

Scaffolds

Purpose

The purpose of this safety policy and procedure is to establish guidelines for the protection of E Light Electric Services Inc. employees who work on scaffold work surfaces.

Scaffolding has a variety of applications. It is used in new construction, alteration, routine maintenance, renovation, painting, repairing, and removal activities. Scaffolding offers a safer and more comfortable work arrangement compared to leaning over edges, stretching overhead, and working from ladders. Scaffolding provides employees safe access to work locations, level and stable working platforms, and temporary storage for tools and materials for performing immediate tasks. Scaffolding accidents mainly involve personnel falls and falling materials caused by equipment failure, incorrect operating procedures, and environmental conditions. Additionally, scaffolding overloading is a frequent single cause of major scaffold failure. This safety policy and procedure provides guidelines for the safe use of scaffolds. It includes training provisions and guidelines for scaffold erection and use.

Reference

This safety policy and procedure is established in accordance with Occupational Safety and Health Standards for General Industry (29 CFR 1910.28) and Occupational Safety and Health Standards for Construction Industry (29 CFR 1926.451).

Policy

Scaffolds shall be erected, moved, dismantled, or altered only under the supervision of a competent person and will have guardrails and toeboards installed. When scaffolding hazards exist the Hierarchy of Controls shall be utilized.

A Competent Person shall be designated by management and shall supervise all scaffold work within our scope or under E Light supervision. It is the responsibility of the Competent Person to ensure implementation of this safety policy and procedure on Scaffolds. It is also the responsibility of each employee to report immediately any unsafe act or condition to his or her supervisor.

Responsibilities

- **Project Managers:** Project Managers will ensure adequate funds are available and budgeted for the purchase of scaffolds in their areas. They will also identify the employees affected by this safety policy and procedure. Project Managers will obtain and coordinate the required training for the affected employees with the Safety Department. Project Managers will ensure compliance with this safety policy and procedure.
- **Supervisors:** Supervisors will not allow any employee who has not received the required training to perform any of the tasks or activities related to scaffold

erection and/or dismantling. Supervisors will communicate appropriate needs to management. Supervisors will ensure that employees are provided with PPE as necessary for their job. Supervisors will ensure that a competent person is designated to supervise all work on scaffolding.

- **Competent Person:** The competent person will oversee the scaffold selection, erection, use, movement, alteration, dismantling, maintenance, and inspection. The competent person will be knowledgeable about proper selection, care, and use of the fall protection equipment. Additionally, the competent person shall assess hazards.
- **Employees:** Employees shall comply with all applicable guidelines contained in this safety policy and procedure. Employees will report damaged scaffolds, accessories, and missing or lost components. Employees will use Stop Work Authority anytime a hazardous condition is observed.
- **Safety Department:** Safety and Loss Prevention will provide prompt assistance to Project Managers, supervisors, or others as necessary on any matter concerning this safety policy and procedure. The Safety Department will assist in developing or securing required training. The Director of Education and Loss Prevention will also work with Estimators and Project Managers to ensure that all newly purchased or rented scaffolds comply with current safety regulations and this safety policy and procedure. The Safety Department will provide consultative and audit assistance to ensure effective implementation of this safety policy and procedure.

Definitions

Brace: A tie that holds one scaffold member in a fixed position with respect to another member. Brace also means a rigid type of connection holding a scaffold to a building or structure.

Coupler: A device for locking together the component tubes of a tube and coupler scaffold.

Harness: A design of straps which is secured about the employee in a manner to distribute the arresting forces over at least the thighs, shoulders, and pelvis, with provisions for attaching a lanyard, lifeline, or deceleration device.

Hoist: A mechanical device to raise or lower a suspended scaffold. It can be mechanically powered or manually operated.

Maximum Intended Load: The total load of all employee, equipment, tool, materials, transmitted, wind, and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

Mechanically Powered Hoist: A hoist which is powered by other than human energy.

Outriggers: The structural member of a supported scaffold used to increase the base width of a scaffold in order to provide greater stability for the scaffold.

Platform: The horizontal working surface of a scaffold.

Safety Belt: A strap with means for securing about the waist or body and for attaching to a lanyard, lifeline, or deceleration device.

Scaffold: Any temporary elevated or suspended platform and its supporting structure used for supporting employees or materials or both, except this term does not include crane or derrick suspended personnel platforms.

Training

Affected employees will receive instruction on the particular types of scaffolds which they are to use. Training shall focus on safe work practices, use, inspection, and care of the scaffolds. Training must also include the installation of fall protection, guardrails, and the proper use and care of fall arrest equipment.

This training should be done prior to or upon initial job assignment. Retraining shall be done anytime job conditions change. Periodic refresher training shall be done at the discretion of the supervisor.

The designated Competent Persons will receive additional training regarding the selection of scaffolds, recognition of site conditions, recognition of scaffold hazards, protection of exposed personnel and public, and requirements of standards.

Safe Scaffold Erection and Use

Safe scaffold erection and use is important in minimizing and controlling the hazards associated with their use. Scaffold work practices and rules should be based on:

- Sound design
- Selecting the right scaffold for the job
- Assigning personnel
- Fall protection
- Guidelines for proper erection
- Guidelines for use
- Guidelines for alteration and dismantling
- Inspections
- Maintenance and storage

Scaffolding shall be erected by a qualified scaffold erector.

Safety Requirements for Scaffolds

- The footing or anchorage for scaffolds shall be sound, rigid, and capable of carrying the maximum intended load without settling or displacement. Unstable objects such as barrels, boxes, loose brick, or concrete blocks shall not be used to support scaffolds or planks.
- No scaffold shall be erected, moved, dismantled, or altered except under the supervision of competent persons or as requested for corrective reasons by Safety and Loss Control Personnel.
- Guardrails and toeboards shall be installed on all open sides and ends of platforms more than 10 feet above the ground or floor, except needle beam scaffolds and floats. Scaffolds 4 feet to 10 feet in height having a minimum horizontal dimension in either direction of less than 45 inches shall have standard guardrails installed on all open sides and ends of the platform.
- Guardrails must be 2 X 4 inches, or the equivalent, not less than 36 inches or more than approximately 42 inches high, with a midrail, when required, of 1 X 4 inch lumber, or the equivalent. Supports must be at intervals not to exceed 8 feet. Toeboard and the guardrail shall extend along the entire opening.
- Scaffolds and their components must be capable of supporting without failure at least 4 times the maximum intended load.
- Any scaffold, including accessories such as braces, brackets, trusses, screw legs, ladders, couplers, etc., damaged or weakened from any cause must be repaired or replaced immediately, and shall not be used until repairs have been completed.
- All load-carrying timber members of scaffold framing shall be a minimum of 1,500 fiber (Stress Grade) construction grade lumber
- All planking must be Scaffold Grades, or equivalent, as recognized by approved grading rules for the species of wood used. The maximum permissible span for 2 X 9 inch or wider planks is shown in the following:
 - The maximum permissible span for 1-1/4 X 9 inch or wider plank of full thickness shall be 4 feet with medium duty loading of 50 p.s.f.
 - All planking or platforms must be overlapped (minimum 12 inches) or secured from movement.
 - An access ladder or equivalent safe access must be provided.
 - Scaffold plank must extend over their end supports not less than 6 inches nor more than 18 inches.
- The poles, legs, or uprights of scaffolds must be plumb and securely and rigidly braced to prevent swaying and displacement.

- Overhead protection must be provided for workers on a scaffold exposed to overhead hazards.
- Slippery conditions on scaffolds shall be eliminated immediately after they occur.
- No welding, burning, riveting, or open flame work shall be performed on any staging suspended by means or fiber of synthetic rope. Only treated or protected fiber or synthetic ropes shall be used for or near any work involving the use of corrosive substances or chemicals.
- Wire, synthetic, or fiber rope used for scaffold suspension shall be capable of supporting at least 6 times the intended load.
- Scaffolds shall be provided with a screen between the toeboard and guardrail, extending along the entire opening, consisting of No. 18 gauge U.S. Standard wire one-half inch mesh or the equivalent, when personnel are required to work or pass underneath the scaffolds.
- A safe distance from energized power lines shall be maintained.
- Tag lines shall be used to hoist materials to prevent contact.
- Suspension ropes shall be protected from contact with heat sources (welding, cutting, etc.) and from acids or other corrosive substances.
- Scaffolds shall not be used during high wind and storms.
- Ladders and other devices shall not be used to increase working heights on scaffold platforms.
- Scaffolds shall not be moved while employees are on them.
- Loose materials, debris, and/or tools shall not be accumulated to cause a hazard.
- Employees working on suspended scaffolds shall employ a fall-arrest system.
- Scaffold components shall not be mixed or forced to fit which may reduce design strength.
- Scaffolds and components shall be inspected at the erection location. Scaffolds shall be inspected before each workshift, after changing weather conditions, or after prolonged work interruptions.
- Casters and wheel stems shall be pinned or otherwise secured in scaffold legs. Casters and wheels must be positively locked if in a stationary position.
- Tube and coupler scaffolds shall be tied to and securely braced against the building at intervals not to exceed 30 feet horizontally and 26 feet vertically.