

OSHA Directives

STD 1-3.3 - Building Anchors Used for Intermittent Stabilization of a Suspended Powered Platform in Window Washing Operations

- **Record Type:** Instruction
 - **Directive Number:** STD 1-3.3
 - **Standard Number:** 1910.66(b)(3)
 - **Subject:** Building Anchors Used for Intermittent Stabilization of a Suspended Powered Platform in Window Washing Operations
 - **Information Date:** 11/01/1982
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OSHA Instruction STD 1-3.3 CH-1 NOV 12, 1985 Directorate of Field Operations

Subject: Building Anchors Used for Intermittent Stabilization of a Suspended Powered Platform in Window Washing Operations and Light Building Maintenance

A. Purpose. This instruction provides guidance to ensure appropriate enforcement of certain requirements pertaining to powered platforms for exterior straight face building maintenance. This instruction does not apply to construction nor two-point suspension scaffolds used in general industry. Requirements for scaffolds used in construction are contained in 29 CFR 1926.451, and general industry application of two-point scaffolds are contained in 29 CFR 1910.28.

B. Scope. This instruction applies OSHA-wide.

C. Reference. OSHA Instruction CPL 2.45A, April 18, 1983.

D. Action. OSHA Regional Administrators/Area Directors shall ensure that the guidelines in this instruction are adhered to in complying with 29 CFR 1910.66(b)(3), Powered Platforms for Exterior Building Maintenance.

E. Federal Program Change. This instruction describes a Federal program change which affects State programs. Each Regional Administrator shall:

1. Ensure that this change is forwarded to each State designee.

OSHA Instruction STD 1-3.3 NOV 1, 1982 Office of Compliance Programming

2. Explain the technical content of the change to the State designee as requested.
3. Ensure that State designees are asked to acknowledge receipt of this Federal program change in writing, within 30 days of notification, to the Regional Administrator. This acknowledgment should include a description either of the State's plan to implement the change or of the reasons why the change should not apply to that State.
4. Review policies, instructions and guidelines issued by the State to determine that this change has been communicated to State program personnel. Routine monitoring activities (accompanied inspections and case file reviews) shall also be used to determine if this change has been implemented in actual performance.

F. Guidelines.

1. Intermittent Tie-in Stabilization System. The building anchor system will be installed as described herein.

a. The building anchors will be located in vertical rows, with an attachment of maximum elevation at every third floor (approximately 45 feet) and spaced horizontally to allow a stabilization attachment for each of the two platform suspension wire ropes. The minimum tensile strength of the anchor bolt shall be 600 pounds.

b. As the suspended platform descends past the elevation of each anchorage, each of the two platform occupants will secure a "quick connect - quick disconnect stabilizer-tie" between a suspension wire rope and a building anchor. Each stabilizer-tie will contain an adjustable lanyard to allow positioning each suspension wire rope vertically at a predetermined angulation that will provide at least 10 pounds of pressure against the building at the lowest point of the tie-in span. The process will be repeated as each elevation of tie-in anchorage is reached during the descent of the platform.

2

OSHA Instruction STD 1-3.3 NOV 1, 1982 Office of Compliance Programming

c. This process will be reversed, that is, the stabilizers will be removed as each elevation of the stabilization tie-ins is reached as the platform ascends. Said removal is ensured in that the platform will be provided with electrical interlocks to interrupt power to its hoists in the event either interlock contacts a stabilizer during the ascent of the platform.

d. The intermittent stabilization system including its building anchor shall have a safety factor of 4 and the suspension wire ropes shall have a safety factor of 10 against failure.

e. The engineering analysis documented by a professional engineer will substantiate the method of intermittent stabilization for a suspended powered platform system. Further, such design and

method shall provide a condition for employment that will be as safe and healthful as required by the referenced standard.

(1) Platform. The platform will be provided with a taut 5/16-inch diameter horizontal galvanized wire rope static line secured to a structural member at both ends of the platform and at the mid-point of the rear guardrail system so that each section of the wire rope static line acts as an independent wire rope lifeline to support either operator in case of a suspension rope failure. The configuration of the attachment must be such that the combined loads of two persons will not be exerted on any attachment at the same time in an emergency. The structural member for the attachment must sustain at least a static load of 4,000 pounds.

(a) This powered platform (scaffold) must not be used during any period of wind velocity above twenty-five (25) miles per hour. An instrument which will accurately measure wind velocity shall be located on the roof of the building.

3

OSHA Instruction STD 1-3.3 NOV 1, 1982 Office of Compliance Programming

(b) The suspension rope angulation shall be designed into the suspension system and the tie-in lanyard so that the platform shall exert a minimum force of approximately 10 pounds against the face of the building.

(c) The platform floor shall have openings or gaps to facilitate upward air flow.

(d) The platform shall be no greater than 32 feet in length nor 3 feet in width.

(e) The platform shall also be equipped with building face rollers.

(f) The platform shall be provided with a sensing device that will interrupt its power supply in the event that the platform contacts the tie-in lanyard assembly, to prevent further ascent and ensure that the lanyard assembly can be disengaged from the building anchor.

(2) Safety Monitor. The employer shall designate a safety monitor capable of identifying and correcting hazards associated with the intermittent tie-in system for powered platforms.

(a) The individual designated to be a monitor may be a supervisor or a coworker engaged in the performance of work on the powered platform. The monitor must be trained and capable of identifying existing and predictable conditions and actions, which are hazardous to employees utilizing the intermittent tie-in system. These hazardous conditions may involve platform and auxiliary equipment, building anchors, anemometer, personal protective equipment, electrical systems and communications.

4

OSHA Instruction STD 1-3.3 NOV 1, 1982 Office of Compliance Programming

Employee actions that must be monitored are adherence to established procedures, use of personal protective equipment and radio communications with building management personnel.

(b) The monitor will warn employees of hazardous conditions and unsafe actions on a roof or a powered platform, when it appears to the monitor that they are unaware of a hazard or are acting in an unsafe manner.

(c) The monitor must be authorized to take prompt corrective action in eliminating hazardous conditions. The monitor must then report to the employer any hazardous conditions which were observed and corrected; and submit recommendations to the employer for any condition which needs future correction.

(d) The monitor must be able to observe employees and be close enough to verbally communicate with them.

(3) Personal Protective Equipment. Each employee on the working platform of powered platforms shall be provided with personal protective equipment as follows:

(a) A body harness with a short lanyard and an automatic locking grab attached to a horizontal static line on the working platform. The locking grab must have a minimum breaking strength of 4,000 pounds.

1 The body harness, the lanyard and other components, including fastening means and anchorages to the working platform, shall have a minimum breaking strength of 4,000 pounds.

5

OSHA Instruction STD 1-3.3 NOV 1, 1982 Office of Compliance Programming

2 The attachment to the static line on the platform must have a breaking strength of 4,000 pounds suitable for one person.

(b) Fastening devices on the lanyard shall be of the self-closing tapes equipped with a double locking device to prevent accidental opening of the fastening device.

2. Employee Training. Operators of powered platforms shall have the knowledge and training to operate equipment in accordance with manufacturer's recommendations and to perform all operations of the intermittent stabilization system.

3. Additional Employer Responsibilities. The employer shall comply with all provisions contained in this instruction and with all other applicable provisions of 29 CFR 1910.66, such as requirements for emergency communications, maintenance inspections and tests, etc.

4. Procedures. The employer shall ensure that all procedures required for the proper and safe functioning of the intermittent stabilization system are carried out.

G. Background. In many high-rise buildings constructed Prior to passage of the Occupational Safety and Health Act of 1970, building face guiding members were not installed for powered platforms intended to be used for exterior building maintenance, which included window washing. In addition, some newly constructed buildings, because of the design, types of materials used for exterior walls and the aesthetics, are not constructed with building face guiding members. In situations where it is not practical to install the building face guides as required in 29 CFR 1910.66(b)(3), powered platforms installed and used in a safe manner as described in this instruction will provide an alternative safe system.

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OSHA Instruction STD 1-3.3 CH-1 NOV 12, 1985 Directorate of Field Operations

Subject: Page Change for OSHA Instruction STD 1-3.3

A. Purpose. This instruction transmits a page change to OSHA Instruction STD 1-3.3, November 1, 1982.

B. Scope. This instruction applies OSHA-wide.

C. Action. Replace pages 1 and 2 of OSHA Instruction STD 1-3.3, November 1, 1982, with the attached new pages. File this transmittal page after the signature page of the instruction.

D. Explanation. The reference to OSHA Instruction CPL 2.11A has been changed to the Field Operations Manual (FOM), OSHA Instruction CPL 2.45A. The guidelines on de minimis violations were incorporated into the FOM thereby canceling OSHA Instruction CPL 2.11A in an OSHA Notice CPL 2 which was issued on April 11, 1983. This instruction does not apply to two-point suspension scaffolds which are appropriately covered in the General Industry standard, 29 CFR 1910.28.

Patrick R. Tyson Acting Assistant Secretary

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