



MNOSHA Instruction **STD 3-10.4A**

June 14, 2022

## **Subject: Inspection Procedures for Enforcing Subpart L, Scaffolds Used in Construction 29 CFR 1926.450 454**

### **Purpose**

This instruction establishes inspection procedures and provides clarification to ensure uniform enforcement of the scaffold standards for construction.

### **Scope**

This instruction applies Minnesota-OSHA-wide.

### **References**

1. Construction Safety and Health Standards, [Subpart L](#), [29 CFR 1926.450](#), [29 CFR 1926.451](#), [29 CFR 1926.452](#), [29 CFR 1926.453](#), and [29 CFR 1926.454](#).
2. Occupational Safety and Health Standards for Construction, [Minnesota Rule 5207.1100](#) Elevating Work Platform Equipment.
3. ANSI / ASSE A10.8-2011, Scaffolding Safety Requirements
4. Federal Register, [Final Rules 61:46025-46075](#), dated 08/30/1996, "Preamble and Safety Standards for Scaffolds Used in the Construction Industry".
5. Federal OSHA Instruction [CPL 02-01-023](#) dated 1/7/97, "Inspection Procedures for Enforcing Subpart L, Scaffolds Used in Construction 29 CFR 1926.450-454".
6. [Federal OSHA Standard Interpretation dated 11/08/2000](#) (Corrected 06/02/2005, "Pump jack scaffolds must be braced at their bottom").
7. [Federal OSHA Standard Interpretation dated 05/25/2001](#), "Acceptability of climbing over or through guardrails on scaffolds used in construction".

8. [Federal OSHA Standard Interpretation dated 12/11/2001](#), “Exemptions for installation of guardrails on wall (interior) side”
9. [Federal OSHA Standard Interpretation dated 10/23/2002](#), “Use of aerial lift or scissor lift guardrails as a work or scaffold platform”
10. [Federal OSHA Standard Interpretation dated 7/16/03](#), “Fall protection requirements during installation and removal of tarps and sheeting on/from scaffolds; qualifications of person determining safety on scaffold with wind-imposed forces”.
11. [Federal OSHA Standard Interpretation dated 07/26/2005](#), “Walkways within scaffolds, guardrails, and planking”

## Cancelled

This instruction cancels STD 3-10.4, dated February 28, 2014.

## Background

- In August 1996, the federal Occupational Safety and Health Administration issued revised standards for Scaffolds Used in the Construction Industry ([Subpart L to 29 CFR 1926](#)). These standards establish one set of requirements which is applicable to all scaffolds used in construction.
- The effective date for the Scaffold Standard in Minnesota was March 17, 1997 (for federal OSHA it was November 29, 1996).

## Action

### A. Overview of Significant Provisions of Subpart L Scaffolds

1. [SECTION 1926.450](#). [29 CFR 1926.450\(a\)](#) states that this standard does not apply to Crane or Derrick Suspended Personnel Platforms. The standards applicable to aerial lifts are set out exclusively in [29 CFR 1926.453](#). [29 CFR 1926.450\(b\)](#) provides definitions for terms used in [Subpart L](#).
2. [SECTION 1926.451](#) sets general requirements that apply to all scaffolds, with variations for some specific types of scaffolds or work situations.
  - a. The standard distinguishes between supported scaffolds ([29 CFR 1926.451\(c\)](#)) and suspension scaffolds ([29 CFR 1926.451\(d\)](#)).
  - b. [29 CFR 1926.451\(a\)\(6\)](#) references criteria in [Appendix A](#) that the qualified person may consult when designing scaffolds to meet capacity requirements.

- c. A Walkway (a portion of a scaffold platform used only for access and not as a work level per [29 CFR 1926.450\(b\)](#)) located in a scaffold exclusively as access and not as a work area, only requires guardrails on one side of the walkway ([29 CFR 1926.451\(g\)\(1\)\(v\)](#)).
3. [29 CFR 1926.452](#) sets additional requirements for 25 specific types of scaffolds (including stilts). [29 CFR 1926.452](#) includes references to non-mandatory [Appendix A](#), which provides technical criteria to be used by the employer in designing, installing, and loading these specified types of scaffolds and related guardrail systems.
4. [29 CFR 1926.453](#) covers requirements for aerial lifts and refers to the non-mandatory [Appendix C](#) of the standard, which lists the national consensus standards related to aerial lifts.
  - a. This standard is solely a renumbering of the former 1926.556 and former 1926.451(f) requirements for aerial lifts to bring them under Subpart L and does not change substantively any requirements covered under the previous standards.
  - b. General requirements for scaffolds contained in [29 CFR 1926.451](#) do not apply to aerial lifts covered by [29 CFR 1926.453](#).
  - c. Compliance with the pertinent ANSI A-92 standard for any of the newer, specialized types of equipment (as listed in non-mandatory [Appendix C](#)) will provide employee protection equivalent to that provided through the application of ANSI A92.2-1969, which is referenced in [29 CFR 1926.453](#).
5. [29 CFR 1926.454](#) covers training requirements and refers to non-mandatory [Appendix D](#) for additional information related to training for employees engaged in the erecting and dismantling of scaffolds.
6. Appendices A through E, which are non-mandatory, provide important compliance guidance, examples of acceptable measures, and specific information for the OSHI's and the employer's understanding of [Subpart L](#).

## **B. Compliance Guidelines for Significant General Issues in Subpart L**

1. **Competent Person.** Although [Subpart L](#) provides employers with flexibility in the design of scaffolds and the selection of fall protection, the employer is required to have a competent person who has the training and experience necessary to make determinations as to fall protection, integrity of scaffolds and that the scaffold is maintained and used in a safe manner. NOTE: OSHA recognizes that an employer may have more than one competent person on the worksite to deal with different aspects of scaffolding.
  - a. The OSHI shall determine the identity of the competent person and assess the training and experience qualifications of that person at an early stage of any inspection.

- b. [Appendix A](#) of this directive provides guidance for the OSHI and the employer in evaluating compliance with requirements pertaining to competent person and qualified person responsibilities.

## **2. Safe Access and Fall Protection During the Erection and Dismantling of Supported Scaffolds.**

- a. OSHA recognizes that compliance may not be feasible during certain scaffold erection and dismantling operations. However, employers will be required to determine at each stage of erection and dismantling if safe access and fall protection can be provided and, if so, to comply with the pertinent requirements.
- b. The employer has the responsibility to evaluate whether providing access and fall protection for employees is feasible and safer (i.e., does not create a greater hazard.)
  - 1) A competent person who has the knowledge and experience necessary must be used to make the appropriate determination.
  - 2) This evaluation shall include a determination whether, alternatively, partial compliance may be feasible and safer under the circumstances present at the site.
- c. Provisions for safe access during erecting and dismantling of supported scaffolds are contained in [29 CFR 1926.451\(e\)\(9\)](#).
  - 1) In addition to a violation of [29 CFR 1926.451\(e\)\(9\)](#), failure of the employer to have the operation initially evaluated by a competent person or failure to use fall protection during erecting and dismantling when it is feasible and safer to do so is a violation of [29 CFR 1926.451\(g\)\(2\)](#).
  - 2) The OSHI shall document specific worksite factors and compliance considerations encountered by the competent person when evaluating the feasibility of providing safe access or fall protection during these operations for use in developing and updating [Appendix B](#) of the standard.
- d. The OSHI shall ascertain whether employees engaged in erecting and dismantling scaffolds have been trained in these activities and in the hazards specific to the types of scaffolds involved. Failure to train employees involved in this work is a violation of [29 CFR 1926.454\(b\)](#). Training guidelines are addressed in [Appendix D](#) of the standard.
- e. Tarps or sheeting materials (i.e., polyethylene film), by definition, are not considered parts of a scaffold and therefore the installation or removal of such is not erection or dismantling of a scaffold and paragraph [29 CFR 1926.451\(g\)\(2\)](#) would not apply. (See [paragraph C.7.a](#) of this instruction for fall protection when installing and removing tarps.)

- 3. Fall Protection Requirements.** Fall protection is required for employees when working more than 10' above the next lower level.
- a. The employer has the option, in many instances, of providing a guardrail system or of having each employee use a personal fall arrest system. Exceptions are provided in 1926.451(g)(1)(i) through (vi) and are discussed below.
  - b. Fall protection must be provided on all supported and suspended scaffolds.
    - 1) In most instances on supported scaffolds, this will be a guardrail system.
    - 2) However, there may be some unique situations in which a personal fall arrest system may be necessary on a supported system. In such cases the requirements in Section [29 CFR 1926.502\(d\)](#) for safe anchorage of the system must be met.
  - c. For some types of scaffolds (such as single point or two-point adjustable suspension scaffolds), both a guardrail system and personal fall protection are required.
  - d. On some types of scaffolds, only personal fall arrest systems are required (boatswains' chairs, catenary scaffolds, float scaffolds, needle beam scaffolds, roof bracket scaffolds and ladder jack scaffolds). Therefore, the employer must provide personal fall arrest systems for fall protection on these types of scaffolds.
  - e. When employees are installing suspension scaffold support systems employers must provide fall protection meeting the requirements of [Subpart M](#) Fall Protection.
  - f. The fall protection to be provided for employees working on aerial lifts will vary according to the type of aerial lift involved.
    - 1) Some lifts are intended to be used with guardrails, while others are designed to be used by employees protected by personal fall arrest systems.
    - 2) The consensus standards listed in non-mandatory [Appendix C](#) indicate what fall protection would be appropriate for particular types of aerial lifts.
    - 3) Boom-supported elevating work platform and personnel elevating platform supported by a rough-terrain forklift truck fall protection requirements are covered under [MN Rule 5207.1100](#).
  - g. Guardrails are not required on the front edge of a scaffold in the following situations:
    - 1) the front edge of the platform is 14 inches (36 cm) or less from the face of the work ([29 CFR 1926.451\(b\)\(3\)](#))
    - 2) when outrigger scaffolds are 3 inches (8 cm) or less from the front edge ([29 CFR 1926.451\(b\)\(3\)\(i\)](#))

- 3) when employees are plastering and lathing 18 inches (46 cm) or less from the front edge ([29 CFR 1926.451\(b\)\(3\)\(ii\)](#))
- 4) when performing overhand bricklaying operations, there need not be a guardrail on the side next to the wall being laid ([29 CFR 1926.451\(g\)\(1\)\(vi\)](#))

## C. Inspection Guidance and Compliance Procedures for Selected Scaffold Requirements

### 1. Capacity Requirements. [29 CFR 1926.451\(a\)\(1\)](#)

- a. [29 CFR 1926.451\(a\)\(1\)](#) states that the scaffold must be capable of supporting four times the maximum intended load (not the rated load).
  - 1) The intended load includes all personnel, equipment, and supply loads.
  - 2) The intended load will often be less than the rated load but should never exceed the rated load unless such design is approved by an engineer and the manufacturer.
  - 3) The requirement not to overload the scaffold is found in [29 CFR 1926.451\(f\)\(1\)](#).
- b. [29 CFR 1926.451\(a\)\(2\)](#) requires that direct connections and counterweights used to balance adjustable suspension scaffolds be capable of resisting at least four times the tipping moment of the scaffold or 1.5 (minimum) times the tipping moment imposed by the scaffold operating at the stall load of the hoist, whichever is greater (i.e., the load at which the hoist motor of a power operated hoist stalls or automatically disconnects its power when overloaded or obstructed).
  - 1) OSHIs are not expected to perform these calculations in the field but shall ensure that the competent person directing the rigging of the suspended scaffold has performed them.
  - 2) The competent person's duty to supervise and direct the rigging of the scaffold is set out in [29 CFR 1926.451\(f\)\(7\)](#).
  - 3) If the stall load (not to exceed 3 times the rated load as stated in [29 CFR 1926.451\(a\)\(5\)](#)) is not listed or labeled for the scaffold in use, the OSHI shall determine whether:
    - a) The qualified person has determined the stall load of the scaffold hoist prior to the lift; or
    - b) The scaffold is counter balanced by at least 4 times the rated load of the hoist.
- c. [29 CFR 1926.451\(a\)\(6\)](#) requires that scaffolds be designed by a qualified person. This requirement is discussed in depth in [Appendix A](#) of this Instruction. Information to assist the

employer in complying with capacity requirements is also contained in [Appendix A](#) of the standard.

**2. Scaffold Platform Construction.** [29 CFR 1926.451\(b\)](#)

- a. [29 CFR 1926.451\(b\)\(1\)](#) allows exceptions to the full planking of platforms but requires that the platform be planked or decked "as fully as possible." Employers may leave an opening between uprights and planking but the total opening may not exceed 9 ½ inches.
- b. [29 CFR 1926.451\(b\)\(2\)](#) requires that scaffold platforms be at least 18" wide, but exceptions are provided in [29 CFR 1926.451\(b\)\(2\)\(i\)](#) and [29 CFR 1926.451\(b\)\(2\)\(ii\)](#).
  - 1) If a scissor lift user stands on and works from a railing, it is considered a violation of [29 CFR 1926.451\(b\)\(2\)](#) as it does not meet the 18-inch width requirement of a scaffold platform. The employer must also demonstrate that the railing "be capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it" per [29 CFR 1926.451\(a\)\(1\)](#).
- c. [29 CFR 1926.451\(b\)\(11\)](#) is meant to ensure that dissimilar metal components that could cause galvanic action are not used together at the job without being evaluated by the competent person.
  - 1) If the competent person believes that significant galvanic action may result from the use of dissimilar metal components and that this galvanic reaction can reduce the strength of any scaffold component to below the requirements of [Subpart L](#), corrective action must be taken promptly.
  - 2) If the competent person cannot make this evaluation, scaffold parts of dissimilar metals cannot be used. The competent person may, of course, rely upon the manufacturer's recommendations.

**3. Criteria for Supported Scaffolds.** [29 CFR 1926.451\(c\)](#)

- a. [29 CFR 1926.451\(c\)\(1\)](#) requires vertical and horizontal tie ins on all supported scaffolds with a height to base ratio of more than four times the minimum base width.
  - 1) Vertical and horizontal tie ins are to be installed to keep a scaffold from falling into and away from the structure.
  - 2) Scaffold tie ins, as with all other scaffold component designs, must be designed by a qualified person to keep the scaffold steady and capable of resisting pushing and pulling forces created by wind and load conditions.
  - 3) Scaffolds wrapped with reinforced polyethylene film must be designed by a competent person or engineer who can calculate wind loads, (a general rule of thumb is to double

the number of scaffold tie-ins when poly is installed, check with manufacturer for specific types of scaffolds).

- b. [29 CFR 1926.451\(c\)\(2\)](#) requires the use of both base plates and mud sills or other adequate firm foundations.
  - 1) Base plates are always required.
  - 2) A concrete slab would be considered a firm foundation, and therefore, mud sills would not be necessary. Base plates, however, would still be required.
  - 3) Asphalt shall not be considered a firm foundation. Mudsills and base plates would therefore be required.
- c. [29 CFR 1926.451\(c\)\(2\)\(iv\)](#) states that front end loaders and similar pieces of equipment shall not be used to support platforms unless they have been specifically designed by the manufacturer for such use. The OSHI may ask the employer to produce the manufacturer's literature demonstrating that the equipment has been designed for this use.
- d. [29 CFR 1926.451\(c\)\(2\)\(v\)](#) provides that fork lifts shall only be used if the entire platform is attached to the forks and the fork lift is not moved horizontally while the platform is occupied. "Attached" does not mean merely placing the platform on the forks. A positive means of attachment, such as bolting, must be present.

When fork lifts are used to support scaffolds, all other requirements of [29 CFR 1926.451](#) (capacity, construction, access, use and fall protection, etc.) must be met. If an employer is exposing workers to fall hazards by the use of a deficient work platform attached to a fork lift, the employer may be cited under the applicable sections of [29 CFR 1926.451](#). If the platform is equipped with elevated controls, deficiencies may be cited under [29 CFR 1926.602\(c\)\(1\)\(viii\)](#).

NOTE: These types of equipment are not considered aerial lifts unless the employer can demonstrate that they are primarily designed and used to position personnel and they meet all other requirements for aerial lifts.

- 4. **Criteria for Suspension Scaffolds.** [29 CFR 1926.451\(d\)](#)
  - a. [29 CFR 1926.451\(d\)\(3\)\(ii\)](#) prohibits the use of flowable material as counterweights, such as sandbags or water buckets, which are easily displaced or may leak. Solid materials, such as large blocks of concrete specifically designed for use as counterweights, or large ingots of metal (such as lead) are examples of acceptable counterweights.
  - b. [29 CFR 1926.451\(d\)\(3\)\(vii\)](#) requires tiebacks to be equivalent in strength to the suspension ropes
- 5. **Access.** [29 CFR 1926.451\(e\)](#)
  - a. [29 CFR 1926.451\(e\)\(1\)](#) prohibits the use of cross bracing as a means of access.



- b. The revised standard does not specifically prohibit climbing over or through a guardrail.
    - 1) There is no consensus with regard to climbing over or through guardrails; therefore, OSHA has not adopted a rule prohibiting the practice.
    - 2) Gates, removable rails or chains across the point of access are preferred.
  - c. [29 CFR 1926.451\(e\)\(1\)](#) and [29 CFR 1926.451\(e\)\(8\)](#) both address direct access.
    - 1) [29 CFR 1926.451\(e\)\(1\)](#) addresses vertical access and should be cited when the direct access is more than 24 inches away vertically.
    - 2) [29 CFR 1926.451\(e\)\(8\)](#) addresses direct access both vertically and horizontally. OSHIs should cite [29 CFR 1926.451\(e\)\(8\)](#) when direct access is more than 14 inches away horizontally.
  - d. [29 CFR 1926.451\(e\)\(2\)](#) is not intended to require the use of ladder climbing devices or cages on scaffolds.
  - e. [29 CFR 1926.451\(e\)\(5\)](#) requires that ramps and walkways 6 feet or more above a lower level shall have guardrail systems which comply with [Subpart M](#).
  - f. See [paragraph C.7.b](#) of this instruction for walkways which are located within the framing of scaffold units.
  - g. See [paragraph B.2](#) of this instruction for fall protection during the erection & dismantling processes.
6. **Use of Scaffolds.** [29 CFR 1926.451\(f\)](#)
- a. [29 CFR 1926.451\(f\)\(7\)](#) requires that the employer ensure that a competent person having the required training, knowledge, and experience on the type of scaffold system used, is at the site directing and supervising the work during all erecting, dismantling, alteration, and moving of the scaffold.
  - b. Employees engaged in this activity must also be trained in accordance with [29 CFR 1926.454](#) and selected by the competent person.
  - c. [29 CFR 1926.451\(f\)\(15\)](#) allows the use of ladders only on "large area scaffolds." Ladders may not be used on other types of scaffold platforms to increase the working height.
  - d. [29 CFR 1926.451\(f\)\(16\)](#) is intended to apply only to wood scaffold planks.
7. **Fall Protection.** [29 CFR 1926.451\(g\)](#)
- a. [29 CFR 1926.451\(g\)\(1\)](#) requires that each employee on a scaffold more than 10 feet above a lower level shall be protected from falling to that lower level. Where fall protection is not

utilized when installing or removing tarps or sheeting materials (i.e., polyethylene film), deficiencies may be cited under [29 CFR 1926.451\(g\)\(1\)](#).

- b. [29 CFR 1926.451\(g\)\(1\)\(iv\)](#) requires personal fall arrest systems in addition to guardrail systems for employees whenever a self-contained adjustable scaffold is supported only by ropes with no safety catch to support the platform in the event of rope failure. The standard applies whenever the platform is at a work level or is being raised or lowered.
- c. [29 CFR 1926.451\(g\)\(1\)\(v\)](#) requires that walkways which are within a scaffold, such as inside the frame of a fabricated frame scaffold, must be guarded on at least one side of the walkway and the guardrail system must be within 9 ½" of the walkway. (See [paragraph C.5.e](#) above for walkways which are not an integral part of the scaffold.)
- d. [29 CFR 1926.451\(g\)\(3\)](#) permits lanyards attached to personal fall arrest systems to be attached to vertical lifelines, horizontal life lines or scaffold structural members.
  - 1) This decision is at the discretion of the competent person.
  - 2) If the lanyard is attached to a supported scaffold structural member, the scaffold must be properly braced and tied into the structure before being used as an anchorage point and must meet the requirements of [29 CFR 1926.502\(d\)](#), which defines the criteria for anchorage points and other components of a personal fall arrest system.
  - 3) Where two-point suspended scaffolds utilizing broken wire safeties are used and employees are not tied off, cite [29 CFR 1926.451\(g\)\(3\)\(iii\)](#).
- e. [29 CFR 1926.451\(g\)\(4\)](#) covers criteria for guardrail systems and components. [Appendix A](#) of the standard provides specifications for certain types of scaffolds, to assist in determining whether the guardrails meet the strength requirements of the standard.
  - 1) [29 CFR 1926.451\(g\)\(4\)\(ii\)](#) covers the required minimum and maximum height of the top rails.

Note: The requirement for top rail height of guardrails on supported scaffolds is between 38 to 45 inches. This provision, however, only applies to scaffolds manufactured or placed into service after January 1, 2000.
  - 2) Also, for platforms where personal fall arrest systems are required as the primary type of fall protection, such as for suspended systems, the top rail minimum height remains at 36 inches. As with [Subpart M](#), guardrail top rails can exceed 45 inches only if all other pertinent provisions of [29 CFR 1926.502\(b\)](#) are followed.
- f. [29 CFR 1926.451\(g\)\(4\)\(xv\)](#) states that cross bracing is acceptable in place of either the top rail or the mid-rail on a scaffold system, but not both, when the crossing point is at the specified height.

**8. Falling Object Protection. [29 CFR 1926.451\(h\)](#)**

- a. [29 CFR 1926.451\(h\)\(1\)](#) clarifies that hard hats shall not be the sole means of protecting employees from overhead falling objects.
- b. The use or non-use of hard hats by employees shall be documented by OSHIs whenever it could affect the gravity of a violation of this standard, for failure to institute any of the additional protective measures mandated.

**9. Additional Requirements for Specific Types of Scaffolds. [29 CFR 1926.452](#)**

- a. Item 2(z) of [Appendix A](#) of the standard provides guidance regarding the use of tank builders' scaffolds, a type of scaffold which is covered only by the general requirements of [29 CFR 1926.451](#), and which has no additional specific provisions within [29 CFR 1926.452](#).
- b. Pump jack scaffolds ([29 CFR 1926.452\(j\)](#)) must be braced at the bottom of the scaffold so as to withstand being hit by a horizontal force.
- c. Ladder jack scaffolds ([29 CFR 1926.452\(k\)](#)) shall not exceed 20 feet in height and users must be protected by a personal fall arrest system ([29 CFR 1926.451\(g\)\(1\)\(i\)](#)).

**10. Aerial lifts. [29 CFR 1926.453](#)**

- a. [29 CFR 1926.453\(b\)\(2\)\(v\)](#) requires a body belt and lanyard attached to the boom or basket. As of January 1, 1998, [Subpart M \(29 CFR 1926.502\(d\)\)](#) provides that body belts are no longer acceptable as part of a personal fall arrest system.
- b. The use of a body belt in a tethering system or in a restraint system (i.e., to keep the employee from going over the guardrail) is acceptable, however, and is regulated under [29 CFR 1926.502\(e\)](#).
- c. The scope of [29 CFR 1926.453](#) does not cover all types of aerial lifting devices that may be used to hoist personnel. For other aerial equipment not covered by this section or ANSI A-92.2-1969 (Vehicle-Mounted Elevating and Rotating Aerial Devices), OSHIs shall usually cite [MN Stat §182.653 subd. 2](#), the General Duty clause. A list of national consensus standards considered to provide employee protection equivalent to ANSI A-92.2 is included in non-mandatory [Appendix C](#) to the standard. Applicable sections of these consensus standards should be referenced in any General Duty citation.
- d. Boom-supported elevating work platform (i.e. brand name JLG - John L. Groves) and personnel elevating platform supported by a rough-terrain forklift are not covered by [29 CFR 1926.453](#). Provisions for employee protection through the use of personal fall arrest systems is covered by [MN Rule 5207.1100](#). All other violative conditions shall be addressed by [MN Stat § 182.653 subd. 2](#), the General Duty clause.

- e. Self-propelled scissor lifts are not addressed by [29 CFR 1926.453](#) but provisions for employee protection through the use of personal fall arrest or guardrail systems is covered by [29 CFR 1926.451\(g\)\(1\)\(vii\)](#). All other violative conditions surrounding the use of self-propelled scissor lifts shall be addressed by [MN Stat § 182.653 subd. 2](#), the General Duty clause.

**11. Training Requirements.** [29 CFR 1926.454](#)

- a. In accordance with [29 CFR 1926.454\(a\)](#), each employee working on a scaffold must be trained regarding the requirements of Subpart L that are associated with the type of work that employee is performing. Specifically, training in associated hazards, methods of protection, and the maximum intended load and load carrying capacities of the scaffold must be included, as applicable.
- b. Training is particularly important for employees engaged in erecting and dismantling operations. [29 CFR 1926.454\(b\)](#) specifies the training needed for those employees.
  - 1) Non mandatory [Appendix D of Subpart L](#) provides specific training topics for employees engaged in erecting and dismantling scaffolds.
  - 2) The OSHI shall interview those employees engaged in erecting and dismantling operations to ascertain whether they have received the necessary training required under [29 CFR 1926.454\(b\)\(1\)\(iv\)](#).
- c. The standard does not specify criteria for training employees who have responsibilities as a competent person.
  - 1) If the OSHI determines that an employee (or management official) who has been serving in the capacity of a competent person does not have the necessary knowledge to carry out those responsibilities, violations of the requirements addressing specific competent person duties under Sections [29 CFR 1926.451](#) and [29 CFR 1926.452](#) of [Subpart L](#) would also exist.
  - 2) Refer to [Appendix A](#) of this Instruction for additional guidance in assessing the capabilities of the competent person.
- d. [29 CFR 1926.454](#) does not require certification, or other documentation, of training. OSHIs shall evaluate compliance with the training requirements through observation of work practices, inspections of rigging, correct utilization of scaffold equipment, and interviews with employees and management representatives.
- e. If training has been conducted but employees do not understand or are not adhering to the requirements of [Subpart L](#), a violation of [29 CFR 1926.454\(c\)](#), which requires retraining to maintain proficiency, may exist.

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## APPENDIX A: COMPETENT/QUALIFIED PERSON

Under the scaffold standards, "competent persons" and "qualified persons" have specified responsibilities. This Appendix summarizes the provisions in [Subpart L](#) using those terms.

### A. COMPETENT PERSON

1. **Definition.** "Competent person" is defined at [29 CFR 1926.450\(b\)](#) as "one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them."
  - a. A competent person must be knowledgeable about the requirements of this standard and have sufficient training or knowledge to identify and correct hazards encountered in scaffold work.
    - 1) For the purposes of this Subpart, a competent person must have had specific training in and be knowledgeable regarding the structural integrity of scaffolds and the procedures needed to maintain them.
    - 2) For example, a competent person must be able to evaluate the effects of such potentially damage causing occurrences as a dropped load or a truck backing into a support leg.
  - b. By definition, the competent person must have the authority to take prompt corrective measures to abate potentially hazardous work site conditions. The exercise, or lack thereof, of this authority may frequently be the deciding factor in assessing whether a particular individual is in fact a competent person under [Subpart L](#).
2. **Duties of the Competent Person.**
  - a. [29 CFR 1926.451\(b\)\(10\)](#). Only a competent person can permit the modification of scaffold components manufactured by different manufacturers when they are used in conjunction with each other, and must ensure that the resulting scaffold is structurally sound.
  - b. [29 CFR 1926.451\(b\)\(11\)](#). Scaffold components made of dissimilar metals are not to be used together unless a competent person has determined that galvanic action will not reduce the strength of any component to a level below that which is required by [29 CFR 1926.451\(a\)\(1\)](#), i.e., capable of supporting, without failure, its own weight and at least four times the maximum intended load applied or transmitted to it.
  - c. These two preceding provisions reflect that, unless adequate precautions are taken, an unsafe condition could be created by the intermingling of differing scaffold components, or by the occurrence of galvanic action.

- 1) If scaffold components of different manufacturers or of different metals are used together, the competent person must carefully evaluate the scaffold to ensure structural soundness and the absence of galvanic action.
  - 2) OSHA expects a competent person to be able to identify the causes and significance of any deterioration present in scaffold components and take the necessary corrective actions.
  - 3) With respect to both these issues, the manufacturer's recommendations should be reviewed and may be relied upon by the competent person.
- d. [29 CFR 1926.451\(d\)\(3\)\(i\)](#) requires that direct connections on suspension scaffolds be evaluated by a competent person before the scaffold is used to confirm that the surfaces are capable of supporting the loads to be imposed.
- 1) OSHA anticipates that compliance with this provision will ensure that roof or floor decks are capable of supporting the loads to be imposed as well as ensuring that those connections are properly designed and made.
  - 2) The competent person must have the ability to identify any problems with the direct connections and the authority to make any necessary corrections.
- e. [29 CFR 1926.451\(d\)\(10\)](#) requires the competent person to inspect all ropes used in suspension scaffolds for defects prior to each work shift and after every occurrence which could affect a rope's integrity.
- 1) Paragraph (d)(10) goes on to require the replacement of damaged, kinked, or abraded rope, as well as to specify other conditions requiring replacement.
  - 2) This paragraph adopts the ANSI standard provisions describing damaged and defective rope as representing good industry practice. See ANSI A10.8-2011, Par. 6.8.10.
- f. [29 CFR 1926.451\(d\)\(18\)](#). A competent person is also required to evaluate two-point and multi-point suspension scaffolds to determine whether they need to be tied or otherwise secured to prevent them from swaying.
- g. [29 CFR 1926.451\(e\)\(9\)\(i\)](#). For employees erecting or dismantling supported scaffolds, a competent person shall determine the feasibility and safety of using a "safe means of access," based on, for example, site conditions and the type of scaffold being erected or dismantled.
- 1) OSHA has determined that, while there may be some situations where providing safe access for scaffold erectors and dismantlers is difficult, employers who carefully evaluate their scaffold operations can provide safe access or, at least minimize employee exposure to hazards.

- 2) The competent person, therefore, will be expected to determine the appropriate means of access for erectors/dismantlers based on a site-specific analysis of the workplace conditions.
- h. [29 CFR 1926.451\(f\)\(3\)](#). The competent person is also required to inspect the scaffold and its components for visible defects before each work shift and after any occurrence which could affect the scaffold's structural integrity.
- 1) However, on very large frame systems, the inspection is only required for areas to be used that work shift by employees.
  - 2) The standard does not require that the competent person document the inspection findings.
- i. [29 CFR 1926.451\(f\)\(7\)](#). A competent person qualified in scaffold erection, moving, dismantling or alteration is required to supervise and direct all scaffold erection, moving, alteration or dismantling activities.
- 1) Such activities are to be performed only by trained and experienced employees selected by the competent person.
  - 2) The standard makes clear that, for these activities, the competent person must actually be on site and directing the work.
- j. [29 CFR 1926.451\(f\)\(12\)](#). During storms or high winds, work on or from scaffolds is prohibited unless a competent person has determined that it is safe and that employees on the scaffold are protected by a personal fall arrest system or wind screens. High winds are any wind conditions that adversely affect the stability of the scaffold or the safety of the employees. Rather than setting a specific wind speed limit, the standard directs the competent person, after analysis of all pertinent information, to ensure that the scaffold is safe under high wind conditions that protective measures have been instituted, and that work may safely be done from the scaffold.
- k. [29 CFR 1926.451\(g\)\(2\)](#). For each scaffold erection and dismantling operation, the competent person shall determine the feasibility of providing fall protection.
- 1) Employers must provide fall protection to scaffold erectors and dismantlers unless there are valid reasons not to.
  - 2) The standard does not require that these reasons be documented.
  - 3) OSHIs shall evaluate the employer's claims of infeasibility or greater hazard and document on site observations and interviews with the competent person and other affected workers relating to any such claim.



- i. [29 CFR 1926.451\(g\)\(4\)\(xiv\)](#) requires that any manila or synthetic rope being used for top rails or midrails be inspected by the competent person as often as necessary (daily and/or prior to use) to ensure that it continues to meet the strength requirements of [29 CFR 1926.451\(g\)](#).

### 3. Compliance Issues for Competent Persons.

- a. An OSHI's determination of the employer's compliance with requirements involving a competent person will involve judgments on complex issues. The OSHI must evaluate all the factors associated with competent person requirements.
- b. The duties of the competent person may be shared among several individuals.
  - 1) However, each must possess the qualifications related to his or her area of responsibility, and each must have the ability and authority to take corrective action.
    - a) For example, an individual designated as the competent person for the erecting of the scaffold might not be the same individual who inspects the scaffold before each work shift.
    - b) Also, different individuals may be designated competent persons depending on the type of scaffold used.
  - 2) An individual who has competent person responsibilities for supported scaffolds would not need to have knowledge of requirements related to suspended scaffolds on the work site, if another individual were assigned those responsibilities.
- c. The employer may rely on the expertise of persons who are not employees, such as consultants and scaffold systems representatives, to design, erect and dismantle scaffolds.
  - 1) This may be acceptable if that individual actually supervises the work being done and has authority to correct hazards. Additionally, contractors on a multi-employer site may rely on employees of the general contractor or another subcontractor to fulfill competent person responsibilities, if all the qualification criteria are met.
  - 2) The OSHI would need to determine whether, for the specific site and operation in question, the employer has effectively complied by designating another employer's employee as the competent person.
- d. When more than one employer erects and uses a scaffold, the OSHI will need to determine who the controlling and exposing employers are and document factors related to MNOSHA's multi-employer citation policy.
  - 1) The OSHI must exercise professional judgment in these situations and a variety of case by case factors will need to be considered.

- 2) Information contained in the general contractor's and the subcontractors' safety programs and contract requirements, as well as copies of safety meeting minutes, written correspondence between contractors, and employer and employee interviews will be helpful in determining responsibility for violations.

## **B. QUALIFIED PERSON**

1. **Definition.** "Qualified" is defined at [29 CFR 1926.450\(b\)](#) as "one who, by possession of a recognized degree, certificate, or professional standing, or who by extensive knowledge, training, and experience, has successfully demonstrated his/her ability to solve or resolve problems related to the subject matter, the work, or the project".
2. **Duties.**
  - a. **Design.** [29 CFR 1926.451\(a\)\(6\)](#) requires that scaffolds be designed by a qualified person. Non mandatory [Appendix A](#) of the standard contains examples of criteria to guide an employer in designing scaffold systems. With certain exceptions carried over from the previous rule, the qualified person designing the scaffold need not be an engineer. Those exceptions are found in the following provisions:
    - 1) [29 CFR 1926.451\(d\)\(3\)\(i\)](#). Scaffold connections for masons' adjustable multi-point suspension scaffolds must be designed by an engineer "experienced in such scaffold design."
    - 2) [29 CFR 1926.452\(a\)\(10\)](#), [29 CFR 1926.452\(b\)\(10\)](#), and [29 CFR 1926.452\(i\)\(8\)](#). Pole scaffolds over 60', tube and coupler scaffolds over 125', and outrigger scaffolds must be designed by a "registered professional engineer" and constructed and loaded in accordance with that design. [Appendix A](#) of the standard contains examples of criteria that will enable the employer to comply with the design and loading requirements.
    - 3) [29 CFR 1926.452\(c\)\(6\)](#). Fabricated frame scaffolds over 125 feet in height above their base plate must be designed by a "registered professional engineer" and constructed and loaded in accordance with that design. In addition, brackets used to support cantilevered loads on such scaffolds shall be used only to support personnel unless the scaffold has been designed for other loads by a "qualified engineer" and is built to withstand the tipping forces generated by such loads. See [29 CFR 1926.452\(c\)\(5\)\(iii\)](#).
  - b. **Other designs.** A qualified person is also required to design the following:
    - 1) [29 CFR 1926.452\(o\)\(2\)\(i\)](#) requires the supporting rope on single point adjustable suspension scaffolds be kept vertical unless, among other requirements, the rigging has been designed by a qualified person.

- 2) [29 CFR 1926.452\(p\)\(1\)](#) requires that platforms on two-point adjustable suspension scaffolds (swing stages) shall not be more than 36 inches wide unless designed by a "qualified" person to prevent unstable conditions.

NOTE: [29 CFR 1926.452\(p\)\(1\)](#) does not apply to two-point adjustable suspension scaffolds used as masons' or stone setters' scaffolds. See [29 CFR 1926.452\(q\)](#).

- 3) [29 CFR 1926.454\(a\)](#) requires the employer to 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.