

## **Fall Protection and Scaffolding Regulations**

**made under Section 82 of the  
*Occupational Health and Safety Act*  
S.N.S. 1996, c. 7  
O.I.C. 96-14 (January 3, 1996), N.S. Reg. 2/96**

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## **Part I: General**

### **Citation and application**

**1** These regulations may be cited as the Fall Protection and Scaffolding Regulations.

**2** These regulations apply to all workplaces to which the Occupational Health and Safety Act applies.

### **Interpretation**

**3 (a)** "Act" means the Occupational Health and Safety Act;

**(b)** "ANSI" means the American National Standards Institute;

**(c)** "anchor point" means a component that is attached to a structure and to which fall protection or scaffold components are secured;

**(d)** "anti-two blocking device" means a device that warns a person operating a hoisting device that continued movement of the load may cause the load to strike or come into contact with the upper sheaves of the hoisting device;

**(e)** "approved" means approved by the Nova Scotia Department of Environment and Labour or by an approval agency or authority approved by the Nova Scotia Department of Environment and Labour;

**(f)** "arborist" means a person trained and employed, in whole or in part, to climb trees for any economic or scientific purpose, including

(i) detection and treatment of disease, infections or infestations,

(ii) pruning, spraying or trimming,

(iii) repairing damaged trees,

(iv) assessing growth or harvesting potential, or

(v) scientific research;

**(g)** "boatswain's chair" means a seat attached to a suspended rope, designed to accommodate one person in a sitting position;

**(h)** "bracket scaffold" means a scaffold consisting of a work platform supported by brackets attached to a structural wall;

**(i)** "CGSB" means the Canadian General Standards Board;

**(j)** "CSA" means the Canadian Standards Association;

**(k)** "cantilevered scaffold" means a scaffold with a work platform that is directly attached to components that extend out from a building or a structure;

**(l)** "competent person" means a person who is

(i) qualified because of that person's knowledge, training and experience to do the assigned work in a manner that will ensure the health and safety of persons in the workplace, and

(ii) knowledgeable about the provisions of the Act and the regulations, that apply to the assigned work, and about potential or actual danger to health or safety associated with the assigned work;

**(m)** "crane supported work platform" means a work platform suspended from the cable of a hoist or crane;

**(n)** "debris net" means a net that is used to catch material and debris which can drop from work areas;

**(o)** "fall arrest system" means a system of physical components attached to a person that stops a person during a fall;

**(p)** "fall protection" means a harness, net, rope, safety belt, structure or other equipment, or device or means of

(i) restraining a person who is at risk of falling, or

(ii) stopping a person who has fallen;

**(q)** "fork-lift platform" means a work platform supported by an industrial lift truck;

**(r)** "full body harness" means a harness consisting of leg and shoulder straps and an upper back suspension unit that will distribute and reduce the impact force of any fall;

**(s)** "guardrail" means a temporary system of vertical and horizontal members that warn of a fall hazard and reduce the risk of a fall;

**(t)** "heavy duty scaffold" means a scaffold designed to support a uniformly distributed load of 366 kg/m<sup>2</sup> or more;

**(u)** "ladderjack scaffold" means a scaffold erected by means of attaching one or more brackets to one or more ladders to support a work platform;

**(v)** "lanyard" means a flexible line used to secure a person to a lifeline, a static line or a fixed anchor point;

**(w)** "lifeline" means a vertical line attached to a fixed anchor point or a static line and to which a lanyard and a ropegrab are attached;

**(x)** "light duty scaffold" means a scaffold designed to support a uniformly distributed load of not more than 366 kg/m<sup>2</sup>;

**(y)** "permanent powered suspension work platform" means a powered work platform that is suspended from a suspension mechanism which is a permanent part of a building or structure;

**(z)** "personnel safety net" means a net that is used to catch a person during a fall;

**(aa)** "power operated elevating work platform" means a work platform elevated and lowered by means of a mechanical, hydraulic, pneumatic or other powered mechanism;

**(ab)** "practicable" means physically possible in light of current knowledge and invention;

**(ac)** "professional engineer" means a person who is a professional engineer within the meaning of the Engineering Professions Act and is competent to do the work being performed;

**(ad)** "pumpjack scaffold" means a scaffold consisting of a work platform supported by vertical poles and adjustable support brackets;

**(ae)** "reasonably practicable" means practicable unless the person on whom a duty is placed can show that there is a gross disproportion between the benefit of the duty and the cost, in time, trouble and money, of the measures to secure the duty;

**(af)** "rolling scaffold" means an assembled scaffold

(i) supported by wheels, and

(ii) moved manually;

**(ag)** "roofing bracket" means a bracket

(i) that is secured to a sloped roof, and

(ii) to which a work platform is secured;

**(ah)** "ropegrab" means a mechanical fall-arrest device that

(i) is attached to a lifeline and a lanyard, and

(ii) locks itself immediately on the lifeline in the event of a fall;

**(ai)** "safe means of access and egress" means equipment or a structure that is built to prevent falls by persons going to or from a work area;

**(aj)** "safe surface" means an area which

(i) has sufficient size and strength to adequately support a person who falls, and

(ii) is sufficiently horizontal to prevent a further fall by a person who has fallen;

**(ak)** "safety belt" means a belt worn by a person as a means of fall protection;

**(al)** "scaffold" means

(i) an elevated work platform, or

(ii) a suspended work platform and the supporting components of the work platform;

**(am)** "softener" means padding or hoses that are used with a lifeline, suspended scaffold or static line to prevent a rope from being cut or chafed;

**(an)** "static line" means a rope

(i) that is attached horizontally to two or more fixed anchor points, and

(ii) to which a fall arrest system is attached;

**(ao)** "suspended scaffold" means a scaffold with a work platform supported by ropes suspended from components cantilevered out from a building or other structure, and includes a swingstage, a boatswain's chair and a multi-point suspended scaffold;

**(ap)** "swingstage" means a scaffold with a work platform supported by two ropes;

**(aq)** "temporary flooring" means a horizontal working surface that

(i) is designed to give access to areas that do not have permanent flooring, and

(ii) will prevent a worker from falling;

**(ar)** "thimble" means a metal insert for the inside of a wire rope eye, used when forming an attachment loop, to prevent wear on the rope;

**(as)** "wooden carpenter's portable bracket scaffold" means a triangular wooden bracket scaffold with gussets that is attached to a vertical wall when in use and which does not normally have another means of support during use;

**(at)** "work area" means a location at the workplace at which an employee is, or may be required or permitted to be, stationed and includes a work platform; and

**(au)** "work platform" means a temporary horizontal working surface that provides access and support to a person at the workplace.

### **Duties of workplace parties**

**4 (1)** A specific duty provided for in these regulations does not limit the generality of any other duty contained in the Act or any other regulations in force under the authority of the Act.

**(2)** A duty or requirement imposed on an employer or an employee pursuant to these regulations applies to a self-employed person, with such modifications as the circumstances require.

### **Measurements of lumber**

**5** Measurements of lumber in these regulations are nominal for dressed dimensions, unless rough lumber or dimensions are specified.

### **Inconsistencies with incorporated standards**

**6** Where there is an inconsistency between a standard or a manufacturer's specification referred to in these regulations and a requirement of these regulations, the requirement of these regulations shall prevail.

## **Part II: Fall Protection**

### **Fall protection required**

**7 (1)** Where a person is exposed to the hazard of falling from a work area that is

**(a)** 3 m or more above the nearest safe surface or water;

- (b) above a surface or thing that could cause injury to the person upon contact; or
- (c) above an open tank, pit or vat containing hazardous material,
- (i) the person shall wear a fall arrest system that includes a full body harness, a lanyard and an anchor point and that otherwise complies with Section 8,
- (ii) a guardrail shall be provided that meets the requirements of Section 9,
- (iii) a personnel safety net shall be provided that meets the requirements of Section 10,
- (iv) temporary flooring shall be provided that meets the requirements of Section 14, or
- (v) a means of fall protection shall be provided that provides a level of safety equal to or greater than a fall arrest system.

**(2) Despite subsection (1)**

- (a) where a person is entering or exiting a work area by a safe means of access and egress, the requirements of subsection (1) do not apply; and
- (b) where work must be performed on or from a vehicle, rail car or other mobile equipment, fall protection is required only where and to the extent reasonably practicable;
- (c) where it would not be practical to perform work other than from a ladder and it is not practical for the worker to maintain three points of contact while performing the work, fall protection is required only where and to the extent practical; and
- (d) where density of tree branches prevents an arborist from crotching, fall protection is required only where and to the extent practical.

**(3) Where a person is exposed to the hazard of falling from a work area that is in a location other than those specified in clauses (1)(a), (b) or (c) and an officer determines that fall protection is required, fall protection shall be used.**

**Fall arrest systems**

**8 (1) A fall arrest system shall**

- (a) be adequately secured to
  - (i) an anchor point, or
  - (ii) a lifeline that is
    - (A) securely fastened to an anchor point, or

(B) attached to a static line that is securely fastened to an anchor point

that is capable of withstanding either the maximum load likely to be imposed on the anchor point or a load of 17.8 kN, whichever is greater;

(b) include a lanyard that

(i) is attached to an anchor point or lifeline, where practicable, above the shoulder of the user, and

(ii) complies with CSA Standard Z259.1-1995, "Fall Arresting Safety Belts and Lanyards for the Construction and Mining Industries";

(c) prevent a free fall greater than 1.22 m where

(i) the fall arrest system is not equipped with a shock absorption system that complies with CSA Standard Z259.11-M92, "Safety Belts and Lanyards", and that reduces the shock level of any fall to less than 4 kN; or

(ii) the combined free fall and shock absorbed deceleration distance exceeds the distance between the work area and a safe surface; and

(d) include a full body harness that

(i) is attached to a lanyard,

(ii) is adjusted to fit the user of the harness, and

(iii) complies with CSA Standard Z259.10-M90, "Full Body Harnesses".

(2) A lifeline in a fall arrest system shall

(a) be made of

(i) polypropylene rope with a nominal diameter of at least 16 mm, or

(ii) other durable material that provides at least equal protection to the user as polypropylene rope with a nominal diameter of at least 16 mm;

(b) extend to a safe surface;

(c) be secured at the base to prevent tangling or disturbance of the line;

(d) be securely attached to an anchor point;

(e) be free of knots, lubricants and imperfections;

**(f)** be free of splices, except as are necessary to connect the lifeline to an anchor point;

**(g)** be provided with softeners at all sharp edges or corners to protect against cuts or chafing;

**(h)** be protected from corrosion;

**(i)** be used by no more than one person at a time;

**(j)** comply with CSA Standard Z259.2-M1979, "Fall Arresting Devices, Personnel Lowering Devices and Life Lines";

**(k)** be clearly identified as a lifeline by colour or by another means that provides an equivalent level of safety; and

**(l)** not be used for other purposes.

**(3)** Despite clause (2)(a), where a lifeline may be damaged by heat or corrosive material, it shall be made of wire rope that has a diameter of at least 8 mm.

**(4)** A ropegrab used in a fall arrest system shall comply with CSA Standard Z259.2-M1979, "Fall Arresting Devices, Personnel Lowering Devices and Life Lines".

**(5)** Each component of a fall arrest system, including each lifeline, shall be inspected by a competent person prior to each use to determine whether there are any defective, or otherwise unsafe components and if a defect is observed, no person shall use or permit the use of the system until the defective components are replaced or repaired.

**(6)** A fall arrest system that has arrested a fall shall

**(a)** be removed from service and inspected by a competent person; and

**(b)** be repaired to the original manufacturer's specifications or destroyed, when a defect is observed.

**(7)** A static line shall have a nominal diameter of at least 12.7 mm and shall

**(a)** be equipped with vertical supports at least every 9 m;

**(b)** have a maximum deflection, when taut, of no greater than 381 mm for a 9 m span;

**(c)** be equipped with turnbuckles or other comparable tightening device that provides an equivalent level of protection, at the ends of the line;

**(d)** be made of Improved Plow Wire Rope;

**(e)** be equipped with softeners at all sharp edges or corners to protect against cuts or chafing; and

**(f)** be made only of components that are able to withstand either the maximum load likely to be imposed on the components or a load of 8 kN, whichever is greater.

**(8)** Despite subsections (1), (2), (3), (4) and (7), a fall arrest system for arborists shall

**(a)** include an approved tree climbing or tree trimming harness or saddle;

**(b)** be adequately secured to

**(i)** an anchor point, or

**(ii)** a lifeline that is

**(A)** securely fastened to an anchor point, or

**(B)** attached to a static line that is securely fastened to an anchor point;

**(c)** include an approved climbing rope or safety strap;

**(d)** where practicable, include a second approved climbing rope or safety strap that

**(i)** provides additional stability, and

**(ii)** back-up fall protection; and

**(e)** be capable of withstanding either the maximum load likely to be imposed or a load of 17.8 kN, whichever is greater.

**(9)** Arborists shall

**(a)** before climbing,

**(i)** visually assess the structural stability of the tree,

**(ii)** select and assess the safest path of ascent, and

**(iii)** select an appropriate crotch position as a work area;

**(b)** work, wherever practicable, from a crotch position, with a fall arrest system secured to an anchor point above the crotch position;

- (c) when changing crotch positions, remain secured by a fall arrest system to the anchor point for the previous crotch position until secured by a fall arrest system to the anchor point for the next crotch position;
- (d) not change crotch positions without selecting the next crotch position in advance;
- (e) ensure that slack in ropes or lines that are part of the fall arrest system, if any, is
  - (i) essential to the performance of the work, and
  - (ii) no greater than is consistent with the safe performance of the work;
- (f) not climb above the anchor point unless secured by another fall arrest system secured at or above the level of the arborist;
- (g) not work in crews of less than two, one member of which shall remain on the ground; and
- (h) when transferring from a power operated work platform to a tree, remain attached by way of fall arrest system to an anchor point on the platform until secured by way of fall arrest system to an anchor point on the tree.

### **Guardrails**

**9 (1)** A guardrail shall be provided,

- (a) around an uncovered opening in a floor or other surface;
- (b) at the perimeter or other open side of
  - (i) a floor, mezzanine, balcony or other surface, and
  - (ii) a work area,

where a person is exposed to the hazard of a fall described in subsection 7(1).

**(2)** A guardrail shall be constructed or installed

- (a) with posts that
  - (i) are spaced at intervals of not more than 2.4 metres, and
  - (ii) are secured against movement by the attachment of the posts to the structure under construction or that is otherwise being worked on, or by another means that provides an equivalent level of safety;

(b) with a top railing that is between 0.91 and 1.06 m above the surface of the protected working area and that is securely fastened to posts secured in compliance with subclause 9(2)(a)(ii);

(c) with a toeboard, securely attached to the posts and the structure to which the posts are secured, extending from the base of the posts to a height of 102 mm; and

(d) with an intermediate railing on the inner side of the posts midway between the top railing and the toeboard.

(3) A guardrail consisting of wood shall, in addition to the requirements of subsection (2),

(a) have top and intermediate railings and posts that are at least 51 mm x 102 mm;

(b) have a toeboard that is at least 25 mm x 75 mm; and

(c) be made of Number One Grade spruce or other lumber that provides an equivalent level of safety.

(4) A guardrail consisting of wire rope shall, in addition to the requirements of subsection (2),

(a) have wire rope railings that are at least 8 mm thick;

(b) be identified with high visibility markings placed every 1.5 m on the top railing; and

(c) have railings with turnbuckles or other means that provide adequate tension to ensure an equivalent level of protection to that provided by a wooden guardrail.

(5) A manufactured guardrail may be used in place of a wooden or wire rope guardrail if it provides an equivalent level of protection to that provided by a wooden guardrail.

(6) No guardrail is required around an opening in a floor or other surface if the opening is covered with fastened planks, plywood or other material where the covering

(a) is capable of supporting four times the maximum load likely to be imposed;

(b) is secured to prevent lateral and upward movement; and

(c) is identified by a sign that warns of the potential hazard.

### **Personnel safety nets**

**10 (1)** Where used as a means of fall protection, a personnel safety net shall

(a) be installed not more than 4.6 m below the work area; and

(b) where another means of fall protection meeting the requirements of Section 7 is not used, extend 2.4 m on all sides beyond the work area.

(2) A personnel safety net shall be manufactured, used, maintained, inspected and stored in accordance with ANSI standard A10.11-1989, "Safety Nets Used During Construction, Repair and Demolition Operations".

(3) Despite subsection (2),

(a) a personnel safety net shall be installed and maintained so that the maximum deflection when arresting the fall of a person does not allow any portion of the person to contact another surface;

(b) the splice joints that connect two or more safety nets shall be equal or greater in strength to the nets; and

(c) there shall be no obstructions or intervening members that may be struck during a fall between the work area and the personnel safety net.

### **Debris nets**

**11 (1)** Where persons having access to an area below an elevated work area are exposed to the hazard of falling objects from the work area, a debris net, or other means of protection that provides an equivalent level of protection from falling objects and debris, shall be used.

(2) A debris net shall be

(a) manufactured, used, maintained, inspected and stored in accordance with ANSI standard A10.11-1989, "Safety Nets Used During Construction, Repair and Demolition Operations"; and

(b) despite clause (a), installed not more than 4.6 m below the elevated work area.

**12** One net may be used for the purpose of a personnel safety net and a debris net if it meets the requirements specified in these regulations for personnel safety nets.

### **Safety belts**

**13** A safety belt used as a means of fall protection shall comply with

(a) CSA Standard Z259.1-1995, "Safety Belts and Lanyards; or

(b) CSA Standard Z259.3-M1978, "Lineman's Body Belt and Lineman's Safety Strap".

### **Temporary flooring**

**14 (1)** Where temporary flooring is used, it shall be installed at each floor level where work is in progress.

**(2)** Temporary flooring shall,

**(a)** except for any openings necessary for the carrying out of work, extend over the whole work area;

**(b)** be able to withstand four times the maximum load likely to be imposed on it; and

**(c)** be securely fastened to and supported on members that are able to withstand four times the maximum load likely to be imposed.

### **Risk of drowning**

**15 (1)** A personal floatation device shall comply with CGSB standard CGSB 65.11-M88, "Personal Floatation Devices".

**(2)** Where a person is exposed to the hazard of falling from a work area and there is a risk of drowning,

**(a)** a personal floatation device shall be worn where the work area is less than 3 m above the surface of the water;

**(b)** rescue equipment shall be provided that includes

**(i)** an adequate motor boat to ensure a safe and timely rescue,

**(ii)** a life buoy with 15 m of polypropylene rope that is at least 10 mm in diameter or that is made from material that provides an equivalent level of protection,

**(iii)** a boat hook,

**(iv)** an audible alarm system to notify of an accident and to initiate the rescue procedure; and

**(c)** persons who are

**(i)** designated to perform specific rescue tasks,

**(ii)** properly informed as to the proper rescue procedures, and

**(iii)** trained in the use of the rescue equipment in order to perform rescue operations safely,

shall be available in such numbers as are needed in the circumstances to perform rescue operations safely.

(3) Where work is being done above water that has a fast current and where practicable, a line shall be placed across the water

(a) that is made of polypropylene rope that is 10 mm in diameter or material that provides an equivalent level of protection; and

(b) that has buoys or some other floatation device attached.

(4) For greater certainty, subsection (2) does not apply where persons are protected by fall protection in accordance with subsection 7(1).

### **Building shafts**

16 Where there is no work platform installed at the level of a doorway or opening in a building shaft, the guardrail that is installed in accordance with these regulations shall be marked with a warning sign that indicates the presence of an open building shaft.

### **Roof work**

17 (1) Where work is being done from or near the edge of a roof that has a slope of less than  $3/12$  in circumstances described in subsection 7(1), fall protection shall be provided, in accordance with Section 7.

(2) Where work is being done from or on a roof that has a slope that is greater than or equal to  $3/12$  but less than  $6/12$ , under circumstances described in subsection 7(1), a fully decked scaffold or roof brackets and planks shall be installed at the base of the roof.

(3) Where work is being done from a roof that has a slope that is greater than or equal to  $6/12$  but less than  $9/12$ , under circumstances described in subsection 7(1), roof brackets and planks shall be installed as work progresses on the roof.

(4) Where work is done from the edge of a roof that has a slope that is greater than or equal to  $3/12$  but less than  $9/12$ , under circumstances described in subsection 7(1), then in addition to the requirements of subsection (2) or (3), a fully decked scaffold work platform or a fall arrest system shall be used.

(5) Where work is done from or on a roof that has a slope greater than or equal to  $9/12$ , under circumstances described in subsection 7(1), a fully decked scaffold work platform, roof brackets with planks and a fall arrest system shall be provided in accordance with these regulations.

## **Part III: Scaffolds and Work Platforms**

### **Use and loading of scaffolds**

**18 (1)** Where work cannot be performed in a safe manner from the ground or other safe surface, a scaffold or other means of support that provides an equivalent level of safety shall be provided.

**(2)** No scaffold shall be

**(a)** loaded in excess of its rated capacity; or

**(b)** operated or supplied in the absence of the manufacturer's specification or the professional engineer's design required by these regulations; or

**(c)** used to support a ladder or other structure or device for the purpose of increasing the scaffold's working height or area.

**(3)** Ladderjack scaffolds and wooden carpenter's portable bracket scaffolds are prohibited in all workplaces.

### **Materials to be used in work platforms**

**19** A work platform shall consist of

**(a)** wooden planks that are

**(i)** No. 1 grade or better spruce that are 51 mm thick rough and 254 mm wide rough,

**(ii)** free of decay, large knots, splits, warps or other defects, and

**(iii)** not painted so as to prevent the identification of possible defects; or

**(b)** a commercially manufactured platform of equivalent strength to the wooden planks described in clause (a).

### **Work platforms: design and construction**

**20 (1)** A work platform shall be

**(a)** designed, constructed and maintained to support, without exceeding the allowable unit stresses for the materials used, four times the maximum load likely to be imposed on the work platform;

**(b)** 458 mm or more in width; and

**(c)** securely fastened in place so as to prevent movement by cleating or wiring or such other means of fastening as provides an equivalent level of safety.

(2) Where a platform is made of planks, each plank in the platform shall

(a) extend at least 152 mm and not more than 305 mm beyond the supporting members; and

(b) be laid flat with an overlap at each end of 305 mm with a plank in any adjoining platform, with the centre of the overlap directly over a supporting member; and

(c) be of the same length where

(i) it is practical, and

(ii) work platforms are linked.

### **Scaffolds: design and construction generally**

**21** A scaffold erected from the ground or other safe surface shall be

(a) erected plumb and level;

(b) constructed with vertical supports that

(i) rest upon a firm footing that can support the maximum load of the scaffold without unsafe settlement or deformation, or

(ii) where there is no firm footing, rest upon mud sills that prevent unsafe settlement, deformation or tipping;

(c) constructed of components that are adequately secured to prevent lateral movement and in any event, by at least one tie for each

(i) 4.6 m vertical interval, and

(ii) 6.4 m horizontal interval;

(d) braced diagonally in the vertical and horizontal planes to prevent lateral movement, except that one diagonal brace may be removed where other comparable precautions are taken to ensure the stability of the scaffold;

(e) installed and constructed by a competent person to secure the scaffold against lateral movement where the scaffold is enclosed;

(f) constructed of vertical supports and bearers that are no greater than 3 m apart.

### **Scaffolds: capacity, access and egress, and fittings**

**22** Every scaffold shall

- (a) be capable of supporting at least four times the maximum load likely to be imposed;
- (b) have a safe means of access and egress; and
- (c) be provided with fittings and gear that comply with the manufacturer's specifications or a professional engineer's design.

**Inspections and supervision by competent person**

**23 (1)** Every scaffold shall be inspected by a competent person each day prior to use, for defects, damage, deterioration or loosening that may affect its strength and if such defect, damage, deterioration or loosening is found, the scaffold shall not be used until repaired or, where necessary, replaced.

**(2)** The erection and dismantling of every scaffold shall be supervised by a competent person.

**Professional engineer's certification**

**24 (1)** The design of a scaffold used in the workplace shall be certified by a professional engineer, where

(a) the scaffold is a pumpjack scaffold that is greater than 9.75 m in height, and has one or more members that are not commercially manufactured for the purpose for which they are used;

(b) the scaffold is a wooden scaffold that is greater than 9.75 m in height;

(c) the scaffold is a suspended scaffold that

(i) has one or more supporting members that are not commercially manufactured for the purpose for which they are used,

(ii) is used in a manner that exceeds the manufacturer's rated load, or

(iii) has two work platforms that are

(A) linked, or

(B) tiered on one suspended scaffold;

(d) the scaffold is a cantilevered scaffold that

(i) extends more than 1.22 m from the edge of the bearing surface, or

(ii) has an inboard portion of an outrigger, from the fulcrum point to the anchor point, that is less than 1.5 times the length of the outboard portion of the outrigger;

(e) the scaffold is greater than 15 m above the foundation on which it is based;

(f) the scaffold is a crane supported work platform with one or more supporting members that are not commercially manufactured for the purpose for which they are used;

(g) the scaffold is a fork-lift platform with one or more supporting members that are not commercially manufactured for the purpose for which they are used; or

(h) an officer determines that extraordinary conditions, including, but not limited to, wind and elevation conditions, require a professional engineer's certified design to ensure the adequacy of the scaffold.

(2) Where a professional engineer's certified design of a scaffold is required, the scaffold shall be erected, used, maintained and dismantled in accordance with the certified design.

(3) Where a professional engineer's certified design of a scaffold is required, an officer may request a professional engineer's certification that a scaffold has been erected and maintained in accordance with the certified design.

### **Protection from falling objects**

**25** Where work is being performed on a scaffold above a work area to which access is not restricted, persons below shall be protected from the hazard of objects falling from the scaffold by

(a) overhead protection;

(b) the tying of tools and other unsecured objects on the scaffold; or

(c) other means that provide an equivalent level of safety to overhead protection.

### **Scaffold stability and movement**

**26 (1)** Subject to clause 36(11)(e), where work is being done from a scaffold, the scaffold shall not be moved horizontally while

(a) a person; or

(b) unsecured tools, material or equipment,

are on the scaffold.

(2) No work shall be done from a scaffold during erection or dismantling of the scaffold unless

(a) the work area on the scaffold complies with these regulations; or

(b) the persons performing the work are protected by a means of fall protection that complies with these regulations.

(3) To prevent tipping, a free standing scaffold that is at least three times higher than its minimum base dimension shall be equipped with guy wires, outrigger stabilizers or such other means of support that provide an equivalent level of safety.

(4) A scaffold shall not be used when there is a severe weather condition which may create a hazardous situation.

### **Metal scaffolds**

**27** A metal scaffold shall,

(a) subject to clause (b), be erected, used, maintained and dismantled in accordance with the manufacturer's specifications, or in accordance with a professional engineer's design that includes instructions on erection, use, maintenance and dismantlement;

(b) despite clause 21(c) and (d), be braced diagonally in the vertical plane, at every level and on each side, and in the horizontal plane, at every 4.6 m;

(c) have components that are securely fastened with locking mechanisms, as designed by the manufacturer or a professional engineer, both during erection and otherwise; and

(d) be equipped with screwjacks where necessary to ensure that the scaffold is plumb and level.

### **Rolling scaffolds**

**28 (1)** A rolling scaffold shall

(a) be equipped with

(i) suitable braking and locking devices, and

(ii) a mechanism that, when applied, secures the wheels of the scaffold; and

(b) be assembled

(i) with horizontal cross-bracing starting at the base and at 4.6 m vertical intervals, and

(ii) from components that are securely fastened with locking mechanisms, as designed by the manufacturer or a professional engineer, during assembly.

(2) The braking and locking devices and the securing mechanism referred to subsection (1) shall be applied prior to and while a person is using the scaffold.

(3) A rolling scaffold shall not be moved on an inclined surface unless adequate precautions are taken to prevent tipping, sliding, acceleration or any other dangerous or sudden movement.

### **Pumpjack scaffolds**

**29 (1)** A pumpjack scaffold made of metal shall not be more than 13.7 m in height, and shall be braced every 4.6 m, starting at the base of the scaffold.

(2) A pumpjack scaffold that includes one or more supports made of wood, shall not be more than 7.3 m in height and shall be braced every 3 metres, starting at the base of the scaffold.

(3) A pumpjack scaffold may be used as a light duty scaffold only and is not to be used by more than two people at one time.

(4) Every pumpjack scaffold must be erected, used, maintained and dismantled according to the manufacturer's specifications, or in accordance with a professional engineer's design that includes instructions on erection, use, maintenance and dismantlement.

### **Suspended scaffolds**

**30 (1)** If a suspended scaffold is commercially manufactured, it shall be erected, used, maintained and dismantled in accordance with the manufacturer's specifications.

(2) If a suspended scaffold is not commercially manufactured, it shall be

(a) operated in accordance with written operating procedures that are to be developed by the employer; and

(b) erected, used, operated and maintained in accordance with a professional engineer's design that includes instructions on erection, use, maintenance and dismantlement.

(3) Unless a suspended scaffold is a boatswain's chair, it shall be suspended by at least two upper attachments placed so that the suspension ropes are parallel.

(4) Every suspended scaffold shall, during use, be tied to an outrigger, or, where an outrigger is impractical, a parapet clamp.

**(5)** When not in use, a suspended scaffold shall be lowered to the ground or lashed to the structure to which it is attached.

**(6)** No suspended scaffold shall be moved up or down during use if the work platform of the scaffold is more than 10% out of level.

**(7)** Where a safe means of access and egress is not otherwise provided, a powered suspended scaffold shall be equipped with a controlled descent device, other than a lifeline, for use in the event of a mechanical or power failure, that can be safely operated from the work platform and can move the scaffold to a point of safe egress.

**(8)** Power units on a suspended scaffold shall be equipped with

**(a)** positive pressure controls; and

**(b)** positive drives

for raising and lowering the scaffold.

**(9)** A manually operated suspended scaffold shall be equipped with a hoisting mechanism that has a secondary locking device that is securely locked in a positive drive position.

**(10)** Where two suspended work platforms are tiered on one suspended scaffold, the upper platform shall have at least two independent means of support arranged so that the failure of one support will not result in the collapse of the upper platform.

**(11)** Subject to clause (18)(a), all supporting members of a suspended scaffold, including outriggers, parapet clamps, anchor points, parapet and work platform[s] must be able to withstand four times the maximum load likely to be imposed on them.

**(12)** Counterweights on a suspended scaffold must

**(a)** be securely attached to the outriggers;

**(b)** consist of solid material; and

**(c)** be of sufficient weight to counterbalance four times the rated capacity of the scaffold.

**(13)** Where the outrigger of a suspended scaffold does not have an eye bolt, it shall be equipped with a positive stop device at the outer end of the outrigger that prevents the movement of the rope.

**(14)** Outriggers on a suspended scaffold shall

**(a)** have printed on each component; or

**(b)** [have] otherwise accessible to the user,

the maximum load that may be imposed on the component.

**(15)** An outrigger used in a suspended scaffold shall not be made of wood or include components made of wood.

**(16)** Any outrigger or parapet clamp used on a suspended scaffold shall be tied to an anchor point so as to prevent movement of the outrigger or clamp.

**(17)** Where an outrigger on a suspended scaffold consists of more than one component, the components must be fastened and held together by at least two independent fastening and connecting systems so as to prevent the components from separating.

**(18)** A rope used to suspend a work platform shall

**(a)** be able to withstand ten times the maximum load likely to be imposed on the rope;

**(b)** where made of wire, not be less than 7.8 mm in diameter;

**(c)** where made of polypropylene, not be less than 16 mm in diameter; and

**(d)** in the case of a scaffold that can be moved upward and downward,

**(i)** extend to the nearest safe surface, and

**(ii)** be secure from tangling or fouling.

**(19)** A fall arrest system, including a ropegrab and an independent life line, shall be used by all persons working on or from a suspended scaffold, and by all persons entering onto or leaving a suspended scaffold.

**(20)** Despite subsection (19), where a suspended scaffold has more than one means of support on each side of the work platform, either of which would prevent collapse of the scaffold in the event of the failure of the other, a fall arrest system that is attached to an adequate anchor point on the platform may be used.

**(21)** Despite subsection (19), where the suspended scaffold has more than one means of support on each side of the work platform, either of which would prevent displacement of the work platform and falls by persons on the work platform in the event of the failure of the other, persons need not use a fall arrest system.

**(22)** Where work is performed on a suspended scaffold, the work area below the platform shall

**(a)** be roped off, barricaded or provided with a means of overhead protection; and

(b) have highly visible warning signs posted to notify people of the overhead hazard.

(23) All suspension lines, tiebacks, lifelines and other supporting components of a suspended scaffold that are made of rope, shall be protected from abrasions, corrosive substances, other foreign materials, heat or work activities that might damage the rope or internal hoist mechanisms.

### **Permanent powered suspension work platforms**

**31 (1)** A permanent powered suspension work platform shall

(a) be installed, designed, constructed and maintained to perform safely any task required; and

(b) be certified as safe for use by a professional engineer

(i) after installation, and

(ii) thereafter, at least once per year.

(2) Written safe working procedures shall be developed by the employer for the users of each permanent powered suspension work platform.

(3) Every person using a permanent powered suspension work platform shall be trained in the proper use of the platform.

### **Bracket scaffolds**

**32** A bracket scaffold shall

(a) not have brackets more than 3 m apart; and

(b) be securely attached to the wall so as to prevent dislodging.

### **Roofing brackets**

**33** Roofing brackets shall

(a) be erected and maintained to support four times the maximum load that is likely to be imposed on the brackets;

(b) be securely nailed to the roof; and

(c) have a span of no more than 3 m.

### **Fork-lift platform**

**34 (1)** An industrial lift truck shall not be used to lift a fork-lift platform where

(a) the ground or other conditions at a workplace may affect the stability of the fork-lift platform; or

(b) the industrial lift truck is susceptible to tipping, displacement or other destabilization.

**(2)** A fork-lift platform shall

(a) be erected, used, maintained and dismantled in accordance with the manufacturer's specifications, or in accordance with a professional engineer's design that includes instructions on erection, use, maintenance and dismantlement;

(b) be equipped with guardrails;

(c) be securely attached to an industrial lift truck during use;

(d) be operated at all times by a competent person, who shall be continuously at the controls where the platform is in an elevated position; and

(e) be only used on a firm, flat surface that ensures the stability of the industrial lift truck, unless otherwise specified by the manufacturer.

**(3)** Where a fall arrest system is required by these regulations on a fork-lift platform, it shall be attached to an anchor point on the platform.

**(4)** Where

(a) a fork-lift platform is in an elevated position; and

(b) a person is on the platform;

the industrial lift truck supporting the work platform shall not be moved horizontally.

### **Cantilevered scaffolds**

**35 (1)** An outrigger of a cantilevered scaffold shall

(a) not extend more than 1.22 m from the edge of the bearing surface, unless it complies with subclause 24(1)(d)(i);

(b) have an inboard portion, from the fulcrum point to the point of anchorage, not less than 1.5 times the length of the outboard portion, unless it complies with subclause 24(1)(d)(ii);

(c) be securely braced at the fulcrum point against movement or upsetting;

(d) have inboard ends that are anchored against horizontal and vertical movement, displacement or upset; and

(e) comply with subsections 30(16) and (17), where used on a roof.

(2) A cantilevered scaffold shall not be used as a landing platform for loads deposited by a crane or hoist, unless

(a) fall protection is used; and

(b) a guardrail is placed at the entrance to the platform when the platform is not in use.

(3) A cantilevered scaffold must be equipped with a fully decked work platform.

### **Power operated elevating work platforms**

**36 (1)** A power operated elevating work platform shall

(a) be equipped with positive pressure controls for the positioning of the work platform;

(b) be equipped with a power elevating mechanism equipped with positive drives for both raising and lowering the work platform;

(c) be equipped with an interlock device that limits lateral movement when the height of the work platform exceeds that specified by the manufacturer;

(d) be equipped with an elevating mechanism that, upon failure, locks the work platform in the elevated position; and

(e) be operated by a competent person at all times during use.

(2) Where an elevating mechanism fails, a person on the work platform shall be removed from the platform before the platform is lowered or repairs are made to the mechanism.

(3) Where the operator of a power operated elevating work platform is not the person being raised on the work platform, there shall be an effective and direct means of communication between the two.

(4) A power operated elevating work platform shall be designed, constructed, erected, maintained, inspected, monitored and used in accordance with the following CSA Standards, as applicable:

(a) CAN3-B354.1-M82, "Elevating Rolling Work Platforms";

(b) CAN3-B354.2-M82, "Self-Propelled Elevating Work Platforms for Use on Paved/Slab Surfaces";

**(c)** CAN3-B354.3-M82, "Self-Propelled Elevating Work Platforms for Use as 'Off-Slab' Units";

**(d)** CAN3-B354.4-M82, "Boom-Type Elevating Work Platforms"; and

**(e)** CSA C225 M88, "Vehicle Mounted Aerial Device".

**(5)** The following information shall be readily available and accessible to the operator of a power operated elevating work platform:

**(a)** all of the applicable operational limitations and requirements, including those relating to the use of outriggers, stabilizers and extendable axles;

**(b)** the specific surface conditions required for safe use in the elevated position;

**(c)** such warnings as may be specified by the manufacturer;

**(d)** the name and number of the National Standards of Canada Standard to which the power operated elevating work platform was designed;

**(e)** the name and address of the owner; and

**(f)** a legible operator's manual.

**(6)** The following information shall be securely posted at the controls of a power operated elevating work platform:

**(a)** the rated working capacity; and

**(b)** other than for a boom-type elevating work platform, the direction of the machine movement for each operating control.

**(7)** The owner of a power operated elevating work platform shall keep a permanent record of all inspections, tests, repairs, modifications and maintenance performed on it.

**(8)** The record required in subsection (7) shall include the name and signature of the person who performed the inspection, test, repair, modification or maintenance.

**(9)** An employer shall ensure that a person who operates a power operated elevating work platform has, before using it for the first time,

**(a)** received oral or written instruction on the safe operation of the particular vehicle; or

**(b)** otherwise been adequately trained to operate that class of work platform.

(10) The instruction and training required by subsection (9) is to be given by a competent person and must include

(a) instruction in the manufacturer's specifications;

(b) instruction in applicable load limitations;

(c) instruction on the kinds of surfaces on which the power operated elevating work platform is designed to be used; and

(d) a hands on demonstration of the proper use of all controls.

(11) A power operated elevating work platform shall

(a) not be loaded in excess of its rated working capacity;

(b) be used on a firm level surface unless otherwise specified by the manufacturer;

(c) be otherwise used only in accordance with the manufacturer's specifications;

(d) not be loaded and used in such a manner as to create an unstable condition or cause a hazard; and

(e) not be moved vertically or horizontally unless all persons on it are protected against falling by a fall arrest system attached to an anchor point on the work platform.

(12) Where a person is working on an elevating work platform, a fall arrest system, attached to an anchor point, shall be worn at all times.

(13) Every power operated elevating work platform shall be equipped with an emergency stop button on the work platform.

### **Crane supported work platforms**

**37 (1)** No work platform may be suspended from a crane or hoist unless the work to be performed cannot be done in a safe and practical manner from a conventional scaffold.

(2) The design of a hoist used for the suspension of a work platform shall be certified by a professional engineer.

(3) A crane or hoist used to suspend a work platform shall

(a) be operational in the power up and power down positions;

(b) be equipped with an automatic brake system that operates when the crane is not hoisting or lowering;

(c) be equipped with an anti-two block device;

(d) operate at a safe lifting and lowering speed; and

(e) have at least three full wraps on the hoisting drum at all times.

(4) The operator of the crane or hoist used to suspend a work platform shall have an effective means of constant communication with the person on the platform.

(5) A crane supported work platform shall have a secondary means of support, shackled above the ball of the crane, that is able to support the platform if the primary means of support fails.

(6) A commercially manufactured crane supported work platform shall be erected, used, maintained and dismantled in accordance with the manufacturer's specifications.

(7) The design of a crane supported work platform that is not commercially manufactured shall be certified by a professional engineer and erected, used, maintained and dismantled according to the design.

(8) A fall arrest system, attached to an anchor point on the work platform, shall be used by persons working from or otherwise present on a crane supported work platform.

#### **Lifting in certain equipment prohibited**

**38** Except as expressly permitted in these regulations or in some other enactment, persons shall not be lifted or held aloft in equipment, such as loader buckets or backhoes, not specifically designed for that purpose.