# SAFETY PROGRAM


*Plan Implementation Date:*
*May 2012*

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# SAFETY AND HEALTH MANAGEMENT POLICY STATEMENT

Cypress Employment Services is committed to providing its employees with a safe and healthy working environment. In pursuit of this objective, every good faith effort will be made to comply with relevant federal and state occupational health and safety laws to develop the best feasible operations, procedures, technologies, and programs conducive to such an environment.

Our policy is aimed at minimizing the exposure of our employees working at our worksite and those working at client's worksites to health or safety risks. As a condition of employment, all employees are expected to work diligently to maintain safe and healthful working conditions and to adhere to proper operating practices and procedures designed to prevent injuries and illnesses.

Safety is essential for employee welfare, morale and employee relations. With this in mind, Cypress Employment Services' management has established a comprehensive Safety Program. Emphasis will be on mutually working with our employees and clients to operate accident free, on-time and economically

The full support of all employees is essential to the effectiveness of our Safety Program. Each employee has an obligation to cooperate fully in the program by helping to protect him/herself and fellow employees.

David R. Barnett
Cypress Employment Services, Inc.

# INTRODUCTION

The personal health and safety of each employee of Cypress Employment Services, LLC is of primary importance to the management of this company. While no safety program can guarantee an accident-free workplace, we believe that the safety procedures outlined in this manual will significantly reduce accidents and injuries. It is the responsibility of the employer to provide a safe workplace; however, the success of a good safety program depends upon each employee doing his/her part to eliminate unsafe acts and unsafe conditions. This can be accomplished by taking a pro-active approach toward safety. Any workplace hazard noted which is beyond the employees' authority or ability to correct should be reported immediately to your supervisor. Employees should feel free to take this action without fear of retaliation or discipline.

An effective safety program is a partnership between workers and management. We must all do our part to make it work. Cypress Employment Services' Safety Manual will be distributed to all employees and updates will be made and distributed as necessary to keep in compliance with OSHA and other applicable laws and regulations

# SAFETY TRAINING

Employee safety training has a single goal---to show employees how to work safely.

General safety training will be provided to each new employee and existing employees on a new job.. This training includes teaching the correct work procedures to follow, use of required personal safety equipment and where to get assistance when needed. Training that is specific to a client's facility or work environment can only be conducted by the client company.

When possible, training will include not only instruction of the employees' duties, but also will include demonstration of the correct method to do the work. Job training is an effective method of starting the employee off right, not only in developing his or her skills for the work assignment, but also in molding safe attitudes.

Safety training conducted by Cypress Employment Services and a client company should be documented and placed in the employee's personnel/training file.

# EMPLOYEE SAFETY CONCERNS AND FOLLOW-UP

Employees are encouraged to voice their safety concerns, preferably in writing, to their immediate supervisor or a safety manager at the work location, or, to the management of Cypress Employment.

All safety concerns and or complaints to Cypress Employment shall be taken seriously and promptly investigated. The individual(s) initiating the concern/complaint shall be advised of the action taken, as well as other interested parties such as the worksite client or contractors.

## Employees should contact his/her immediate, worksite supervisor first.

## In addition, the employee may contact David Barnett at Cypress Employment Services at 251-433-1270.

# INSPECTIONS

Most client companies will perform regular safety inspections. These inspections serve two basic functions:

1. To maintain a safe work environment and control the unsafe actions of people.

2. To maintain operation profitability. Management inspections can be a good tool to measure performance in safety. This practice will assure that supervisors inspect their areas more often to ensure that conditions remain safe and to reduce the occurrence of unsafe acts.

Inspections are made to identify physical hazards and conditions and the unsafe acts of people performing the work.

Once a hazard has been identified, the following control procedures should be instituted:

1. Eliminate the hazard (machine, method, material, facility).
2. Limit or control exposure at its source.
3. Train personnel to be aware of the hazard and follow safe procedures to avoid it.
4. Where necessary, provide personnel with protective equipment.

# ACCIDENT INVESTIGATION

Accident Investigation is a key element in a Safety Program. Detailed investigations produce information that can serve as an effective countermeasure to prevent or reduce accidents.

Cypress Employment may conduct accident investigations of each injury requiring a visit to a clinic, physician or hospital. An Accident Investigation form will be completed for each recordable case. It will include information on the injured employee, his/her job title, tasks being performed at the time of the accident, what was the cause of the accident and what corrective action has been taken.

Accident investigation should:

- Be completed as soon as possible after the occurrence.
- Be completed by management or preferably by the worksite supervisor, who typically is on the scene, knows more about the accident and can, in most cases, adopt preventative measures.
- Depending on the nature of the accident and other conditions, accidents may also be investigated by a manager of Cypress Employment Services.
- Follow-up review of the report is recommended.

Some of the key factors to be determined in an accident investigation should be:

- What caused the accident;
- What can be done to keep it from occurring again;
- Corrective action can then be taken;
- This can most easily be done by asking questions beginning with the words, WHO, WHY, WHERE, WHAT, WHEN, and HOW.

The investigation procedure should include the reporting and investigation of:

- Non-disabling injuries and occupational injuries;
- Disabling injuries and occupational illnesses;
- Fire and explosions
- Property damage
- Hazardous substance release
- Other near misses

The investigation should include the identification of immediate causes, basic causes, and corrective actions being implemented.

The investigation procedure should require at-the-scene investigation by management. Their participation should be guided by actual as well as potential severity.

# Accident Investigation Report

***An accident investigation is not designed to find fault or place blame. It is an analysis to determine causes that can be eliminated or controlled.***

**Date of Accident**: _____ **Time**: _____ **Date Reported**: _____

**Employee(s) Involved**: (list name(s); position(s); date employed; supervisor's name)

_____

_____

_____

**Witnesses**: _____

**Accident resulted in**: □ Injury □ Illness □ Property/Equipment Damage □ Vehicle Damage

**Recordability**: □ No Injury/Illness (Not recordable) □ First Aid □ Medical □ Lost Time □ Fatality

**Nature of Injury**: _____ **Part of Body**: _____

**Type of Accident**: _____

**Description of Accident**: _____

_____

**Analysis:**

Describe Hazards, Unsafe condition(s) or Act(s): _____

_____

Describe Underlying Cause(s) or Failure(s): _____

_____

**Controls:**

Recommended Corrective Action: _____

_____

**Action Taken**: _____

_____

**Signed**: _____ **Date**: _____

**Follow Up:**

Investigator's Recommendation (Safety Committee; Safety Manager; or Supervisor):

_____

**Action Taken**: _____ **Date**: _____

# SAFETY MEETINGS

Safety meetings may be held periodically at the client companies' work location. Written records of attendance will be filed in the employee's personnel file when available.

SAFETY MEETINGS MAY:

- Encourage safety awareness
- Get employees actively involved
- Motivate employees to follow safe practices
- Pinpoint hazards
- Reinforce safe work procedures
- Allow for the introduction of new preventative practices
- Provide safety education
- Reflect management's concern toward safety
- Seek input from workers
- Allow review of accidents.
- Allow review of the latest safety inspection and status of hazard corrections.
- Provide safety education (such as having a speaker on various safety subjects or specialized instruction on the use of new equipment)

# SAFETY RULES

Safety rules are a basic cornerstone to a safety program. The purpose of safety rules is to thoroughly acquaint each of our employees with a set of safe working rules and procedures that will help preserve health and welfare. Employees and their families are the beneficiaries of a good Safety Program.

No safety manual, however complete, can cover all conditions that might arise; therefore, it is necessary for you to use your best judgment along with the observance of established job safe practices. It is the desire of Cypress Employment Services to establish the safest working conditions.

It is necessary to have each employee's cooperation in order to promote a good safety program. If an employee does not completely understand the job duties, procedures and safety rules, it is important to ask the immediate supervisor for an explanation prior to starting work. It is management's responsibility to provide the equipment and methods for safe work performance. However, it is the employee's responsibility to work according to established procedures. Accidents are caused, they don't just happen.

**COMPLIANCE WITH SAFETY RULES**

All employees are expected to comply fully with these Safety Rules. Any failure to do so will result in disciplinary action up to and including discharge.

The listed Safety Rules are illustrative and should not be viewed as an exclusive list to encompass situations not specifically mentioned. Client companies may have additional rules, add new rules or modify existing ones during employment to insure a safe, healthy, and productive work environment.

# General Safety Rules

*While some of the following safety rules may seem elementary, do not dismiss them as unimportant. Adherence may eliminate serious injuries.*

**Personal Conduct**

The following is not allowed:

- Disregard of established safe work practices, rules or regulations of Cypress Employment Services or Client Company.
- Disregard of supervisor's instructions.
- Behaviors of indifference, recklessness, hostility and inattention to the job.
- Engaging in actions that could cause accidents or injuries (i.e., horseplay, practical jokes, fighting, etc.)
- Reporting to work or coming on company property or operating a company vehicle under the influence of drugs or alcohol.

**Physical Condition**

The following physical conditions must be reported to your supervisor immediately:

- Accidents resulting in injuries, sickness or ailments, no matter how minor.
- Physical injury/illness or conditions that may affect safe work performance.
- All accidents, injuries or near misses must be reported immediately upon becoming aware of them.
- In any case requiring the services of a medical doctor, supervision must be notified immediately.
- Authorization for any visit to a physician connected with employment must be obtained from supervision prior to leaving the work site.
- Under no circumstances should an injured employee leave work and seek medical treatment by him/her self or without the authorization of management.

# Office Safety

Office workers can avoid injury by exercising reasonable care and judgment in the performance of their daily jobs. Injury of any kind or degree should be promptly reported to the supervisor. Employees should be aware of and follow the safety rules and

procedures listed below to minimize or eliminate office hazards.

- If water or other substances are found on the floor, remove or report it immediately.
- Keep the floor clear of objects. Pick up small objects, such as rubber bands, paper clips, pencils, etc. These objects are hazards when on the floor.
- When approaching a hall, a passageway hidden by a corner, or going through a door, keep to the right and go slowly in order to avoid bumping into someone who may be approaching you.
- Aisles should be kept clear of all obstacles such as: chairs, trash cans, electrical cords, etc.
- Keep restroom floors free from water, soap, and other objects.
- When sitting in a chair, make certain that all chair legs rest firmly on the floor.
- Do not sit on the arms of chairs or other furniture.
- Drawers must not be left open; someone may trip over them.
- Place objects on desks and tables in such a manner that they will not fall off the edge.
- When opening desk drawers, care must be exercised to insure that they will not fall out.
- Place material in cabinets neatly so that when the doors are opened the contents will not fall out.
- All office machines shall be properly located and placed in a manner so that there is no danger of falling.
- All office machines shall be equipped with three-wire grounded circuits. Care shall be taken to assure that ground wires are properly connected before machinery is operated.
- Electrical cords that have become frayed and plugs which are broken should be replaced immediately.
- Place equipment near an outlet to avoid cords running across floors and aisles.
- Do not alter any plugs to eliminate the grounding connection.
- Always unplug or turn off a machine before attempting to clear a jam, make an adjustment, alter a malfunctioning part, etc., while the machine is in operation.
- When operating or working around machines, do not wear loose clothing or jewelry that can become entangled in the moving parts of the machines.
- Electrical machines and connectors shall not be touched with wet hands or operated on damp floors.
- Office machines shall not be adjusted, lubricated or cleaned while they are running.
- File cabinet drawers shall be closed when not attended.
- Heavy materials shall be stored in bottom drawers; lighter materials shall be stored in top drawers.
- Use proper lifting techniques. Ask for assistance if an object is too heavy for you to safely lift and or move.
- Do not open more than one filing cabinet drawer at a time, particularly the top drawers. The cabinet may tilt forward when in this unbalanced position.
- Become familiar with the location of fire exits and extinguishers, and the proper fire extinguisher operation.
- Use care in handling paper to avoid paper cuts to your hands.
- Always use care while loading or clearing staplers that are jammed.
- Wastebaskets must not be used for disposing of sharp objects, glass, or combustible articles that may start a fire or cause injury to persons handling their contents.
- Be careful while carrying cups with hot liquids such as coffee, tea, etc.
- Comply with company “smoking and tobacco use” policies” which may prohibit smoking or use of tobacco products except in designated areas.
- Be aware of emergency exits and exit plans.
- All employees should report unsafe working conditions, safety hazards, and

violations of safety rules to their supervisor as soon as possible.

## Company Vehicles and Driving Safety

Some employees may be required to drive company vehicles or drive their own vehicle for company business. When this is the case, all vehicles should be operated and maintained in a safe manner. Common sense, good judgment and road courtesy, as well as proper vehicle maintenance, are the responsibilities of all drivers.

Preventing vehicle accidents, property damage and personal injury demand the same interest and concern as other business responsibilities and procedures.

All employees that use vehicles in connection with company business are governed by the company's driving policy and must comply with local, state and federal regulations regarding the operation of vehicles. Currently valid, non-expired state driver's license, clean MVR and appropriate levels of automobile insurance are required to operate any vehicle for business purposes.

Drivers are responsible for:

- The safe operation of the vehicle at all times.
- Compliance with all speed and traffic regulations.
- Wearing seat belts and assuring other passengers are also.
- Proper protection of all individuals, equipment and property carried in our vehicles.
- Immediately reporting all accidents; citations, suspended or revoked driver's license.
- Inspection and maintenance of vehicles.

## Cellular Telephone Use

Commercial Motor Vehicle drivers must be in compliance with the current DOT regulations restricting the use of cellular telephones and other mobile devices at all times while operating the vehicle.

Drivers may not reach for or hold mobile telephones or other devises while operating their vehicles, or push more than one button to operate the device.

Drivers may initiate, answer or terminate a call ONLY if they can do so:

- With the push of a single button
- On a device within my reach, and
- Without holding the devise in my hand.

This means that the device must either be mounted or otherwise securely within reach at the control panel (in the area where the vehicle controls such as climate control and radio are located). The mobile device cannot be located on the passenger seat, sleeper berth or floor of the vehicle. The devise may only be used with a speaker phone or one-wire or wireless ear set for use. Finally, operation of the device may only be performed through the use of pushing a single button.

# Elevated Work Platforms and Aerial Devices

All activities requiring the use of aerial lifts are conducted in a manner consistent with established safety procedures so as to minimize risk of injury. Any employee required to perform these activities must receive training prior to performing these duties.

An aerial lift device is defined as any vehicle-mounted device, telescoping or articulated (hinged), or both, which is used to position personnel.

Only authorized employees who have received training and/or certification on the operation of an aerial lift device may operate the vehicle.

The training and certification process will consist of two parts:

- Classroom training, evaluation, and certification will be conducted annually.
- Field training and evaluation will be conducted at the time of the initial certification.

A written record of personnel successfully completing the training and certification process will be maintained in the employee's file.

# Housekeeping

Each individual is responsible for housekeeping. Work areas should be cleaned up as work progresses.

- All trash, scrap, packing material and other wastes must be placed in designated receptacles.
- Aisles, hallways, emergency escape routes, exits, fire protection equipment, and safety showers shall be kept clean and free of obstructions.
- All tools, materials, and equipment shall be stored in a stable position to prevent rolling or falling.
- Use proper lifting techniques.
- Machine guards must be left on equipment at all times.
- Do not lean and/or tilt back on the rear legs of a work chair or place feet on desks or tabletops. Most chair fall accidents happen when a person is sitting down, rising or moving about on and/or in a chair. However, a few do occur when leaning and/or tilting back on rear chair legs.
- Do not store materials and/or boxes in employee walkways. Should an employee have to step over items in order to continue passing, this action may result in a fall and/or trip. Cords and hoses shall be routed in a manner that will not present a tripping hazard, preferably overhead.
- Restrooms should be clean and orderly at all times.
- Vehicles are to be parked in designated parking areas.
- Energy conservation - All employees are to turn off lights and equipment, prior to leaving work at close of workday.

# MATERIAL HANDLING AND STORAGE

- Employees who are required to lift and carry heavy and/or bulky objects from one point to another shall first inspect the route of travel for any obstruction before moving such material.
- Employees are required to wear protective equipment and gloves as needed.
- Employees shall inspect objects to be carried to decide how they shall be grasped and how to avoid sharp edges.
- Follow basic lifting procedures:
  - Feet – Eight to twelve inches apart for good balance.
  - Keep feet straight.
  - Arms – Close to the body for lifting and carrying.
  - Correct grip – (palm grip)
  - Chin – tucked in (removes pressure from spine).
  - Use body weight – lift with legs.
- Inspect materials for slivers, jagged edges, burrs, rough or slippery surfaces.
- Get a firm grip on the object.
- Keep fingers away from the pinch points, especially when setting down materials.
- When handling lumber, pipe or other large objects, keep hands away from the ends to prevent them from being pinched.
- Wipe off greasy, wet, slippery or dirty objects before trying to handle them.
- Keep hands free of oil and grease.

General Material Handling & Storage – Material Classification

- Steel Drums: Drums shall be stored on end with its bung upward.
- Boxes: Succeeding tiers shall be kept level, and where possible, arrange each box to rest on the quarters of boxes beneath it.
- Cartons: Cartons shall be stored on pallets and limited in height to protect against moisture and excessive weight.
- Bales: Bales shall be firmly strapped, piled and stored in the same way as cases or boxes.
- Bagged Material: Bagged Material shall be cross-tied on pallets with openings toward the inside of the pile.
- Bulk Material: Bulk Material such as chemicals, construction material, etc., so as the bottom tier of bag storage shall be placed on wooden pallets.

Material Handling & Storage – Outdoor

- Store all materials on solid, firm ground.
- Consideration shall be given to the effect of elements on materials being stored (wind, pressure, rain, snow, sunshine, drainage, fire, exposure, etc.)
- Combustible or flammable materials shall not be stored adjacent to buildings or other valuable equipment.

Material Handling & Storage – Indoors

- Switches, fuse boxes, alarm boxes, firefighting equipment, exits, etc., shall not be obstructed by stored material.

- A clearance of 24 inches between sprinkler heads and the top of stored material shall be maintained. Piling heights shall not exceed the extinguishing capability of the sprinkler system.

# EQUIPMENT AND TOOL USAGE

## Electrical Equipment Usage

- Only qualified individuals will work on/or repair electrical equipment.
- All electrical powered equipment, including electrical hand tools shall be inspected by the approved user and must be properly grounded before using. If frayed and/or broken, remove from service immediately.
- Disconnect the power supply of equipment before changing accessories.
- Do not use power cords to lift or lower electrical items.
- Follow safe work practices and good judgment when working around electrical equipment.

## Hand and Portable Power Tools

- Employees are responsible to make sure that all tools and equipment to be used are in safe working condition.
- Hammers with broken or cracked handles, chisels and punches with mushroom heads, wrenches with sprung jaws and bent or broken wrenches shall not be used by any employee.
- All hand held electric power tools shall be equipped with a "quick release" control.
- All portable circular saws and portable grinder shall be equipped with guards above and below the base plate or shoe. The lower guard shall retract when the blade is in use, and automatically return to the guarding position when the tool is removed from the work area.
- All portable hand held electrical equipment shall have its frame grounded or be double insulated and identified as such.
- All tools shall be used with the appropriate guards, shields, and attachments; and in accordance with the manufacturers' recommendations.
- All pneumatically driven nailers, staplers and other similar equipment which operates at more than 100 psi shall be equipped with safety tips attached to the muzzle to prevent ejection of such fasteners unless the muzzle is in contact with the working surface. Under no circumstances shall these safety devices be wired, wedged or blocked in an open position.
- Compressed air shall never be used to blow debris from a person.
- All fuel-powered tools shall be in the "off" position when being refueled, serviced or maintained.

## Ladders

- All ladders must be in good serviceable condition. Inspect prior to usage.
- The feet of all ladders shall be placed on a substantial base and the area surrounding the top and bottom shall be kept clear.

- All portable ladders shall be tied, blocked or otherwise secured before work begins.
- Ladders shall not be used in a horizontal position for the purpose of platforms, runways, scaffolding, etc.
- All metal ladders found with corrosion of the interior of any open end hollow rungs shall not be used.
- Metal ladders shall not be used for any type of electrical work or where they may contact electrical conductors.
- All wooden ladders with broken or missing rungs or steps; broken or split side rails shall not be used.
- All straight ladders shall be long enough to extend at least three rungs above the level to which the employee is climbing.
- No employee shall ever stand on the top rung/step of a step ladder to perform work.
- Ladders shall not be placed in front of doors opening toward the ladders unless the door is blocked open, locked or guarded.
- Ladders shall not be placed on boxes, barrels or other unstable bases to obtain additional heights to perform work.
- Only one person shall be on a ladder at one time under any conditions.

## Scaffolds

Cypress Employment Services will strive to ensure that all client companies that use scaffolds comply with OSHA requirements and that all proper protective measures are applied. Scaffolds should be properly selected, erected, and maintained to protect employees from the potential hazards associated with working on scaffolds.

- A scaffold permit signed by contractor management and posted on the scaffold is required prior to allowing personnel to work on scaffolds at the plant site.
- All scaffolding shall comply with OSHA 1926.451.
- No scaffold shall be erected, moved, dismantled, or altered except under the supervision of a competent person.
- Erect scaffolding on sound, rigid footing.
- Scaffolding greater that ten feet above the ground or floor shall have handrails, midrails, and toe boards installed on all open sides and ends of platforms. Scaffolds four feet to ten feet in height, having a minimum horizontal dimension in either direction of less than 45 inches shall have handrails, midrails, and to boards on all open sides and end of the platform.
- Scaffold planks must extend a minimum of 6 inches and a maximum of 12 inches over the end supports. All scaffolds boards are to be cleaned on each end or be secured in place and must be of scaffold grade lumber. All scaffolds are to be completely decked out.
- Provide an access ladder or the equivalent for all scaffolds. Climbing on cross braces is prohibited.
- Fall protection must be worn and properly tied off on any scaffold platform six feet or greater in height and not equipped with standard guardrails, or fully decked.
- Tube and coupler or welded frame scaffolds shall be secured to the building or structure not to exceed 30 feet horizontally and 26 feet vertically.
- When freestanding scaffolds are used, the height shall not exceed four times the minimum base dimension.
- Loading:  Scaffolds will not be overloaded beyond their maximum capacity.

## Fall Protection

Fall protection is required for employees erecting or dismantling supported scaffolds where it is feasible and where installing and using it does not create a greater hazard.

The most common scaffold hazard is worker falls. Fall protection consists of either personal fall-arrest systems or guardrail systems, and will be provided on any scaffold 10 feet or more above a lower level. Specific requirements for fall protection are described below.

**Personal Fall Arrest System (PFAS)**
In addition to meeting the OSHA Fall Protection requirements, personal fall-arrest systems used on scaffolds will be attached by lanyard to a vertical lifeline, horizontal lifeline, or scaffold structural member.

**Lifelines**
When vertical lifelines are used, they should be fastened to a fixed safe point of anchorage, independent of the scaffold, and be protected from sharp edges and abrasion. Safe points of anchorage include structural members of buildings, but not standpipes, vents, or electrical conduits, which may give way under the force of a fall. When horizontal lifelines are used, they are to be secured to two or more structural members of the scaffold.

**Guardrails**

- Guardrail systems will be installed along all open sides and ends of platforms and will be in place before the scaffold is released for use by employees other than erection/dismantling crews.
- Each toprail or equivalent member of a guardrail system will be able to withstand a force of at least 200 pounds applied in any downward or horizontal direction, at any point along its top edge. The top edge height of toprails on supported scaffolds will be between 36 inches and 45 inches.
- Midrails will be installed at a height approximately midway between the top edge of the guardrail system and the platform surface; and when screens and mesh are used, they will extend from the top edge of the guardrail system to the scaffold platform, and along the entire opening between the supports.
- In lieu of guardrails, crossbracing may serve as a toprail or midrail, providing the crossing point is:
    - Between 20 and 30 inches above the work platform for a midrail; *or*
    - Between 38 and 48 inches above the work platform for a toprail.

**Falling Objects**
When scaffolds are erected or in use, the client company should assure that any persons below are protected from falling hand tools, debris, and other small objects, by:
**[**

- Toeboards, screens, or guardrail systems (see 29 CFR 1926 subpart L, Appendix A);
- Debris nets or canopy structures that contain or deflect falling objects; *and*,
- Placement of potential falling objects away from the edge of the surface from which they may fall.

## Scaffold Platforms

- A platform is a walkway or the work area of the scaffold and will be inspected.

- Each platform will be fully planked or decked and no gaps greater than 1 inch are permitted between adjacent planks or deck units.
- Platforms used solely as walkways, or during erection or dismantling, require only the planking established is necessary to provide safe working conditions.
- Wooden planking should not be painted. Platforms may be coated periodically with clear wood preservatives, fire retardants, and slip-resistant finishes. Scaffold platforms and walkways will be at least 18 inches wide.
- Nothing that could cause a slip, trip, or fall (i.e. tools, scrap material, chemicals, snow, ice, etc.) is allowed to accumulate on the platform.
- For most activities, there will be no more than a 14-inch gap between the scaffold platform and the structure being worked on.
- To prevent slippage, platforms should be cleated or otherwise secured at each end, or else overlap end frames at least 6 inches, and not more than 12 inches.
- On scaffolds where platforms are overlapped to create a long platform, the overlap may only occur over supports, and may not be less than 12 inches, unless the platforms are restrained (i.e., nailed together) to prevent movement.
- On scaffolds where platforms are abutted to create a long platform, each abutted end will rest on a separate support surface.
- When brackets are used to support cantilevered platforms, they will be used only to support personnel, unless the scaffold has been designed for other loads by a qualified engineer.

## Electrical Hazards

- Scaffolds, or any conductive materials associated with them (e.g. building materials, paint roller extensions, scaffold components) should be located 10 feet or more from overhead power lines. Scaffolds may be closer to overhead power lines than specified above if such proximity is necessary for the type of work being done, and if the power company or electrical system operator has been notified and has either de-energized the lines, relocated the lines, or installed protective coverings to prevent accidental contact with the lines.
- All portable electric equipment used on scaffolds will be protected by either ground fault circuit interrupters (GFCIs) or an assured equipment grounding conductor program.

## Erecting, Dismantling, Repairing, and Inspecting Scaffolds

Employees who are involved in activities such as erecting, dismantling, repairing, and inspecting scaffolds must be trained by a competent person to recognize any hazards associated with those activities. Training should include:

- The nature of scaffold hazards
- Correct procedures for erecting, repairing, inspecting, and disassembling the type of scaffold in question
- The design criteria, maximum intended load capacity, and intended use of the scaffold
- Any other pertinent requirements
- Any equipment found to be unsafe or defective will be tagged-out until repairs are made. Employees will be trained to comply with the tags.

## Training

Only employees who have been trained to recognize hazards associated with scaffolds and to control such hazards will be allowed to work on, erect, dismantle,

repair, or inspect scaffolds, to recognize hazards associated with scaffolds and to control such hazards.

### Retraining

Employees must be retrained when there is reason to believe that the employee lacks the skill or understanding to safely erect, use, or dismantle a scaffold. Such retraining is required in at least the following situations:

- Changes at the worksite or a change of worksite present a hazard for which an employee has not previously been trained.
- Changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard for which an employee has not previously been trained.
- Inadequacies in an employee's work indicate that the employee does not have the necessary proficiency.

## Welding

Every effort is made to protect employees from fire, explosion, and other recognized hazards of welding, cutting, brazing, and related hot work operations.

- Suitable areas shall be established for fixed cutting and welding operations based on the fire potential. Special procedures shall be established for welding and cutting in high hazard locations. Cutting and/or welding should not be done in an area where combustible materials are stored or are present. Suitable fire extinguishers shall be available and accessible whenever welding or cutting operations are being performed.
- The atmosphere in all welding areas should be free of all flammable gases, liquids and/or vapors before any work begins.
- Approved eye protection shall be used by employees during any welding and/or cutting operations.
- All compressed cylinders should be chained and secured to a stationary object to prevent falling. All cylinders should always be in a standing position.
- Employees may be required to wear welding helmets (hoods) when performing welding operations. This includes welding helpers.

**Operators of welding, cutting, or other hot work equipment should:**

- Conduct hot work only after specific management approval.
- Handle all hot work and related equipment safely and perform work so as not to endanger lives and property.
- Cease hot work operations if unsafe conditions develop.
- Notify the Safety Officer or designee for reassessment of the situation in the event of suspected unsafe conditions or concerns expressed by affected persons.

**Fire Watch Personnel will:**

- Be present during hot work operations and remain for a minimum of 30 minutes after completion of hot work in order to detect and extinguish smoldering fires.

- Be aware of the inherent hazards of the worksite and of the hot work.
- Ensure that safe conditions are maintained during hot work operations.
- Have the authority to stop the hot work operations if unsafe conditions develop.
- Have fire-extinguishing equipment readily available and be trained in its use.
- Be familiar with the facilities and procedures for sounding an alarm in the event of a fire.
- Watch for fires in all exposed areas surrounding the hot work operation and try to extinguish them only when the fires are obviously within the capacity of the equipment and fire-fighting skills available.
- A fire watch must be maintained for at least a half hour after completion of welding or cutting operations to detect and extinguish possible smoldering fires.

**Designated Hot Works Areas:**

A designated area will be a specific area approved for welding or other hot work, such as a maintenance shop or a detached outside location that is of noncombustible or fire-resistive construction, essentially free of combustible and flammable contents, and suitably segregated from adjacent areas. These designations are generally long-term for facilities in which specific hot work operations are repeatedly performed. A fire watch is not normally required in a Designated Area.

**Hot Work Permit-Required Area**

A permit-required area will be a non-designated area that is made fire-safe by removing or protecting combustibles from ignition sources and where protective controls and ventilation are adequate to control worker exposure to heat, intense light, fumes, and flying objects.

## HOT WORK PERMIT

**Authorization.** Only authorized designees may issue hot work permits.

Before hot work operations begin in a non-designated area, a completed hot work permit is required. Based on local conditions, the designee must determine the length of the period for which the hot work permit is valid.

**Posting.** A signed and dated copy of the hot work permit must be posted at the entrance to the area where hot work operations are conducted under the permit.

**General Hot Work Permit Requirements**

- All hot work and related equipment (e.g., welding equipment, shields, PPE, fire extinguishers) must be in satisfactory operating condition and in good repair.
- The floor must be swept clean for a radius of 35 feet (ft) if combustible materials such as paper or wood shavings are on the floor.
- Combustible floors except wood on concrete must be kept wet or be covered with damp sand. Where floors have been wet down, personnel operating arc welding or cutting equipment must be protected from possible shock or be protected by noncombustible or fire-retardant shields.
- All combustible materials must be moved at least 35 ft away from the hot work operation. If relocation is impractical, combustibles must be protected with fire-retardant covers, shields, or curtains. Edges of covers at the floor must be tight to prevent sparks from going under them, including where several covers overlap when protecting a large pile.
- Openings or cracks in walls, floors, or ducts within 35 ft of the site must be

tightly covered with fire-retardant or noncombustible material to prevent the passage of sparks to adjacent areas.

- If hot work is done near walls, partitions, ceilings, or roofs of combustible construction, fire-retardant shields or guards must be provided to prevent ignition.
- If hot work is to be done on a wall, partition, ceiling, or roof, precautions must be taken to prevent ignition of combustibles on the other side by relocating combustibles. If it is impractical to relocate combustibles, a fire watch on the opposite side from the work must be posted.
- Hot work must not be attempted on a partition, wall, ceiling, or roof that has a combustible covering or insulation, or on walls or partitions of combustible sandwich-type panel construction.
- Hot work that is performed on pipes or other metal that is in contact with combustible walls, partitions, ceilings, roofs, or other combustibles must not be undertaken if the work is close enough to cause ignition by conduction.
- Fully charged and operable fire extinguishers that are appropriate for the type of possible fire must be available immediately at the work area. These extinguishers should be supplied by the group performing the hot work. The fire extinguishers normally located in a building are not considered to fulfill this requirement.
- Special precautions must be taken to avoid accidental operation of automatic fire detection or suppression systems (for example, special extinguishing systems or sprinklers).
- Nearby personnel must be suitably protected against heat, sparks, and slag.

## FIRE PREVENTION AND PROTECTION

All welding and other hot work operations will be conducted in compliance with the National Fire Protection Association (NFPA) Standard 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work.*

### General Procedures

- All movable fire hazards within 35 ft of a welding or other hot work operation must be moved to a safe place if the object to be welded or cut cannot readily be moved.
- If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards must be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.
- Combustible material must be protected from exposure to sparks wherever there are floor openings or cracks in the flooring, cracks or holes in walls, open doorways, and open or broken windows that cannot be closed.
- Fire extinguishers or extinguishing equipment must be ready and available for instant use; such equipment may consist of pails of water, buckets of sand, or hose or portable extinguishers, depending on the nature and quantity of the combustible material exposed.

### Prohibited Conditions for Hot Work

- In the presence of explosive atmospheres, or in situations where explosive atmospheres may develop inside contaminated or improperly prepared tanks or equipment which previously contained flammable liquids
- In areas with an accumulation of combustible debris, dust, lint, and oily deposits
- In areas near the storage of exposed, readily ignitable materials such as combustibles

- On a container such as a barrel, drum, or tank that contained materials that will emit toxic fumes when heated
- In a confined space, until the space has been inspected and determined to be safe

**Conditions for Fire Watch**

Fire watchers are required whenever welding or cutting is performed in locations where other than a minor fire might develop, or any of the following conditions exist:

- Appreciable combustible material is closer than 35 feet (ft) (10.7 meters (m)) to the point of operation.
- Appreciable combustibles are more than 35 ft (10.7 m) away but can be easily ignited by sparks.
- Wall or floor openings within a 35-foot (10.7 m) radius expose combustible material in adjacent areas including concealed spaces in walls or floors.
- Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

## INSPECTIONS

Before welding or other hot work operations are permitted, the work area must be inspected by the Administrator or designee responsible for authorizing such operations. The inspector must indicate in writing (e.g., checklist or hot work permit) that:

- Hot work equipment is in good condition.
- Compressed gas cylinders are stored and handled according to safety procedures outlined in this Plan or supplemental documents.
- Electrical systems associated with hot work operations are in good condition and operated according to safety procedures outlined in this Plan or supplemental documents.
- Flammable and combustible materials such as trash, rags, and open containers of solvents have been removed from the area.
- Flammable, combustible, or toxic residues have been removed or are adequately covered.
- All movable fire hazards in the vicinity have been removed from the hot work area.
- Ventilation is adequate to maintain a safe atmosphere during hot work.
- Adjacent spaces have been inspected and meet requirements for hot work.
- Operators and other affected workers are wearing required PPE.
- Fire watch personnel are on duty when required.
- Flammable, combustible, or toxic coatings (preservative coatings or insulation) have been removed from hot work surfaces.
- Toxic preservatives on surfaces where hot work is performed are stripped back at least 4 inches (in.); otherwise airline respirators must be used.

**Recordkeeping.** Inspection records should be maintained according to the ***Recordkeeping*** requirements of the client company and this plan.

All employees operating welding equipment must wear eye protection. The degree of PPE will vary with size, nature, and location of work to be performed.

**Cadmium and Hexavalent Chromium**
***Indoor Operations***

Indoors, welding or cutting operations involving cadmium-bearing or cadmium-coated base metals must be done using local exhaust ventilation or airline respirators unless atmospheric tests under the most adverse conditions show that employee exposure is within the PEL for cadmium.

## LP Gas Cylinders

Procedures for the use of LP Gas Cylinders

- Cylinders shall always be stored securely in the storage cabinets.
- Cylinders shall not be dropped or allowed to strike any other cylinder.
- Cylinders shall be moved by means of a hand truck/dolly.
- Cylinders in need of repair will not be used.

# FIRE PREVENTION AND PROTECTION

In the event of a fire, notify the fire department and try to extinguish the fire prior to it becoming uncontrollable. Report the incident to your supervisor immediately. (See Fire Emergencies under the Emergency Reporting and Response section).

**FIRE EXTINGUISHERS:**

- Remember to choose the right extinguisher for the type of fire.
    - ► *ABC type extinguishers are to be used on any type of fire excluding metals.*
    - ► *CO2 type extinguishers are located around plant machines and are to be used on liquids, petroleum products, and electrical fires.*
- Pull the pin.
- Position yourself eight to twelve feet from the fire and start spraying two feet in front of the fire at its base.
- Fire extinguishers shall be selected for the specific class or classes of hazards to be protected.
- All fire extinguishers shall be conspicuously located where they will be readily available. They shall be installed on hangers or in wall-mounted cabinets. The wall or column shall be marked to identify the location of the fire extinguisher.
- If fire extinguishers intended for different classes of fires are grouped, their intended use shall be marked conspicuously to insure choice of proper extinguisher at the time of the fire. The use of multi-purpose dry chemical extinguishers is suggested for use where more than one class of fire hazard exists in the same area.
- Management shall be responsible to insure that all fire extinguishers are in proper working order at all times and that they are inspected and serviced on a routine basis.

**KNOW WHAT TO DO IN AN EMERGENCY**
If a fire does start, know what to do, and do it quickly!

**Remember – stay clam – and follow these rules:**

- Get to safety
- Warn others of the fire
- If applicable, sound the alarm or make announcement over the PA (Public Address) System

It's important to be familiar with posted evacuation plans.

### Additional Fire Prevention Tips:

- Keep motors and machine tools free of dust and grease.
- Don't let transmission shafts or bearings overheat.
- Dispose of combustible scrap like oily rags in tight metal containers and empty them daily.
- Restrict welding and cutting operations to separate fireproof rooms.
- Check chemical labels and MSDSs so you don't use or store incompatible substances together.
- Keep passages and fire doors clear.
- Don't store oxygen cylinders near combustible materials.
- Only approved solvents shall be used when cleaning machinery and equipment during maintenance and repair tasks. Use of gasoline to clean machinery and equipment is strictly prohibited.
- Cleaning solvents shall be kept in approved metal safety containers.
- Gasoline utilized in small quantities for fueling engines being repaired, tested, adjusted, etc., shall be handled and dispensed only in U.L. approved safety cans designed for this use.
- Oily rags and other flammable waste materials shall be kept in covered metal containers. Such debris shall be removed from the buildings as soon as possible and in no case shall they be left unattended in a building overnight.
- "NO SMOKING" regulations shall be strictly enforced in all areas where hazardous substances are stored or used.
- Supervisors shall take immediate corrective action to eliminate any unsafe acts or unsafe conditions which could result in a fire.

# ERGONOMICS

In the workplace, ergonomics helps adapt the job to fit the person to reduce stress and eliminate potential injuries and disorders associated with the overuse of muscles, bad posture, and repetitive motion. The objective of ergonomics is to adapt the job and workplace to the worker by designing tasks, workstations, controls, displays, safety devices, tools, lighting, and equipment to fit the worker. Some jobs may expose workers to excessive vibration and noise, eye-strain, repetitive motion, and heavy lifting. Recognizing any ergonomic hazards in the work place is the first step in improving worker protection. Management commitment and employee involvement are complementary and essential elements of a sound safety and health program. Feedback is also essential, both to identify existing and potential hazards and to develop and implement an effective way to abate such hazards.

Engineering controls should be used to ergonomically design workstations, tools or equipment to accommodate the full range of required movements of the workers who are actually using them to perform the job.

The goal of ergonomics is to enhance human performance while minimizing injury risk by addressing recognized risk factors. Ergonomic risk factors include awkward or static postures, repetitive motion, excessive force requirements, contact stress, and exposure to vibration. The greatest evidence from the National Institute for Occupational Safety & Health (NIOSH) indicates that it is a combination of these risk factors and not a single factor that contributes to most injuries.

Regardless of the environment, there are a few basic ergonomic interventions that can easily be applied to reduce injury risk. For example:

- Storing heavier items that must be lifted on shelving no lower than 24 inches and no higher than 48 inches from the floor.
- Raising work surfaces so that the height of any standing work activity occurs between 36-42 inches. Tilting the top of the workstation forward can also reduce awkward low back and wrist postures. When performing repetitive activities such as work on the computer, it is best to limit the activity to 2.5 hours at one time.
- Taking a brief break with every 20-30 minutes of repetitive activity to change postures and stretch. Computer workstations should be adjusted properly so that you will avoid getting into awkward postures. This includes keeping keyboard and mouse next to each other on the same surface and within easy reaching distance. The computer monitor should be positioned so that your eyes are level with the top of the monitor screen when sitting in normal posture.

# CUMULATIVE TRAUMA DISORDERS (CTDS)

## AVOIDING CTD RISKS

Cumulative trauma disorders (CTDs) are occupational illnesses that develop over time. Most involve damage to muscles, tendons, and nerves in the hands, wrists, elbows, back, neck, and shoulders.

CTDs affect workers in a wide variety of industries and jobs.

Employees may be at risk of developing CTDs if they:

- Use repetitive motions
- Remain in one position for long periods
- Sit or work in an awkward position
- Work with tools or equipment that don't properly match their body
- Use steady force when performing the job
- Experience constant heavy vibration
- Twist, reach, and stretch in awkward positions.

CTDs can be minimized or prevented by changing the way the job is organized and performed, and the use of ergonomics to help design tasks and tools that match the employee's abilities and limits.

Tips for preventing CTDs:

- Avoid repetitive movements whenever possible or take regular breaks from

the movements
- Don't wear gloves or clothing that are too tight around the wrists
- Adjust chairs for comfort and good posture for those employees who sit for long periods of time
- Use power tools instead of manual tools whenever possible
- Grasp objects with the entire hand and all fingers
- Keep wrists straight, rather than bent or flexed
- Carry all objects with a palm-down grip
- Organize work area and functions for comfort
- Look for ways to reduce repetitive and awkward movements
- Learn to identify CTD symptoms in their early stages
- Get medical attention if CTD symptoms occur.

# DRUG-FREE WORKPLACE

In the interest of the health and welfare of all persons, illegal use of drugs, alcohol, and controlled substances will not be tolerated in any work situation involving Cypress Employment Services.

- Cypress Employment Services will not tolerate or condone the use, possession, sale, distribution, or being under the influence of drugs while on or in the property of Cypress Employment Services, the client company or while on any company business. For purposes of this policy, prohibited drugs include intoxicating beverages, illegal drugs, and any illegal or unauthorized use of any controlled substance.
- Employees may maintain certain prescription drugs and "over-the-counter" medications, provided they have been prescribed by a doctor for the person in possession of the drug within the last 12 months, and they are maintained in their original container and do not impair the performance of the employee or affect the safety of the workplace.
- Cypress Employment Services emphasizes its right to take steps to ensure that this important policy is being followed. Techniques for enforcing the policy include searches of employees and their personal effects on company premises, client company premises and while conducting company business; such searches of property include the personal vehicles of employees parked on company or client company premises.
- Drug and alcohol tests may be administered in pre-employment, reasonable suspicion, random testing situations, post-rehabilitation, post accident or near-miss incidents. (A near-miss incident is any incident that, if it had proceeded to a reasonable possible and or more serious level of development, would have had the potential for personal injuries, property damage, or serious liability claims). Employees may also be tested for drugs and alcohol in the course of required medical examinations. CDL (Commercial Driver's Licensed) Drivers will be tested in accordance with the Department of Transportation regulations.
- Consent by all employees to searches, tests and other examinations are a condition of employment for all personnel at all times. Refusal to cooperate or failure to grant consent at the time of a search or test is a violation of company policy and will lead to disciplinary action, up to and including discharge.
- Employees may be suspended pending receipt of test results. Applicants who test positive for drugs or alcohol, who fail to provide specimens or attempt to contaminate specimens will not be eligible for employment.
- Violation of this policy by any employee will result in immediate

disciplinary action, up to and including discharge.

- All employees are encouraged to report any violations of this policy to an on-site supervisor or the management or Cypress Employment Services. As a condition of employment, all employees are required to report to their supervisor any criminal drug statute conviction within three days after the conviction. Any criminal drug statute conviction will subject the employee to disciplinary action up to and including discharge.
- Test results will be treated as privileged information, and the employee's confidentiality shall be guarded to the greatest possible extent. Test results and information may be used as evidence and may be obtained and disclosed in any public or private administrative or disciplinary proceeding or hearing, or civil litigation where drug or alcohol use by the employee is relevant.
- More detailed information of Cypress Employment Services' Substance Abuse Policy and procedures is available upon request.
- Cypress Employment Services reserves the right to change the provisions of the policies and testing program at any time.

# RECORDS AND RECORD-KEEPING

Accident and injury records are essential to successful safety programs. Records supply the information necessary to transform haphazard, costly, and ineffective methods into planned safety programs that control conditions and actions that contribute to accidents.

Without records it is virtually impossible to make any kind of analysis or effectively measure a safety program.

Our company maintains, in addition to OSHA logs (Forms 300; 300A; 301) which are retained for five years (federal requirement), other records for a period of one year from the end of the year for which the records are maintained (state requirement). When possible, these will include:

- Accident Investigations.
- Employee training records.
- Inspection reports.
- OSHA Form #301 or equal Injury Form (retained for at least five years)

The types of work-related injuries that must be recorded and investigated are:

- All fatalities.
- All lost-work day cases.
- All restricted and/or light duty cases.
- All cases that require medical treatment, above first aid.
- All cases that require job transfers, termination or resulted in loss of consciousness and/or rehabilitation.

The annual summary (OSHA Form #300 – copy attached) shall be posted no later than February 1st, and not removed until after April 30th (three months only each year).

# FIRST AID

First aid is the emergency one time treatment of the ill and/or injured before professional medical or surgical attention can be obtained if it is necessary.

Each employee should take time to find the first aid kits at his/her worksite and to become familiar with its contents. Only those employees trained and certified in First Aid and Cardio-Pulmonary Resuscitation (CPR) should attempt to administer first aid to another individual.

# EMERGENCY PREPAREDNESS PROGRAM

This plan is designed to minimize hazards to human health and/or company property from natural disasters (tornados, flooding, etc.), fires, evacuations, civil disturbances, explosions, bomb or terrorist's threats, or any release of hazardous chemicals to air, soil, or surface water. The provisions of this plan will be carried out immediately in the aforementioned situations that could threaten human health or the environment.

## Medical Emergencies

Upon receiving notification of a "Medical Emergency", call a supervisor and report the incident. Report the following information about the emergency.

- In the event of serious injuries, has 911 been called?
- Nature of the medical emergency.
- Location of the medical emergency.
- If necessary, has an ambulance been called?

## Explosions and Fire Emergencies

- All employees should evacuate the worksite immediately and report to the worksite's designated evacuation site(s).
- Take head count.
- Call 911 notifying the fire department and give the exact location and nature of the fire or other type of emergency.
- Attempt to extinguish the fire if it can be done safely.

## Reporting Injuries

In the event of injury (no matter how minor), employees should notify their supervisor immediately. If the supervisor cannot be reached the employee should

notify another supervisor, or the Safety Manager.

Serious injuries that require immediate medical attention should be reported as soon as possible after treatment is received.

## Natural Disasters

**Safety Procedures for Tornadoes and Flooding:**

If a tornado emergency announcement is made, begin moving toward an interior hallway within the building and away from windows. Cover head and protect body as much as possible. The greatest danger will be from flying glass and objects. After the disaster or threat of disaster passes, secure the premises as necessary. If evacuation is required, follow the client company's evacuation procedures. Provide and/or request medical assistance as necessary for the situation.

## Explosion Plan

**Safety Procedures in the event of an explosion:**

Explosions may result from internal piping, equipment, bombs, or other sources.

Employees must report any explosion or explosion threat to management immediately. The person receiving the notification of an explosion should obtain the following information:

- Name and location of the person reporting the explosion.
- Location of the explosion.
- Cause of the explosion if known.
- Extent of injuries.

## Evacuations

In the event of an emergency that requires the evacuation of a building, employees should follow the evacuation plan of the client company. All employees are instructed to congregate at the prearranged gathering area in the parking lot or other areas designated by management of the client company.

# PERSONAL PROTECTIVE EQUIPMENT (PPE)

The purpose of a Personal Protective Equipment Program is to protect employees, from hazardous materials and equipment while in our facility and in client company worksites.

Personal Protective Equipment (PPE) is defined as devices and garments designed to be worn or carried for protection in a particular area; or to protect against a

specific hazard. OSHA regulations require employers to ensure that personal protective equipment be "provided, used, and maintained in a sanitary and reliable condition wherever it is necessary…" to prevent injury. This includes protection of any part of the body from hazards through absorption, inhalation or physical contact.

**PARTS OF BODY THAT MAY REQUIRE PPE AND TYPES OF PPE**

- Eye and Face Protection – safety glasses, goggles, face shields, hoods, etc.
- Head Protection – Hard hats, helmets
- Ears (Hearing) Protection – ear plugs, muffs
- Foot Protection – Safety shoes, boots
- Hand Protection – Gloves
- Lung Protection – Respirators
- Back Protection – Back Belts

Where applicable, Cypress Employment Services or the client company will comply with OSHA standards for specific equipment.

# Face Protection

OSHA standards require employers to provide employees with suitable eye and face protection where there is reasonable probability of injury that can be prevented by using such equipment.
Protectors must meet the following minimum requirements:

- Be adequate for the hazard
- Fit snugly
- Not interfere unduly with the wearer's movements
- Be durable, easy to clean, and capable of being disinfected
- Be kept in good repair
- Meet ANSI standards

Safety glasses must be distinctly marked to facilitate identification of the manufacturer. The user must be instructed regarding any limitations or precautions indicated by the manufacturer. Care must be taken that all such limitations and precautions are strictly observed.
Face shields, acid hoods, or chemical goggles may be needed to protect workers from splashes of acids, alkalis, or other chemicals.

# Eye Protection

**General**

- Safety goggles or face shields must be worn when using cutting tools, such as saws, chisels, planes, and scrapers. Precautions must be taken when there is a chance of particles falling or flying into the eyes.
- The need for eye protection should not be overlooked when using hand tools, bench-type grinders, removing nails, etc.
- Goggles, helmets and shields that give maximum eye protection for each welding and cutting process must be worn by operators, welders and their helpers. The correct filter lens for various welding and cutting operations must be selected.
- The lenses in welders and cutters goggles must meet the impact resistance requirement. Goggles or spectacles must have side shields for added protection. Eye protective devices must be considered as optical instruments and they must be carefully selected, and used. The amount of money spent to obtain and fit eye protection devices

is small when measured against the savings gained by the protection given.

- All employees must be able to wear eye protection meeting OSHA requirements when required.
- Cypress Employment Services or the client company will provide safety glasses to all employees whose job functions require them. Safety glasses will be worn by these employees during their working hours except when performing work of a clerical nature, attending meetings, breaks, while driving vehicles to and from the job, or performing work operations requiring additional or special eye protection.

## Head Protection

Head injuries are caused by falling or flying objects, or by bumping the head against a fixed object. Head protection must do two things – resist penetration and absorb the shock of a blow. This is accomplished by making the shell of the helmet of a material hard enough to resist the blow, and by utilizing a shock-absorbing lining composed of head-band and crown straps to keep the shell away from the wearer's skull. Protective helmets are also used to protect against electrical shock.

The following general requirements for the selection, use, maintenance, and inspection of helmets should be observed:

- Materials used in helmets must be water-resistant and slow burning.
- Adjust headband to the proper size in order to provide sufficient clearance between the shell and the headband.
- In very cold weather, helmet liners may be used.
- Employees should not drill or punch holes in the helmet shell in an attempt to get additional ventilation. This lessens the helmet's ability to sustain impact.
- Helmets and all components should be visually inspected daily for signs of cracks, penetration, or any other damage that might reduce the degree of safety originally provided.
- Manufacturers should be consulted with regard to paint or cleaning materials for their helmets, since some paints and thinners may damage the shell and reduce protection by physically weakening it or negating electrical resistance.
- Helmets should not be stored or carried on the rear-window shelf of an automobile, since sunlight and extreme heat may adversely affect the degree of protection.

## Foot Protection

OSHA requires that employees wear protective footwear when working in areas where there is a danger of foot injuries due to falling and rolling objects, or objects piercing the sole, and where such employee's feet are exposed to electrical hazards.

Protective footwear must comply with ANSI Z41-1991 and 90˚ heels. This type footwear provides both impact and compression protection. Safety shoes or boots with impact protection are required for job functions such as carrying or handling materials such as packages, objects, parts or heavy tools which could be dropped, and for other activities where objects might fall onto the feet.

Safety shoes or boots with compression protection are required for work activities involving skid trucks (manual material handling carts), around bulk rolls, heavy pipes, etc., all of which could potentially roll over employees' feet. Safety shoes or boots with puncture protection are required where sharp objects could be stepped on, causing a foot injury.

In addition to protection against impact, compression, and puncture, safety shoes also offer protection against, heat, wet or slippery surfaces, and electrical injury.

# Hand Protection

Gloves shall be supplied to employees is necessary for their jobs. OSHA requires employees to use appropriate hand protection when employees' hands are exposed to hazards such as those from skin absorption of harmful substances; severe cuts or lacerations; severe abrasions; punctures; chemical burns; thermal burns; and harmful temperature extremes. Cypress Employment Services bases the selection of the appropriate hand protection on an evaluation of the performance characteristics of the hand protection relative to the task(s) to be performed, conditions present, duration of use, and the hazards and potential hazards identified.

# Hearing Protection

- Protection against the effects of noise exposure must be provided when the sound levels exceed 85 dBa (Decibel – 'A' weighted) for a TWA (Time Weighted Average) or duration per day of 8 hours. In this event, Cypress Employment Services or client company will comply with OSHA requirements to conduct annual hearing tests, provide hearing protection to employees as necessary, and maintains proper records.
- Preformed or molded earplugs should be individually fitted by a professional. Waxed cotton, foam, or fiberglass wool earplugs are self-forming. When properly inserted, they work as well as most molded earplugs.
- Some earplugs are disposable, to be used one time and then thrown away. The non-disposable type should be cleaned after each use for proper protection. Plain cotton is ineffective as protection against hazardous noise.
- Earmuffs need to make a perfect seal around the ear to be effective. Glasses, long sideburns, long hair, and facial movements, such as chewing, can reduce protection. Special equipment is manufactured for use with glasses or beards.
- For extremely noisy situations, earplugs should be worn in addition to earmuffs. When used together earplugs and earmuffs change the nature of sounds; all sounds are reduced including one's own voice, but other voices or warning signals are easier to hear.

<u>Identifying a Noise Problem</u>

Workers operating mechanical power equipment, injection molding equipment, air operated devices or many types of powered equipment are generally exposed to noise. Noise is a physical energy presenting a threat to unprotected or improperly protected ears. The general rule is if you have to shout to be heard when you are 3 feet from another person or speak in a loud voice at one foot from another person, a noise problem may exist. If an operation or process is generating excessive noise, monitoring should be conducted to determine the extent.

<u>Monitoring and Verification</u>
Noise level measurements can be obtained using 2 methods – a sound level meter for area sampling and personal sampling using noise dosimeters. The use of a qualified industrial hygienist will help assure accurate sampling.

<u>Noise Exposure Limits and Requirements</u>

- If noise levels are below 85 dBa in an 8 hour Time Weighted Average (TWA) there is no requirement to implement a hearing conservation program.
- If noise levels are 85 dBa to 90 dBa in an 8 hour TWA, a hearing conservation

program must be established and administered.

- If noise levels are above 90 dBa in an 8 hour TWA, feasible administrative or engineering controls to reduce the noise must be instituted. A continuing hearing conservation program must also be established and administered.

# Respiratory Protection

## Proper Selection

In the event that a position requires a respirator, it shall be selected on the basis of hazards to which the employee is exposed. The respirator type is usually specified in the work procedures by a qualified individual of the client company. In selecting the correct respirator for a given circumstance, many factors must be taken into consideration, e.g., the nature of the hazard, location of the hazardous area, employee's health, work activity, and respirator characteristics, capabilities, and limitations.

## Training and Fitting

The user will be instructed and trained in the selection, use and maintenance of respirators. Every respirator user shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly.

Procedures for proper fit testing of respirators are required to reduce face-seal leakage. These include qualitative and quantitative fit tests, seal checks, and the availability of different types of respirators to assure a proper fit and ensure adequate protection. A fit test is required prior to each use of a tight-fitting respirator. An employee is not permitted to wear any tight-fitting respirator if the seal is affected by facial hair, corrective glasses, dental changes, etc.

Annual training will be required to ensure that employees understand the hazards associated with respirators and how to use respirators safely.

## Cleaning and Disinfecting

Respirators will be regularly cleaned and disinfected. Those issued for the exclusive use of one worker should be cleaned after each day's use or more often if necessary.

## Storage

OSHA standards require that respirators "be stored in a convenient, clean, and sanitary location." The purpose of good respirator storage is to ensure that the respirator will function properly when used. Care must be taken to ensure that respirators are stored in such a manner as to protect against dust, harmful chemicals, sunlight, excessive heat or cold, and moisture.

Respirators will be stored in bags to prevent contamination. All cartridges will be disposed of when returned and the respirator will be inspected for defects, cleaned and sanitized.

## Inspection and Maintenance

Respirators used routinely shall be inspected during cleaning. Worn or deteriorated parts shall be replaced. Respirators for emergency use such as self-contained

devices shall be thoroughly inspected at least once a month and after each use.

**Work Area Surveillance**

The OSHA standard requires that "appropriate surveillance of work area conditions and degree of employee exposure or stress be maintained." This will include identification of the contaminant, nature of the hazard, and concentration at the breathing zone.

**Medical Examinations**

Persons should not be assigned to tasks requiring the use of respirators unless it has been determined that they are physically able to perform the work and use the equipment. A physician shall determine the health and physical conditions that are pertinent for an employee's ability to work while wearing a respirator. The user's medical status should be reviewed periodically.

A medical evaluation will be required to be performed to determine the ability of the employee to wear a respirator prior to fit testing and use. A medical questionnaire may be used under some circumstances; however, a positive response may require a medical evaluation.

Cypress Employment Services will obtain a written confirmation from the physician of whether an employee can use a respirator and under what limitations, if any. The employee will be provided a copy of the doctor's medical evaluation.

# Back Protection

**TIPS FOR PROPER LIFTING**

- Do some stretching exercises to warm-up before lifting.
- Wear safety shoes to protect feet in case a heavy object falls on them.
- Wear gloves if the object is rough or sharp.
- Get help if the load is too big or bulky for one person.
- Check for nails, splinters, rough strapping and sharp edges.
- Make sure footing is solid.
- Keep back straight, with no curving or slouching.
- Center body over feet.
- Get a good grasp on the object and pull it close to the body.
- Lift with legs and not the back.
- Move feet to turn. Don't twist back.
- Don't try to carry a big load alone. Ask for help.
- Work as a team. Lift, walk and lower the load together.
- Let one person call the shots and direct the lift.
- Use a step stool or a sturdy ladder to reach loads that are above shoulders.
- Get as close to the load as possible before lifting.
- Slide the load close to the body.
- Do all the work with arms and legs, not the back.
- Loads that are under racks and cabinets need extra care.
- Use legs to power the lift.

## Fall Protection

Fall protection is required to be worn and used when working on sloping roofs, flat roofs without handrails within six feet of the edge/opening, any suspended platform or stage, or other elevated work areas greater than six feet unless employees are protected from falling by standard handrails. Fall protection is required while working from certain types of mobile work platforms.

- Body harnesses and lanyards/life lines shall be used in situations where they would be used to arrest a free fall on an individual if a fall occurred.
- Lifelines and lanyards shall be secured to an anchorage capable of supporting at least 5,400 pounds dead weight.
- The use of employee owned protection equipment is prohibited.
- Safety harnesses, and lanyards must be inspected prior to each use. In case of excessive wear, chemical deterioration or heat exposure, the device must be replaced.

## Personal Flotation Devices

Type III, Type IV or better, U.S. Coast Guard approved International Orange Personal Flotation Devices (PFD) shall be provided and worn by all persons in the following circumstances:

- On pontoons or barges without guardrails or floating stages;
- On structures extending over or adjacent to water, except where guardrails or safety nets are provided for employees;
- In man lifts, power platforms or safety tubs that are extending over water; in skiffs, small boats or launches and whenever there is an unprotected drowning hazard.

# LOCKOUT/TAGOUT PROGRAM

The purpose of the Lockout/Tagout Program is to establish requirements for the systematic identification and isolation of all energy sources serving or interconnected with equipment or processes. Additional purposes are to effectively inform, train, and protect workers during the servicing and maintenance of equipment in which the unexpected energization, startup, or release of stored energy could cause injury.
The objectives of this program is twofold. First, to prevent employee injury due to the unexpected release of harmful amounts of energy and, second, to comply with OSHA standards.

- The client company is responsible for insuring that when necessary, an on-site, Lockout/Tagout program is in place.
- All employees are required to comply with the restrictions and limitations imposed upon them during the use of lockout/tagout. The authorized employees are required to perform the lockout/tagout in accordance with the procedures. All employees, upon observing a machine or piece of equipment that is locked or tagged-out to

perform servicing or maintenance shall not attempt to start, energize or use that machine or equipment. Employees violating any portion of the Lockout/Tagout Program are subject to disciplinary action up to and including termination.

**The requirements of this program apply to all appropriate client company operations and the following groups of workers:**

- Authorized employees who perform repair, servicing and maintenance operations.
- Affected employees who work with the equipment to be locked out or tagged out.
- Other workers.

Lockout/Tagout safeguards are designed to protect workers as they perform servicing and maintenance of machines, equipment or processes.

The energy that runs industrial machines and equipment helps to get the job done. But this energy can be dangerous, especially if it's not carefully controlled during the servicing or maintenance of machines and equipment.

Specific regulations cover procedures for controlling hazardous energy sources. These procedures include shutdown, energy isolation, release of stored energy, lockout/tagout application, verification of isolation, release from lockout/tagout, re-energization of equipment and machines, certification of periodic inspections, and certification of employee training.

**Under this program, it is the responsibility of management to:**

- Develop, implement, and document our Lockout/Tagout procedures.
- Provide training to ensure that employees understand the purpose and function of the program and have the knowledge and skills required for safe application and use and removal of energy controls.
- Provide locks, tags, chains, wedges, key blocks, adapter pins, self-locking fasteners, or other hardware needed to isolate, secure, or block machines or equipment from energy sources.
- Conduct periodic audits (at least annually) to ensure that the procedures and requirements are being followed.
- Coordinate procedures with contractors or outside service personnel working in our facility.

The effectiveness of the Lockout/Tagout Program depends upon the active support and involvement of all personnel.

**Employee Responsibilities**

Authorized, affected and all other employees are responsible for following the client company lockout/tagout procedures.

**Identify types of Energy Sources**

- Electrical
- Mechanical
- Hydraulic
- Pneumatic
- Chemical
- Thermal
- Stored or residual

## Employee Training, Education, and Communication

### Authorized Employees

- Recognition of hazardous energy sources
- Types of energy sources in workplace
- Methods and means of energy control

### Affected Employees

- Purpose and use of energy control procedure

### Other Employees in Area

- Informed about procedure
- Prohibited from tampering with locked/tagged out equipment

## Training and Communication on Tagout Systems

- Tags are warning devices, not restraint devices
- Tags are not to be removed, by-passed, or ignored while work is in progress
- Tags must be durable, legible, and securely attached
- Tags may evoke a false sense of security
- Tags should be used where equipment is not designed to accept locks or where tags provide equivalent protection to a lockout program

## Lockout/Tagout Devices and Related Hardware must be:

- Provided by the employer
- Durable; able to withstand environment to which they will be exposed
- Standardized by either color, shape, size, standard print/format
- Substantial enough to prevent inadvertent or accidental removal
- Identifiable as to the employee who applied them
- Tagout devices must have warnings such as DO NOT START, DO NOT OPEN, DO NOT ENERGIZE, or DO NOT OPERATE

## Lockout/Tagout Procedures

- Preparation for equipment shutdown
- Equipment shutdown
- Equipment isolation
- Application of lockout/tagout devices
- Release/control of stored energy
- Verification of isolation
- Release from lockout/tagout

## Periodic Inspection (Audits)

- Performed by authorized personnel at least annually
- To determine if procedures are adequate and are being followed

- Include a review of each employee's duties and responsibilities
- Documentation noting specific equipment involved, date, and employees involved.

**Excluded from Lockout/Tagout coverage are:**

- Normal production operations including repetitive routine minor adjustments and maintenance that would be covered under OSHA's machine guarding standards.
- Work on cord and plug connected equipment when it is unplugged, and the employee working on the equipment has complete control over the plug.
- Hot tap operations involving gas, steam, water, or petroleum products when the employer shows that continuity of service is essential, shutdown is impractical and documented procedures are followed to provide proven effective protection for employees.

# Lockout Procedures

Lockout must be performed *only* by an authorized employee. When more than one authorized worker is involved, group lockout procedures should be followed.

**To perform lockout procedures, one must:**

- Know the types of energy (electrical, hydraulic, etc.) and sources.
- Locate the disconnect switch, valve or other isolating devices that control energy sources. Push buttons, selector switches and other control circuit type devices are not energy isolating devices.
- Notify affected and other employees of machine/equipment shutdown and which energy isolating devices will be locked out and when.
- Shut off the machine or equipment and lockout the energy isolating device (disconnect switches, valves, etc.) to make sure they stay in the off position.
- Release stored energy in compressed springs and trapped pressure in air, hydraulic and gas systems.
- Block, restrain, vent or bleed anything that could move or cause movement.
- Make sure affected and other workers maintain a safe distance from the machine or equipment. Turn on the controls to be sure the energy sources have been isolated. Make sure the machine or equipment won't operate.
- Return switches or controls to the off or neutral position.
- Conduct the scheduled service or maintenance work.

**Equipment Testing or Positioning**

During this operation, affected and other employees must maintain a safe distance from machines and equipment. Removing lockout or tagout devices and starting up the machine or equipment should be temporary. It should last long enough for machines, equipment or components to be tested and positioned. When these tasks are complete, authorized employees must shut down the equipment and resume lockout/tagout procedures.

**Lockout Device Requirements**

A lockout device (such as a padlock) used in lockout procedures can work with a key or with a combination. A lockout device must also:

- Use a positive means (such as a lock, either key or combination type) to hold an

energy isolating device in the safe position and prevent the energizing of a machine or equipment.
- Be substantial enough so it can't be removed without excessive force or unusual techniques, such as with the use of bolt cutters or other metal cutting tools
- Be identified with the name of the employee who uses it.

**Group Lockouts**

Sometimes a group of employees must repair or maintain equipment or machines.

**When this is the case:**

- Responsibility for the lockout must go to an authorized group member. This employee must make sure all members of the group are protected during lockout.
- All group members must attach their own lock using the multiple lockout adapter.

Only the person who installed his or her lock is allowed to remove it. The only exceptions are for shift changes or when the employee who applied the lock or tag is not available to remove it. In that case, the lock or tag may be removed under the direction of management. Management must use the same procedures and safeguards in this process that would have been used by the employee who applied the lock or tag.

**Outside Employees**

Whenever employees outside Cypress Employment Services perform maintenance and servicing of equipment, the appropriate supervisor and outside employee must inform each other of their lockout or tagout procedures. The lockout/tagout must be implemented according to established procedures.

# Tag-out Procedures

Printed tags warn employees of danger. They don't normally prevent energy isolating device movement. They warn affected and other employees that the tags must not be removed and that energy isolating devices must remain as positioned. Tags can be used only if they provide the same level of safety furnished by lockout. If tagout is used, additional safeguards beyond those necessary for lockout are required. For example, measures that can reduce the possibility of energization include: removing a circuit interrupting element, blocking a controlling switch, opening an extra disconnect device or closing a valve and removing the valve handle.

**Tags used for tagout must:**

- Be strong and resilient enough to prevent accidental loss or removal
- Be standardized
- Have a type, format and warning (such as DANGER) that are the same for all tagout applications
- Be easy to read and understand
- Hold up against dirt, dampness and corrosion
- Be used *only* for tagout
- Identify the authorized employee, equipment and work being performed

**Tagout Device Attachment**

The means by which tags are attached must be:

- Strong enough so it won't release with less than 50 pounds of applied force
- Self-locking
- Attachable by hand
- Non-reusable

Procedures to attach and remove tags will be the same as for locks.

## Restoring Energy

When servicing and maintenance is complete, authorized employees will remove their locks and tags.

**The following steps will be used:**

- Keep all employees a safe distance from the machine or equipment.
- Remove tools and equipment from the work area.
- Reinstall machine safeguards.
- Remove lockout and tagout devices.
- Restore energy.
- Test for safe operation.
- Notify affected and other employees that the machinery is in service and safe to operate.

**Definitions**

**Energy Isolation Device**

An apparatus which physically prevents the transmission or release of energy. Such devices include but are not limited to the following: Restraint blocks, manually operated circuit breakers, disconnect switches, slide gates, slip blinds, line valves. Push button, selector switches and other controls in an electrical circuit are not to be considered as energy isolation devices.

**Lockout**

The placement of a lock on an energy isolation device to physically prevent the inadvertent release of energy.

**Tagout**

The attachment of a tag to an energy isolation device or to a lock placed on it to warn others not to remove the device, and to inform them of the name of the person who attached the lock or tag, the reason for doing so and the date and time it was done.

**Personal Tag**

A distinctively colored and marked tag used solely to protect persons working on equipment/processes which could transmit harmful amounts of energy if the isolation device to which the tag is attached were to be removed or operated.

**Department Tag**

A distinctively colored and marked tag used solely to inform others that a piece of equipment or process is under the control of a particular department and that the equipment/process is not released for operation until an authorized department representative removes the tag from the energy isolation devices(s).

**Caution Tag**

A distinctively colored and marked tag used by anyone to warn others of an existing or potential hazard or problem associated with the operation of the equipment/process controlled by the energy isolation device to which the tag is attached.

# FORKLIFT PROGRAM

Cypress Employment Services complies with OSHA requirements regarding forklift operations, training, certifications, inspections, etc. Cypress Employment Services ensures that each powered forklift operator is competent to operate a powered industrial truck (forklift) safely, as demonstrated by the successful completion of training and evaluation as specified by OSHA. A well-trained operator, who is familiar with the equipment, understands its mechanical components, and practices safe operating techniques, makes the difference. The operator has total control of a forklift when it is being operated, and that responsibility must be taken seriously.

**Here are some responsibilities of the forklift driver:**

- You must be trained and authorized to operate a lift truck.
- Always maintain a safe speed and have full control of your lift truck.
- Use operator safety restraints whenever they are provided.
- Report any unsafe condition to your supervisor immediately.
- If a lift truck isn't working safely, remove it from service immediately and report it to your supervisor.
- Refuel only in designated areas.
- Follow safety instructions for refueling, charging, handling and storage.
- Warn pedestrians and other workers of your presence.
- Yield the right of way to pedestrians.
- Don't drive your lift truck up to anyone standing in front of a fixed object such as a wall.
- Stay within the load capacity the lift truck is rated for.
- Make sure a load is stable before you move it.
- Stay in the center of the aisle as you travel.
- Stop, sound your horn and proceed with caution at doorways, blind corners and intersections.
- Keep your hands, arms and legs inside the lift truck.
- Keep a clear view of where you are going. If the load blocks your view, drive in reverse.
- Don't let anyone ride on the lift truck, and don't use it to lift people.

**As pedestrians, we must follow these guidelines if we work near lift trucks.**

- Don't try to operate a lift truck unless you've been trained and authorized to use it.
- Stay alert for the sight and sound of a lift truck.
- Don't use short-cuts. Walk only in designated aisles and walk-ways.
- Stop and look both ways before you cross aisles and intersections. Then proceed with caution.
- Don't walk or stand under the raised forks of a lift truck.
- Stand clear of lift trucks so the wheels won't run over your feet.
- Stay clear of them during loading and unloading. The operator is concentrating on his work and may be unaware of your presence.
- Don't smoke near a lift truck that's being refueled or recharged.

**Forklift Operator Training**

Cypress Employment Services or the client company will provide training for forklift operators and forklift maintenance personnel. After training is successfully completed, the forklift operator will be issued a Forklift Operator Certification Card.

**Previous Operator Training**

Operators that have received forklift operator training at a previous job, or on a different type of forklift than the type they are about to be assigned, must complete initial training on the new operating environment and/or the characteristics of the new forklift.

If an operator has previously received training in a topic covered in the initial training, and such training is appropriate to the forklift and working conditions encountered, additional training in that topic is not required if the operator has been evaluated and found competent to operate the forklift safely.

**Initial Operator Training**

A prospective operator will be trained and certified before he or she is assigned to operate a forklift. A trainee will operate a forklift only under the direct supervision of a trainer who has the knowledge, training, and experience to train operators and evaluate their competence, and where the operation will not endanger the trainee or other employees.

Training may consist of a combination of formal instruction and demonstrations performed by the trainer, practical exercises performed by the operator, and an evaluation of the operator's performance.

The forklift operator initial training program should cover the following topics, unless the client company can demonstrate that certain topics are not applicable to the safe operation of the forklift:

- Characteristics of the forklift:
  - Differences from the automobile
  - Controls and instrumentation, such as location, what they do, and how they work
  - Engine or motor operation
  - Steering and maneuvering
  - Visibility
  - Fork and/or attachment adoption, operation, and limitations of their use
  - Vehicle capacity
  - Vehicle stability
  - Vehicle inspection and maintenance the operator will be required to

perform
  - Refueling or charging and recharging batteries
  - Operating limitations
  - Any other operating instruction, warning, or precaution listed in the operator's manual for the type of vehicle the employee is being trained to operate
- The operating environment:
  - Floor surfaces and/or ground conditions where the vehicle will be operated
  - Composition of probable loads and load stability
  - Load manipulation, stacking, or unstacking
  - Pedestrian traffic
  - Narrow aisle and restricted place operation
  - Operating in classified hazardous locations
  - Operating the truck on ramps and other sloped surfaces that would affect the stability of the vehicle
  - Other unique or potentially hazardous environmental conditions that exist or may exist in the workplace
  - Operating the vehicle in closed environments and other areas where insufficient ventilation and/or poor vehicle maintenance could cause a buildup of carbon monoxide or diesel exhaust

**Inspection and Maintenance**

Forklifts should be inspected daily before they are used, and after each shift for a forklift used for more than one consecutive shift. Forklift operators and forklift maintenance personnel should implement the following maintenance precautions:

- Keep forklifts clean and free of lint, excess oil, and grease.
- Clean forklifts with noncombustible agents.
- Have trained, authorized people handle repairs.
- Perform fuel or ignition system repairs that present fire hazards in assigned areas free of ignition sources.
- Disconnect batteries before repairing a truck's electrical system.
- Keep water mufflers at least 75 percent full.
- Report the following conditions to the supervisor and stop operating a forklift that:
  - Is not in condition to operate safely.
  - Has clogged muffler screens or parts.
  - Sends out hazardous sparks or flames from the exhaust.
  - Has any part that overheats beyond its normal operating temperature.

# CONFINED SPACE

**What is a Confined Space?**

A confined space is defined by its size and shape.  It is large enough for a person to

enter, however it is not designed for continuous occupancy since its openings are limited. Examples of confined spaces include tank cars, process vessels, silos, bins, boilers, pipelines and manholes. Problems can occur because inexperienced workers enter confined spaces infrequently for repair or maintenance.

## Training

The training provisions of the standard require initial training for:

- Employees authorized to enter spaces
- Attendants
- Entry supervisors
- Rescue and emergency personnel

Refresher training is required when:

- Duties change
- Hazards change
- Inadequate employee knowledge is observed

## Rescue Training:

The Confined Space Rescue Team should receive training in first-aid and CPR, learn to communicate with workers in confined spaces and be familiar with both entry or non-entry rescue systems and rigging equipment.
Non-entry rescue is always preferred when possible because the rescuer's safety is ensured; however, some confined spaces present obstacles to prevent the workers from being lifted directly out of the workplace. The rescue team should be prepared for these emergency situations as well.

## Testing for Invisible Dangers

Confined spaces are dangerous because the oxygen level inside may be too low to support human life. Normal fresh air contains about 21 percent oxygen. A confined space with less than 19.5 percent oxygen presents a hazard. Breathing such air without adequate ventilation can cause loss of coordination, fatigue, dizziness, drowsiness, nausea, unconsciousness and eventually death. It happens fast. Workers have been killed in the time it took to retrieve a dropped tool from the bottom of a tank. Hazardous, toxic or flammable materials may lurk in the atmosphere of confined spaces in high concentrations causing the unstable air to burst into flames, explode or poison you. The air in a confined space is dangerous if its concentration of flammable gas, vapor or mist exceeds 10 percent of the lower flammability limit (LFL) or if the concentration of combustible dust exceeds LFL. Air with more than 23.4 percent oxygen can also be a fire hazard. Check the confined space entry permit to determine which toxins to test for. Make sure these do not exceed their permissible exposure limit (PEL).

## Before entering any confined space, test it every time for these hazards:

- Oxygen deficiency
- Flammability
- Toxicity

## Permits: Your Ticket to Confined Space Entry

Because confined spaces present such hazards, OSHA requires employees to undergo training and be issued a written permit to work in them when:

- There is the *potential* or when the atmosphere is known to be hazardous.
- The workspace contains a liquid or solid material that may engulf the worker.
- The workspace contains wedged or narrow walls; risks from too much noise, heat, moving machinery parts; or other work hazard that becomes escalated by confinement.

The confined space permit system assists employees in protecting themselves by providing for written entry permits issued by an entry supervisor. Permits indicate acceptable confined space testing equipment and procedures, lockout procedures and ventilation system requirements. A permit-entry system also provides for an authorized attendant to stand watch while a co-worker is in a confined space. The attendant should have communications equipment and contact information.

## Entering a confined space is not the time to be in a hurry.

- After confined space atmosphere testing, consulting Cypress Employment Services's permit policy and assessing a confined space for hazards, a worker must protect him or herself with proper equipment such as clothing, eye and ear protection or respirators for the required hazard.
- Use only safe, grounded, explosion-proof equipment.
- Use ventilating equipment appropriately; cut off any fume or heating agents that are released into the confined space.
- Follow lockout procedures for entering a space involving electrical equipment.

## Protection in Confined Spaces

Never underestimate the hazards of working in confined spaces. Keep these safety rules in mind:

- Obtain an entry permit before you approach any confined space.
- Check the precautions required by that permit.
- Wear personal protective equipment, including a lifeline or harness as well as respiratory protection.
- Work with an attendant who regularly monitors and communicates with you.
- Stay alert for danger signs. When dizziness or danger threatens, get out *fast*.
- Never go into a confined space in an emergency without training and without the right safety equipment.

## Working Inside

Employees should use the following information to help protect themselves when working inside a confined space.

### Test Before Entering

- Use the right testing device to check for hazards.
- Check for oxygen deficiency and oxygen enrichment and for toxic or flammable atmospheres.

- Test the air from top to bottom and in remote areas.
- Check the space around pipes, ducts and valves where gases and vapors can build up.

**Cleaning and Ventilation**

- Continue monitoring the atmosphere at frequent intervals while inside the space.
- Ventilate with forced air, blower units or other positive ventilation devices.
- Remove any sludge, scale or residue. These can give off harmful gases.
- Clean the area with water or cleaner recommended for use specifically on that chemical.
- Re-test the atmosphere each time you re-enter the space.

**Life Protection System**

- Wear a respirator if one is required.
- Wear the right personal protective equipment for the known potential hazards. This includes protection for your head, face, ears, eyes, hands and feet, as well as respiratory protection where required.
- Stay in constant communications with your attendant as you work. Perhaps voice or visual contact is impractical. If so, use hand or rope signals, a radio or a sound-powered telephone.
- Attach yourself to a lifeline or a harness so you can be pulled out in case of an emergency.
- Don't smoke or eat inside a confined space.
- Stay alert to possible hazards as you work.
- Get out fast if you feel light-headed or disoriented or if you notice other unusual symptoms.

**Lighting and Equipment**

- Make sure the lighting is explosion-proof.
- The bulb should be shielded to protect you against accidental contact.
- Check the cords, grounds, receptacles, plugs and connectors for wear and damage.
- Where necessary, use hand tools that are non-sparking and explosion-proof, as well as a Ground Fault Circuit Interrupter (GFCI) for electrically powered tools.
- If the space contains flammables, don't use matches or other open flames.

**Protective Equipment**

Workers in confined spaces often need protection equipment. This may include:

**Respiratory Protection**

Air-purifying respirators (half and full face "masks") offer no protection against oxygen deficiency or oxygen enrichment. However, they can remove contaminants from the air you breathe. To safeguard against dusts, fumes and mists, respirators must be equipped with filters. To protect against chemical vapors and certain gases, respirators must be equipped with cartridges.

Some contaminants require a respirator equipped with a combination of filters and cartridges.

- Both filters and cartridges must be specific to the type of hazard or hazard class against which they'll be used. For example, filters might protect against dusts, fumes and mists as a class; cartridges might protect against mercury vapor,

acid gases or pesticides.
- Only *specific* filters and cartridges can be effective against *specific* hazards.
- Air purifying respirators should *not* be used in confined spaces where there is potential for oxygen deficiency or highly toxic atmospheres.

**Supplied Air Respirators**

- Air-line respirators help protect against temperature extremes and heavy concentrations of dusts, fumes, mists, gases and vapors. Air-line respirators can protect against oxygen deficiency when used with a small self-contained breathing apparatus (sometimes called an escape bottle).
- A self-contained breathing apparatus (called an SCBA) is useful in areas that can't be tested. This protection is vital in emergencies against unknown hazards, oxygen-deficiency or an atmosphere that is immediately dangerous to life and health. Ask a safety or health professional which specific type is right for the work you'll perform.

**Safety Lines**

- Lifelines and safety harnesses must be designed for use in removing a worker who's unconscious.
- Harnesses should be equipped with quick-release devices so they can come off fast in an emergency.

**Equipment Maintenance**

- Employees are responsible for *keeping* all personal protective equipment in top working order, *checking* it before use, and *reporting* any rips, tears or defects to your supervisor.
- Cypress Employment Services will *replace* worn or damaged equipment immediately.

**Handling Emergencies**

An accident in a confined space demands immediate action. If a worker signals for help or becomes unconscious in the confined space the attendant should:

- Use a phone or radio to call for help immediately, including medical aid.
- Start ventilation equipment right away.
- Enter the confined space *only* if the attendant has been trained to do so. The attendant should be equipped with the correct respiratory protection plus a safety harness or a lifeline.
- Station another trained attendant nearby to help.
- Administer first aid or CPR as necessary if the attendant is trained to do so.

# CRANE OPERATION AND LIFTING

When applicable, the client company shall conduct periodic hazard assessments and ensure that all appropriate safe work practices for each type of lift operation, crane maintenance activity, and crane inspection are implemented. Operations should be suspended if

it is determined that workers are exposed to potential injury or if equipment may be damaged.

**Crane Operator and Operator Trainees**

- Only designated personnel are authorized to operate cranes.
- Upon initial assignment and at least every 3 years thereafter, all personnel involved in crane operations must successfully pass a substance abuse test with a negative result. The test must be confirmed by a recognized laboratory service.
- Operator physical examinations must be required every 3 years or more frequently if supervision deems it necessary.
- Operators and operator trainees must satisfactorily pass a written examination covering operational characteristics and controls, along with emergency control skills, such as response to fire, power line contact, loss of stability, and control malfunction. The exam will also include characteristic and performance questions appropriate to the crane type for which qualification is sought.
- Operators must be adequately trained in the use of fire extinguishers.
- Operators must complete a practical operating skill evaluation test (actual or simulated), demonstrating proficiency and basic knowledge in handling the specific type crane for which the operator is being evaluated, that includes:
    - Prestart and post-start inspection
    - Maneuvering skills
    - Shutdown
    - Securing the crane

**Riggers**

Riggers must pass a practical rigging skill evaluation that requires the use of rigging equipment in safe configurations. The actual or simulated operation must enable personnel to demonstrate basic knowledge and skills at a level that ensures the safety of personnel and equipment.

**Requalification**

Crane operator and rigger qualification is for a period not to exceed 3 years, unless the qualification is revoked sooner by the employee's manager.

The program for requalification of all crane-related personnel must include:

- Completion of a written or oral evaluation relevant to the type of equipment used or participation in a refresher training program
- A performance evaluation

**Load Limits**

The crane must not be loaded beyond its rated capacity except for test purposes.

**Rated-Load Marking**

The rated capacity must be marked on each side of the crane. If the crane has more than one hoisting unit, each hoist must have its rated capacity marked on it or on its load block. Markings on the bridge, trolley, and load block must be legible from the ground or floor.

**Crane Modification**

Cranes may be modified or rerated provided the modifications or supporting structures are analyzed thoroughly by the crane manufacturer or a qualified engineer. The method(s) for modifications and re-ratings must be approved by the cognizant engineering organization. A rerated crane, or one whose load-supporting components have been

modified, must be tested.

**Electrical Equipment**
Wiring and equipment must comply with OSHA's electrical standards (29 CFR 1910.301 to 1910.399). Electrical equipment must be located or enclosed to prevent live parts from being exposed to accidental contact under normal operating conditions. Electrical equipment must be protected from dirt, grease, oil, and moisture. Guards for live parts must be substantial and located so that they cannot be accidentally deformed and make contact with the live parts.

**Cab-operated cranes.** On cab-operated cranes, a switch or circuit breaker of the enclosed type, with provision for locking in the open position, must be provided in the leads from the runway conductors. A means of opening this switch or circuit breaker must be located within easy reach of the operator.

**Floor-operated cranes.** On floor-operated cranes, a switch or circuit breaker of the enclosed type, with provision for locking in the open position, must be provided in the leads from the runway conductors. This disconnect must be mounted on the bridge or footwalk near the runway collectors. One of the following types of floor-operated disconnects must be provided:

- Nonconductive rope attached to the main disconnect switch.
- An under-voltage trip for the main circuit breaker operated by an emergency stop button in the pendant pushbutton station.
- A main line contactor operated by a switch or pushbutton in the pendant pushbutton station.

**Over-travel limit switch.** The hoisting motion of all electric traveling cranes must be provided with an overtravel limit switch in the hoisting direction.

**Lifting magnet.** All cranes using a lifting magnet must have a magnet circuit switch of the enclosed type with provision for locking in the open position. A means for discharging the inductive load of the magnet must be provided.

**Crane runway conductors.** Conductors of the open type mounted on the crane runway beams or overhead must be so located or so guarded that persons entering or leaving the cab or crane footwalk normally could not come into contact with them.

**Clearance from Obstructions**
Minimum clearance of 3 inches (in.) overhead and 2 in. laterally must be provided and maintained between crane and obstructions in conformity with Crane Manufacturers Association of America, Inc. (CMAA), Specification No. 70, *Electric Overhead Traveling Cranes*. Where passageways or walkways are provided, obstructions must not be placed where the safety of personnel will be jeopardized by movements of the crane.

**Stops**
Stops must be provided at the limits of travel of the trolley and fastened to resist forces applied when contacted. A stop engaging the tread of the wheel must be of a height at least equal to the radius of the wheel.

**Bumpers**
A crane or trolley must be provided with bumpers or other automatic means that provide equal effect, unless the crane:

- Travels slowly and has a faster deceleration rate due to the use of sleeve bearings;

- Is not operated near the ends of bridge and trolley travel;
- Is restricted to a limited distance by the nature of the crane operation and there is no hazard of striking any object in this limited distance; *or*
- Is used in similar operating conditions.

The bumpers must be designed and installed to minimize parts falling from the crane in case of breakage.

When more than one trolley is operated on the same bridge, each must be equipped with bumpers or equivalent on their adjacent ends. Bumpers or equivalent must be designed and installed to minimize parts falling from the trolley in case of age.

**Guards**
Guards must be installed if hoisting ropes run near enough to other parts to make fouling or chafing possible. A guard must be provided to prevent contact between bridge conductors and hoisting ropes if they could come in contact. Exposed moving parts, such as gears, set screws, projecting keys, chains, chain sprockets, and reciprocating components, which might constitute a hazard under normal operating conditions, must be guarded. Guards must be securely fastened and must be capable of supporting without permanent distortion the weight of a 200-pound (lb) person unless the guard is located where it is impossible for a person to step on it.

**Automatic Rail Clamps**
Outdoor storage bridges must be provided with automatic rail clamps.

**Wind-Indicating Device**
A wind-indicating device must be provided that will give a visible or audible alarm to the bridge operator at a predetermined wind velocity.

**Emergency Exits from Cab**
On cab-operated cranes, there must be at least two means of exit from the crane, remote from each other, and arranged to permit departure under emergency conditions.

**Rail Sweeps**
Bridge trucks must be equipped with sweeps that extend below the top of the rail and project in front of the truck wheels.

**Hoisting Equipment**
***Sheave Grooves***
Sheave grooves must be smooth and free from surface defects that could cause rope damage. Sheaves carrying ropes that can be momentarily unloaded must be provided with close-fitting guards or other suitable devices to guide the rope back into the groove when the load is applied again. The sheaves in the bottom block must be equipped with close-fitting guards that will prevent ropes from becoming fouled when the block is lying on the ground with ropes loose. Pockets and flanges of sheaves used with hoist chains must be of such dimensions that the chain does not catch or bind during operation. All running sheaves must be equipped with means for lubrication. Permanently lubricated, sealed, and/or shielded bearings meet this requirement.

***Ropes***
The crane manufacturer's recommendation must be followed when using hoisting ropes.

**Rated load.** The rated load divided by the number of parts of rope must not exceed

20 percent of the nominal breaking strength of the rope.

**Socketing.** Socketing must be done in the manner specified by the manufacturer of the assembly.

**Securing the rope.** Rope must be secured to the drum as follows:

- No less than two wraps of rope must remain on the drum when the hook is in its extreme low position.
- The rope end must be anchored by a clamp securely attached to the drum or by a socket arrangement approved by the crane or rope manufacturer.

**Rope clips.** Rope clips attached with U-bolts must have the U-bolts on the dead or short end of the rope. Spacing and number of all types of clips must follow the clip manufacturer's recommendation. Clips must be drop-forged steel in all sizes manufactured commercially. When a newly installed rope has been in operation for an hour, all nuts on the clip bolts must be retightened. Swaged or compressed fittings must be applied as recommended by the rope or crane manufacturer.

**Extreme temperatures.** Whenever exposure to extreme temperatures would cause fiber-core damage, use rope that has an independent wire-rope or wire-strand core or other temperature-damage-resistant core.

**Replacement rope.** Replacement rope must be the same size, grade, and construction as the original rope furnished by the crane manufacturer, unless otherwise recommended by a wire-rope manufacturer because of actual working condition requirements.

**Load tensioning.** If a load is supported by more than one part of rope, the tension in the parts must be equalized.

**Hooks**
Hooks must meet the manufacturer's recommendations and must not be overloaded.

**Warning Device**
Except for floor-operated cranes, cranes equipped with a power traveling mechanism must have a gong or other effective warning signal.

## INSPECTIONS

**Cranes in Regular Service**
Inspection requirements for cranes in regular service must follow the procedures provided by the crane manufacturer unless authorized alternative procedures are prescribed.

**Correct deficiencies.** Any deficiencies discovered during the inspection of a crane conducted according to the procedures outlined in this section and referenced attachments that could reduce its load capacity or adversely affect its performance must be corrected before the crane is returned to service.

***Initial Inspection***
New, reinstalled, altered, modified, or extensively repaired cranes must be inspected before initial use according to the written procedures outlined in the crane manufacturer’s manual and in this Plan and attachments. All safety devices, controls, and other operating parts of the equipment must be checked during each inspection and must be in good working

order before operating a crane. Inspections of equipment must also follow the testing procedures described in the ***Equipment Tests*** section of this Plan.

See the attached *Pre-Operation Checklist* for a list of initial inspection procedures.

***Daily Inspection***
Each crane must be inspected by a qualified crane operator or designated inspector before daily use or before each work shift. The operator must determine whether equipment must be removed from service or if a more detailed inspection is required.

**Controls.** Test all controls. If any controls do not operate properly, they should be adjusted or repaired before operations begin. Check that motions are smooth and regular, with no hesitations, vibration, binding, weaving, unusual noise, or other irregularity.

**Primary upper-limit device.** The trip-setting of primary upper-limit switches must be checked under no-load conditions by inching the block into the limit.

**Ropes and load chains.** Visually inspect all ropes and load chains for damage.

**Functional operating mechanisms.** Inspect all functional operating mechanisms for maladjustment that can interfere with proper operation, including:
- Deterioration or leakage in lines, tanks, valves, drain pumps, and other parts of air or hydraulic systems
- Hooks with deformities, cracks, chemical damage, or excessive wear
- Hoist chains and end connections for excessive wear, twist, distorted links interfering with proper function, or stretch beyond manufacturer's recommendations
- Wire rope for wear, corrosion, kinking, crushing, or broken wires or strands
- Rope and chain reeving system
- Hoist braking system

**Daily inspection records.** Ensure that inspections of all components, including wire rope, chains, and crane, are current via inspection sticker or other documentation from the designated inspector. The inspection can be documented on a tag attached to the crane controls, or it may be documented in a log that is kept with the key that unlocks the crane controls. Inspection tags must be collected by the crane service provider and kept on record. Where applicable, crane inspection logs must be reviewed by the crane service provider.

***Monthly Inspection***
The crane operator or other designated inspector must visually inspect the following items at least once per month for damage, wear, or other deficiency that might reduce capacity or adversely affect the safety of the crane:
- All control mechanisms for excessive wear of components and contamination by lubricants or other foreign matter
- All safety devices for malfunction
- Crane hooks with deformities or cracks, and for hooks with cracks having more than 15 percent in excess of normal throat opening or more than a 10-degree twist from the plane of the unbent hook
- Hook block at its lowest position for any condition that could result in an appreciable loss of strength
- Brakes
- Wire ropes and chains

- Rope reeving for noncompliance with manufacturer's recommendations
- Electrical apparatus for malfunctioning, signs of excessive deterioration, dirt, and moisture accumulation

**Monthly inspection records.** Signed and dated inspection records must be kept on file and must be readily available to designated personnel. A certification record of inspections for the following crane components must be kept on file:

- Hooks with deformities or cracks, with a certification record that includes the date of inspection, the signature of the person who performed the inspection, and the serial number or other identifier of the hook inspected
- Hoist chains, including end connections, with a certification record that includes the date of inspection, the signature of the person who performed the inspection, and an identifier of the chain that was inspected
- All functional operating mechanisms for excessive wear of components
- Rope reeving for noncompliance with manufacturer's recommendations

***Periodic Inspection***

Complete inspections of all cranes must be performed by a qualified inspector at 1- to 12-month intervals, depending on the crane's activity, severity of service, and environment.

**Normal service.** Cranes under normal use throughout the year should receive complete inspections annually.

**Heavy service.** Cranes under heavy service should receive complete inspections at least every 6 months.

**Severe service.** Cranes under severe service should receive complete inspections at least every 1 to 3 months.

**Components to be inspected.** The qualified inspector must examine the following items for deficiencies and determine whether they constitute a hazard:

- Deformed, cracked, or corroded members
- Loose bolts or rivets
- Cracked or worn sheaves and drums
- Worn, cracked, or distorted parts, such as pins, bearings, shafts, gears, rollers, locking and clamping devices
- Excessive wear on brake system parts, linings, pawls, and ratchets
- Load, wind, and other indicators over their full range, for any significant inaccuracies
- Gasoline, diesel, electric, or other power plants for improper performance or noncompliance with applicable safety requirements
- Excessive wear of chain drive sprockets and excessive chain stretch
- Electrical apparatus for signs of pitting or any deterioration of controller contactors, limit switches, and push-button stations

**Periodic inspection records.** Dated and signed inspection records must be kept on file and must be readily available for review by designated personnel.

**Wire Rope**

Any deficiencies discovered by a designated inspector during the inspection of wire rope that could reduce its load capacity or adversely affect its performance must be corrected before the rope is returned to service, or the rope must be removed from service.

The inspection must include examination of the entire length of the rope without detaching it from the drum.

**Frequent Inspection**
The frequency of inspection intervals for wire rope must be determined by a designated inspector and must be based on such factors as expected rope life as determined by severity of:

- Environment
- Percentage of capacity lifts
- Frequency of operation
- Exposure to shock loads

At a minimum, all ropes must be thoroughly inspected once every 30 days.

**Inspect for signs of deterioration or weakness.** Any deterioration of wire ropes resulting in appreciable loss of original strength must be carefully observed and determination made as to whether further use of the rope would constitute a safety hazard. Some of the conditions that could result in an appreciable loss of strength are:

- Reduction of rope diameter below nominal diameter due to loss of core support, internal or external corrosion, or wear of outside wires
- A number of broken outside strands and the degree of distribution or concentration of such broken wires
- Worn outside strands
- End connections with corroded or broken wires or that are cracked, bent, worn, or improperly applied
- Sections of the rope at or near terminal ends where corroded or broken wires may protrude
- Severe kinking, crushing, cutting, or unstranding of wire(s)
- Ropes with saddles or with heavy wear and/or broken wires at sections in contact with equalizer sheaves or other sheaves where rope travel is limited

***Annual Inspection***
A designated inspector must inspect wire ropes at least annually. The inspector must carefully note any deterioration that results in appreciable loss of original strength and determine whether further use of the rope constitutes an acceptable risk. The inspection must include examination of the entire rope length without detaching it from the drum.

**Irregularly Used Wire Rope**
All rope that has been idle for a month or more due to shutdown or storage of a crane must be thoroughly inspected before it is used. This inspection must be for all types of deterioration and performed by a designated inspector whose approval must be required for further use of the rope. Non-rotating rope must be carefully inspected. Operators must keep a certification record of wire rope inspections on file and readily available to appointed personnel. The certification must include the date of inspection, the signature of the person who performed the inspection, and an identifier for the ropes that were inspected.

**Load Hooks and Blocks**
A designated inspector must inspect load hooks and load blocks that have been changed out before returning the crane to service. Inspection records must be retained on file throughout the service life of the hook or load block and must be readily available for review by designated personnel.

**Inspection Records**
Certification records must be made monthly on critical items in use, such as brakes,

crane hooks, and ropes. The certification must include:

- The date of inspection
- The signature of the person who performed the inspection
- The serial number or other identifier of the crane that was inspected

The certification record must be kept on file and readily available to designated personnel.

**Load Attachment Chains and Rope Slings**

Load attachment chains and rope slings showing defects must be repaired or replaced promptly, as must all critical parts that are cracked, broken, bent, or excessively worn.

**Pendant Control**

Pendant control stations must be kept clean and function labels kept legible.

**Wire Rope**

Personnel using wire rope must ensure proper care in compliance with the following guidelines.

**Storage.** Store rope to prevent damage or deterioration. Unreel or uncoil rope as recommended by the rope manufacturer and with care to avoid kinking or twisting.

**Cutting.** Before cutting a rope, use a method that prevents the unlaying of the strands. Heat-affected zones of flame-cut wire rope must not be allowed to bear a load.

**Installation.** During installation, avoid dragging the rope in the dirt or around objects that will scrape, nick, crush, or induce sharp bends in it.

**Lubrication.** Maintain rope in a well-lubricated condition to reduce internal friction and to prevent corrosion. Ensure that lubricant applied as part of a maintenance program is compatible with the original lubricant. Consult the rope manufacturer when in doubt. Lubricant applied must be of the type that does not hinder visual inspection. Those sections of rope that operate over sheaves or that are otherwise hidden during inspection and maintenance procedures require special attention when the rope is lubricated.

**Worn ends.** When an operating rope shows greater wear at its ends than on the remainder, its life can be extended (in cases where a reduced rope length is adequate) by cutting off the worn end, thus shifting the wear to different areas of the rope.

**Hooks**

Discard hooks with cracks or those having more than 15 percent in excess of normal throat opening or more than a 10-degree twist from the plane of the unbent hook.

Repairs by welding or reshaping are not generally recommended. If such repairs are attempted, they must be done only under competent supervision, and the hook must be tested to a rated load test before further use.

**Maintenance Records**

Dated maintenance records must be kept where readily available to appointed personnel. The most recent copy of dated records that document maintenance of critical items, such as hoisting machinery, sheaves, hooks, chains, ropes, and other lifting devices, must be retained in a maintenance file. Maintenance records must be retained in the crane history file, or an electronic recordkeeping system may be used.

## GENERAL OPERATING PRACTICES

### Crane Operator General Work Practices

Operators are responsible for those operations under their direct control. The qualified operator must perform the following activities:

- Safely operate equipment.
- Follow the equipment operating guidelines.
- Perform the pre-use and frequent equipment inspection.
- Ensure that the load will not exceed the rated capacity of the equipment.
- Abide by any restrictions placed on the use of the equipment.
- Ensure inspections are current via inspection sticker, other documentation, or verbal confirmation from the equipment custodian.
- The crane must not be loaded beyond its rated load except for test purposes.
- Do not engage in any attention-diverting activity while operating the crane.
- When physically or mentally unfit, do not engage in the operation of equipment.
- Respond to signals from the appointed signal person.
- Obey a STOP signal no matter who gives it.
- Whenever there is any question as to the safety of the activity, an operator has the authority to stop and refuse to handle loads until the matter has been resolved by supervisory personnel.
- Sound a warning signal (if furnished) during travel, particularly when approaching personnel.
- Notify the next operator of any defects in equipment or operating problems at shift change.
- Contacts with runway stops or other cranes must be made with extreme caution. If ordered to engage with or push other cranes, do this with particular care for the safety of persons on or below the cranes, and only after making certain that any persons on the other cranes are aware of what action is to be taken.
- Secure outdoor cranes before leaving them.
- When the wind-indicating alarm is given, anchor the bridge on outside cranes.
- Do not hoist two or more separately rigged loads in one lift, even though the combined load is within the crane's rated capacity.
- Do not lift, lower, or travel the crane while anyone is on the load or hook.

### Fire Extinguisher

Ensure that a 10BC or larger fire extinguisher is installed in the cab of cab-operated cranes. The extinguisher must be maintained in a serviceable condition. Operator must be trained in the proper usage of the fire extinguisher.

### Unattended Crane

Before leaving the crane unattended, the operator must perform the following tasks:

1. Land any load, bucket, lifting magnet, or other device.
2. Set travel brakes and other locking devices.
3. Put controls in the off or neutral position.
4. Secure the crane against accidental travel.

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

### Fall Prevention and Fall Arrest

When an employee is performing maintenance, repair, or inspection of a crane 6 ft or more above the ground or lower level and a standard barrier or platform is not provided, the employee must wear an approved safety harness and lanyard or a fall arrest device

and fasten the lanyard or device to a secure anchor.

**Safety Shoes**
All personnel participating in lifts involving cranes or hoists must wear approved safety shoes.

**Hard Hats**
All personnel must wear approved hard hats when such personnel operate a crane or participate in a lift or are within 15 ft of the vertical plane of the load.

If the top of the load is lifted to a height greater than 5 ft, the load is considered an overhead hazard and head protection must be worn.

**Gloves**
Workers who handle wire rope or loads with rough or sharp edges or splinters must wear sturdy work gloves.

## TRAINING

All personnel who operate, rig, inspect, or perform maintenance on cranes and related equipment covered under this Plan must be provided with training, including a means of evaluation, to ensure that they are competent to perform their tasks safely.

**Training Methods**
Trainers must use training methods best suited for the students and the subject material. This may include, but is not limited to:

- Computer-aided training
- Classroom training
- Simulated field training
- On-the-job training
- Training by equipment manufacturer or commercial training companies

Score standards must be set for each examination by the training organization. The minimum passing score will depend on the subject, testing technique, and test difficulty. Management must determine the course of action for persons receiving negative evaluations.

**Crane Operators**
Only qualified and authorized operators, or operator trainees under the direct supervision of a qualified operator, are permitted to operate cranes.
Operators must demonstrate knowledge of equipment operating characteristics, capabilities, limitations, effects of variables, safety features, and operating procedures for the cranes they will operate.

The following checklist contains basic factors with which an operator must be familiar. This checklist must be tailored to suit actual conditions.

- Load limits
- Operator aids
- Operating characteristics
- Environmental hazards, including weather
- Electrical hazards
- Traveling with load
- Traveling without load

- Lifting personnel
- Equipment inspections and tests
- Load weight estimation
- Emergency procedures
- Lessons learned
- Hand signals
- Load dynamics
- Applicable standards and regulations
- Critical lifts
- Safety features of equipment
- Terminology and definitions
- Ropes and reeving
- Records and documents
- Limit switches
- Warning signals
- Operating practices
- Fire protection
- Crane components
- Access and exit routes
- Warning devices

**Inspectors**
Employees who operate cranes to perform crane inspections must be trained and qualified to operate the crane on which the inspection is being performed. Qualified inspectors must have the necessary knowledge and experience to properly inspect hoisting and rigging equipment. Crane operation by crane inspectors must be limited to those crane functions necessary for performing the inspection on the crane.

Inspector training must include basic inspection techniques and acceptance/rejection criteria as specified in this Plan and other applicable sources.

**Instructors**
Instructors who develop or deliver lifting and rigging training programs must meet the qualification standards specified by the responsible training organization.

***Qualifications***
Instructors must develop technical competence by satisfactorily completing documented training or technical experience in the hoisting and rigging discipline.

***Continuing Education***
Instructors should attend recognized training courses, workshops, or seminars in order to remain current on industry practices and changes in applicable codes and standards.

**Signalers**
Signalers must be trained to give the standard hand signals to the crane operator.

**Previous Training and Qualification**
Personnel involved in crane operations who have documented evidence of previous related training or experience may be accepted as meeting training requirements. Previous training deemed acceptable may include:

- Vendor or equipment manufacturer training
- Completion of an apprenticeship program
- Journeyman status in an applicable trade

For previous training to be acceptable for qualification, documented evidence must include type and class of equipment and hours of experience. For qualifications not related to equipment operation, personnel must have documented evidence of training and experience related to an activity covered by this Plan. Documented evidence may be any of the following:

- Certificates of training
- Journeyman card or documents issued by a trade union
- Degree or accreditation from a college or trade school

When previous training and experience are accepted, personnel involved in crane operations will be considered qualified when they have passed a written and oral examination.

On-the-job training instructors, on-the-job evaluators, and operators of cranes and forklifts must satisfactorily complete an on-the-job evaluation.

# BLOODBORNE PATHOGEN STANDARD

Cypress Employment Services shall ensure that all employees with occupational exposure participate in a training program.

Training shall be provided at the time of initial assignment to tasks where occupational exposure may take place.

For employees who have received training on bloodborne pathogens in the year preceding the effective date of the standard, only training with respect to the provisions of the standard which were not included need be provided.

The training program shall contain at a minimum the following elements:

- An accessible copy of the regulatory text of this standard and an explanation of its contents.
- A general explanation of the epidemiology and symptoms of bloodborne diseases.
- An explanation of the modes of transmission of bloodborne pathogens.
- An explanation of the employer's exposure control plan and the means by which the employee can obtain a copy of the written plan.
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- An explanation of the use and limitations of methods that will prevent or reduce exposure including appropriate engineering controls, work practices, and personal protective equipment.
- Information on the types, proper uses, location, removal, handling, decontamination and disposal of personal protective equipment.
- An explanation of the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.

- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow-up that the employer is required to provide for the employee following an exposure incident.
- An explanation of the signs and labels/and or color-coding required by paragraph (g)(1)*
- The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

# ELECTRICAL PLAN

It is the policy of Cypress Employment Services to protect all employees from electrical hazards, including shock, electrocution, arc flash, arc blast, and fires. All electrical work will be conducted in a manner consistent with existing regulations and with recognized safe work practices. This Plan establishes safe work practices for routine operations. Operations that involve high voltage and other unique hazards will need additional procedures for the specific situation.

- No employee shall be permitted to work in the proximity of an electrical power circuit unless the circuit is de-energized and grounded or guarded with insulation, etc.
- Warning signs should be provided and used where all power circuits are located.
- Workspace around electrical equipment shall be 6 1/4 feet high, a radius of three feet wide, and shall have a clearance to permit a 90 degree opening of all doors or hinged panels.
- All exposed non-current carrying metal parts that may become energized will be grounded or double insulated and distinctly marked:
  - Portable hand-held motor operated tools.
  - Appliances.
  - Any equipment operated in excess of 150 volts to ground.
  - Outlets, switches, junction boxes, etc., will be covered. Damaged switches, wiring and electrical outlets will be promptly repaired.
- Extension cords will not be:
  - Used as a substitute for fixed wiring.
  - Run through holes in walls, ceiling, floors, doors, windows, etc.
  - Attached to building surfaces.
- All flexible cords shall be fastened so that there is no pull on joints or terminal screws and must be replaced when frayed or when the insulation has deteriorated. All splices in flexible cords shall be brazed, welded, soldered or joined with suitable splicing devices. Any splices and free ends of conductors will be properly insulated.
- The supervisor must make sure that all affected lines are de-energized by a qualified electrician. The electrician must lock out the line. Employees working near electrical lines should use insulated protective equipment and must keep a safe distance from any energized lines.

**Training**

Qualified persons will be trained before they are permitted to perform work on electrical utilization systems or equipment. Unqualified persons will be trained before they work near electrical utilization systems or equipment.

**Qualified persons**

Electrical training for qualified persons will include on-the-job demonstrations, exercises, and classroom sessions. Qualified employees will be trained on:

- Safety-related work practices, including proper selection and use of PPE, that pertain to their respective job assignments
- Skills and techniques necessary to distinguish exposed live parts from other parts of electrical equipment
- Skills and techniques necessary to determine the nominal voltage of exposed live parts, clearance distances, and the corresponding voltages to which the qualified person will be exposed
- The clearance distances specified by regulation (29 CFR 1910.333(c)) and the corresponding voltages to which the qualified person will be exposed
- Procedures on how to perform their jobs safely and properly
- How to lockout/tagout energized electrical circuits and equipment safely

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Safety employees designated to support electrical safety programs will be knowledgeable and trained at levels commensurate with their duties.

# HAZARDOUS COMMUNICATIONS

## Hazardous Plan and MSDS Sheets

All employees who are potentially exposed to hazardous chemicals in their assigned jobs must be fully informed of both the hazardous properties of the chemicals and the protective measures that are available to minimize exposure to these chemicals. This type of information will be made available to employees by means of labels on chemical containers, MSDSs, and training. Employees will be informed of any known hazards associated with chemicals to which they may be exposed before their initial assignment, whenever the hazards change, or when new hazardous chemicals are introduced into their respective work areas.

- **Labeling.** All containers of hazardous chemicals must be labeled and labels must be updated as contents change.
- **MSDS inventory.** Up-to-date MSDSs must be readily accessible in all work areas.
- **Employee training.** All employees will receive training concerning hazardous chemicals in their work areas.

**Plan Availability**

Copies of the Plan, including the written training program, should be available upon request to employees, their designated representatives, the state or federal safety regulatory agency, and to the National Institute of Occupational Safety and Health.

**Definitions**

*Chemical*—any element, chemical compound or mixture of elements and/or compounds
*Hazardous chemical*—any chemical which is a physical hazard or a health hazard
*Material safety data sheet (MSDS)*—a written description of a hazardous chemical or chemical product which contains comprehensive technical information about a

particular substance and explains the risks, precautions, and remedies to exposure related to hazardous chemicals

**Labeling**
All containers received for use will be clearly labeled as to the contents, note the appropriate hazard warning, and list the manufacturer's name and address.

**Material Safety Data Sheets (MSDSs)**
The Safety Officer is responsible for maintaining the MSDS program and will ensure that procedures are developed to obtain the necessary MSDSs, review incoming MSDSs for new or significant health and safety information, and will see that any new information is communicated to affected employees.

**MSDS Access**
MSDSs will be readily available to all employees during each work shift. The primary method for accessing MSDSs in work areas is in a binder marked MSDS sheets.

## Employee Training and Information

### Initial Training

Everyone who works with or is potentially exposed to hazardous chemicals will receive initial training on the Hazard Communication Standard and this Plan before starting work. Before a new hazardous chemical is introduced into any work area, each employee in the affected work area will be given information and training for the new chemical hazard.

### Retraining

Additional training will be conducted when new chemicals are introduced into the work area. Retraining is not required if the new chemical contains hazards similar to previously existing chemicals for which training has already been conducted.

## Non-routine Tasks Involving Hazardous Chemicals

Periodically, employees are required to perform non-routine tasks that may result in temporary exposure to hazardous chemicals.

Employees will not be provided hazardous chemical information and training for such non-routine tasks unless it is determined through a hazard assessment that a hazardous condition exists. Upon request by an employee, the employee will be provided with information about the hazardous materials he or she may encounter during the non-routine activity.

If it is determined that a hazardous condition exists with the non-routine task, employees performing the task will be provided with information that includes specific chemical hazards, safety measures or protective equipment the employee should use, and steps taken to reduce the hazards, such as ventilating, providing respirators, and implementing emergency procedures.

# Flammable and Combustible Liquids

Procedures for handling Flammable and Combustible Liquids:

- All connections for all drums and piping containing flammable and combustible liquids shall be vapor and liquid tight.
- In case of a spill that would pose a serious health hazard or a potential fire danger, the fire department shall be called.
- All flammable liquids shall be placed in approved closed containers when not in use. Glass containers shall never be used for storage or handling of flammable liquids.
- All combustible waste materials, such as oily shop rags shall be stored in covered metal containers, and such material disposed of on a daily basis.
- Separate chemical storage areas will be maintained.
- Strong acids or bases in contact with organic materials such as solvents or paints can generate heat or start fires. Acids in contact with cyanides and cyanide salts will form deadly cyanide gas. Because of this, all chemicals shall be checked for compatibility prior to their being stored in a specific area.

# Asbestos

Asbestos is a clearly recognized health hazard. There are a number of state and federal requirements, which regulate activities involving asbestos containing materials (ACM). ACM refers to products containing greater than 1% asbestos. These products may include, but are not limited to pipe and boiler insulation, floor tile, linoleum, gaskets, commercial adhesives, etc.

## Training

All personnel involved in abatement work shall receive initial and annual training as required by regulations. Maintenance personnel shall receive annual awareness training. Only trained, certified personnel may intentionally disturb asbestos material for the purpose of sampling, removal, encapsulation or abatement of asbestos material, or for the purpose of removing or disturbing materials joined with or adjacent to asbestos material.

## Surveys, Identification, Sampling and Reporting

Prior to renovation projects, and as requested, only qualified personnel will sample building materials to determine if asbestos is present. A database of all sampling results will be compiled. Information regarding the status of building materials and sampling results will be made available. Asbestos containing material which is identified as part of any renovation, demolition or construction project must be addressed, abated, removed or encapsulated by trained and certified personnel prior to or during the course of the project. A written plan, which specifically details the management techniques for the identified asbestos, must be developed and included as part of the project description.

Employees are responsible for ceasing operations once asbestos containing materials or suspect materials are encountered. The project will then be evaluated to determine the appropriate response.

# Benzene

Cypress Employment Services will ensure that all potential sources of Benzene within our facility(s) or client companies are evaluated. This standard practice instruction is intended to address comprehensively the issues of; evaluating and identifying potential sources of Benzene, evaluating the associated potential hazards, communicating information concerning these hazards, and establishing appropriate procedures, and protective measures for employees.

**Hazard Overview.** Benzene is a clear, colorless liquid with a pleasant, sweet odor. The odor of benzene does not provide adequate warning of its hazard. Benzene can affect your health if you inhale it, or if it comes in contact with your skin or eyes. Benzene is also harmful if you happen to swallow it. Routes of entry into the body include; Inhalation and skin absorption.

**Health Affects.**

- Short-term (acute) overexposure: If you are overexposed to high concentrations of benzene, well above the levels where its odor is first recognizable, you may feel breathless, irritable, euphoric, or giddy; you may experience irritation in eyes, nose, and respiratory tract. You may develop a headache, feel dizzy, nauseated, or intoxicated. Severe exposures to benzene may cause convulsions and loss of consciousness.
- Long-term (chronic) exposure: Repeated or prolonged exposure to benzene, even at relatively low concentrations, may result in various blood disorders, ranging from anemia to leukemia, an irreversible, fatal disease. Many blood disorders associated with benzene exposure may occur without symptoms.

**NFPA Overview:**

**Description:** Clear, colorless liquid with a distinctive sweet odor.
**Fire and Explosion Hazard:** Flammable liquid. Vapors form flammable mixture in air.
**Flammable Range:** Lower: 1.3%, Upper: 7.5%.
**Ignition Temperature:** 580 degrees (C) (1076 Degrees (F).
**Vapor Density:** 2.7, (vapors are heavier than air) (air = 1.0) will seek lower areas.
**Boiling Point:** 80.1 deg. C (176 deg. F).
**Chemical Abstract Service (CAS) Number:** 71-43-2.

Regulated Areas: Regulated areas are wherever the airborne concentration of benzene exceeds or can reasonably be expected to exceed the permissible exposure limits, either the 8-hour time weighted average exposure of 1 ppm or the short-term exposure limit of 5 ppm for 15 minutes.

Employee Notification and Signage. Signs should be posted at entrances to regulated areas. The signs shall bear the following legend:

**DANGER**
***BENZENE***
**CANCER HAZARD**
**FLAMMABLE - NO SMOKING**
**AUTHORIZED PERSONNEL ONLY**
**RESPIRATOR REQUIRED**

Labeled warning signs should be on containers of benzene within the workplace. There is no requirement to label pipes. The labels shall include the following legend:

**DANGER**
***CONTAINS BENZENE***

**CANCER HAZARD**

**Training.**

The degree of training provided shall be determined by the complexity of the job and the Benzene exposure hazards associated with the individual job.

Prior to job assignment, this employer shall provide training to ensure that the hazards associated with Benzene are understood by employees and that the knowledge, skills and personal protective equipment required are acquired by employees. The training shall as a minimum include the following:

- Each authorized employee shall receive training in the recognition of applicable hazards involved with the particular job and job site, as well as the methods and means necessary for safe work.
- The specific nature of the operation which could result in exposure to Benzene.
- The purpose, proper selection, fitting, use and limitation of personal protective equipment (PPE).
- The adverse health effects associated with excessive exposure to Benzene.
- The engineering controls and work practices associated with the employee's job assignment, including training of employees to follow relevant good work practices.
- The contents of any compliance plan in effect.
- The requirements of the Hazard Communication Standard under 29 CFR 1910.1200.
- The employee's right of access to records under 29 CFR 1910.20.
- The medical surveillance program in place at this facility used to determine Benzene exposure.

# Lead

**General requirements**. OSHA guidelines require that each employer who has employee(s) with potential occupational exposure to lead prepare an exposure determination. This exposure determination shall contain the following:

- A list of job classifications for all employees whose job classifications have occupational exposure.
- A list of job classifications in which some employees have occupational exposure.
- A list of all tasks and procedures or groups of closely related tasks and procedures in which occupational exposure occurs and that are performed by employees in job classifications listed in accordance with the provisions of the this standard practice instruction.
- The schedule and method of implementation, methods of compliance, Communication of Hazards and record keeping required by 29 CFR 1910.1025.
- The procedure for the evaluation of circumstances surrounding incidents.
- Methods of compliance.

**Training.**

The degree of training provided shall be determined by the complexity of the job and the lead exposure hazards associated with the individual job.

Each authorized employee shall receive training in the recognition of applicable hazards involved with particular job.

**Work Operations**.

- Work operations in which lead may be encountered involve welding, burning, cutting, brazing, grinding, and abrasive blasting.
- The equipment and materials used to accomplish work operations are those normally associated with sandblasting and painting operations.
- Employee crew size will vary and employee job responsibilities will be that of their craft.

**Medical Surveillance**.

- All medical examinations and procedures will be performed by or under the supervision of a licensed physician and are to be provided without cost to employees at a reasonable time and place.
- Medical consultations. Medical consultations will be provided upon notification by an employee under the following conditions:

    - The employee has developed symptoms commonly associated with lead-related disease.
    - The employee desires advice concerning the effects of lead on reproductive capacity, or is pregnant.
    - The employee has demonstrated difficulty in breathing during fit testing or use of a respirator.

- Multiple physician review. An employee may designate a second physician to review any findings, determinations or recommendations of an initial physician chosen by this employer. Efforts will be made to resolve any disagreement which may arise between the two physicians. Should they be unable to agree, a third physician they jointly select will resolve the disagreement. It is expected that the third physician will consult with the two prior physicians, and upon request, this employer will supply the same information to the third physician given to the initial physicians.
- Cost. This employer will bear the expense of the multiple physician review mechanism where it is used.

Signs shall be posted in each work area where the Permissible Exposure Level is exceeded. The signs shall be illuminated and cleaned as necessary and shall read:

**WARNING**
**HAZARD**
**LEAD WORK AREA**
**NO SMOKING, EATING OR DRINKING**

Protective work clothing and equipment shall be provided to employees as appropriate. It is each employee's responsibility to use the appropriate protective

work clothing and equipment such as, but not limited to:

- Coveralls or similar full-body work clothing.
- Shoes or disposable shoe coverlets, gloves, and hats.
- Face shields, vented goggles, welders gloves, etc.

**Housekeeping**

- The removal of lead from protective clothing or equipment by blowing, shaking, or any other means which disperses lead into the air is prohibited.
- Floors and other surfaces where lead accumulates shall not be cleaned by the use of compressed air or heavy sweeping. Care will be taken at all times to reduce the lofting of material into the ambient air.
- When vacuuming or other equally effective methods are not feasible, wet methods, including wet sweeping, wet shoveling, or wet brushing, shall be used. Dry methods may be used only when vacuuming and wet methods are not practicable.
- Vacuuming. When vacuuming methods are utilized, only a vacuum with an absolute filter shall be used and the residue collected shall be treated and disposed of as hazardous waste.
- Hygiene Facilities and Practices.
- Eating and Drinking. In areas where employees are exposed to lead above the Permissible Exposure Limit (PEL), without regard to the use of respirators, the following shall apply:

    - Foods/beverages cannot be present or consumed.
    - Tobacco products cannot be present or used.
    - Cosmetics cannot be applied.

**Designated Change Areas**

- Clean, designated change areas shall be provided for employees who work in areas where their airborne exposure to lead is above the PEL. The airborne exposure is without regard to the use of respirators.
- Employees who work in areas where their airborne exposure to lead is above the PEL, without regard to the use of respirators, shall shower or wash at the end of the work shift.
- The washing facilities shall be in accordance with 29 CFR 1926.51, i.e., "Washing facilities. The employer shall provide adequate washing facilities for employees engaged in the application of paints, coatings, herbicides, or insecticides, or in other operations where contaminants may be harmful to the employees. Such facilities shall be in near proximity to the worksite and shall be so equipped as to enable employees to remove such substances."
- Employees who are required to shower or wash shall not leave the jobsite wearing any clothing or equipment worn during the work shift.

**Recordkeeping.** Cypress Employment Services will keep all records of exposure monitoring for airborne lead.

- Name and job classification
- Details of sampling and the analytic technique used
- Results of sampling
- Type of respiratory protection being worn
- Names of the employee

- The physician's written opinion
- A copy of the results of the examination

All of the above kinds of records must be kept for 40 years, or for at least 20 years after termination of employment, whichever is longer.

8.3.1 Records will also be retained if the employee is temporarily removed from the job under the medical removal protection program. This record will include:

- The employees name and social security number
- How the removal was or is being accomplished
- Dates of removal from work and return
- Details of how each removal was or is being accomplished
- Whether or not the removal was due to elevated BLL

# Hydrogen Sulfide (H2s)

Hydrogen Sulfide (H2S) is one of the deadliest perils in the oil and gas industry. It is also prevalent in other industries such as agriculture, manufacturing, chemical and sewers. H2S is characterized by a distinct, very offensive odor at low concentrations, but it is not detectable at higher levels of concentration because the sense of smell is lost due to the paralyzation of the olfactory nerve. A good training program is the best protection that we can provide for our employees.

Course Requirements

OSHA 20 CFR 1910-134 and Rule 36 of the Texas Railroad Commission require all employers to provide training for workers in H2S areas. This course requires a yearly refresher, pulmonary function test, fit test, and medical surveillance.

Course Outline

1. Introduction
2. Characteristics
3. Effects of Individuals
4. Concentration Levels
5. Detection
6. Precautions
7. Emergency Rescue and First Aid
8. Respiratory Protection Policy
9. Respiratory Hazards
10. Respiratory Emergencies
11. Personal Protective Equipment
12. Emergency Rescue

**CYPRESS EMPLOYMENT SERVICES**

# SAFETY PROGRAM ACKNOWLEDGMENT

I acknowledge receipt of Cypress Employment Services' Safety Program.

I understand that this Written Safety Program includes the safety policies and procedures Cypress Employment Services have developed to ensure OSHA compliance and the safety of its employees. Management will make every effort to ensure the same of client companies prior to sending employees to work locations.

_____

Employee's Printed Name

_____

Employee's Signature

_____

Date