

This document contains extracts from Part 21 of the DOSH "Industrial Code Rules", "Protection of Persons Employed at Window Cleaning - Structural Requirements, Equipment and Procedures". The extracts pertain to fall protection anchorages.

PARAGRAPH REFERENCE	REQUIREMENT
21.0 Finding of fact	The board finds that the trade, occupation or process of cleaning the windows of public buildings involves such elements of danger to the lives, health or safety of persons employed therein as to require special regulations for the protection of such persons, in that such trade, occupation or process necessarily involves the constant hazard of falling from dangerous heights and creates a substantial risk of serious injury to such persons and others.
21.1 Application  21.3 General provisions	<p>(a) This Part (rule) applies to the trade, occupation and process of cleaning the windows of the public buildings which are subject to the provisions of section 202 of the Labor Law; it applies also to the owners of such buildings, to the cleaners and their employers, and to all persons providing equipment required by this Part (rule).</p> <p>(a) Owner's statement required. Before windows or window anchors are installed in a building subject to section 202 of the Labor Law a sufficient statement of the proposed means and methods of cleaning such windows shall be submitted by the owner (as defined) to the commissioner.</p> <p>(b) Means and methods required. (See §21.4, infra.)</p> <p>(1) No owner shall suffer or permit a cleaner to clean a window of his building unless it has the structural features and the anchors or other fixed devices required by this Part (rule) in respect to the authorized means and methods of cleaning used by the cleaner.</p> <p>(2) No employer shall suffer or permit an employee to clean a window otherwise than in accordance with an authorized means and method. Every employer must provide or cause to be provided to a cleaner in his employ the portable equipment, devices and materials specified in respect to the authorized means and methods used by such cleaner.</p> <p>(3) No cleaner shall clean any window otherwise than in accordance with an authorized means and method.</p> <p>(d) Defective windows and structures.</p> <p>(1) No owner shall suffer or permit a cleaner to clean any window installed in his building if any part of such window or surrounding structures upon which the cleaner may depend for support is so defective, damaged or deteriorated as to affect its structural strength.</p> <p>(2) The owner shall repair or replace any defective part upon which the cleaner may depend for support.</p> <p>(e) Unsafe equipment prohibited.</p> <p>(1) No person shall willfully sell, lend, provide or suffer or permit the use of, window cleaning equipment that is unsafe in any respect.</p>

	<p>(h) Installation of unapproved anchors. No person shall install an unapproved anchor.</p> <p>(i) Unauthorized installations-removal by owner. Every unapproved anchor and every unauthorized installation of an anchor, and every anchor of which the fastenings or supports are damaged or deteriorated, shall be removed or rendered unusable by detachment of the anchor head.</p>
<p><b>21.4 Authorized means and methods</b></p>	<p>The following means and methods are authorized for window cleaning as hereinafter set forth:</p> <p>(a) Working from safe surfaces.  (b) Working from window sills or ledges.  (c) Working from ladders.  (d) Working from boatswain's chairs.  (e) Working from scaffolds.</p>
<p><b>21.5 Working from safe surfaces</b></p>	<p>(b) Working surface. In using this method for cleaning from the outside the cleaner shall work from a position on the ground level or on a roof, balcony or other structural part of the building which is capable of sustaining the weight of the cleaner and his equipment. The surface on which the cleaner works shall not be pitched more than one inch in 12 inches. It shall either extend six feet or more about the working position or be provided with a firm railing or parapet at least 32 inches high.</p>
<p><b>21.8 working from boatswain's chairs</b></p>	<p>(a) Approval required over 75 feet. After October 1, 1967, a boatswain's chair which is suspended from a point with an elevation of more than 75 feet above the nearest street or ground surface shall be approved for the specific building and location where it is to be used to clean windows. Approval will not be considered unless other authorized means of cleaning the windows have been found impracticable or impossible due to the exterior features of the building.</p> <p>(b) Suspended point height of 75 feet or less. A manually operated boatswain's chair which is suspended from a point with an elevation of 75 feet or less above the nearest street or ground surface is not required to be approved but shall conform to the following requirements:</p> <p>(1) Safety belt and lifeline required. Each person working from a boatswain's chair shall be provided with and shall use an approved safety belt and a lifeline consisting of a hanging line and a tail line. The tail line shall be of minimum practical length and shall be attached to the hanging line by an approved special device to allow vertical adjustment of the point of attachment. Exception: See section 23.30 of Industrial Code Part (Rule No.) 23.</p> <p>(4) Chairs. Boatswain's chairs and all supports shall be designed and constructed to sustain without failure a minimum load of 600 pounds.</p> <p>(6) Anchorage. The object to which the tackle is anchored shall be rigid and of sample strength.</p> <p>(c) Powered boatswain's chairs. A powered boatswain's chair used for window cleaning shall be approved in respect to its hoisting machine and shall be subject to the requirements set forth in this section in subdivision (a) and paragraphs (1), (2), (3), (4), (6) and (7) of subdivision (b).</p>
<p><b>21.9 Working from scaffolds</b></p>	<p>(a) Compliance with Part (Rule No.) 23. Every scaffold used for cleaning by this method shall be designed, constructed, installed, operated and maintained in compliance with all relevant provisions of Part (Rule No.) 23, Protection of Persons Employed in Construction and Demolition Work, as amended, except as the board may otherwise provide in this Part (rule) or in a resolution of approval of a specific scaffold or type thereof.</p>

- (b) Maintenance and inspection requirements.
- (1) The owner of the scaffold shall establish and maintain a log showing inspection and maintenance work performed on the scaffold. The maintenance schedule and log sheet, recorded on forms furnished by the commissioner, shall be available at the site for use by the commissioner or his authorized representative.
  - (2) Prior to being put into operation on any day, the scaffold shall be subjected to a preliminary inspection and test to assure its safe condition. Results of this inspection shall be noted in the log. This inspection shall be performed by the foreman or other responsible person trained in the use and operation of the scaffold.
  - (3) Upon discovery of any substantial defect or abnormal condition in the scaffold or any part thereof, the scaffold shall be placed out of operation until such time as the abnormality or defect has been corrected and the scaffold restored to its normal condition.
- (c) Suspended scaffolds - 75 feet or more. Every suspended scaffold so used including both manually or power operated types shall be approved if it is or is intended to be suspended from any point which has an elevation 75 feet or more above the nearest street or ground surface.
- (d) Suspended scaffolds - not exceeding 75 feet; lifelines.
- (1) Every scaffold including both manually and power operated types which is suspended or is intended to be suspended from any point not exceeding 75 feet in elevation above the nearest street or ground surface is required to be approved only in respect to any hoisting machine which may be used thereon, provided that all other components comply with Part (Rule No.) 23. A block and tackle is not construed to be a hoisting machine. Any part of such scaffold assembly and suspension which is not named or described in Part (Rule No.) 23 is required to be approved pursuant to section 23.26 of said Part (rule).
  - (2) Each person working on such a suspended scaffold shall be provided with and shall use an approved safety belt. Each belt shall have its own lifeline, which shall consist of a hanging line and a tail line. The tail line shall be of minimum practical length and shall be attached to the hanging line by an approved special device to allow vertical adjustment of the point of attachment. The lifeline shall be securely attached to a sufficient anchorage. Exception: See section 23.30 of Industrial Code Part (Rule No.) 23.

The following chart contains extracts from Industrial Code Part (Rule No.) 23 that have a relationship with Part (Rule No.) 21.

PARAGRAPH REFERENCE	REQUIREMENT
23-1.16 Safety belts, harnesses, tail lines and lifelines	<p>(a) Approval required. Safety belts, harnesses and all special devices for attachment to hanging lifelines shall be approved.</p> <p>(b) Attachment required. Every approved safety belt or harness provided or furnished to an employee for his personal safety shall be used by such employee in the performance of his work whenever required by this Part (rule) and whenever so directed by his employer. At all times during use such approved safety belt or harness shall be properly attached either to a securely anchored tail line, directly to a securely anchored hanging lifeline or to a tail line attached to a securely anchored hanging lifeline. Such attachments shall be so arranged that if the user should fall such fall shall not exceed five feet.</p> <p>(d) Lifelines. Any hanging lifeline required by this Part (rule) shall be not more than 300 feet in length from the point of suspension to grade, building setback or other surface. Every hanging lifeline shall be securely attached to a sufficient anchorage.</p>

	<p>(a) Outrigger beams. Outrigger beams shall extend not more than six feet beyond the face of the building or other structure. The inboard ends of outrigger beams, measured from the fulcrum points to the extreme inboard points of support, shall be not less than one and one-half times the outboard ends in length.</p> <p>(b) Inboard supports. The inboard ends of outrigger beams shall be securely supported either by means of struts bearing against the sills in contact with an overhead structure or by means of anchoring tension members such as U-bolts secured to the structural frame of the building or other structure.</p>
<p><b>23-5.8 All suspension scaffolds</b></p>	<p>(a) Inspection before installation. All load-carrying parts or components and means of suspension including adequacy of anchorage or support of every suspended scaffold shall be inspected before such scaffold is installed.</p> <p>(b) Suspension from roof hooks or irons. No parapet, curtain wall or similar portion of a building or other structure shall be used to support the roof hooks or irons of any suspended scaffold unless a professional engineer licensed to practice in the State of New York certifies that such parapet, curtain wall or similar portion of a building or other structure is adequate to support the loads intended to be imposed thereon. Such certification shall be kept on the job site available for examination by the commissioner.</p> <p>(c) Installation and use.</p> <p>(1) The installation or horizontal change in position of every suspended scaffold shall be in charge of and under the direct supervision of a designated person.</p> <p>(2) The horizontal displacement of any suspended scaffold platform in a direction perpendicular to the face of a building or other structure by means of an applied horizontal force shall not exceed one-tenth of the vertical distance from the elevation of the scaffold platform to its point of suspension. Any person who applies such horizontal force to a scaffold platform while he is located on any portion of the building or other structure at a point more than 10 feet above the ground, grade or equivalent surface shall be provided with and shall use an approved safety belt with a lifeline in compliance with this Part (rule).</p>
<p><b>23-5.9 Two-point suspension scaffold</b></p>	<p>(c) Roof irons. Roof irons or hooks used in connection with two-point suspension scaffolds shall be constructed of mild steel or wrought iron and shall be securely anchored. They shall be provided with tie-backs of at least three-quarters inch manila rope so installed that the tension is at right angles to the face of the building or other structure.</p> <p>(e) Use of two-point suspension scaffolds.</p> <p>(2) Every person located on any two-point suspension scaffold shall be provided with and shall be required to use an approved safety belt or harness together with a separate hanging lifeline in compliance with this Part (rule).</p> <p><b>End</b></p>