

2021

Construction Insight, LLC

Construction Safety Manual

This manual provides an outline of the general policies, procedures, checklists, forms and staff and management responsibilities of Construction Insight, LLC Safety Program, and explains company-wide safety rules. It should be understood that this manual does not cover all matters involving safety, as this would be impractical, if not impossible. This manual concentrates on action that should be taken, rather than things which should not be done to help prevent accidents and keep employees safe. The basic objective of any safety program is to ensure the unity of the purpose and action required for effective control of accidents should one occur. When properly organized and supported the safety program is the key to fewer accidents, lower insurance costs and greater profits.



CONSTRUCTION INSIGHT, LLC
SAFETY MANUAL
January 1, 2021

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SECTION 1 – INTRODUCTION & POLICY

Construction Insight, LLC
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January 1, 2021

NOTICE TO ALL EMPLOYEES:

Construction Insight, LLC is a small construction business specializing in general roofing construction, government, commercial and residential new construction and repairs work. Our expertise includes carpentry, concrete, low & high sloped roofing, siding, gutters & downspouts, etc. Safety is our priority. At Construction Insight our concern for safety begins before the start of your project. We encourage each of our employees to approach safety as a vital and ever-present part of their workday and their daily lives.

To help ensure safety in the workplace, please be advised that effective this date, our company has established and implemented this Safety Manual for the purpose of further ensuring our continued safety for employees and contractors as well as to comply with the Occupational Safety and Health Act (OSHA).

Superintendents/Foremen/Supervisors are responsible for ensuring that workers are properly instructed to do their work safely; for enforcing safe work procedures and regulations; and for correcting all unsafe activities.

All workers and subcontractors are required to work safely, to know and follow all rules and safe work procedures.

Everyone is expected to correct or report unsafe conditions and activities, and to work cooperatively toward the prevention of accidents.

Each employee is requested to give their complete support to the Safety programs and procedures that are being adopted in this Safety Manual and each employee is strongly encouraged to approach your foreman/supervisors and management with any questions or recommendations that you may have that will help our company to achieve an effective safety program.

Obviously, there is a great deal of work necessary to implement our goals as established in the Safety Manual. The goals will be phased in, monitored for compliance and updated as needed.

Regards,

Construction Insight, LLC
Andrew Latos - President



SAFETY FIRST - BE AWARE, BE ALERT, BE SAFE

FOWARD

Construction Insight is committed to providing a safe and healthy workplace. To accomplish this, it is our rule and a requirement of all workers on our jobs to comply with federal, state, and local safety and health standards. OSHA Safety standards will serve as minimum standards with regards to employee and jobsite safety and health.

This Safety Manual Documents Construction Insight safety policies and procedures and actions to be taken should an emergency arise. Our emphasis is on accident prevention. Our main concern is the safety of our employees as well as others at the work site.

Construction Insight also adheres to the mission of the Occupational Safety and Health Administration (OSHA) health and safety guidelines believing that they will help keep our employees safe and prevent injuries. OSHA is directed by the Occupational Safety and Health Act of 1970.

This manual includes responsibilities of management, superintendents, foremen, supervisors, other employees, contractors and subcontractors. It also includes safety checklists, accident investigation procedures, incident report, and other guidelines for various construction activity such as housekeeping and material storage, ladders, stairways, scaffolding, federal crane safety, vehicles, and other industrial equipment, etc.

Employees should consult this manual regarding safety issues and actions to take should an emergency arise. As far as practical, employees who are hired will be experienced and physically qualified for the work they will do. "Toolbox" meetings, personal contacts and various training materials will be used to stimulate employee interest and support. To help ensure safety, a Safety Coordinator position will be established. Employees will be trained by either the Safety Coordinator or their foreman/supervisor.

Construction Insight accentuates the need for effective pre-job planning for safety making it possible to detect and eliminate or control situations which can produce serious accidents. Planning for safety is also essential as the work progresses or when change orders introduced new operations or exposures.

This manual will be reviewed and updated periodically to ensure that Construction Insight remains current on safety and accident prevention. Safety shall be part of all job planning and execution processes, by all participants, from bidding to completion. All contractors, subcontractors, superintendents, supervisors/foremen and employees have an obligation to ensure that they give due consideration to safety in their work. The success of this Plan depends on all persons performing their assigned responsibilities to the best of their ability at all times. Construction safety is a team effort.

SECTION 2: SAFETY RESPONSIBILITIES

ASSIGNMENT OF RESPONSIBILITIES

The purpose of this safety manual is to provide management, employees, clients, and contractors and subcontractors with the guidelines as it pertains to safety. The responsibility for the health and safety of our employees rest with the various levels of management. The specific areas of responsibility are as follows:

RESPONSIBILITY OF MANAGEMENT

The Management of Construction Insight shall ensure the development and update of, communication of, and supervision of the Safety Program. Management will supply the support structures (safety policies and procedures, education and training, safety equipment, etc.) necessary for the program to be effective and inclusive. They will exhibit due diligence and leadership and show commitment to a safe and healthy workplace. Their responsibilities include, but are not limited to, the following:

- Reviewing the regular inspection reports to ensure the health and safety of the employees and the workplace meet the standards established by this manual.
- Addressing the health and safety issues that are reported. Using the information generated to assess the effectiveness of current safety strategies.
- Providing education and training opportunities to ensure that all employees are well versed in health and safety requirements and can perform their tasks in a safe manner. Monitoring employee performance to ensure that proper supervision is being provided.
- Collating and reviewing all safety records and statistics and effectively communicate trends or significant deviations from the norm, to the supervisor/foreman for corrective action.
- Issuing personal protective equipment, safety literature, and other health and safety related materials.
- Reviewing contractors and sub-contractors Health and Safety Programs and coordinating contractors' and sub-contractors' and their employees' safety practices so they meet those established by Construction Insight.
- Reviewing, periodically, i.e., once per year, any changes to OSHA health and safety regulations to make sure the manual is updated to reflect any changes to the guidelines and regulations.

SAFETY COORDINATOR RESPONSIBILITIES

A Safety Coordinator will be appointed by management and will be responsible for the Safety Program at Construction Insight. The responsibility will include periodic job inspections, keeping of all records regarding such inspections and records of any accidents or job-related illness. These records must comply with the rules presented under the Occupational Safety and Health Act of 1970 (OSHA) and as otherwise stated in this manual. It will be the responsibility of the Safety

Coordinator to ensure that all tools, materials and any other items requiring periodic inspection be so inspected and records so kept. The Safety Coordinator is responsible for reporting all items not conforming to the said requirements. The minimum requirement for equipment will meet those set forward under OSHA. The safety training program for supervisory employees will also be the responsibility of the Safety Coordinator and will be implemented through the superintendent (s). The supervisor (s) will in turn be responsible for safety training of other employees under their jurisdiction. All new employees must be so trained as soon as is practical. To ensure their understanding and to document training provided, all employees will be required to sign. The Safety Coordinator will have overall responsibility for the Safety program and will have the responsibility for establishing, implementing and maintaining the program.

RESPONSIBILITY OF FOREMAN/SUPERVISOR

The Foreman/Supervisor is the person responsible for moving the application of the safety program from the office to the field. In some cases this may be done by a Project manager but the responsibilities will be the same. This person shall ensure that safety procedures are applied in an effective manner and that all employees are conforming to established rules and regulations. The responsibilities will include, but not be limited to, the following:

- Initiate a Pre-Job Hazard Assessment prior to work start to determine risks and potential work hazards to employees and contractors. This step can be accomplished by a walk-through and observation. Any potential hazards should be documented and employees/contractors should be made aware.
- Ensure all employees, equipment operators and sub-contractors have access to the job site plans and that utility layouts are completed and readily available.
- Initiate regular site inspections, accident and incident investigations. Review all reports generated and ensure the required corrective action is taken.
- Ensure that immediate action is taken to correct deficiencies in workplace safety, non-compliance with rules and regulations, and breach of safe work procedures.
- Ensure that all new hires are provided new employee orientation to include safety training.
- Keep a record of instruction, training, and corrective measures taken on the forms provided.
- Ensure that all accidents requiring medical aid are investigated, recorded and that corrective action is taken.
- Provide and maintain safety equipment and protective devices for employees, as required.
- Develop and administer an effective program of good housekeeping to ensure work is not obstructed or impeded.
- Develop and practice good communication skills with all employees to ensure they are physically and mentally capable of performing their work safely. Communicate on a regular basis with management for input and/or recommendations.
- Organize the work process to eliminate potential hazards and ensure safe work practices.

RESPONSIBILITY OF OTHER EMPLOYEES/TRADESMEN

Construction Insight is committed to providing a safe work environment but to be effective, employees must assume a certain degree of responsibility. Each employee shall take reasonable care to protect their health and safety and that of their fellow employees who may be affected by their actions. Employee responsibility will include, but not be limited to, the following:

- Know and comply with all safety rules and regulations. Be accountable for unsafe work practices and procedures.
- Adhere to specific Safe Work Procedures and comply with those procedures.
- Aid in the development of task specific Job Safety Analyses for all tasks performed on-site.
- Operate equipment only when authorized to do so and after ensuring appropriate safety devices are in place.
- Wear and maintain Personal Protective Equipment as required and use all appropriate safety devices.
- Ask questions when situations arise where the proper safety equipment or safety rules are not understood.
- Practice “good housekeeping” in the workplace at all times.
- Immediately report unsafe conditions and work practices to the Foreman/Supervisor or in the absence of the Foreman/Supervisor, report to management.
- Promptly report all accidents and injuries, no matter how minor, and obtain the necessary medical attention.
- Co-operate in accident and incident investigations to assist in determining the cause(s) and to prevent recurrence.
- Report to work physically and mentally fit, free from the influence of alcohol and drugs. Inform the Supervisor of any over-the-counter or prescribed medications being taken, which may have adverse side effects.
- Communicate and suggest improvements to the health and safety environment of the workplace to ensure that safety is at a maximum.

The Employee Safety Guidelines

These Guidelines Must Be Read and Signed by Each Employee, including management, superintendents, supervisors/foreman and tradesmen. A copy of the signed guideline will be maintained in the employees’ personnel files.

Contracting Construction Safety & Accident Prevention Policy

It is our Policy to do all that is necessary to prevent injury to persons and damage to property, and to protect the interest of its employees, the company, the consumer and the public from the results of accident and fire.

Will implement the accident prevention and health programs through first line of supervision, which in most cases will be the superintendent or foreman/supervisor, referred to as the direct supervisor. It will then be the responsibility of this individual to train his group in the practice of safety, which will be more than just

the passing of information. To aid the first line supervisor in administering safety a manual will be provided to outline the general policies of the Safety Program and explain a few company-wide safety rules. It should be understood that this manual does not cover all matters involving safety, as this would be impractical, if not impossible. The manual concentrates on action that taken, rather than things which should not be done. Generally, precautions which are extremely obvious are omitted since no amount of written material will prevent an accident from occurring due to lack of thought.

A safety coordinator position will be established and will be responsible for developing and implementing this policy and help monitor risk and train employees and contractors on construction safety.

SECTION 3 - SAFETY TRAINING & EDUCATION

Safety Training

Construction Insight shall have an ongoing training program for their employees in the phases of work performed. We believe that Employee training is a key to the effectiveness of a company's safety and health program, and to the prevention of injuries and illnesses.

The purpose of employee training is to provide instruction in safe work practices and rules, and to provide the skills and knowledge necessary to identify and control work-place hazards. Awareness of the physical or administrative consequences of ignoring safe practices will foster a healthy respect for company policy and procedures, as well as the hazards themselves. Training should be an ongoing process for all employees, including office workers and field personnel. It should address general safety and health issues, as well as specific procedures for working safely. Responsible person (s) can conduct training in a group setting or on an individual basis. It can come in many forms, such as:

- New employee orientation.
- Supervisor training.
- Communication of company safety rules.
- Site-specific training.
- Training for non-routine tasks.
- Equipment and machinery training.
- Hazard-communication training.
- Weekly toolbox talks.

Document all training, including meeting minutes or a synopsis of the items discussed, with the signatures or names of employees who participated in the training. This training document should be retained for audit and verification purposes.

Process Safety Management

When selecting a contractor, superintendents, or other Construction Insight management you must obtain and evaluate information regarding the contract employer's safety performance and programs. The contract employer must assure that each contract employee is trained in the work practices necessary to safely perform his/her job.

The superintendent or person in charge of the project onsite must perform a pre-start up safety review for new facilities and for modified facilities when the modification is significant enough to require a change in the process safety information.

Program Requirements

The superintendent or person in charge of the project onsite must initiate and maintain such programs as may be necessary to provide for frequent and regular inspections of the job site, materials, and equipment by designated competent persons.

The superintendent or other person in charge of the project should ensure that all employees working on the project have received safety training. Employees must be instructed in the recognition and avoidance of unsafe conditions and in the regulations applicable to his/her work environment to control or eliminate any hazards or other exposure to illness or injury.

The use of any machinery, tool, material, or equipment that is not in compliance with any applicable requirement of OSHA Standards is not permissible. Only those employees qualified by training or experience are qualified to operate equipment and machinery.

First Aid

Accidents involving * **personal injury** * or property damage must be reported to your supervisor as soon as possible because he/she is required to file an accident report within 24 hours.

Medical personnel can be consulted for advice and consultation on matters of occupational health. First-aid supplies approved by the consulting physician should be readily available. The telephone numbers of the physicians, hospitals, or ambulances must be conspicuously posted.

Only minor first aid shall be administered on the projects, except in the case of dire emergencies or where loss of time is eminent. Only persons holding current, valid first aid certificates will administer treatment.

Injured persons will not be removed or transported from the project except by local rescue squads or ambulance services, if available. An approved first aid kit shall be furnished by Franco & Brothers for every jobsite.

If emergency first aid is not immediately available upon request, at least one person trained in basic first aid shall be on each jobsite. Foreign objects imbedded in the eye shall be removed only by a physician. The phone numbers of the local rescue squad, fire department and hospital shall be conspicuously posted.

FIRST AID OR AMBULANCE--CALL 911



In any accident where the person injured is unconscious, do not move the person unless it is absolutely necessary. Remain calm in any emergency.

The following procedures are the most basic first aid steps that are vital to know

Chemical Burns:

Flush the affected area with water for 10 to 15 minutes and remove or cut away clothing. Get victim to medical help.

Bleeding:

Proper steps are required to control excessive bleeding as follows:

1. Direct Pressure: Cover wound with clean cloth available or your bare hand and apply direct pressure on the wound. Add bandages (more cloth) if blood soaks through, but do not take off any of the blood-soaked bandages. Keep a firm pressure on the bandage(s) until the person is transferred to someone more qualified.
2. Elevation: If other emergency care is necessary, while still applying pressure to the wound, try to elevate wounded limbs above the heart if you are sure there is no bone fracture.

Heart Attack Symptoms:

A person having a heart attack is often awake and can talk to you but feels chest pain or pressure. The most common symptom of a heart attack is severe pain or pressure in the center of the chest.

- The pain or pressure has been described as a feeling of fullness, queezing or heaviness.
- The pain usually lasts for several minutes. Sharp, stabbing pain that lasts only a second or two is rarely heart attack pain.
- Other symptoms may include breathlessness, nausea, clammy perspiration, dizziness, or back pain between the shoulder blades.

Access to Medical & Exposure Records

Each employer must permit employees, their designated representatives, and OSHA direct access to employer-maintained exposure and medical records. The standard limits access only to those employees who are, have been (including former employees), or will be exposed to toxic substances or harmful physical agents.

Each employer must preserve and maintain accurate medical and exposure records for each employee. Exposure records and data analyses based on them are to be kept for 30 years. Medical records are to be kept for at least the duration of employment plus 30 years. Background data for exposure records such as laboratory reports and work sheets need to be kept for only 1 year.

Records of employees who have worked for less than 1 year need not be retained after employment, but the employer must provide these records to the employee upon termination of employment. First-aid records of one-time treatment need not be retained for any specified period.

Accident Recordkeeping & Reporting Requirements

Each employer must maintain, in each location, a log and summary of all recordable injuries and illnesses (resulting in a fatality, hospitalization, lost workdays, medical treatment, job transfer or termination, or loss of consciousness) for that location, and enter each recordable event no later than 6 working days after receiving the information. Where the complete log and summary records are maintained at a place other than the establishment, a copy of the log that reflects the injury and illnesses experience of the establishment must be complete and current to date within 45 calendar days and must be available at the original site. In addition to the log of occupational injuries and illnesses, each employer must have available for inspection at each establishment within 6 working days after notification of a recordable case, a supplementary record for each occupational injury or illness for that establishment.

Each employer must post an annual summary of occupational injuries and illnesses for each establishment, compiled from the collected OSHA 200 Log, which includes the year's totals, calendar year covered, company name, establishment name and address, certification signature, title, and date. An OSHA 200 Log must be used in presenting the summary. The summary must be posted by February 1 of each year and must remain in place until March 1 of the same year. The log and summary, the supplementary record, and the annual summary must be retained in each establishment for 5 years following the end of the year to which they relate. Records must be made available, as authorized, upon request.

Within 8 hours after its occurrence, an employment accident that is fatal to one or more employees or that results in the over-night hospitalization of three or more employees must be reported by the employer, either orally or in writing, to the nearest OSHA area director.

SECTION 4 - CONSTRUCTION, FIRE, WATER, CLOTHING & PROTECTIVE EQUIPMENT SAFETY

Construction Safety

When working on or near construction or renovation projects, always wear the proper personal protective equipment, (i.e., hardhat, goggles, and gloves).

Prior to the start of construction or renovation, all areas should be inspected for the presence of asbestos and lead, and all sources of potentially hazardous energy in the area should be located.

Supervisors should ensure employees receive training in the proper use of tools and protective equipment. If a respirator is required, only those employees who have had a physical examination and fit test shall be allowed in the area.



Excavations and trenches more than four feet deep shall have proper sloping or shoring. Employees should never enter a cave-in site in an attempt to rescue another worker without shoring in place.

General Excavation Safety Tips

- Underground utilities must be located and marked.
- Trenches over 4 feet deep must have a safe exit such as a ramp or ladder within 25' of every worker.
- Trenches 5 feet or deeper will be inspected daily by Environmental Health & Safety.
- Excavated material and other objects must be kept at least 2 feet from a trench opening.
- No one works on the sides of sloped or benched excavations above other employees unless the lower worker is protected from falling material.

- Station a Top Person outside the trench to detect moving ground and warn workers to leave a trench.
- Any excavating under the base or footing of a foundation or wall requires a support system designed by a registered professional engineer.

Construction or renovation projects may require the placement of barricades, guardrails, or toe-boards for employee protection. If barricades are left in place at night, adequate safety-flasher lighting is necessary.

Special precautions must be taken when constructing or repairing roofs.

Fire Safety When Fire Alarm Sounds

Evacuate the building immediately via nearest exit. Do not use elevators, use building stairwells. Close all doors as you leave - do not lock doors. If fire is small, attempt to extinguish it - but don't take chances.

Fire Outside the Building - Call 911

Give the following information:

Your name, and that you wish to report a fire; The exact location of the fire; What is burning; Do not hang up until released by the operator.

Fire extinguishers

Fire extinguishers are labeled as to the kind of fire they will be effective against. You must read the label to be sure you have the appropriate equipment to extinguish the fire. Labels will indicate:

Class A - wood, paper, grass, cloth

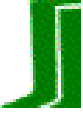





Class B - grease, oil, flammable liquids

Class C - energized electrical equipment

Extinguisher Use Instructions

1. Check label and carry extinguisher to vicinity of fire.
2. Remove the ring pin by pulling.
3. Squeeze discharge lever.
4. Direct discharge nozzle at base of fire.
5. Be sure all fire is out before stopping discharge.
6. Back away from extinguished fire.

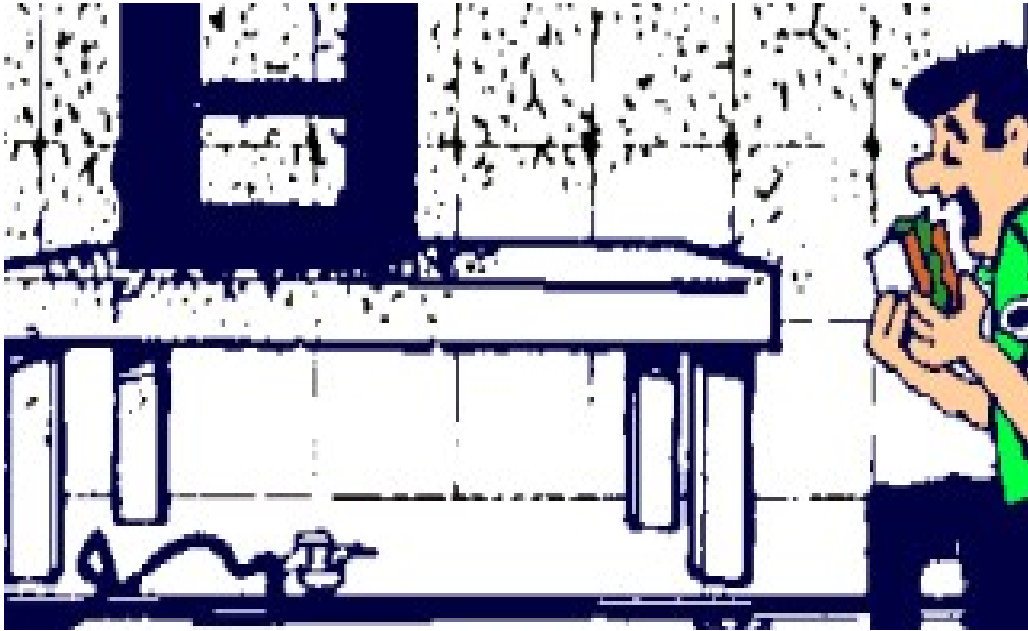
Clothing & Personal Protective Equipment Safety

	<p>Shoes</p> <p>It is recommended that approved safety shoes be worn to protect your feet.</p>
	<p>Hard Hats</p> <p>Hard hats shall be worn in all designated areas and construction areas. <i>Visitors are included in this requirement.</i></p>
	<p>Eye Protection</p> <p>Proper eye protection must be worn when the nature of the operation presents a potential eye or face injury. Examples of these hazards include: Flying objects, dust, hot or splashing metals, harmful rays, caustics or acids.</p>
	<p>Gloves</p> <p>Appropriate gloves and aprons shall be worn when handling hazardous chemicals and abrasive materials. Gloves should be replaced when the signs of wear are apparent.</p>
	<p>Respiratory Equipment</p> <p>Approved respiratory equipment shall be worn when the worker is exposed to toxic chemicals or dusts, spray painting, or other inhalation hazards.</p>
	<p>Jewelry</p> <p>The wearing of rings or other jewelry is not recommended on the job, particularly if working around moving or rotating parts.</p>

Work Area Housekeeping Safety

Good Housekeeping is an essential part of every job. Work areas, aisles, walkways, and equipment shall be kept clear of loose materials, tools, and scraps.

Materials such as lumber and pipe shall be stored in an orderly and secure manner.



Spills such as grease, water, or oil shall be cleaned up as soon as possible; a delay could result in an accident to you or a fellow worker.

A safe access shall be maintained to work areas. Short cuts should be avoided. Never block aisles, traffic lanes, or fire exits with equipment or materials.

Fire Protection Safety

Learning the location of fire extinguishing equipment and fire alarms in your work areas is important. Do not cover or hide fire protection equipment and fire alarms from view.



Sources of ignition, such as cigarettes, matches, portable heating equipment, unguarded light bulbs, etc., are prohibited in areas where explosives, flammable liquids or gases, or other combustibles exist. (i.e., near chemical exhaust outlets, flammable liquid storage areas, sump pump areas, and refueling areas)

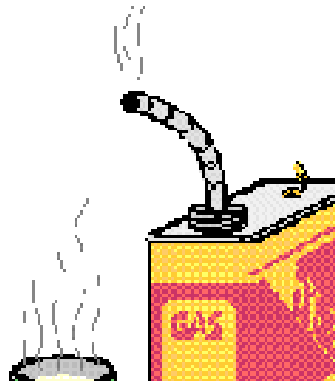
Always obey "No Smoking" signs.

Never check for possible natural gas leaks with an open flame.

Flammable liquids shall be kept in approved safety cans for use in small amounts and for transportation. These containers shall be clearly labeled and stored in a separate, protected area.

Refueling a small engine that is running or is hot can be dangerous and should be avoided. Always clean up spills that occur during refueling before re-starting engines.

Rags that contain oils or solvents shall be kept in covered metal containers until they can be safely disposed of.



SECTION 5 – HAND & POWER TOOL SAFETY



Always know how to effectively use hand and power tools before starting the job by following operating instructions and using the proper accessories. If you are unfamiliar with how a tool operates or is to be used, get the advice and instruction of your supervisor or the Tool Room attendant as appropriate.

1. Tools should not be used for other than their intended use.
2. Keep all cutting tools sharp.
3. Tools shall be kept in a safe condition without broken or damaged parts.
4. Never use tools which have burred or mushroomed heads and never carry loose tool in your pocket.
5. If tools or equipment are found to be faulty, report them to your supervisor and return the equipment to the Tool Room or appropriate department for repair.
6. When possible, pull on a hand tool rather than push since it can slip and cause a serious cut or bruise.
7. Never leave hand tools lying around loose where they may fall on someone below.
8. Non-sparking, non-magnetic tools are provided for your use in the Tool Room. They shall be used in areas such as grain storage, sewers, steam tunnels, spray-paint booths, radar unit locations, and rooms with electromagnets.
9. Remember; use the right tool for the job.

ELECTRIC HAND TOOLS

All electrical hand tools used on the jobsites, whether furnished by the company or the employee shall be maintained in a safe condition. Electric power tools shall be

of the approved double insulated type or properly grounded. All moving parts of equipment such as belts, gears, pulleys, chains, etc. shall be equipped with an approved guard. Personal protective equipment as required shall be made available to the employee. All persons shall be cautioned in the use of electric tools in damp or wet areas.

GASOLINE OPERATED TOOLS

Tools and equipment using gasoline as fuel such as tampers, pumps, generators, mixers and vibrators, etc. shall not be refuelled while in operation. Fuel shall be stored in an approved container and properly marked. Be sure the right fuel is put in the right equipment. Some equipment requires that oil be added to the fuel to provide lubrication. Gasoline powered motors should be level while in operation. Engines shall be stopped by an approved grounding device and not by removing the spark plug wire. All equipment shall be serviced prior to operation, paying particular attention to oil levels, air filters and fuel leaks. Report all deficiencies to the Superintendent.

POWDER ACTUATED TOOLS

Only employees who have been instructed and licensed, carrying a card to show proof of training in the use of the particular tool by authorized personnel shall be permitted to use powder actuated tools. All charges shall be segregated to size at all times and when not in use shall be stored in a locked area. Loaded tools shall not be left unattended on the project. Safety devices furnished by the manufacturer shall not be removed from the tool. Tools shall not be used in an explosive or flammable atmosphere. Fasteners shall not be driven into hard brittle materials such as live rock, cast iron, glaze tile, glass block, etc. All personnel shall be required to wear eye, ear and foot protection while using powder actuated tools.

Remember a powder actuated tool operates on the same principal as a firearm; therefore, it deserves the same respect.

AIR OPERATED TOOLS

Pneumatic power tools such as breakers, drills, bush hammers, impact drills, etc., shall be connected to the hose by a positive means that will prevent the tool from becoming accidentally disconnected. The tool shall not be hoisted or lowered by using the hose, instead use a rope line. When using compressed air for cleaning purposes, the proper personal protective equipment shall be furnished. Air powered tools shall not be used in confined spaces without the use of exhaust fans as it is possible for carbon monoxide gas from the compressor to be carried through the air lines. All tools and air lines shall be properly serviced and maintained in good state of repair. All couplings shall be secured by safety pins inserted in each coupling.

GRINDING & CHIPPING

Personal protective equipment as required shall be worn all times while grinding and chipping. Grinding wheels that are excessively worn shall not be used. At no time shall wheel speeds exceed the manufacturer's rating. All grinding equipment shall have guards as required. Use the proper tool for the job and use it correctly. When in doubt ask your foreman or superintendent.

HAND TOOLS

It is the responsibility of the employee to maintain his personal hand tools in proper condition. Mushroomed heads, loose or splintered handles are not permitted. Tools should be kept sharp and all that show excessive wear should be replaced. Hand tools should be used only for their intended purpose, i.e.; wrenches should not be used as hammers or screwdrivers as pry bars.

SECTION 6 – OTHER SAFETY ISSUES

Compressed Gas Cylinders Safety



Gas cylinders may contain up to 3,000 psi pressure. Accidents have occurred when the heads of these cylinders were broken off.

Valve caps must be in place on cylinders when not in use.

Storage of empty or full compressed gas cylinders shall involve the securing of every cylinder by an approved chain or webbing. Empty and full cylinders should be stored in separate areas or be separated by a fire wall.

Those cylinders in use shall be properly secured in an upright position and shall be transported only on cylinder carts. A cylinder valve should be opened slowly to avoid valve damage.

Electrical Safety



It takes very little electric current to kill--less than one-tenth of an ampere. With good contact, 115 volts is sufficient voltage to cause death. There have been fatal electric shocks where voltage as low as 60 to 70 volts was involved.

No electrical work should be performed "hot" when it can be done "cold."

Switches, fuses, circuit breakers, and other control devices in areas where explosives or other flammable liquids or gasses exist.

All electrical equipment should be periodically inspected. Suitable means should be provided for identifying all electrical equipment and circuits, especially if two or more voltages are used on the same job.

All electrical tools and equipment should be properly grounded or be of the double-insulated type.

Spliced or damaged electrical cords shall not be used until properly repaired. Electrical cords on power tools and extension cords shall have heavy-duty rubber insulation.

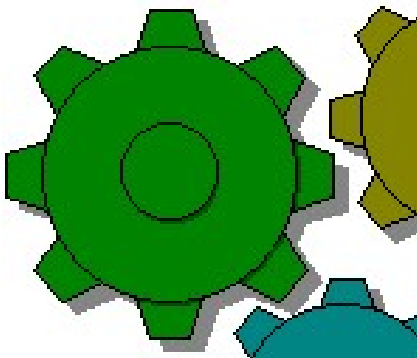


You should never use electrical equipment when standing in or near water. In places such as bathrooms, kitchens, laundries, and out-of-doors, where a person having wet hands or standing on a wet surface is likely to touch objects that may be energized, a ground-fault circuit interrupter (GFI) shall be installed in the circuit to prevent electrical shock. Portable ground-fault circuit interrupters are available in the Tool Room for use in wet environments.

All exposed electrical wires should be considered "hot" or "live" until checked by the Electrical Department. Electrical repairs or electrical installations shall be made only by the Electrical Department.

Standing on metal ladders or wearing metal hard hats near high voltage electrical power can result in death or serious injury.

Equipment & Machinery Safety



Supervisors shall allow only properly trained employees to operate power equipment or machinery and shall give proper instructions in their safe operation.

All electrical equipment and machinery shall be properly grounded. Control switches shall be properly located at the point of operations best suited to control the equipment.

You should never adjust, repair, clean, or oil machinery or equipment while any of its parts are in motion. Use lock out switches to prevent accidental start-ups. Be sure all of the components have stopped.

Always replace guards after repairs have been made.

Always perform proper maintenance on all machinery and equipment to prevent premature failure or possible accident. Have all safety guards in place while testing repaired equipment.

You should regularly inspect for cracks, stretching, etc. on cables, chains, clamps, hooks, and other equipment that are frequently placed under stress. Spreading, crimps, or cracks are warning signs of danger. If you feel the equipment is damaged or creating a possible hazard, report this to your supervisor immediately.

Welding Safety

Welding operations require that approved eye protection, welding shields and gloves be worn.



Acetylene and oxygen tanks shall be securely fastened to a dolly or stand to prevent their falling or being knocked over. Acetylene tanks shall only be used while in an upright position.

Welding and cutting operations shall be performed **only** by authorized personnel under proper supervision.



Proper fire extinguishers shall be immediately available. Localized ventilation shall be used when necessary.

Always use soapy water instead of matches to check for leaks in hoses, fittings, and valves in welding equipment.

Proper eye protection shall be worn when observing welding or cutting operations, also when chipping slag.

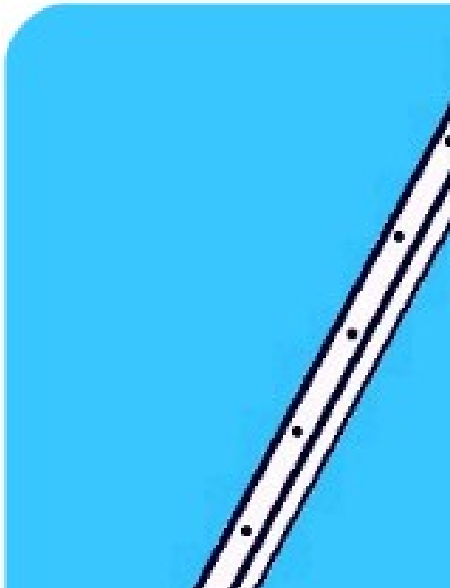
Material that has been recently welded should be marked **HOT** to avoid burns.

Oxygen acetylene torch units shall be lit with proper ignition equipment and not with matches or cigarettes.

Oil in any form shall be kept away from sources of oxygen.

Ladders and Scaffolding Safety

Although there is always a risk in working on elevated areas, it is a fact that the vast majority of accidents involving ladders result from the failure to exercise care. Proper training, as well as routine inspections and maintenance, can substantially reduce the number of ladder-related injuries.



On any job requiring a ladder, use only approved sturdy ladders that you can place on a firm base. Inspect the ladder prior to each use. Maintain ladders free of oil, grease and other hazards. Do not use ladders with structural defects; properly tag with "Do Not Use" and withdraw from service.

Use a ladder only for the purpose for which it was designed (refer to manufacturer's labeling and recommendations). Use only non-conductive side rails around live electrical equipment. Wear protective clothing and rubber-soled shoes.

Carry ladders parallel to the ground. Tie ladders down securely when transporting.

Barricade traffic areas in the vicinity of ladder use and lock, barricade or guard doorways in which a ladder is placed. Keep the

area around the top and bottom of the ladder clear. Whenever possible, angle out the base one-fourth of the ladder's working length. The ladder should reach at least three feet above the landing.

Extension ladders shall be kept from slipping or tipping by tying off the ladder at the top and securing the ladder at the bottom. Portable ladders in use shall be tied, blocked or otherwise secured to prevent their being displaced.

Face the ladder while climbing and use both hands. Lift equipment and materials with a rope specifically for that purpose--don't carry the equipment up a ladder with one hand. Carry smaller tools in pouches around the waist.

Never stand on the top two steps of any ladder or the top cap of a step ladder. This could cause you to become off-balance resulting in a fall. Do not stand on the back cross bracing. Always maintain at least three points of contact with the ladder (2 feet and 1 hand, or 2 hands and 1 foot should be in contact with the ladder at all times). Do not over-extend sideways; use the belt buckle rule: Keep your belt buckle positioned between the side rails at all times--this will maintain your center of gravity in the proper position. Do not move, shift, or extend the ladder while you are standing on it. Never walk a ladder.

Do not load the ladder beyond its maximum intended load. Never allow more than one worker on the ladder at a time.

Ladder Safety

- Inspect before use for physical defects.
- Ladders are not to be painted except for numbering purposes.
- Do not use ladders for skids, braces, workbenches, or any purpose other than climbing.
- When you are ascending or descending a ladder, do not carry objects that will prevent you from grasping the ladder with both hands.
- Always face the ladder when ascending and descending.
- If you must place a ladder over a doorway, barricade the door to prevent its use and post a warning sign.
- Only one person should be on a ladder at a time.
- Do not jump from a ladder when descending.
- All joints between steps, rungs, and side rails must be tight.
- Safety feet must be in good working order and in place.

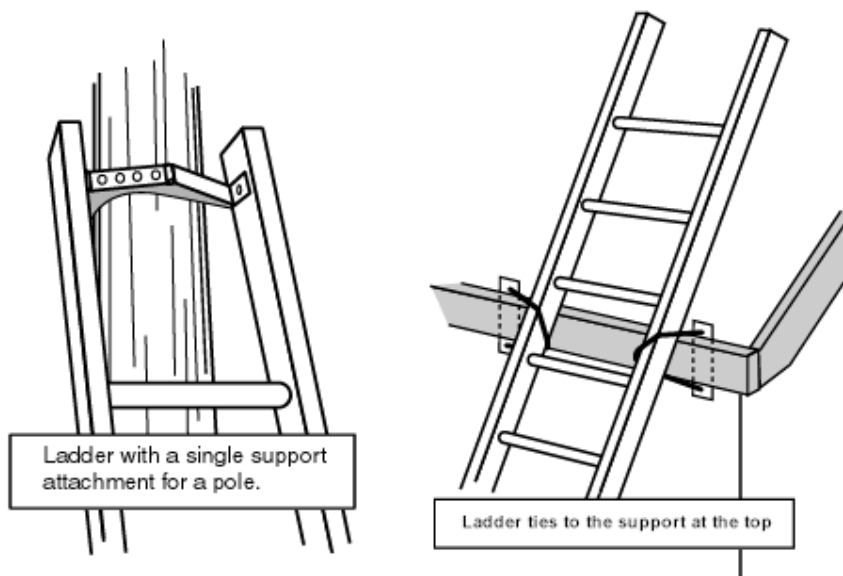
- Rungs must be free of grease and/or oil.

Stepladders

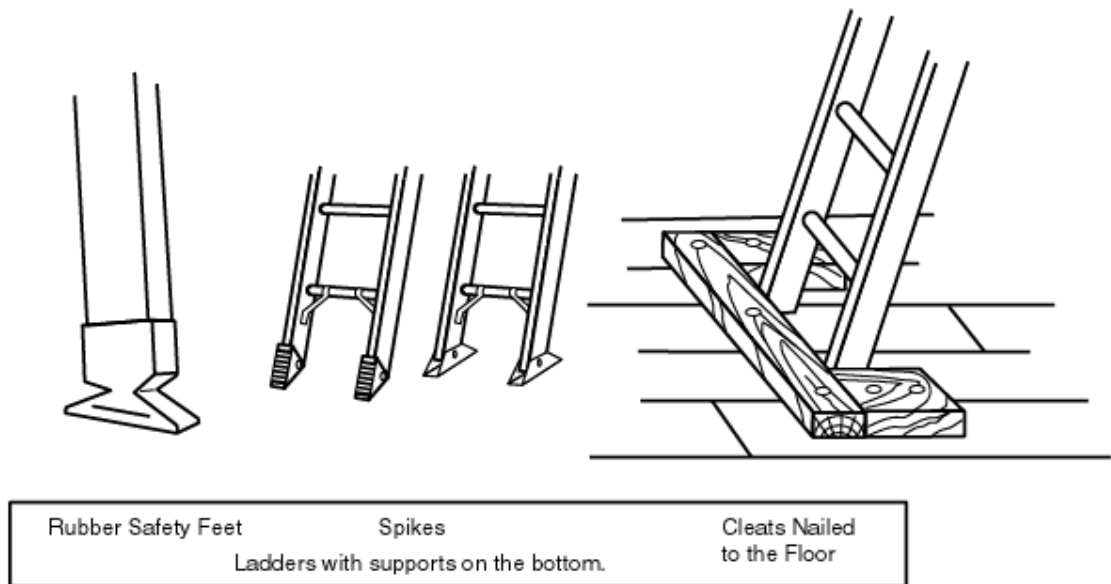
- Do not place tools or materials on the steps or platform of a stepladder.
- Do not use the top two steps of a stepladder as a step or stand.
- Always level all four feet and lock spreaders in place.
- Do not use a stepladder as a straight ladder.

Straight type or extension ladders

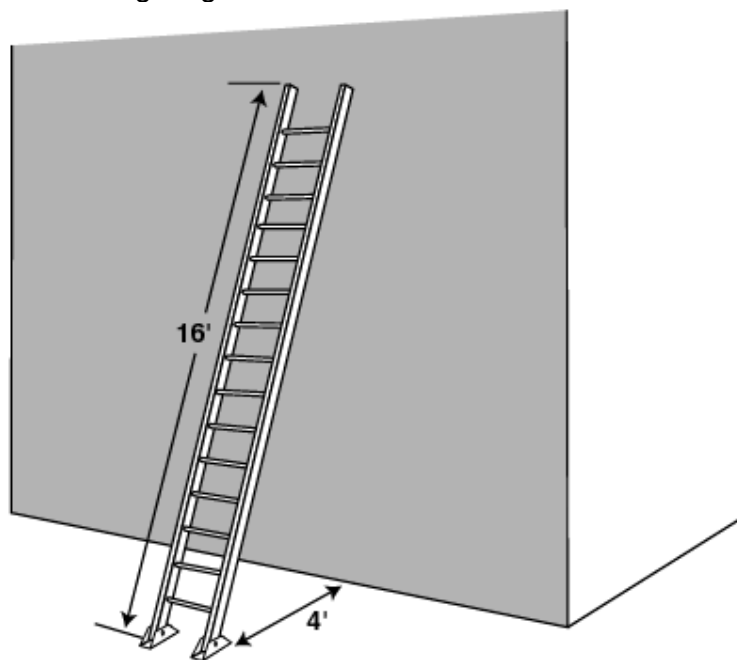
- All straight or extension ladders must extend at least three feet beyond the supporting object when used as an access to an elevated work area.
- After raising the extension portion of a two or more-stage ladder to the desired height, check to ensure that the safety dogs or latches are engaged.
- All extension or straight ladders must be secured or tied off at the top.



- All ladders must be equipped with safety (non-skid)



- Portable ladders must be used at such a pitch that the horizontal distance from the top support to the foot of the ladder is about one-quarter of the working length of the ladder.



Scaffold Safety Rules

Scaffolding should be used if solid footing or a safe ladder is not available. Caster brakes should be set before an employee gets on a scaffold. If no brakes are available, another employee should be in position to secure the scaffold.

Scaffolding shall be secured at intervals of 15 feet to a solid support. Securing will be by wire, cable, chain or rope.

Ladders, boxes, etc. should not be set on scaffolds to increase working heights.

Guard rails and toe boards are required on any scaffold over five feet high.

Before starting work on a scaffold, inspect it for the following:

- Are guardrails, toe-boards, and planking in place and secure?
- Are locking pins at each joint in place?
- Are all wheels on moveable scaffolds locked?

Do not attempt to gain access to a scaffold by climbing on it (unless it is specifically designed for climbing – always use a ladder).

Scaffolds and their components must be capable of supporting four times the maximum intended load.

Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, etc., damaged or weakened in any way, must be immediately repaired or replaced.

Scaffold planks must extend over their end supports not less than 6 inches or more than 12 inches, unless otherwise specifically required.

Scaffold platforms must be at least 18 inches wide unless otherwise specifically required or exempted.

Where persons are required to work or pass under the scaffold, scaffolds shall be provided with a screen between the toe-board and guardrail, extending along the entire opening. The screen must be made of No. 18 gauge U.S. Standard wire, ½ inch mesh or equivalent protection.

All scaffolds must be erected level and plumb, and on a solid footing.

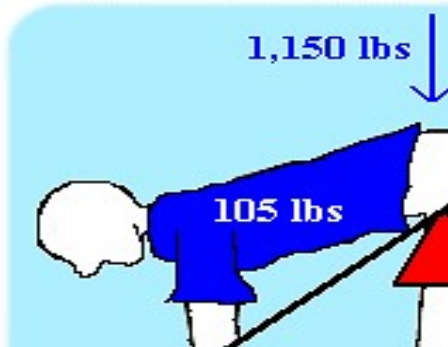
Do not alter any scaffold member by welding, burning, cutting, drilling or bending.



Back Safety

According to the Bureau of Labor Statistics, more than one million workers suffer back injuries each year, and back injuries account for one of every five workplace injuries.

The amount of force placed on your back under certain conditions can be surprising. **Think of your back as a lever. With the fulcrum in the center of the lever, it only takes ten pounds of pressure to lift a ten-pound object.**



When you add in the 105 pounds of the average human upper torso, you see that lifting a ten-pound object actually puts 1,150 pounds of pressure on the lower back.

Given these figures, it is easy to see how repetitive lifting and bending can quickly cause back problems. Even leaning forward while sitting at a desk or table can eventually lead to back-related problems.

Avoid Lifting and Bending Whenever You Can!



Place objects up off the floor. If you can set something down on a table or other elevated surface instead of on the floor, you will not have to reach down to pick it up again.

Raise/lower shelves. The best zone for lifting is between your shoulders and your waist. Put heavier objects on shelves at waist level and lighter objects on lower or higher shelves.

Use carts and dollies to move objects instead of carrying them yourself. (It is better on your back to push carts than it is to pull them.)

Use cranes, hoists, lift tables and other lift-assist devices whenever you can.

Avoid lifting over your head and avoid reaching across a table or out the back of a truck.

Avoid working in awkward, uncomfortable positions on tasks that require you to bend over for long periods of time. Also avoid sitting or standing for too long without shifting.



Vehicle Safety

It is your responsibility to closely follow the laws set forth in the Driving Manual as your rules of the road. It is also your responsibility to provide maintenance to the vehicle for which you are responsible. This means notifying your supervisor of braking or steering problems, lights or horns that have quit working, etc., as soon as the problem is discovered.



If you are in an accident while driving a vehicle, follow the directions on the information packet in the glove box. Also notify your supervisor.

Motor vehicle drivers should always stop for pedestrians on a campus street - particularly those pedestrians in a crosswalk. Drivers of motor vehicles in a pedestrian-traffic-area not only have a responsibility to be legal in regard to statutory rules of the road, but also have a responsibility to "exercise due care to avoid colliding with any pedestrian upon any roadway."

Another rule of the road is that following too closely is unsafe at any speed, on any road, in any vehicle.

Materials or equipment to be moved on trucks shall be strapped or held down by ropes--not by workers. Never allow workers to ride on top of materials to keep them in place.



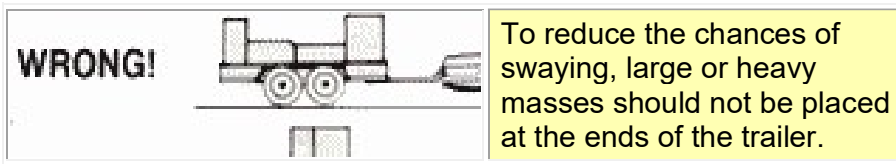
Red flags measuring 1 foot square must be placed on the end of loads that extend 4 feet or more past the end of the truck.

When transporting people in a truck, it is the driver's responsibility to ensure that all of the people arrive safely.

- A safe number of people should ride in the cab of the truck, and any others shall be seated in the bed of the truck. (Riding in the bed of a truck is **strongly** discouraged.)
- Do not sit on the edge of a truck tailgate and do not ride on any truck with your legs outside of the bed.
- ***Never*** transport people while they are standing in the truck.
- Never ride on a piece of equipment if there is no place specifically designed for that purpose. Examples of this would be riding on a tractor fender, working out of a front- end loader bucket, etc.

When a trailer is to be pulled by a motor vehicle (including tractors) be sure the ball and hitch are sized for use together. The safety chains ***must*** be attached in the appropriate manner by crossing them under the tongue. When available, hook up the circuitry for the lights and check them after each hook-up to insure they are

functioning properly before going into traffic. Place the heaviest part of a trailer load in the front of a trailer or above the axles, if possible.



Never allow anyone to be transported while in a trailer. Use a red flag on the end of a load that extends 4 feet or more past the end of the trailer. Practice backing the trailer in an isolated area and test trailer brakes, if available, before going into traffic. Learn to start slowly, avoid jerking, watch your speed, and avoid "fishtailing." Increase following distance and anticipate stops to permit deceleration without hazard.

PART 7 - ROOF, CONCRETE, CARPENTRY & OTHER CONSTRUCTION SAFETY

Roof Construction Safety

Roof construction, repair, and other maintenance operations often require manual labor at dangerous heights and on steeply pitched working surfaces.

The possibility of lost footing, decreased stability, and objects falling from such heights is great; appropriate employee safeguards shall be present.

When employees are involved in such operations, the following minimum safety guidelines shall be followed to promote a safe and healthful workplace and guard against injury to others below the work area.

Safety Belts, Lifelines, and Lanyards

Where catch platforms are not in place, employees performing duties on a roof more than 20 feet from ground to eaves without a parapet, or 16 feet from ground to eaves with a slope greater than 4 inches in 12 inches without a parapet, shall be secured by an approved safety belt attached to a lifeline.

The safety belt lanyard shall be a minimum of 1/2-inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

Lifelines shall be secured above the point of operation to an anchorage or structural member capable of supporting a minimum dead weight of 5,400 pounds. One employee acting as anchor for another does not fulfill this requirement.

Lifelines used in areas where they may be subjected to cutting or abrasion shall be a minimum of 7/8-inch wire core manila rope. For all other lifeline applications, a minimum of 3/4-inch manila or equivalent, with a minimum breaking strength of 5,400 pounds, shall be used.

Lifelines, safety belts, and lanyards shall be used only for employee safeguarding. Ropes used for hoisting lines and other purposes shall not be used as lifelines. Any lifeline, safety belt, or lanyard actually subjected to in-service loading, as distinguished from static testing, shall be immediately removed from employee safeguarding.

Roofing Brackets

Roofing brackets shall be constructed to fit the pitch of the roof. In addition to the pointed metal projections, brackets shall be secured by nailing in place. The nails shall be driven full length into the roof. When rope supports are used, they shall consist of first-grade manila of at least 3/4-inch diameter, or equivalent.

Use of Hoisting Lines

When hoisting lines are used to raise tools or materials to a roof greater than 16 feet from ground to eaves without a parapet (or with a parapet less than 30 inches in height), the employee on the roof shall be secured by an approved safety belt attached to a lifeline.

The safety belt lanyard shall be a minimum of 1/2-inch nylon, or equivalent, with a maximum length to provide for a fall of no greater than 6 feet. The rope shall have a nominal breaking strength of 5,400 pounds.

Work Site Isolation

Prior to the start of roof construction, repair, or maintenance, the crew chief, foreman, or person in charge of the project shall ensure that the area below the work site is isolated against entry using barrier tape or other means.

If means of egress are to be blocked by ladders, scaffolds, or other equipment, or to isolate below a work site, prior approval must be obtained from the Environmental Health & Safety Department.

Personal Protective Equipment

Employees involved in roof construction, repair, or maintenance operations shall use appropriate personal protective equipment including, but not limited to, hard hats, eye protection, and leather gloves.

Weather

Employees shall not be involved in construction, repair, or maintenance operations on roofs during periods of high winds (such as when a wind advisory has been issued), lightning storms, snowstorms, or other potentially hazardous weather conditions.

Concrete and Masonry Construction Safety

No construction loads must be placed on a concrete structure or portion of a concrete structure unless the superintendent or foreman/supervisor determines, based on information received from a person who is qualified in structural design, that the structure or portion of the structure can support the loads. No employee must be permitted to work under concrete buckets while buckets are being elevated or lowered into position. To the extent practical, elevated concrete buckets must be routed so that no employee or the fewest number of employees is exposed to the hazards associated with falling concrete buckets.

Formwork must be designed, fabricated, erected, supported, braced, and maintained so that it can support - without failure - all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork. Forms and shores (except those used for slabs on grade and slip forms) must not be removed until the superintendent or foreman/supervisor determines that the concrete has gained sufficient strength to support its weight and superimposed loads. Such determination must be based on compliance with one of the following:

Plans and specifications stipulate conditions for removal of forms and shores, and such conditions have been followed, or the concrete has been properly tested to indicate the concrete compressive strength, and the test results indicate that the concrete has gained sufficient strength to support its weight and superimposed loads.

A limited access zone must be established whenever a masonry wall is being constructed. The limited access zone must conform to the following:

- The limited access zone must be equal to the height of the wall to be constructed plus 4 feet, and must run the entire length of the wall.
- The limited access zone must be established on the side of the wall that will not have a scaffold.
- The limited access zone must be restricted to entry by employees actively engaged in constructing the wall. No other employees must be permitted to enter the zone.
- The limited access zone must remain in place until the wall is adequately supported to prevent overturning and to prevent collapse. When the height of a wall is more than 8 feet, the limited access zone must remain in place until the requirements of OSHA Standard have been met.

All masonry walls more than 8 feet in height must be adequately braced to prevent overturning and to prevent collapse unless the wall is adequately supported so that it will not overturn or collapse. The bracing must remain in place until permanent supporting elements of the structure are in place.

Trenching and Excavating Safety

The estimated location of utility installations - such as sewer, telephone, fuel, electric, water lines, or any other underground installations that reasonably may be expected to be encountered during excavation work - must be determined prior to opening an excavation.

Utility companies or owners must be contacted within established or customary local response times, advised of the proposed work, and asked to establish the location of the utility underground installations prior to the start of actual excavation. When utility companies or owners cannot respond to a request to locate underground utility installations within 24 hours (unless a longer period is required by state or local law), or cannot establish the exact location of these installations, the employer may proceed, provided the employer does so with caution, and provided detection equipment or other acceptable means to locate utility installations are used.

When excavation operations approach the estimated location of underground installations, the exact location of the installations must be determined by safe and acceptable means. While the excavation is open, underground installations must be protected, supported, or removed, as necessary, to safeguard employees.

Each employee in an excavation must be protected from cave-ins by an adequate protective system except when:

- Excavations are made entirely in stable rock, or excavations are less than 5 feet in depth and examination of the ground by a competent person provides no indication of a potential cave-in.
- Protective systems must have the capacity to resist, without failure, all loads that are intended or could reasonably be expected to be applied or transmitted to the system.

Employees must be protected from excavated or other materials or equipment that could pose a hazard by falling or rolling into excavations. Protection must be provided by placing and keeping such materials or equipment at least 2 feet from the edge of excavations, or by the use of retaining devices that are sufficient to prevent materials or equipment from falling or rolling into excavations, or by a combination of both if necessary.

Daily inspections of excavations, the adjacent areas, and protective systems must be made by a *competent person* for evidence of a situation that could result in possible cave-ins, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions. An inspection must be conducted by the competent person prior to the start of work and as needed throughout the shift. Inspections must also be made after every rainstorm or other hazard increasing occurrence. These inspections are only required when employee exposure can be reasonably anticipated. Where a competent person finds evidence of a situation that could result in a possible cave-in, indications of failure of protective systems, hazardous atmospheres, or other hazardous conditions, exposed employees must

be removed from the hazardous area until the necessary precautions have been taken to ensure their safety.

A stairway, ladder, ramp, or other safe means of egress must be located in trench excavations that are 4 feet (1.2192 meters) or more in depth so as to require no more than 25 feet of lateral travel for employees. The determination of the angle of repose and design of the supporting system shall be based on careful evaluation of pertinent factors, such as:

- a. Depth and/or cut/soils classification.
- b. Possible variation in water content of the material while excavation is open.
- c. Anticipated changes in materials from exposure to air, sun, water, or freezing.
- d. Loading imposed by structures, equipment, or overlaying or stored material.

Walkways or bridges with standard railings must be provided when employees or equipment are required to cross over excavations.

The walls and faces of all excavations in which employees are exposed to danger from moving ground must be guarded by a shoring system, sloping of the ground, or some other equivalent means.

Fall Protection

Employers are required to assess the workplace to determine if the walking or working surface on which employees are to work have the strength and structural integrity to safely support workers. Employees are not permitted to work on those surfaces until it has been determined that the surfaces have the requisite strength and structural integrity to support the workers.

Where employees are exposed to falling 6 feet or more from an unprotected side or edge, the employer must select a guard-rail system, safety net system, or personal fall arrest system to protect the worker.

A personal fall arrest system consists of an anchorage, connectors, body harness and may include a lanyard, a deceleration device, lifeline, or a suitable combination of these. Each employee in a hoist area must be protected from falling 6 feet or more by guardrail systems or personal fall arrest systems. If guardrail systems (or chain gate or guardrail) or portions thereof must be removed to facilitate hoisting operations, as during the landing of materials, and a worker must lean through the access opening or out over the edge of the access opening to receive or guide equipment and materials, that employee must be protected by a personal fall arrest system.

Personal fall arrest systems, covers, or guardrail systems must be erected around holes (including skylights) that are more than 6 feet above lower levels. Each employee at the edge of an excavation 6 feet deep or more must be protected from falling by guardrail systems, fences, barricades, or covers. Where

walkways are provided to permit employees to cross over excavations, guardrails are required on the walkway if it is 6 feet or more above the excavation.

Each employee using ramps, runways, and other walkways must be protected from falling 6 feet or more by guardrail systems.

Each employee performing overhand bricklaying and related work 6 feet (1.8288 meters) or more above lower levels must be protected by guardrail systems, safety net systems, or personal fall arrest systems, or must work in a controlled access zone.

All employees reaching more than 10 inches below the level of a walking/working surface on which they are working must be protected by a guardrail system, safety net system, or personal fall arrest.

Each employee engaged in roofing activities on low-slope roofs with unprotected sides and edges 6 feet or more above lower levels must be protected from falling by guardrail, safety net, or personal fall arrest systems or a combination of a:

- Warning line system and guardrail system,
- Warning line system and safety net system,
- Warning line system and personal fall arrest system, or
- Warning line system and safety monitoring system.

On low-slope roofs 50 feet or less in width, the use of a safety monitoring system without a warning line system is permitted. Each employee on a steep roof with unprotected sides and edges 6 feet (1.8288 meters) or more above lower levels must be protected by guardrail systems with toe-boards, safety net systems, or personal fall arrest systems.

Confined Spaces

All employees required to enter into confined or enclosed spaces must be instructed as to the nature of the hazards involved, the necessary precautions to be taken, and in the use of required protective and emergency equipment. The employer must comply with any specific regulations that apply to work in dangerous or potentially dangerous areas. Confined or enclosed spaces include, but are not limited to, storage tanks, process vessels, bins, boilers, ventilation or exhaust ducts, sewers, underground utility vaults, tunnels, pipelines, and open top spaces more than 4 feet deep (1.2192 meters) such as pits, tubs, vaults, and vessels.

Cranes and Derricks

The employer must comply with the manufacturer's specifications and limitations. Rated load capacities, recommended operating speeds, and special hazard warnings or instructions must be conspicuously posted on all equipment.

Instructions or warnings must be visible from the operator's station. Equipment must be inspected by a competent person before and during use. Any deficiencies should be corrected before further use.

Accessible areas within the swing radius of the rear of the rotating superstructure must be properly barricaded to prevent employees from being struck or crushed by the crane.

Except where electrical distribution and transmission lines have been de-energized and visibly grounded at point of work, or where insulating barriers not a part of or an attachment to the equipment or machinery have been erected to prevent physical contact with the lines, no part of a crane or its load must be operated within 10 feet of a line rated 50 kilovolts (kV) or below. For more exact information consult OSHA Crane and Derricks safety standards.

An annual inspection of the hoisting machinery must be made by a competent person. Records must be kept of the dates and results of each inspection. All crawler, truck, or locomotive cranes in use must meet the requirements as prescribed in the ANSI *Safety Code for Crawler, Locomotive and Truck Cranes*.

The use of a crane or derrick to hoist employees on a personnel platform is prohibited, except when the erection, use, and dismantling of conventional means of reaching the worksite—such as a personnel hoist, ladder, stairway, aerial lift, elevating work platform or scaffold—would be more hazardous or is not possible because of structural design or worksite conditions. Where a decision is reached that this is the case, then OSHA Standards must be reviewed and complied with.

Disposal Chutes

Whenever materials are dropped more than 20 feet to any exterior point of a building, an enclosed chute must be used. When debris is dropped through holes in the floor without the use of chutes, the area where the material is dropped must be enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edges of the opening above. Warning signs of the hazard of falling material must be posted at each level.

Drinking Water

An adequate supply of potable water must be provided in all places of employment. Portable drinking water containers must be capable of being tightly closed and equipped with a tap. Using a common drinking cup is prohibited. Where single service cups (to be used but once) are supplied, both a sanitary container for unused cups and a receptacle for used cups must be provided.