

# SCAFFOLDING

## STANDARD OPERATING PROCEDURE

### PFW FACILITIES MANAGEMENT EMPLOYEES

Review and implement the following SOPs for work with fabricated framed scaffolding (OSHA 1926.450, 1910.28):

#### Base Section

- In order to assure stability, supported scaffolds must be set on: base plates, mud sills or other adequate firm foundation. Base plates are required on every scaffold whereas mud sills are primarily used for scaffolds constructed on dirt or gravel.
- Footings must be capable of supporting loaded scaffold without settling or displacement.
- Unstable objects may not be used for support.
- Wheels are not to be used at the base of any scaffolds.
- Supported scaffold poles, frames, uprights, etc. must be plumb and braced.
- Frames and panels must be connected by cross, horizontal, or diagonal braces, alone or in combination, which secure vertical members together laterally.
- Cross braces must keep the scaffold plumb, level, and square.
- All brace connections must be secured to prevent dislodging.
- Frames and panels must be joined together vertically by coupling or stacking pins or equivalent means.
- Frames and panels must be locked together to prevent uplift (separation of a frame from the frame below it), where uplift can occur.
- Only use scaffold components from the same manufacturer together. Components produced by different manufacturers must not be modified to fit together and should not be used together.

#### Support Structure

- Scaffolds and their components must be capable of supporting, without failure, their own weight and at least 4 times their maximum intended load.
- Scaffolds must only be altered under the supervision & direction of a competent person.\*

#### Access

- Employees must be able to safely access any level 2 feet above or below an access point.
- OSHA forbids climbing cross-braces.
- Portable, hook-on, and attachable ladders cannot tip the scaffold and must be designed for use with the type of scaffold being used.
- Ladder rungs shall be positioned so that the bottom rung is not more than 24 inches above the scaffold supporting level.
- Rungs must have uniform spacing between rungs with a maximum of 16¾ inches.
- Rungs must have a minimum rung length of 11½ inches.
- When hook-on and attachable ladders are used on supported scaffolding, there must be rest platforms provided at a maximum of 35-foot vertical intervals.
- When stairway-type ladders are used, there must be rest platforms provided at a maximum of 12 feet with a minimum step width of 16 inches with slip-resistant treads.

- Employers are required to provide safe access for employees erecting or dismantling supported scaffolds where it is feasible, and where it does not create a greater hazard.
- With tubular, welded-frame scaffolds, end frames may be used as climbing devices for access provided: the horizontal members are parallel, level, and not more than 22 vertical inches apart.

#### Fall Protection

- Falls are the #1 scaffold hazard!
- With fabricated frame scaffolding, fall protection may consist of either personal fall-arrest systems (PFAS) or guardrails.
- Fall protection must be provided on any scaffold 10 feet or more above a lower level.
- PFAS are to be attached by lanyard to a vertical lifeline, horizontal lifeline, or scaffold structural member.
- For guardrail use, the following requirements shall be met: guardrails must be installed along all open sides and ends of platforms; each topsail must be able to withstand a force of at least 200 pounds, the top edge height must be between 38-45 inches, and mid rails must be able to withstand a force of at least 150 pounds.

#### Platform

- Each platform must be fully planked or decked between the front uprights and guardrail supports.
- Gaps greater than 1 inch are not permitted between adjacent planks or between platform and uprights.
- Platform must be at least 18 inches wide.
- Nothing that could cause a slip, trip, or fall is allowed on the platform.
- Platforms must be cleated at each end.
- Each end of the platform may not extend over its support more than 18 inches.
- Platforms must be able to support their own weight, plus 4x the maximum intended load.
- The area below the scaffold should be barricaded to prevent overhead hazards, or a toe board shall be erected along the platform edge.

#### Keeping Upright

- When a supported scaffold reaches a height that is more than four times its minimum base dimension (4:1), it must be restrained by guys, ties, or braces to prevent tip over.
- Any scaffold part that has been damaged or weakened must be repaired, replaced, braced, or removed from service.
- Scaffolds may not be moved while employees are on them.
- Work cannot be done from a scaffold during storms or high winds.

#### Electrical Hazards

- Scaffolds must not come closer than 10 feet to a power line.
- All portable electric equipment used on the scaffold must be protected by GFCI's.

#### Personnel Training and Competent Persons\*

- Scaffolds must be designed by a qualified person, and be constructed and loaded in accordance with that design;

- Scaffolds are to be erected, moved, dismantled, or altered only under the supervision of a competent person.\*
- Employees who are involved in activities such as erecting, dismantling, repairing, and inspecting scaffolds must be trained by a competent person\* for any pertinent requirements related to the type of scaffold being used. Training shall include: nature of scaffold hazards as well as correct procedures, design criteria, maximum intended load capacity, and intended use for the specific scaffold in question.
- Employees who perform work while on a scaffold must be trained. This training shall include: electrical hazards, fall hazards, and falling object hazards, correct procedures for management of these hazards, proper use of the scaffold, proper handling of materials used on the scaffold, maximum intended load and load-carrying capacity of the scaffold, and any other pertinent requirements.

**\*Competent person:** one who is capable of identifying existing and predictable hazards in the surroundings of working conditions which are unsanitary, hazardous, or dangerous to employees, and who has the authorization to take prompt corrective measures to eliminate the hazard.