

# **Scaffold Safety Program**

## Policy:

It is the policy of Pagoda Electrical, Inc. to take all practical measures possible to prevent employees from being injured by falls from scaffolds. Pagoda Electrical, Inc. will take all necessary steps to eliminate, prevent, and control fall hazards. Pagoda Electrical, Inc. will comply fully with the OSHA Fall Protection standard (CFR 1926, Subpart M, Fall Protection).

Workers may die or be injured if scaffold equipment and fall protection systems are defective or misused.

A "Scaffold" means one or more working platforms suspended by ropes or other means from an overhead structure. Recent investigations by OSHA suggest that fatal falls occur as a result of defective scaffold equipment, improper installation or operation, improper training of workers, or a failure to use appropriate personal fall protection equipment.

Safety regulations of the Occupational Safety and Health Administration (OSHA) establish specific requirements for suspension scaffolds and their operation, including the use of fall protection systems. Our Company will ensure that all supervisors, and worker(s) involved in work from suspension scaffolds will comply with these regulations.

## Background:

Falls are a leading cause of traumatic occupational death. The U.S. Department of Labor indicates that falls accounted for 8% of all occupational fatalities from trauma. Personal fall protection equipment was used in several of these incidents, but it was used improperly in each case. In several incidents, workers fell out of their improperly fastened safety belt or in the other incidents, excessively long lanyards broke or separated after victims fell 30 feet.

### Responsibilities:

Supervisors of all employees that are required to work from scaffolds will ensure the following procedures are taken:

1. Comply with the current and proposed OSHA regulations for working with scaffolds.



- 2. Assure that design and construction of scaffolds conform with OSHA requirements.
- 3. Shield scaffold suspension ropes and body belt or harness system droplines (lifelines) from hot or corrosive processes, and protect them from sharp edges or abrasion.
- 4. Inspect all scaffolds, scaffold components, and personal fall protection equipment before each use. Unsafe equipment or conditions must be tagged out by Pagoda Electrical, Inc. competent person and removed from service.
- 5. Provide personal fall protection equipment and make sure that it is used by all workers on suspension scaffolds.
- 6. Use structurally sound portions of buildings or other structures to anchor droplines for body belt or harness systems and tiebacks for suspension scaffold support devices. Droplines and tiebacks should be secured to separate anchor points on structural members.
- 7. Provide proper training for all workers who use any type of suspension scaffold or fall protection equipment.
- 8. Scaffolding shall not be modified for uses other than those intended by the manufacturer. Only qualified and competent personnel are allowed to modify scaffolding systems provided the modification has been certified in writing by the manufacturer. Any nonqualified employee who modifies a scaffold, knowingly commits an unsafe act or creates an unsafe condition, or disregards Pagoda Electrical, Inc. safety policy, will be discharged.
- 9. Follow scaffold manufacturers' guidance regarding the assembly, rigging, and use of scaffolds.

## Employees shall;

- 1. Inspect all scaffolds, scaffold components, and personal fall protection equipment before each use. Defective components must be removed from service and replaced. Notify supervisors and management of defective equipment.
- 2. Shield scaffold suspension ropes and body belt or harness system droplines (lifelines) from hot or corrosive processes, and protect them from sharp edges or abrasion.



3. Wear a body belt or body harness which may include a deceleration device, lifeline, or suitable combinations. The body belt or body harness shall be rigged so that an employee can neither free fall more than 4feet nor contact any lower level and bring an employee to a complete stop and limit the maximum deceleration distance an employee travels to 3.5 feet

## The use of body belts for fall arrest is prohibited

Pagoda Electrical, Inc. shall have each employee who performs work while on a scaffold trained by a person qualified in the subject matter to recognize the hazards associated with the type of scaffold being used and to understand the procedures to control or minimize those hazards.

The training shall include the following areas, as applicable:

- The nature of any electrical hazards, fall hazards and falling object hazards in the work area:
- The correct procedures for dealing with electrical hazards and for erecting, maintaining, and disassembling the fall protection systems and falling object protection systems being used;
- The proper use of the scaffold, and the proper handling of materials on the scaffold;
- The maximum intended load and the load-carrying capacities of the scaffolds used; and
- Any other pertinent requirements of this subpart.

Pagoda Electrical, Inc. shall have each employee who is involved in erecting, disassembling, moving, operating, repairing, maintaining, or inspecting a scaffold trained by a competent person to recognize any hazards associated with the work in question. The training shall include the following topics, as applicable:

- The nature of scaffold hazards:
- The correct procedures for erecting, disassembling, moving, operating, repairing, inspecting, and maintaining the type of scaffold in question;
- The design criteria, maximum intended load-carrying capacity and intended use of the scaffold;
- Any other pertinent requirements of this subpart.



When Pagoda Electrical, Inc. has reason to believe that an employee lacks the skill or understanding needed for safe work involving the erection, use or dismantling of scaffolds, Pagoda Electrical, Inc. shall retrain each such employee so that the requisite proficiency is regained. Retraining is required in at least the following situations:

- Where changes at the worksite present a hazard about which an employee has not been previously trained; or
- Where changes in the types of scaffolds, fall protection, falling object protection, or other equipment present a hazard about which an employee has not been previously trained; or
- Where inadequacies in an affected employee's work involving scaffolds indicate that the employee has not retained the requisite proficiency.

#### General Scaffold Requirements:

Supervisors and employees will insure that the following operating procedures are observed:

Scaffolds must be substantially constructed to carry the loads imposed upon them and to provide a safe work platform. All scaffolds more than 4 'high must have approved guardrails on all ends exposed ends and sides.

Guardrails, mid-rails, and toe boards must be installed on all open sides of scaffolds 4' high or more in height.

Only approved scaffolds will be used. Barrels, boxes, rebar. Or other makeshift substitutes for scaffolds will not be used.

Scaffold planks must be cleated together, and must extend over the end supports at least 6 inches, but not more than 12 inches.

All scaffold planks must be visually inspected before each use. Damaged scaffold planks must be destroyed immediately.

All scaffold planks must be at least two planks wide: No employee may work from a single plank.

Adequate mud sills or other rigid footing, capable of withstanding the maximum intended load, must be provided.



Scaffolds must be tied to the building or structure at intervals which do not exceed 30 feet horizontally and 26 feet vertically.

Do not overload scaffolds. Materials should be brought up as needed. Scaffolds must not be loaded in excess of one-fourth of their rated capability.

Where persons are required to work or pass under scaffolds, a screen of 18 guage, ½ inch wire mesh is required between the toe and guard rail.

Overhead protection is required if employees working on scaffolds are exposed to overhead hazards. Such protection must be a 2" thick plank or equivalent.

Diagonal bracing must be used on all support components.

Midrails 1" X 6" or equivalent must be present on all sides.

Ladders will be used as a means of entry onto and exit off of the scaffold.

### Rolling Scaffolds- General Requirements:

The height of the rolling scaffold must not exceed four times the minimum base dimension.

The work platform must be planked tight for the full width of the scaffold.

Cleat the underside of the planks to prevent their movement.

Caster breaks must be locked when the scaffold is not in motion.

Get help when moving rolling scaffolds.

Make certain that the route is clear.

Watch for holes and overhead obstructions.

No one shall be permitted to ride on rolling scaffolds.



#### Two Point Suspended Scaffolds (Swinging Stages) General Requirements:

Each employee working from a two point suspended scaffold must be tied off to an independent safety line.

Suspended scaffolds must be not less than 20 inches nor more than 36 inches wide.

Wire ropes used to suspend such scaffolds must be able to withstand a load that is six times the load it is intended to support.

Non —conductive insulating material must be placed over suspension cables of each scaffold for protection when the chance of contact with an electric arc exists.

#### **Design and Construction of Scaffolds**

The design and construction of scaffolds must conform with OSHA requirements concerning type of equipment, rated capacities, construction methods, and use. Each scaffold and scaffold component must be capable of supporting its own weight plus at least four times the maximum intended load without failure. Each suspension rope must be capable of supporting at least six times the maximum intended load.

# **Shielding of Ropes**

Suspension ropes and droplines for body belt or harness systems should be shielded from:

- heat-producing processes such as welding,
- acids or other corrosive substances, and
- sharp edges or abrasions.

Such ropes should be made from material that is not adversely affected by heat or by acids or other corrosives.

# <u>Inspection</u>

A Competent Person, Supervisors and Employees will inspect all scaffolds and scaffold components for visible defects before use on each work shift and periodically throughout the shift. Scaffolds will be erected, moved, dismantled, or altered only under the supervision of a competent person.



All components of personal fall protection equipment (including body belts or harnesses, lanyards, droplines, trolley lines, and points of anchorage) should be inspected by Supervisors and Employees before use. Any visibly damaged or worn equipment should be removed from service immediately.

#### **Use of Fall Protection Equipment**

Pagoda Electrical, Inc. will provide appropriate fall protection systems and ensure their use by all workers on suspension scaffolds. Generally, these workers will be protected by a Type I guardrail system [see note 2 below] or a combination of body belt or harness system with a Type II guardrail system [see note 3 below].

However, when single-point and two-point adjustable suspension scaffolds are used, workers must be protected by both a body belt or harness system and a Type I or Type II guardrail system. Also, when boatswain chairs, catenary scaffolds, and float scaffolds are used, workers must be protected only by a body belt or harness system.

### **Use of Structural Members as Anchor Points**

Structurally sound portions of buildings or other structures must be used to anchor droplines for body belt or harness systems and tiebacks for suspension scaffold support devices. Droplines and tiebacks should be secured to separate anchor points of structural members. Owners, architects, and engineers planning renovation or designing new facilities should incorporate strategically located anchor points on structural members of buildings for future exterior maintenance and repair work.



#### **Proper Training of Workers**

Pagoda Electrical, Inc. will provide workers with proper training, including the manufacturers' recommendations for installing and operating suspended scaffold systems and for using personal fall protection equipment. Untrained personnel should never be permitted to work from any type of suspension scaffold.

#### **Accident prevention tags.**

Accident prevention tags shall be used as a temporary means of warning employees of an existing hazard, such as defective tools, equipment, etc. They shall not be used in place of, or as a substitute for, accident prevention signs. Employees are instructed to comply with tags.

Examples of tags used and specifications for accident prevention tags similar to those in Appendix Accident Prevention Tags, next page, shall apply.

#### **NOTES**

- 1. Fall protection systems consist of body belt or harness systems (personal fall arrest systems) used independently or in combination with guardrail systems.
- 2. Type I guardrail systems are those capable of providing adequate fall protection without the use of body belts.
- 3. Type II guardrail systems are those that delineate the scaffold edge, restrain movement, provide handholds, and prevent mis-stepping. Type II systems must be supplemented by body belt or harness systems to provide adequate fall protection



## **Appendix Accident Prevention Tags**





