



[A to Z Index](#) | [En Español](#) | [Contact Us](#) | [FAQs](#) | [About OSHA](#)

OSHA

[Newsletter](#)

Occupational Safety & Health Administration We Can Help

[What's New](#) | [Offices](#)
[Home](#) | [Workers](#) | [Regulations](#) | [Enforcement](#) | [Data & Statistics](#) | [Training](#) | [Publications](#) | [Newsroom](#) | [Small Business](#) | [Anti-Retaliation](#)
[Standard Interpretations - Table of Contents](#)

• **Standard Number:** 1910.66;1910.28(g)(11);1926.451(d)(18)

OSHA requirements are set by statute, standards and regulations. Our interpretation letters explain these requirements and how they apply to particular circumstances, but they cannot create additional employer obligations. This letter constitutes OSHA's interpretation of the requirements discussed. Note that our enforcement guidance may be affected by changes to OSHA rules. Also, from time to time we update our guidance in response to new information. To keep apprised of such developments, you can consult OSHA's website at <http://www.osha.gov>.

August 10, 2000

Peter A. McGing, P.E.
 Engineering & Construction
 Equity Office Properties Trust
 Two North Riverside Plaza, Suite 2200
 Chicago, IL 60606

RE: 1926.451(d)(18) - Securing Suspended Scaffolds used in Construction, 1910.28(g)(11) - Securing Suspended Scaffolds used in General Industry, 1910.66 Appendix C - Personal Fall Arrest Systems for Powered Platforms used in General Industry

Dear Mr. McGing:

This is in response to your October 18, 1999, letter in which you ask for clarification on OSHA requirements for securing two point suspension scaffolds to prevent swaying, and the requirements for testing anchorages for personal fall arrest systems as required by 29 CFR 1910.66. We apologize for the delay in providing this response.

Question 1 (for both construction and general industry work): Section 1926.451(d)(18), which applies to construction work, and § 1910.28(g)(11), which applies to general industry work, both require that two-point suspension scaffolds be secured to prevent them from swaying. Would an engineered suction cup system be an acceptable anchorage for securing the scaffold?

Answer: No, an engineered suction cup system would not be an acceptable anchorage point for stabilizing a two-point suspension scaffold. Both standards listed above state that "window cleaner's anchors shall not be used for this purpose." Suction cups are commonly used for "window cleaner anchors"; therefore, the standards bar their use as stabilization anchors.

When using two-point suspension scaffolds, acceptable ways of securing the scaffold include, but are not limited to, mullion tracks and trolleys (guide rollers), intermittent tie-in guides employing detent pins, button-type stabilizer ties, and down-rigged lines. For more information on stabilizing systems that will work with your specific scaffold, we suggest that you contact your scaffolding manufacturer or supplier.

Note that the requirement to secure against swaying in §1926.451(d)(18) is somewhat different from the requirement in §1910.28(g)(11). Section 1926.451(d)(18) requires such securing "as determined to be necessary based on an evaluation by a competent person." In contrast, securing is always required under §1910.28(g)(11).

Question 2 (for general industry only): Section 1910.66, Appendix C, has three parts. The first part, Section I, contains mandatory provisions. The other two parts, Sections II and III, are non-mandatory. Section I, paragraph (c)(10), states that anchorages for personal fall arrest systems shall be capable of supporting at least 5,000 pounds. Section II, paragraph (a), states that Sections (b), (c), (d), and (e) of Section II may be used to determine compliance with the requirements of paragraph (d)(1)(i), (ii)(both of these address limiting of the maximum arresting force applied to an employee who has fallen), (iii) (maximum deceleration distance) and (iv) (strength of fall protection to withstand twice the potential impact energy of a free fall) of Section I. Can test requirements specified in Section II (b)(2) be applied to the anchorage requirements found in Section I, paragraph (c)(10)? If not, what are the applicable testing criteria for anchors used with personal fall arrest systems?

Answer: No. Section II does not contain test criteria for testing the strength of anchorages. The Section II requirements are designed for use in a laboratory setting to (1) test the forces applied to a human body during an arrested fall; (2) make sure the system's deceleration distance does not exceed 3.5 feet; and (3) to make sure the system can arrest a fall without failure. Section II (b), "General conditions for all tests in Section II," specifies that, when testing the fall arrest system, "(2) The anchorage should be rigid, and should not have a deflection greater than .04 inches (1mm) when a force of 2,250 pounds (10Kn) is applied." That is one of several parameters for doing the test of the fall arrest system — it is not a means of establishing whether the anchorage has met the strength requirements in Section I. The Section II (b)(2) requirements simply ensure that the anchorage will not effect the system test results.

Since neither the standard nor the Appendix sets out test criteria for testing anchorages, employers may use any criteria that is scientifically valid. In general, this means using criteria that would be accepted by an industry consensus group or signed by a registered professional engineer. Remember that, if the anchor is to be used after it is tested, the testing method must not damage the anchorage.

If you need additional information, please contact us by fax at: U.S. Department of Labor, OSHA, Directorate of Construction, Office of Construction Standards and Guidance, fax # 202-693-1689. You can also contact us by mail at the above office, Room N3468, 200 Constitution Avenue, N.W., Washington, D.C. 20210, although there will be a delay in our receiving correspondence by mail.

Sincerely,

Russell B. Swanson, Director
Directorate of Construction

[Corrected 6/2/2005]

 Standard Interpretations - Table of Contents

[Freedom of Information Act](#) | [Privacy & Security Statement](#) | [Disclaimers](#) | [Important Web Site Notices](#) | [International](#) | [Contact Us](#)

U.S. Department of Labor | Occupational Safety & Health Administration | 200 Constitution Ave., NW, Washington, DC 20210

Telephone: 800-321-OSHA (6742) | TTY

www.OSHA.gov