

This document contains extracts from OSHA Standard 1910.66 SubPart F (Powered platforms for building maintenance) relating to fall protection anchors.

The standard covers powered platform installations permanently dedicated to interior or exterior building maintenance of a specific structure or group of structures. This section does not apply to suspended scaffolds (swinging scaffolds) used to service buildings on a temporary basis and covered under subpart D of OSHA 1910.28, nor to suspended scaffolds used for construction work and covered under subpart L of 29 CFR part 1926. Building maintenance includes, but is not limited to, such tasks as window cleaning, caulking, metal polishing and reglazing.

SubPart F is one of several OSHA standards governing window cleaning and other suspended maintenance operations; the others are OSHA 1910.28, SubPart D (Walking-Working Surfaces), OSHA 1926.500, SubPart M (Fall Protection), CAL OSHA, Title 8, Section 3291 (f), Article 5, Window Cleaning (General Industry Safety Order, California Code of Regulations), and Department of Labor Memorandum to Regional Administrators for Descent Control Devices.

PARAGRAPH REFERENCE	REQUIREMENT
Assurance (c) (3)	Building owners of all installations, new and existing shall inform the employer in writing that the installation has been inspected, tested and maintained in compliance with the requirements of paragraphs (g) and (h) of this section and that all protection anchorages meet the requirements of paragraph (l) (c) (10) of appendix C.
Affected Parts of Buildings (e) (1) (i) (e) (7)	Structural supports, tie-downs, tie-in guides, anchoring devices and any affected parts of the building included in the installation shall be designed by or under the direction of a registered professional engineer experienced in such design; "Tie-down anchors." Imbedded tie-down anchors, fasteners, and affected structures shall be resistant to corrosion.
Equipment (f) (1) (f) (1) (i)	"General requirements." The following requirements apply to equipment which are part of a powered platform installation, such as platforms, stabilizing components, carriages, outriggers, davits, hoisting machines, wire ropes and electrical components. Equipment installations shall be designed by or under the direction of a registered professional engineer experienced in such design; "Suspension methods". Elevated building maintenance equipment shall be suspended by a carriage, outriggers, davits or an equivalent method.
Transportable Outriggers (f) (3) (2) (f) (3) (ii) (C) (f) (3) (ii) (E) (f) (3) (ii) (E)	Transportable outriggers may be used as a method of suspension for ground rigged working platforms where the point of suspension does not exceed 300 feet (91.5 m) above a safe surface. Tie-in guide system(s) shall be provided which meet the requirements of paragraph (e) (2) of this section. Each transportable outrigger shall be secured with a tie-down to a verified anchorage on the building during the entire period of its use. The anchorage shall be designed to have a stability factor of not less than four against overturning or upsetting of the outrigger. Each transportable outrigger shall be designed for lateral stability to prevent roll-over in the event an accidental lateral load is applied to the outrigger. The accidental lateral load to be considered in this design shall be not less than 70 percent of the rated load of the hoist. Each transportable outrigger shall be designed to support an ultimate load of not less than four times the rated load of the hoist.

<p>(f) (3) (ii) (G)</p> <p>(f) (3) (ii) (G)</p> <p>(f) (3) (ii) (G)</p>	<p>Each transportable outrigger shall be so located that the suspension wire ropes for two point suspended working platforms are hung parallel.</p> <p>A transportable outrigger shall be tied-back to a verified anchorage on the building with a rope equivalent in strength to the suspension rope.</p> <p>The tie-back rope shall be installed parallel to the centerline of the outrigger.</p>
<p>Davits</p> <p>(f) (3) (iii)</p> <p>Ground Rigged Davits system</p> <p>(f) (3) (iii) (c) (1)</p> <p>(f) (3) (iii) (D)</p> <p>Transportable Davits</p> <p>(f) (3) (iii) (E) (1)</p> <p>(f) (3) (iii) (E) (2)</p> <p>(f) (3) (iii) (E) (3)</p>	<p>Every davit installation, fixed or transportable, rotatable or non-rotatable shall be designed and installed to insure that it has a stability factor against overturning of not less than four.</p> <p>The point of suspension shall not exceed 300 feet (91.5 m) above a safe surface. Guide system(s) shall be provided which meet the requirements of paragraph (e) (2) of this section;</p> <p>A rotating davit shall not require a horizontal force in excess of 40 pounds (177.9 n) per person to initiate a rotating movement.</p> <p>A davit or part of a davit weighing more than 80 pounds (36 kg) shall be provided with a means for its transport, which shall keep the center of gravity of the davit at or below 36 inches (914 mm) above the safe surface during transport:</p> <p>A davit shall be provided with a pivoting socket or with a base that will allow the insertion or removal of a davit at a position of not more than 35 degrees above the horizontal, with the complete davit inboard of the building face being serviced; and</p> <p>Means shall be provided to lock the davit to its socket or base before it is used to suspend the platform.</p>
<p>Two and Four-Point Suspended Working Platform</p> <p>(f) (5) (ii) (M)</p>	<p>A vertical lifeline shall be provided as part of a fall arrest system which meets the requirements of appendix C, for each employee on a working platform suspended by two or more wire ropes, if the failure of one wire rope or suspension attachment will cause the platform to upset. If a secondary wire rope suspension is used, vertical lifelines are not required for the fall arrest system, provided that each employee is attached to a horizontal lifeline anchored to the platform.</p>
<p>Single Point Suspended Working Platform</p> <p>(f) (5) (iii)</p>	<p>Each single point suspended working platform shall be provided with a secondary wire rope suspension system, which will prevent the working platform from falling should there be a failure of the primary means of support, or if the platform contains overhead structures which restrict the egress of the employees. A horizontal lifeline or a direct connection anchorage shall be provided, as part of a fall arrest system which meets the requirements of appendix C, for each employee on the platform.</p>
<p>Inspection and Tests</p> <p>(g) (1)</p>	<p>"Installations and alterations." All completed building maintenance equipment installations shall be inspected and tested in the field before being placed in initial service to determine that all parts of the installation conform to applicable requirements of this standard, and that all safety and operating equipment is functioning as required. A similar inspection and test shall be made following any major alteration to an existing installation. No hoist in an installation shall be subjected to a load in excess of 125 percent of its rated load.</p>
<p>Periodic Inspection and Tests</p> <p>(g) (2) (i)</p> <p>(g) (3) (ii)</p>	<p>Related building supporting structures shall undergo periodic inspection by a competent person at intervals not exceeding 12 months.</p> <p>The building owner shall keep a certification record of each inspection and test required under paragraphs (g) (2) (i) and (ii) of this section. The certification record shall include the date of the inspection, the signature of the person who performed the inspection, and the number, or other</p>

	identifier, of the building support structure and equipment which was inspected. This certification record shall be kept readily available for review by the Assistant Secretary of Labor or the Assistant Secretary's representative and by the employer.
Maintenance (h) (1)	"General maintenance." All parts of the equipment affecting safe operation shall be maintained in proper working order so that they may perform the functions for which they were intended. The equipment shall be taken out of service when it is not in proper working order.
Personal Fall Protection (i)	"Personal fall protection." Employees on working platforms shall be protected by a personal fall arrest system meeting the requirements of appendix C, Section I, of this standard, and as otherwise provided by this standard.
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