a cave-in. Furthermore, when cave-in accidents occur, they are much more likely to result in worker fatalities than other excavation-related accidents. Strict compliance, however, with all sections of the standard will prevent or greatly reduce the risk of cave-ins as well as other excavation-related accidents.

