



B ROC101355 \* B ROC100897 \* A-17 ROC252001 \* L-11 ROC252000 \* ROC251999

## **SAFETY PROGRAM**

### **SAFETY PROGRAM OBJECTIVE**

Lafferty Electric Technologies, LLC has the duty as an employer to provide safe equipment and safe working conditions for all of its employees. Furthermore, Lafferty Electric Technologies, LLC must provide a safe environment for the public and the property they are entrusted to maintain.

Each year Lafferty Electric Technologies, LLC faces the rising cost of insurance premiums, employee lost time due to injury, loss of equipment and property and employee permanent disability. Thus, through loss control, Lafferty Electric Technologies, LLC can keep losses from occurring (loss prevention) and reduce the severity of losses that do occur (loss reduction). In turn, this will save Lafferty Electric Technologies, LLC money. This savings can then be passed on to departments for continuous safety and efficiency efforts.

In order for our safety program to be effective, it must have a commitment from EACH employee of EACH department.

### **POLICY**

It is Lafferty Electric Technologies, LLC's policy that accident prevention be a prime concern to all of us. It includes not only prevention of wasteful and inefficient operations, damage to property and equipment, but foremost the safety and well being of our Employees, Subcontractors and Customers. The safety policy of Lafferty Electric Technologies, LLC is also in place to comply with the Standards of the Occupational Safety and Health Act and the State of Arizona Health and Safety Standards, and to endeavor to have a safe and injury/illness free job. A copy of the ADOSH Safety and Health Standards 1926/1910 are available for your use and reference. The Standard shall be available in the Home Office at all times and will be sent to the jobsite on request.

Compliance with the following Safety Policy and all items contained therein is mandatory for all employees of the company. The authorization and responsibility for enforcement has been given primarily to the Project Coordinators and Foremen. The Project Managers and Safety Director share this responsibility as well.

This policy is made for the maximum safety and well being of all employees. Your assistance and cooperation for the achievement of this goal is vitally important.

## TRAINING AND ORIENTATION

a) **New Employees:**

All new employees hired by Lafferty Electric Technologies, LLC must attend an orientation session regarding this manual and specific safety training by the Safety Director regarding the duties of the position prior to the first job assignment. This will include but not be limited to:

- (1) Written instruction
- (2) Hands-on Training of specific equipment or materials and potentially hazardous situations the employee could encounter in their work place.

Upon satisfactory completion of the training, the Safety Director and employee will sign written documentation of understand and said document will be placed in the employee's personnel file.

b) **State/Federal Training Requirements:**

Lafferty Electric Technologies, LLC intends to comply with all State and Federal safety and health standards applicable to workplace safety practices and shall insure that each department attempts to comply with such standards.

Compliance includes required training as necessary and specialized training that may accompany newly implemented standards. (Ask the Safety Director about Annual Training Calendar to find out what classes you need and when they are scheduled).

Training required to operate equipment safely must be scheduled and completed prior to operation.

c) **Request for Training:**

Request for additional training or specialized training may be made through the Safety Director. The Safety Director and the Safety Committee will research the available training and provide the information to the department requesting it, and assist in scheduling if needed.

## SAFETY COMMITTEE

d) **Duties of the Safety Committee:**

Conduct regularly scheduled and documented safety committee meetings.

Assist in development and implementation of safety programs.

Actively participate in safety and health training programs.

Conduct hazard recognition inspections of the workplace on a regular basis.

Review and evaluate hazard recognition reports.

Review all incident investigation reports.

Review all employee reporting and communications reports.

Inform management of proposed safety and health recommendations and improvements.

Monitor and evaluate the effectiveness of safety and health recommendations and improvements.

Compile and distribute safety and health information to employees

Monitor federal, state, and local worker related laws and regulations.

e) **Agenda of the Safety Committee Meetings:**

i) Review minutes of previous meetings.

ii) Discuss unfinished business from last meeting.

iii) Report on actions taken by management as a result of previous suggestions.

iv) Review incident investigation reports.

v) Review hazard recognition reports.

vi) Review employee reporting and communication reports.

vii) Report suggestions on safety and health hazards to management.

## **NOTIFICATIONS**

### **In Case Of Serious Injury or Death:**

After the injured has been cared for (first aid provided, taken to hospital, etc.), the Supervisor notifies the Safety Director as soon as possible.

The Supervisor will then accompany the injured employee to the emergency care center and stay with him/her until they are released from emergency care.

Statements from witnesses are taken. Be sure that witnesses, with the date and time noted, sign statements.

Photographs of the area and anything relevant are to be taken. The Safety Director will assist in investigation.

The Accident Report / Investigation form is completed and faxed to the main office.

### **In Case of Inspection by ADOSH or OSHA Inspector:**

The Supervisor notifies the Safety Director that an OSHA or ADOSH inspector is on the jobsite and follows any instructions given by the Safety Director. If the Safety Director deems it necessary, you may be asked to request that the inspector wait until the Safety Director can arrive onsite.

It is your responsibility to make his/her visit on the jobsite as pleasant and timely as possible.

## **REPORTING OF WORKPLACE INJURY OR ILLNESS**

All employees will be held accountable for failing to fill out an Employee Report of Injury immediately, even if medical treatment is not required. (Notice must be made at or near the time of the injury and on the same day of the injury). Employees must report the injury to their Supervisor. A casual mentioning of the injury will not be sufficient. Employees must let their supervisor know:

- i) How they think they hurt themselves
- ii) What they were doing at the time
- iii) Who they were working with at the time
- iv) When and where it happened
- v) Other pertinent information that will aid in the investigation of the accident

Failure to report an injury immediately (meaning at or near the time of the injury and on the same day of the injury) is a violation of Safety Policy and they may be subject to immediate termination.

In ALL cases, a written Injury Investigation Report will be completed. Any unsafe condition noted must be reported to your supervisor who is responsible for having the condition corrected prior to proceeding with the job.

Every employee is expected to comply with Company Policy, as well as ADOSH Health and Safety Standards.

## **JOB SITE SAFETY RULE SPECIFICS:**

**Employees should understand that this is not an all-inclusive list of all standards of conduct and safety rules.**

### **Aerial Lifts:**

An aerial lift is any vehicle or device that has:

- An extendable boom
- Aerial ladders
- Articulating boom platforms
- Vertical towers or any combination

All of the above require Employees to be tied off while working on or inside these platforms.

### **Air Pollutants:**

Approved dust masks must be worn when it is necessary to work in an area where there is heavy dust in the air.

### **Clothing:**

**Shirt** - A clean Lafferty Electric Technologies, LLC work shirt, issued at time of hire, must be worn. If shirts are not issued at time of hire due to inventory, short-sleeved t-shirts will be acceptable until such time as Lafferty Electric Technologies, LLC work shirts are issued.

**Hard Hat** – Company policy is to issue 1 hardhat to employees at the time of hire (see “Hard Hats”).

**Safety Glasses** – issued at time of hire and twice annually (see “Safety Glasses”).

**Work Boots** – (employee’s expense) Sturdy work boots with rigid, slip resistant soles are required. NO clogs, tennis shoes or loafers are permitted. Steel toe tennis shoes with the ANSI label are the only alternative to the leather work boot.

**Pants** – (employee’s expense) Clean jeans or long pants without rips or holes. NO shorts are to be worn on the jobsites.

**Gloves** - Gloves will be issued by the Supervisor on the jobsite as needed (see “Gloves”).

### **Confined Space:**

A confined space will not be entered until all potential hazards have been removed. A confined space is defined as having one or more of the following characteristics (but not limited to):

Limited or restricted means of entry

Is not designed for continuous employee occupancy

Is large enough and so configured that an employee can bodily enter and perform assigned work.

Contains or has the potential to contain a hazardous atmosphere

Has an internal configuration such that the entrant could be trapped or asphyxiated by inwardly converging walls or by a floor, which slopes downward and tapers to a smaller cross-section.

Contains any other recognized serious safety or health hazards.

A confined space that is considered “Immediately Dangerous to Life or Health” (IDLH) requires a Confined Space Permit by a competent person prior to entry into the required confined space.

### **Drinking Water:**

Each Employee will be issued a 1-gallon insulated water cooler with the company logo for his/her personal use. Each Employee **MUST** write their name on their own jugs in permanent ink. The employee will be responsible for filling the cooler with ice and water prior to leaving home in the morning. On job sites that do not have General Contractor supplied potable water, Lafferty Electric Technologies, LLC will provide water at the trailer for employees to refill their personal coolers during breaks. If the General Contractor has provided potable water (which is required by law), then the employee may refill from that source during breaks. Notify the Safety Director in the event that the General Contractor is not providing potable water.

**Ear Protection:**

Earplugs will be provided to each employee by Lafferty Electric Technologies, LLC and must be carried to every job site by the employee. They must be worn whenever noise levels are high and could affect your hearing.

**Earth Moving Equipment:**

All earth moving equipment used on Lafferty Electric Technologies, LLC job sites (i.e., front end loaders and dozers, self-propelled scrapers and graders and trucks and wagons) must be evaluated by the competent person on site prior to operation of the equipment. This applies regardless of who is operating the machinery (Lafferty Electric Technologies, LLC Employee or Subcontractor, including employees of rental equipment vendors).

If the equipment is not safe for operation it must immediately be tagged and taken out of service and the Lafferty Electric Technologies, LLC Purchasing Director must be called to coordinate maintenance of the equipment.

All earthmoving equipment shall have a service braking system capable of stopping and holding the equipment fully loaded, as specified in Society of Automotive Engineers SAI-J237, Loader Dozer-1971, J236, Graders-1971, and J319b, Scrapers-1971.

**Electrical (General):**

On many OSHA inspections the majority of violations found are electrical. Following are some of the most common electrical violations found:

Do not use household 4-way boxes unless they are waterproof.

Make certain they are wired properly

Check for reverse polarity

All outlets must be GFCI protected except for temporary lighting.

Refer to "Electrical Cords" for further electrical wiring guidelines.

**Electrical "Hot Work" Procedures**

**Working on energized components (Hot Work) may only be performed when de-energizing is considered unfeasible. If no other choice but to work on energized components is available, the following procedure MUST be followed. Any variation from these procedures will be deemed a violation of Company Policy.**

**0-600V One-Line Equipment (i.e. SES panels, transformers, etc.)**

The Supervisor, Project Manager, or Safety Director shall determine if it is unfeasible to schedule a shut down.

In the field, Hot Work to be performed ONLY with prior written approval from the Supervisor, Project Manager, or Safety Director (See Permit to Work)

The Service Department must notify the Service Manager prior to performing Hot Work.

Work must be performed by Foreman assisted by Lafferty Electric Technologies, LLC Qualified Journeyman chosen by the Foreman and approved by the Project Coordinator or Safety Director.

All appropriate safety and personal protection equipment must be in place (i.e. mats, blankets, NOMEX suits, etc.). All appropriate safety and personal protection equipment must also be approved by the Supervisor, Project Manager or Safety Director prior to use. The Project Coordinators will carry Hot Work safety and personal protection equipment on their trucks and will bring them to the jobsites as necessary for employees to complete Hot Work procedures properly.

If necessary, Safety Director will have on-site a designated Safety Official when work is performed.

Request for Approval for Hot Work must be submitted in writing and must be approved in writing 48-hours in advance on a Permit to Work form. Approval time may be reduced for emergency situations. Approval request must be in writing and include the following information:

Description of work  
Names of technicians with buddy system in place  
Safety precautions being put into place  
Emergency plan with contacts and phone numbers

Working on energized components (i.e., testing trouble shooting) may only be performed when de-energizing is considered unfeasible, conditions are dry and all appropriate safety measures are taken including the following:

**50-300 Volts**

Must be performed by a qualified journeyman  
Must wear safety glasses and all other appropriate personal protective equipment.

**301-600 Volts**

Must be performed by a qualified journeyman under the direction of the LET Foreman.  
Must have a second qualified journeyman present  
Must wear safety glasses, insulating gloves, and use all other appropriate personal protective equipment.

**601 Volts and Above**

See section on "Electrical Procedures for Medium Voltage"

**Energized Electrical Components**

Exposed electrical components that are energized (such as panel boards with covers or dead-fronts removed) shall never be left unattended.

When pushing fish tape into or from an energized panel, a non-conductive fish tape is to be used.

**0-600v Branch Circuitry (i.e., trouble shooting)**

Check feasibility of de-energizing  
A Lafferty Electric Technologies, LLC Qualified Journeyman chosen by the Foreman must perform work.  
All appropriate safety and personal protection equipment must be in place.  
Conditions are dry

**Equipment and Tools (General):**

Equipment and tools are not to be used in any unsafe condition or manner. Do not use a tool when the guards are removed or missing.  
If a ladder is in poor condition or scaffolding is not set up properly, do not use until it is corrected or fixed.  
All electrical tools or equipment must be unplugged before working on them.  
Any equipment not designed to transport riders must carry the operator only.

**NOTE:** Specialized tools (core borers, electric benders, etc.) are to be used only by those qualified or trained in their usage. In order to operate a powder-actuated tool, you must first attend and pass a training class.

**Excavation and Trenches:**

You must complete and turn in the Blue Stake Application form to the Purchasing Director three (3) days prior to any trenching being performed.  
Digging within 2' of underground utilities must be done by hand.  
Trench depth must be per N.E.C., APS and SRP minimum requirements.

Any trench or excavation 5' or deeper must be cut to the proper angle of repose, benched, or shored and have the Safety Director or Project Coordinator's approval.

All trenches greater than 4' deep must have ladder access. Ladders in a trench must extend 3' above the top of the trench. All employees working in a trench must be within 25' of a ladder or ramp.

All excavations will be evaluated before each shift by a competent person to ensure the proper protective system is in place before employees enter the excavation.

All spoils, materials and equipment shall be a minimum of 2' from the edge of excavation.

No employees are permitted to work under loads being handled by lifting or digging equipment.

All spoils must be at least 2' from the lip of a backhoe trench and cannot block the means of egress.

Trenches must be inspected, backfilled and compacted as soon as possible. If a trench must be left unattended overnight, it must be marked or barricaded. Signs or barricades must be used to ensure the safety of employees, pedestrians and traffic.

A competent person must inspect the trench daily, prior to entry, and after any change in site conditions. The competent person must take prompt action to eliminate any hazards.

When shoring or other protective systems are used, employees must stay within the protective system.

Guardrail systems such as fences or barricades are to be used when the excavation cannot be seen due to plant growth or other visual barriers or when excavation is in remote areas such as wells, pits or shafts and is 6 feet or more in depth.

#### **Extension Cords:**

All extension cords, drop cords and electrical tools shall be checked (to include presence of GFCI's) before use. Cords and equipment, which do not meet requirements, shall be immediately tagged and removed from service until repairs have been made.

Extension cords are not to be used as a substitute for permanent wiring. Do not run them through doors without protection.

Do not allow cords to be run over by equipment unless properly protected against damage.

Splicing/Repairing electrical cords – do not use electrical tape. Use a vulcanizing tape or a shrink tube.

Take all damaged cords out of service when plug ends have pulled away from the outer insulation, or they have cuts or tears in the outer insulation where the inner wires are exposed, or ground pins are missing or broken.

Inspect cords monthly and before use. Use monthly color code system to document monthly inspection.

Any General Contractor or Subcontractor that asks Lafferty Electric Technologies, LLC to repair their extension cords shall agree to pay \$45.00 per hour plus expenses for new parts.

#### **Eye Protection:**

Safety glasses will be worn as the minimum required eye protection.

Safety glasses will be provided to each employee by Lafferty Electric Technologies, LLC and must be carried or worn to every job site by the employee (including office personnel who need to visit the job site). A neck cord will be provided to allow the employee to keep the glasses on their person for easy access.

Safety glasses must be worn at all times when eye injury could occur such as but not limited to:

When drilling, chipping, grinding or sawing is being done by you or someone else in your area.

When doing overhead work

Additional eye and face protection such as mono-goggles and face shields are required for such operations as:

grinding, jack hammering, utilizing compressed air, or handling chemicals, acids and caustics.

Burning goggles for cutting, burning or brazing and welding hoods for welding, etc., are required.

**Fall Protection:**

When working on or around all unprotected openings, such as openings on walls and floors that are 12 or more inches in their least dimension, and are 6 feet or more of fall to include ramps, runways, steep and low pitched roofs and other walkways that may apply, employees must be protected by the use of a guardrail system, safety nets or personal fall arrest system. 100% tie-off (Full Body Harness and Lanyards) shall be worn and secured or the use of safety nets or guardrail system must be used when working 6 feet or more above solid surface. Employees using their lanyards to access the work or position themselves on a wall, or column, etc., must use an ADDITIONAL safety lanyard for fall protection.

Proper use of man lifts: As soon as you enter an articulating boom lift and before the lift is started, you must put on the harness and attach the lanyard to the lift. On scissor lifts, employees are not required to wear harnesses.

**Leading Edge:** A leading edge is an edge of a floor, roof, framework, floors or other working surfaces such as a deck that is unprotected on the sides and edge when it is not actively under construction. When an individual is constructing a leading edge they must be protected from falling by the use of a guardrail system, safety net or a personal fall arrest system unless it can be demonstrated by other means that can be used safely. If other means are used the project must have a site specific written training program.

**Wall Openings:** Each Employee working on, at, above or near wall openings (including those with chutes attached) where the outside bottom edge of the wall opening is 6' (1.8m) or more above lower levels and the inside bottom edge of the wall opening is less than 39 inches (1.0m) above the walking/working surface, shall be protected from falling by the use of a guardrail system, a safety net system, or a personal fall arrest system.

**Warning Lines:** When a warning line is used on a roof, it must be erected around all sides of the roof area not less than six (6) feet back from the edge. The lines may consist of ropes, wires or chains with tensile strength of 500 pounds after being attached to a stanchion. It must be supported so that the sag or lowest point is not less than 34 inches. If the highest is 39 inches, it must be flagged at 6-foot intervals with high visibility. The stanchion must be able to resist tipping over when a force of 16 pounds is applied to it. No Employee will be allowed beyond the warning line unless he/she has work to do in that area. If he/she does have work in that area, the Employee must use a personal fall arrest system, safety monitor or both.

**Safety Monitor:** In the event a guardrail system cannot be used when working on the leading edge of the roof a safety monitor may be used. If a safety monitor is used, the roof must be less than 50 feet wide. If the roof is more than 50 feet wide a safety monitor/warning line system must be used. The safety monitor must be easily identified.

**Controlled Access Zones:** A controlled access zone is an area clearly marked where leading edge work will take place without the use of a guardrail, safety net, or personal fall arrest system.

When used to control access to areas where a leading edge exists and/or other operations are taking place the controlled access zone shall be defined by a control line, or by any other means that restricts access.

When control lines are used, they shall be erected not less than 6 feet or more than 60 feet, or half the length of the member being erected, whichever is less from the leading edge.

The control line shall be connected on each side to a guardrail system or wall.

Control lines shall consist of ropes, wires, tapes or equivalent materials and supporting stanchions.

Each line must be visibly marked at 6-foot intervals.

Each line must have a minimum breaking strength of 200 pounds.

Runways, ramps, and other walkways will be guarded by a standard railing on all open sides 6 feet or more above floor on ground level.

Stairs having four or more risers will be equipped with a standard railing.



**Fire Extinguishers:**

(Rated 2A 10B, 5 lb.) must be carried in all company vehicles.

If the truck does not service the job site, there must be one in the job box or trailer and its location and knowledge of its use must be understood by all employees on the job.

Fire extinguishers must be checked every month

Fire extinguishers must be serviced every 12 months and tagged when serviced or after it is used.

**First Aid:**

Employees shall seek appropriate first aid or medical treatment immediately upon receiving an injury even though it may be minor.

Employees shall report all injuries to their supervisor immediately.

All company vehicles must be equipped with a 10-person first aid kit.

Project Coordinators and Foreman shall work out a definite procedure to be followed in the event of serious injury at each jobsite. Instructions covering this procedure shall be made available to all employees/work crews. When practicable, a poster shall be fastened and maintained either on or in the cover of each first aid cabinet, and at or near all phones, plainly stating the phone numbers of available Concentra locations, hospital and ambulance services within the district of the location of the jobsite or office. Employees should be informed of the emergency telephone number 911.

**First Aid Kits:**

First aid kits shall be made available and accessible to all employees.

All vehicles used for transporting employees must be equipped with not less than a 10-unit first aid.

The number of employees at that location shall determine the size and quantity of first aid kits required to be located at any job site. Items are to be related to the possible hazards of the jobsite.

First aid kits must be inspected weekly to ensure completeness and to check the condition of the contents.

As a minimum, first aid kits will be maintained at the 10, 16, 24, or 36 unit level (refer to the Weekly First Aid Kit Checklist)

**First Aid Kit Requirements:**

1-5 employees: 10 unit kit

5-15 employees: 16 unit kit

16-30 employees: 24 unit kit

31-50 employees: 36 unit kit

51-75 employees: one 36 and one 10 unit kit

**First Aid Training:**

Foremen, Leadmen and Service employees must have a current certified First Aid/CPR card as a Requirement of Employment and provide a copy of the certification to the Safety Director.

Employees have the option of utilizing classes sponsored by the company or obtaining the training through the American Red Cross or American Heart Association (at employee's expense).

Lafferty Electric Technologies, LLC American Red Cross Standard First Aid/CPR classes will be scheduled through the office and notification will be sent out ahead of class times. This general (non-job specific) Standard First Aid/CPR course is provided free of charge but is also unpaid.

**Flammable & Combustible Liquids:**

Flammable Liquids must be handled and stored in an approved metal safety can (approved by a nationally recognized testing laboratory). A safety can by definition is a container with a capacity of 5 gallons or less and equipped with a spring-closing lid and spout cover, a means to relieve internal pressure and flash-arresting screen.

No more than 25 gallons of flammable or combustible liquids may be stored in a room outside of an approved safety cabinet.

Tank storage shall not be located under power lines.

Signs with 'No Smoking Within 50 Ft.'" shall be posted on or near the flammable/combustible storage area.

A fire extinguisher with a 20 lb. ABC rating shall be available within 75 feet but no closer than 25 feet during the transfer of flammable liquids.

Allow engine to cool before refueling a piece of equipment.

When moving an approved metal safety can that contains gasoline or kerosene, ensure that the cap is on tightly so that the liquid is not allowed to splash out of the can and possibly causing injury to skin or eyes.

**Floor Openings:**

All floor openings shall be barricaded on all sides to ensure employees are aware of the hazard. Floor holes shall be covered, the covers SECURED and clearly marked.

**Forklifts:**

All powered industrial trucks (forklifts) must be visually evaluated prior to each shift by the competent person on site before operation of the equipment. This applies regardless of who is operating the machinery (i.e. Lafferty Electric Technologies, LLC employee or subcontractor). If the equipment is not safe for operation it must immediately be tagged, taken out of service and the Lafferty Electric Technologies, LLC Purchasing Director must be called to coordinate maintenance of the equipment.

All employees operating a forklift MUST have a valid operators certification card. If you do not have one you will have to attend a training course to obtain one.

**Gloves:**

Foremen will maintain a supply of Kevlar gloves on the jobsite to issue to employees as needed.

Gloves should be worn when working with material that could cut or puncture your skin.

A glove clip should be worn on the employee's belt to ensure that gloves are kept close to the employee for easy access.

All employees are responsible for ensuring that their gloves are in good condition.

**Hardhats:**

One (1) hard hat will be assigned to each employee and paid for by Lafferty Electric Technologies, LLC the first day of employment.

**ALL** employees on the project site will wear hard Hats **AT ALL TIMES**.

The bill of the hard hat will be worn in front at all times.

Alterations or modifications of the hat or liner is prohibited.

**Hazard Communication:**

Label chemicals properly and keep all containers accurately labeled, identifying current contents.

Avoid incompatible storage or storage of chemicals above eye level.

3E Company provides Material Safety Data Sheets (MSDS) to Lafferty Electric Technologies, LLC as needed. If you have an emergency due to a hazardous spill, exposure or poisoning,

contact first call 911, then call 3E at 800-451-8346 and give them the following information (if available):

- Product name and number
- Manufacturer name
- UPC Code

3E must be able to provide the requested MSDS within one (1) hour. If you don't have all of the above information when calling 3E, you can still obtain a general MSDS if you know the type of chemical or hazardous substance that caused the emergency. In addition, the General Contractor will have a complete chemical list and copies of all MSDS's being used by each subcontractor on the job site.

#### **Ladders:**

An employee shall not use a ladder that has been broken, loose or cracked rungs, side rails or braces. If such a condition is noted, remove from service and notify Warehouse so it can be repaired or replaced.

Ladders shall be well secured to prevent movement and sufficient length to extend not less than 36 inches above a platform or landing, which they serve.

Employees shall not work on the top two steps of a stepladder and/or above the third rung of an extension ladder.

When ascending or descending ladders, Employees shall have hands free, grip the sides or rungs with both hands and face the ladder.

Ladders used for access shall be placed at a 4 to 1 ratio. For every 4' of vertical height from the structure the ladder is to be placed 1' away.

**Example:** If the structure were 12' high the ladder would be 3' away from the base of the structure.

Job-made ladders shall be constructed so that cleats shall be inset into side rails or filler blocks used. Cleats shall be uniformly spaced, 12" top-to-top.

Common Sense Practice:

- Place ladder on solid secure footing.

- Extend ladder when no one is on it.

- Adjust the length of an extension ladder only when your eye level is below level of locking device so you can see when lock is engaged.

- Always face the ladder when going up or down.

- Take one step at a time

- Carry tools or other materials in tool pockets or attached to a tool belt.

- Raise and lower heavy materials with a rope.

- Move ladder to where work can be done without reaching far to either side of ladder.

- Keep the bottom of ladder free of materials, traffic, swinging doors, etc.

- Do not use ladders as guys, braces, gin poles, skids scaffolds, etc. or substitute for any use other than intended purpose.

- Never repair a ladder with improvised parts or techniques.

#### **Lifting:**

Lifting incorrectly or lifting too much is a major cause of many back injuries.

Plan the move; inspect the pathways and destination to ensure that they are clear before you lift.

Communicate! Plan the lift together in order to coordinate your actions.

Test the load before you lift. If the load is uneven then:

- Redistribute the load

- Get help to lift the load

- If the load is too heavy find:

- Another person to help

- A mechanical lifting aid

Keep a wide balanced stance with feet generally shoulder width apart or wider.

Keep your back straight and bend your knees when lifting.

Hold load as close to your body as possible.

Redesign the lift to avoid twisting; turn your body using your feet.

Turn your feet backwards and push your buttocks out (imagine a professional weight lifter).

Keep your head forward. Your lift will be more balanced and the curves in your spine will stay balanced and aligned.

Use gloves whenever equipment is handled that could have a sharp edge.

**Lighting:**

The intensity of lights shall be 3 foot candles in general construction areas and 5 foot candles or greater on any walkway, ladder, stairway or working level while work is in progress.

Temporary lights shall be equipped with guards to prevent accidental contact with the bulb, except when the light bulb is deeply recessed and protected by the lamp holder.

**Lockout Tagout Procedures:**

Before starting repair or maintenance on electrical equipment or power-driven machinery, make sure it cannot be energized or set into motion without permission of the person(s) performing the work. This shall be accomplished as follows:

Alert the person(s) that is/are responsible for the operation of the equipment that power is being disconnected.

The crew leader of those performing the work must lock off the disconnecting means with a padlock and a lockout tag. Each member of the crew shall sign the tag.

Test to insure that the power is off before beginning the work.

Removal of padlock and lockout tag may only be done by the person who installed these devices and only after receiving approval from each person who signed the tag. (Exception: Supervisor or Foreman of the project may remove the tag and padlock and connect power after a thorough check to make sure that no person will be exposed to danger).

In case of removal of padlock and/or lockout tag, all effected personnel must be notified prior to restoring power.

A written Lockout/Tagout program is required to be in use at the jobsite when Lockout/Tagout procedures are used.

**Powder-Actuated Tools:**

Only trained Employees shall be allowed to operate power-actuated tools.

Certification is to be updated annually.

Each tool shall be supplied with the following:

Operator's instruction and service manual

Power load and fastener chart.

Tool inspection and service record.

Service tools and accessories.

Keep hands and feet clear of the open barrel end.

Hold the tool perpendicular to the work surface when fastening into any material, except for specific applications approved by the tool manufacturer. IN the event of a misfire, the operator must hold the tool firmly against the work surface for a period of 30 seconds and then follow the instructions recommended by the manufacturer for misfires.

When storing different power loads, power loads of different power levels must be kept in separate compartments or containers.

A sign at least 8" by 10" using boldface type no less than 1" inch in height must be conspicuously posted within 50 feet of the area where the tools are being used. The sign shall bear wording similar to the following:

**“CAUTION – POWDER-ACTUATED TOOL IN USE”**

Signs can be removed when tools are no longer being used in the area.

Any defects discovered during use shall be immediately corrected or the tool shall be removed from service until properly repaired.

**Warning: Powder-Actuated Tool To Be Used Only By A Qualified Operator and To Be Kept Under Lock and Key When Not In Use!**

**Power-Operated and Hand Tools:**

NO power tool shall be operated without a properly adjusted guard in place.

Hand tools shall be used only for the purpose for which they were designed and shall be kept in good repair.

Pneumatic power tools shall be secured to the hose by some positive means to prevent the tool from becoming accidentally disconnected.

Any tool found not in proper working order, or that develops a defect during use, shall be removed from service until properly repaired.

Disconnect the power supply for electrical tools when not in use, when changing blades, bits or discs or other routine maintenance tasks.

**NOTE:** Anyone removing a guard, handle, or using an unguarded tool will be subject to the progressive disciplinary policy and/or dismissal from employment.

**Respiratory Protection:**

Respiratory protection is required for all employees exposed to dust hazards or to other contaminants that may be encountered.

Dust masks will be provided when such hazards are present but will not provide protection against fumes or gases.

A respiratory safety program is required from the subcontractors that have employees using respirators.

**Scaffolds:**

Scaffolds shall be capable of supporting four (4) times the maximum intended load and erected on sound, rigid footings, capable of carrying the maximum load without setting or displacement. The standard guardrail is the top-rail minimum 38" and not more than 45" high. The mid-rail is ½ the distance.

Fall protection shall be provided when the top-rail is 38" or less.

Cross braces may be used as part of the guardrail system when the top rail or mid-rail meet the following requirements;

Top-rail when the distance where the braces cross is between 38 and 48 inches.

Mid-rail when the vertical distance where the braces cross is between 20 and 30 inches.

Standard guardrail must be used on all open sides when the height of the scaffold is 10 feet or greater.

Planks that overlap each other must overlap at least 12 inches. If they do not overlap over a support, which is attached to the frame, they must be nailed down or secured by some other means.

Scaffold planks shall extend at least 6 inches and no more than 12 inches beyond the last support when the span is 8 feet. If the span is 10 feet the distance may extend no more than 18 inches.

All walking surfaces must be at least 18" wide.

A ladder must be attached when the distance between the rungs is greater than 16 ¾ inches or when the width is less than 12 or greater than 16 inches.

Maximum distance from the wall or structure following the manufacturers directions or at a ratio of 4:1 then at intervals not to exceed 30 feet horizontally and 26 feet vertically when the scaffolds are greater than 3 feet wide. Scaffolds less than 3 feet wide the intervals are 20 feet vertically and 30 feet horizontally.

Cross braces cannot be used as an access.

Employees using or erecting and dismantling must be trained in proper use and hazards associated with these activities.

A competent person shall inspect each scaffold at the start of each shift to ensure it meets the safety requirements of the ADOSH standards.

Ensure that utility company has shut off the electricity before a scaffold is erected where a worker might come in contact with the lines.

When hoisting materials onto a scaffold, attach a tag line to safely control the load and keep it from swinging and striking someone or damaging the scaffold.

Keep the work platform clear of tools, materials and debris, which could cause tripping hazards. If a scaffold is damaged in any way, tag it as damaged, notify your foreman and don't use it until it's repaired or replaced.

**Power (Motorized) Scaffolds:**

In order to operate a motorized scaffold, you must carry a valid operator's card issued by authorized operators. Scaffolds must be operated in a safe manner at all times using the guidelines supplied by the manufacturer which is written on the back of the Power Lift Charge sheet for the equipment being used.

All operators must adhere to all requirements outlined in OSHA standards article 32 aerial lifts. Power scaffolds must be maintained in safe working condition at all times. If there are any questions on safety, report it to the Safety Director.

A safety inspection must be done every six months and records must be kept showing that all items relating to safety are approved.

**Temporary Power:**

All temporary power on a job site must have GFI protection. A permanent panel on a job is not considered a temporary panel and GFI is still required.

Temporary power will be run in accordance with the N.E.C. article 305 temporary wiring.

All generators will be delivered to job sites with a GFI plug set that employees will be required to use. If it delivered without a GFI plug set, notify the Warehouse immediately and do not use the generator until the GFI plug set is delivered.

**NOTE:** Failure to use a generator with a GFI plug set will be grounds for immediate dismissal.

**Warning Signs, Barricades and Tags:**

Warning signs, barricades and tags will be used to the fullest extent and shall be obeyed.