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13.1 Definitions

In this Part:

"boom-supported" means supported by an elevating device that telescopes, articulates, rotates or extends relative to the machine base or vehicle, so that the platform can be positioned completely beyond the base;

"boatswain's chair" also known as a bosun's chair, means a seat attached to a suspended rope designed to accommodate one person in a sitting position;

"elevating work platform" means a movable work platform that self-elevates to overhead work locations;

"movable work platform" means a work platform that can be re-positioned during the course of the work;

"permanent powered platform" means a movable work platform that

(a) is raised or lowered by other than manual means, and

(b) is permanently installed on or attached to a building or structure;

"portable powered platform" means a movable work platform that

(a) is raised or lowered by other than manual means, and

(b) is not permanently installed on or attached to a building or structure;

"scaffold" means any temporary elevated work platform and its supporting structure used for supporting workers, materials or equipment;

"self-propelled" means the capability of an elevating work platform to travel under power with the primary controls on the work platform;

"swing stage" means a work platform that is raised and lowered by manual or powered hoisting equipment, supported by 2 or more suspension lines;

"work platform" means an elevated or suspended temporary work surface used for supporting workers and includes a scaffold and boatswain's chair.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.2 Standards

(1) A ladder, window cleaner's belt or work platform must meet and be used in accordance with

(a) the applicable CSA or ANSI standard in effect when the equipment or structure was manufactured, except as otherwise determined by the Board,

(b) another standard acceptable to the Board, or

(c) if there is no applicable standard under paragraphs (a) or (b), the requirements of a professional engineer.

(2) In designing and installing a work platform, appropriate safety factors and minimum rated loads must be used in the materials and method of installation, in accordance with

(a) *WCB Standard WPL 1, Design, Construction and Use of Wood Frame Scaffolds, 2004*,

(b) *WCB Standard WPL 2, Design, Construction and Use of Crane Supported Work Platforms, 2004*,

(c) *WCB Standard WPL 3, Safety Factor and Minimum Breaking Strength for Suspended Work Platforms and Associated Components, 2004*, and

(d) *WCB Standard LDR 1, Job Built Ladders, 2004*.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.3 Inspections

A ladder, window cleaner's belt, work platform and associated components must be inspected before use on each shift, and after any modification, and any condition that might endanger workers must be remedied before the equipment is used.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

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13.4 Manufactured ladders

A manufactured portable ladder must be marked for the grade of material used to construct the ladder and the use for which the ladder is constructed.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.5 Position and stability

(1) A portable ladder must

(a) be placed on a firm and level surface, and

(b) be of sufficient length to enable the safe performance of the work activity while being used.

(2) A portable non-self-supporting ladder must,

(a) as shown in Figure 13-1, be positioned so that the ladder is leaning against the vertical plane of support at an approximate angle of 75° when measured from the horizontal plane of support,

(b) if the ladder provides access to or egress from an upper landing,

(i) project approximately 1 m (3 ft) above the upper landing, and

(ii) be sufficiently secured in place to ensure the stability of the ladder during access to or egress from the upper landing, and

(c) if the ladder is not already secured in accordance with paragraph (b)(ii), be sufficiently secured in place to ensure the stability of the ladder during use if conditions exist that are likely to cause the ladder to be unstable.

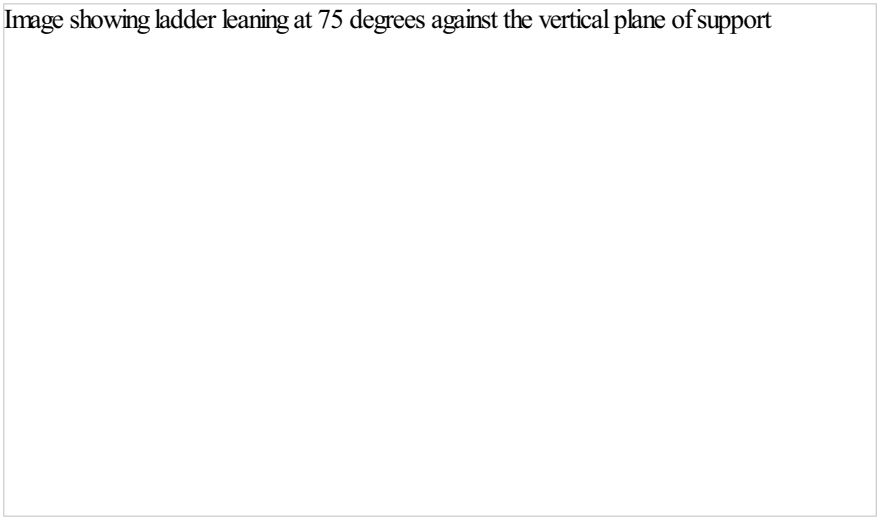

Figure 13-1: Ladder Angle

[Enacted by B.C. Reg. 199/2014, effective February 1, 2015.]

13.6 Use restrictions

(1) If work cannot be done from a ladder without hazard to a worker, a work platform must be provided.

(2) A worker must not carry up or down a ladder, heavy or bulky objects or any other objects which may make ascent or descent unsafe.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

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13.7 Access

Safe access must be provided to every work platform.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.8 General requirements

Each work platform must

(a) have sufficient strength to bear the load to be placed on it, and

(b) be secured against separation from the supporting equipment, structure or surface to which it is attached.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.9 Lines supporting work platforms

Rigging and lines used to suspend or support work platforms must

(a) have sufficient breaking strength to withstand the loads likely to be imposed with the required factor of safety,

(b) be free of knots or splices except for terminal eye-splices,

(c) be suitable for the purpose for which they are used,

(d) be protected from abrasion or other damage from the work environment,

(e) be secured to the platform and to an anchorage able to withstand the loads likely to be imposed on them,

(f) be of sufficient length to lower the work platform to a safe lower landing, and

(g) except for load lines, be used exclusively for suspending the work platform.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.10 Hooks and clamps

(1) Cornice hooks, parapet clamps and thrust-out beams must be secured by tiebacks to a solid anchor on the building or structure.

(2) Tiebacks for cornice hooks, parapet clamps and thrust-out beams must, as nearly as is practicable, be rigged at right angles to the building face.

(3) Each cornice hook, parapet clamp, hanger or stirrup used to support a swing stage must be manufactured of mild steel or other material having similar ductile properties.

(4) Counterweights must be

(a) made of solid material not subject to loss of weight through attrition, and

(b) secured to the thrust-out beam.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.11 Engineering required

(1) The following must be constructed, installed and used in accordance with the instructions of a professional engineer:

(a) bracing for a scaffold, if the scaffold is enclosed by a tarpaulin or any other cover;

(b) a scaffold exceeding 38 m (125 ft) in height;

(c) a scaffold exceeding 25 m (80 ft) in height, if stairways are included as part of the scaffold;

(d) a scaffold used to support a temporary floor;

(e) a scaffold used to support a crane or hoist, other than a scaffold used to support a manually powered crane or manually powered hoist;

(f) a scaffold suspended or cantilevered from a structure;

(g) a scaffold system supported by a catenary line;

(h) a needle beam scaffold;

(i) an outrigger scaffold.

(2) Permanent powered platforms must be constructed, installed and used in accordance with the instructions of a professional engineer.

(3) If a boat is used as a work platform in a pile driving operation, a professional engineer must certify the integrity of the boat for this purpose.

(4) A signed copy of the engineer's instructions or certification referred to in subsections (1) to (3) must be available at the workplace during installation, disassembly and use of the system.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

[Amended by B.C. Reg. 9/2017, effective May 1, 2017.]

13.12 Removal from service

A work platform must be removed from service until certified safe for use by the manufacturer or a professional engineer if it has

(a) been subjected to a sudden drop,

(b) been in contact with exposed energized electrical equipment or conductors, or

(c) shows signs of any kind of structural or mechanical damage or substantial wear.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.13 Responsibilities

The employer must ensure that scaffolds used by workers are in a safe condition and are able to withstand the load, regardless of who erected the scaffold.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.14 Scaffold platforms

(1) The platform of each scaffold must

(a) be a minimum nominal width of 50 cm (20 in), except that a nominal 30 cm (12 in) wide work platform may be used with ladder jacks, pump jack or similar systems,

(b) not leave more than one opening in the work platform, which must be no greater than 25 cm (10 in) in width, and

(c) if not level, be designed to ensure adequate footing for workers using the platform.

(2) Guardrails may be omitted from the edge of a work platform if

(a) the platform is adjacent to a structure that provides protection equivalent to guardrails, and

(b) the open space between the platform and the structure is equal to or less than 30 cm (12 in).

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.15 Manufactured components

Major components of scaffolds must be used in accordance with technical data provided by the manufacturer, or in writing by a professional engineer, that

(a) shows the rated load, erection procedures and compliance with an applicable standard under section 13.2, and

(b) is available at the workplace for reference.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.16 Lumber for structural components

All lumber used to construct a scaffold must be graded and marked to the National Lumber Grades Authority *Standard Grading Rules for Canadian Lumber*.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.17 Scaffold stability

(1) A scaffold must be erected with the vertical members plumb, and with the ledgers and bearers level.

(2) The base of a scaffold must have bearing plates or sills that rest on a solid surface and are sufficient to support the weight of the scaffold.

(3) The poles, legs and uprights of a scaffold must be securely and rigidly braced to prevent movement.

(4) A scaffold must be effectively guyed or secured to a building or structure

(a) if the height of the scaffold exceeds 3 times its minimum base dimension, or

(b) in any other circumstances if required for stability.

(5) Unless otherwise specified by the manufacturer, height adjustment devices must not extend more than 2/3 of their total length or 60 cm (24 in), whichever is less.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.18 Connections

All connections between the parts of a scaffold must be secure.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.19 Electrical hazards

A scaffold must be effectively grounded if

(a) it is a metal scaffold and is located close to a high voltage energized electrical conductor or equipment, and

(b) a hazardous level of electrical charge is likely to be induced in the scaffold.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

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13.20 Marking of equipment

(1) The following equipment must be clearly marked with a rated capacity:

(a) a platform that is suspended from or attached to a crane or hoist,

(b) an elevating work platform,

(c) Repealed. [B.C. Reg. Reg. 312/2012, effective February 1, 2013.]

(d) a swing stage, and

(e) interchangeable load bearing components of a suspended work platform system.

(2) The rated load for allowable thrust-out beam projections must be clearly marked on a thrust-out beam.

(3) A swing stage platform, counterweight and hoist unit must each be clearly marked with their own weight.

(4) A work platform that is suspended from a crane or hoist or attached to a crane boom must be marked with the weight of the platform and rigging and the rated capacity.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

[Amended by B.C. Reg. 312/2012, effective February 1, 2013.]

13.21 Manuals

(1) For each elevating work platform in use at a workplace,

(a) the equipment manufacturer's operation manual must be available at the workplace, and

(b) the equipment manufacturer's maintenance manual, containing maintenance instructions and replacement part information, must be reasonably available to workers at the workplace.

(2) If either of the manuals required by subsection (1) is not available, the equipment must not be used until

(a) the manual is obtained, or

(b) written instructions for the safe operation and maintenance of the equipment are supplied by a professional engineer.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.22 Maintenance of records

(1) The employer must keep records of inspection, maintenance, repair or modification that meet the requirements of Part 4 (General Conditions) for each

(a) elevating work platform,

(b) swing stage, and

(c) permanent powered platform.

(2) If the inspection and maintenance records, other than pre-shift inspections, are not available, the equipment must not be used until it has been

inspected and certified safe for use by the manufacturer or a professional engineer.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.23 Testing

(1) A vehicle-mounted elevating work platform and a self-propelled boom-supported elevating work platform must be

(a) inspected in accordance with good engineering practice at least every 12 months, and

(b) certified in writing by the equipment manufacturer or a professional engineer as complying with this Part and safe for use.

(2) Repealed. [B.C. Reg. Reg. 312/2012, effective February 1, 2013.]

(3) Repealed. [B.C. Reg. Reg. 312/2012, effective February 1, 2013.]

(4) Repealed. [B.C. Reg. Reg. 312/2012, effective February 1, 2013.]

(5) Repealed. [B.C. Reg. 243/2006, effective January 1, 2007.]

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

[Amended by B.C. Reg. 243/2006, effective January 1, 2007.]

[Amended by B.C. Reg. 312/2012, effective February 1, 2013.]

13.24 Work platforms on wheels

(1) If a moveable work platform on wheels is not designed for or intended to be moved along the floor or other supporting surface while a person is occupying the platform, the platform must be secured to prevent that movement before a person accesses or occupies the platform.

(2) If a moveable work platform is designed for and intended to be moved along the floor or other supporting surface while a person is occupying the platform, the platform must be moved only in the manner and under the conditions specified by the platform's manufacturer.

(3) Despite subsection (2), if the height of the work platform of a rolling scaffold that is occupied by a person is

(a) not more than one and one half times the least base dimension of the scaffold, the scaffold may be moved by the effort of the person occupying the platform or by the effort of a person on the floor or other supporting surface,

(b) more than one and one half times the least base dimension of the scaffold, the scaffold must be moved only by the effort of a person on the floor or other supporting surface, and

(c) more than two times the least base dimension of the scaffold, the scaffold must not be moved while the person is occupying the platform.

[Enacted by B.C. Reg. 320/2007, effective February 1, 2008.]

13.25 Warning devices on elevating work platforms

(1) An elevating work platform, except a vehicle -mounted work platform, must have a warning system consisting of an intermittent horn or flashing light that

(a) is automatically activated during any motion of the work platform, and

(b) can be seen or heard by other workers in proximity to the work platform.

(2) If the safe operation of an elevating work platform requires its carrier vehicle to be on a level surface or level within specified degrees, the platform must be fitted, as the carrier requires, with a device to warn the operator that

(a) the carrier is not level, or

(b) the carrier is outside the permitted degrees from level.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.26 Controls on elevating work platforms

The controls for an elevating work platform must

(a) be clearly identified to indicate their functions,

(b) be "hold-to-run" (continuous pressure) type that return to the neutral or the stop position when released,

(c) be protected against inadvertent operation,

(d) for each set of controls, be provided with an emergency stop device that is

(i) within easy reach of the operator,

(ii) clearly labelled STOP, and

(iii) coloured red, and

(e) include a clearly marked overriding lowering control that will enable a worker at the lower controls to stop and lower the platform in an emergency.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.27 Cranes and hoists used to suspend work platforms

(1) The weight of a work platform suspended from a crane or hoist or attached to a crane boom and its rigging, plus the rated capacity, must not exceed 50% of the rated capacity of the crane or hoist at the working radius or configuration.

(2) If a work platform attached to a crane boom causes eccentric loading on the boom,

(a) the effect on the rated capacity of the crane must be determined and the rated capacity certified by the crane manufacturer or a professional engineer, and

(b) the rated capacity of the crane must be reduced accordingly.

(3) The boom of a crane used to suspend a work platform must have a powered boom or a fixed boom.

(4) A work platform must not be

(a) suspended from an articulating boom crane, or

(b) attached to an articulating boom crane, unless the crane manufacturer approves the installation.

(5) If workers are on a work platform suspended from a crane, a secondary hoisting line on the crane must not be used.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.28 Two-blocking

(1) A crane or hoist used to raise a work platform on a load line must be equipped with

(a) a device to prevent two-blocking at all points, or

(b) in the case of a lattice boom crane, a two-blocking warning device.

(2) Despite subsection (1), a work procedure acceptable to the Board may be followed to minimize the risk of two-blocking if it is not practicable to maintain a two-blocking prevention or warning device on a conventional lattice boom crane used for pile driving and similar applications.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.29 Hoisting and lowering work platforms

(1) Cranes, winches and other devices used for hoisting and lowering movable work platforms must

(a) be operated as slowly as practicable while supporting the work platform,

(b) be lowered under power, if the device is powered, and

(c) not be equipped with a free running boom or hoisting winch controlled only by brakes.

(2) If a moveable work platform is suspended from a crane, winch or other device over a structure that cannot safely support its weight or if other hazards exist below the platform, lower limit travel devices compatible with the hoist system must be used to ensure the platform cannot be lowered beyond the safe lower limit of travel.

(2.1) If the lower limit travel devices required by subsection (2) are not practicable, the employer must ensure that work procedures acceptable to the Board are used that will minimize the risk of the platform going beyond the safe lower limit of travel.

(3) A trial lift for a work platform suspended from or attached to a crane or hoist must be performed at all work locations before the platform is occupied.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

[Amended by B.C. Reg. 19/2006 effective May 17, 2006.]

13.30 Lift truck mounted work platforms

(1) In this section, *"work platform"* means a movable work platform that is supported by a lift truck.

(2) A work platform may be used to support workers only if other conventional means of access for the task, such as ladders, scaffolds and elevating work platforms, are not practicable.

(3) An employer must ensure that a work platform intended for use by workers was designed, and is used by workers, in accordance with

(a) *ANSI/ITSDF B56.1-2009, Safety Standard for Low Lift and High Lift Trucks*, if the platform is being used with a high lift truck as defined in Part IV of that standard, or

(b) *ANSI/ITSDF B56.6-2011, Safety Standard for Rough Terrain Forklift Trucks*, if the platform is being used with a rough terrain forklift truck as defined in section 2 of that standard.

(4) The employer must ensure that a work platform intended for use by workers is legibly marked in a conspicuous place to show

(a) the name of

(i) the manufacturer of the platform, or

(ii) the professional engineer who certified the platform as having been built to meet the applicable standard referred to in subsection (3),

(b) if the platform was built by a manufacturer,

(i) the model number and serial number, or

(ii) other unique marking or identification that links the platform with the manufacturer's documentation respecting the platform's design and use,

(c) if the platform was custom built, the unique identification number or code that links the platform with the professional engineer's documentation for the platform's design and use,

(d) the title of the safety standard or standards the platform was designed to meet,

(e) the weight of the platform when the platform is empty,

(f) the rated load of the platform, and

(g) the minimum width, as measured in accordance with subsection (5), and minimum rated capacity a lift truck must have to support the platform in a manner that complies with the applicable standard in subsection (3) when the platform is loaded to its rated load.

(5) The width of a lift truck referred to in subsection (4) (g) must be measured in a straight line from any point on the outer part of the right load bearing tire to the corresponding point on the outer part of the left load bearing tire.

(6) The employer must ensure that a qualified person inspects both the work platform and the lift truck supporting the work platform

(a) each time the platform is mounted on the lift truck, and

(b) at the start of each work shift, if the platform is already mounted on the lift truck at the start of the work shift,

to ensure the platform is properly secured to the lift truck and the lift truck and the platform are safe for use.

(7) The employer must ensure that the inspections referred to in subsection (6) take place before either the work platform or the lift truck is used by a worker.

(8) Only a worker who is qualified and authorized by the employer may operate a work platform, and the lift truck supporting the work platform, for the purpose of supporting workers on the platform.

(9) A worker must not operate either a work platform or the lift truck supporting the work platform unless

(a) there is effective two-way voice communication between the lift truck operator and a worker on the platform who is designated by the employer to provide the lift truck operator with directions for platform movement, and

(b) the lift truck operator and the designated worker on the platform prearrange hand and arm signals, if the voice communication referred to in

paragraph (a) relies on the use of a radio or other electronic system, to allow the designated worker to signal the lift truck operator to bring the platform to the ground or floor level in the event the radio or other electronic system fails.

(10) A lift truck operator must remain at the controls of the lift truck at all times there are any workers on the platform supported by the lift truck.

(11) Before a work platform may be used to support workers, the lift truck operator must conduct a trial lift of the platform, with no workers on the platform, to assess the suitability of the surface bearing the weight of the lift truck and whether the platform is clear of all obstructions, unless

(a) the lift truck is on a type of surface the employer has identified as capable of safely supporting the lift truck and the platform when the platform is loaded to its rated load, and

(b) the space in and around which the platform is to be raised is clear of all obstructions.

[Enacted by B.C. Reg. 312/2012, effective February 1, 2013.]

13.31 Powered platforms

If a portable powered platform is raised and lowered by two or more separately controlled hoists operated by one person on the platform, the controls must be located so that they can be used simultaneously by that person.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

13.32 Work in high risk situations

Before a swing stage, boatswain's chair or portable powered platform is used in any of the following circumstances, a professional engineer must have certified in writing that the design, installation and proposed use of the swing stage, boatswain's chair or portable powered platform, as the case may be, meets the requirements of *CSA Standard CAN/CSA Z271-10 Safety code for suspended platforms* and *CSA Standard CAN/CSA Z91-02 (R2008) Health and Safety Code for Suspended Equipment Operations*:

(a) one work platform will be used above or below any portion of another work platform,

(b) a deck or planking will be used to span a gap between two independent work platforms,

(c) the work platform will exceed 10 m (32 ft) in length, or

(d) the suspension height will exceed 91 m (300 ft).

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

[Amended by B.C. Reg. 312/2010, effective February 1, 2011.]

[Amended by B.C. Reg. 199/2014, effective February 1, 2015.]

13.33 Fall protection

(1) A person on an elevating work platform must wear a personal fall arrest system secured to a suitable and substantial anchorage point.

(1.1) Despite subsection (1), a person on a scissor lift, or on an elevating work platform with similar characteristics to a scissor lift, that is on a firm level surface with no irregularities to cause platform instability, is exempt from wearing a personal fall arrest system, provided that all manufacturer's guardrails and chains are in place.

(2) If a person is supported on a work platform suspended by fewer than four suspension lines, the person must use a personal fall arrest system secured to an anchor meeting the requirements of Part 11 (Fall Protection) and independent of the work platform and its suspension system.

(3) If a person is supported on a work platform suspended by four or more suspension lines, the person must use a personal fall arrest system secured to an anchor on the platform or to an anchor meeting the requirements of Part 11 (Fall Protection) and independent of the work platform and its suspension system.

(3.1) Despite subsection (3), a person is not required to use a personal fall protection system on an outrigger or suspended mason's scaffold with guardrails on the open sides.

(4) Each person on a work platform suspended from a crane or hoist must use a personal fall arrest system with a shock absorbing lanyard, secured to

(a) an anchor above the load hook, or

(b) an anchor attached to the platform and designated for that purpose by the manufacturer or a professional engineer, provided that the platform has a safety strap that will prevent the platform from falling more than 15 cm (6 in) if the platform becomes dislodged from the hook.

(5) Each person on a work platform attached to a crane boom must use a personal fall arrest system secured to an anchor on the boom or on the platform.

(6) The personal fall arrest system referred to in subsection (5) must be secured on the boom or on the platform to an anchor that is designated by

(a) the manufacturer, or

(b) a professional engineer.

[Enacted by B.C. Reg. 422/2004, effective January 1, 2005.]

[Amended by B.C. Reg. 19/2006 effective May 17, 2006.]

[Amended by B.C. Reg. 243/2006 effective January 1, 2007.]

[Amended by B.C. Reg. 320/2007, effective February 1, 2008.]

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