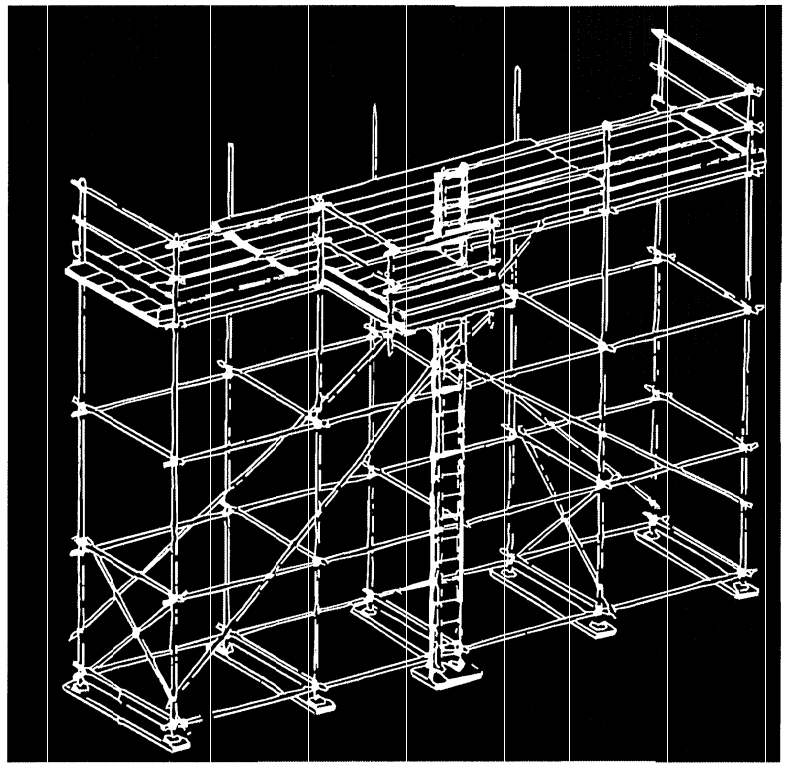
§1926.450 - SUBPART L SCAFFOLDS



§1926.450 - SUBPART L

Purpose

- Updates the existing standard to include types of scaffolds such as catenary and step and trestle.
- Allows flexibility in the use of fall protection systems to protect employees.
- Simplifies language, eliminates duplicative, outdated provisions, consolidates overlapping requirements.
- Allows employers compliance flexibility.

Organization of Standard

- 1926.450 Scope, application and definitions applicable to this subpart
- 1926.451 General requirements
- 1926.452 Additional requirements applicable to specific types of scaffolds
- 1926.453 Aerial lifts
- 1926.454 Training
- Appendix A - Scaffold Specifications
- Appendix B -(Reserved) Criteria for Determining the Feasibility of Providing Safe Access and Fall Protection for Scaffold Erectors and Dismantlers
- Appendix C - List of National Consensus Standards
- Appendix D - List of Training Topics for Scaffold Erectors and Dismantlers
- Appendix E - Drawings and Illustrations

§1926.450 - SUBPART L
Effective Dates

- Effective on November 29, 1996, except for §1926.453(a)(2).

- Paragraphs (e)(9) and (g)(2) of §1926.451, which address safe access and fall protection for employees erecting and dismantling supported scaffolds is effective September 2, 1997.

§1926.450 - SUBPART L

Major issues resolved:

- 10 foot trigger height for fall protection on scaffolds.
- 38 inch minimum guardrail height where guardrail is primary fall protection.
- 36 inch minimum guardrail height where fall arrest systems are primary fall protection.

§1926.450 - SUBPART L

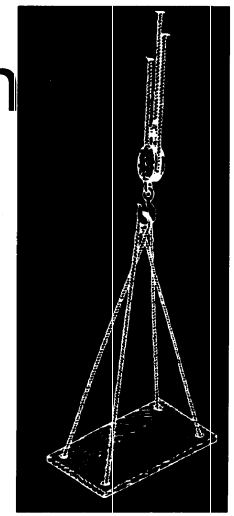
Major issues resolved:

- Requires, after 1 year, that the competent person determines feasibility of providing fall protection for built-up scaffold erectors and dismantlers.

- Provides for use of crossbracing as guardrail, under certain conditions, in lieu of either a midrail or a toprail.

§1926.450 Scope, Application

- Covers all scaffolds used in workplaces.
- Does not apply to crane or derrick suspended personnel platforms, which are covered by §1926.550(g).
- Aerial lifts are covered §1926.453.



§1926.451 General Requirements For All Scaffolds

- (a) Capacity
  - support own weight and 4 X the maximum intended load.
  - suspension rope & hardware, 6 X the maximum intended load.
  - stall load of scaffold hoist not to exceed 3 times its rated load.
  - designed by a qualified person and built and loaded to design.

§1926.451 General Requirements For All Scaffolds (con't)

- (b) Scaffold platform construction
  - Platforms fully planked or decked
    - no more than 1" gaps
    - maximum openings of 9½"
    - scaffold platforms and walkways 18" wide
    - ladder jack, top plate bracket, roof bracket, and pump jack scaffold at least 12" wide
    - guardrails and/or personal fall arrest systems for platforms and runways not 18" wide

§1926.451 General Requirements
For All Scaffolds (con't)

- (b) Scaffold platform construction(con't)
  - Front edge of all platforms
    - No more than 14" from the face of the work
    - 3" from the face for outrigger scaffolds
    - 18" from the face for plastering and lathing operations
  - Platforms 10' and less to extend at least 6" but not more than 12" past support unless designed and installed and/or guarded properly
  - Platforms greater than 10' no more than 18" past support unless designed and installed and/or guarded properly

§1926.451 General Requirements
For All Scaffolds (con't)

- (b) Scaffold platform construction(con't)
  - Each abutted end of plank shall rest on a separate support surface.
  - Overlap platforms not less than 12" only over supports, unless restrained to prevent movement.
  - On direction changes, any platform on a bearer at other than a right angle shall be laid first, and platforms which rest at right angles over the same bearer laid second.

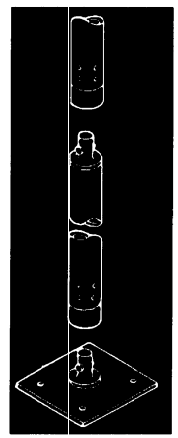
§1926.451 General Requirements

For All Scaffolds (con't)

- (b) Scaffold Platform Construction(con't)
  - » No paint on wood platforms, except edges that may be marked for identification
  - » Fully planked between front upright and guardrail support
  - » No mixed scaffold components used unless compatible and integrity maintained
  - » No modification of mixed scaffold components unless a competent person approves
  - » No components of dissimilar metals unless approved by competent person

§1926.451 General Requirements

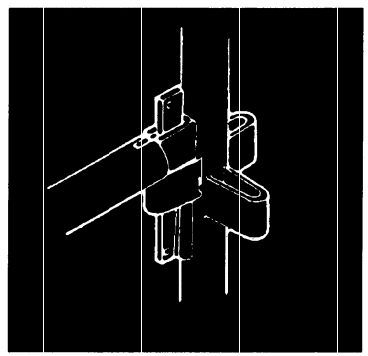
- (c) Criteria for supported scaffolds
  - » Higher than 4:1 ratio restrained from tipping by guys, ties, or equivalent.
  - » Guys, ties, installed per recommendations or at the <u>closest</u> horizontal member to the 4:1 height
  - » Bear on adequate foundations
  - » Plumbed and braced



§1926.451 General Requirements(con't)

(d) Criteria for Suspension Scaffolds

- Support devices, 4 X the imposed load.
- Outrigger beams; metal or equal and restrained
- Stabilize outrigger beams
- Direct connections evaluated by competent person
- Counterweights
- Construction requirements for outrigger beams
- Minimum lengths for suspension ropes on hoists
- No repaired wire rope

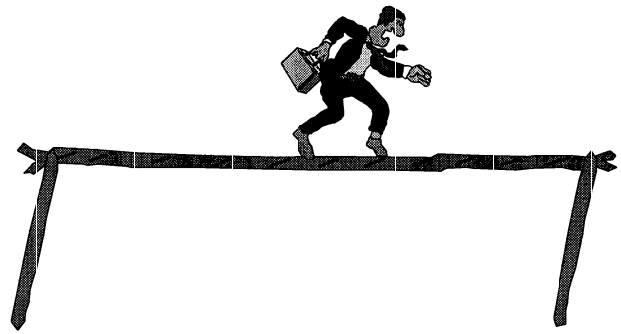


§1926.451 General Requirements(con't)

(d) Criteria for Suspension Scaffolds (con't)

- Proper sized eye splice thimbles required
- Ropes inspected by competent person
- No swaged attachments unless approved
- No gasoline powered equipment
- Automatic brakes
- Positive crank force to descend
- Tied to prevent swaying
- Safety devices not used as platforms

§1926.451 General Requirements(con't)

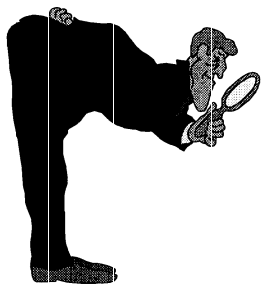


- (e) Access
  - Must have safe access
  - No access by cross braces
  - Bottom rung not more than 24" high
  - Rest platforms at 35' intervals
  - Sets access requirements for erectors and dismantlers (September 2, 1997)
  - Can use some end frames for access

§1926.451 General Requirements(con't)

(f) Use

- Never overload
- No shore or lean-to scaffolds
- Inspected by competent person



- Immediately removed or repaired, braced if found substandard
- No horizontal movement with employees unless approved
- Maintain clearance near powerlines

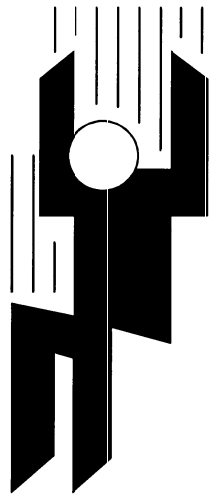
§1926.451 General Requirements(con't)

(f) Use (con't)

- Erected, moved, dismantled or altered only under supervision of competent person
- No work on snow, ice covered platforms
- Tag lines on swinging loads
- Protect suspension ropes from heat, acid
- No work during storms or high winds

§1926.451 General Requirements(con't)

- (g) Fall protection(PFAS or guardrails)
  - » Required at 10 foot
  - » PFAS in lieu of guardrails on some scaffolds
  - » PFAS & guardrails on suspension scaffolds
  - » PFAS required for erectors and dismantlers were feasible after September 2, 1997.
  - » Toprails after 1-1-2000, 38" to 45" high
  - » Use crossbracing in lieu of top or midrails in some cases

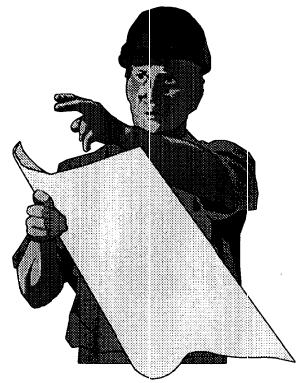


§1926.451 General Requirements(con't)

- (h) falling object protection
  - Hardhats required
  - Protect employees below
  - Barricades to exclude working below
  - Toe boards at edges of platforms
  - Allows panels and screens
  - Canopies allowed

Section 1926.454
Training Requirements

- Five training areas
  - Nature of electrical, fall, and falling object hazards
  - Correct procedures for protection of above
  - Proper use the scaffold
  - Load capacities of scaffolds
  - Requirements of Subpart L



- Retraining as necessary to restore proficiency