

PART 4: GENERAL CONDITIONS

BUILDINGS, STRUCTURES AND EQUIPMENT

- Conformity to standards** **4.4**
- (1)** If this Regulation requires that a tool, machine or piece of equipment manufactured before April 15, 1998 must meet a code or standard, the tool, machine or piece of equipment must conform to the edition of the code or standard referred to in this Regulation or the edition of the code or standard published at the time the tool, machine or piece of equipment was manufactured, subject only to the modification or upgrading specified to be necessary in this Regulation or in a directive issued by the board.
- (2) When this Regulation requires a person to comply with**
- (a) a publication, code or standard of the board or another agency, the person may, as an alternative, comply with another publication, code or standard acceptable to the board, or**
- (b) practices, procedures or rules of the board or another agency, the person may, as an alternative, comply with another practice, procedure or rule acceptable to the board.**

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. The proposed amendment to section 4.4 adds the general provision that will be used as a basis for deleting all the existing particular provisions.

PART 4: GENERAL CONDITIONS

WORK AREA REQUIREMENTS

Door installations

- 4.35** (1) ~~A door installed in a workplace must meet the requirements of the *BC Building Code* or other standard acceptable to the board.~~
- (2) If a door **installed in a workplace** swings towards a stair, the full arc of its swing must be over a landing.
- (3) A double-acting swing door must permit a person approaching the door to see any person approaching from the opposite side so as not to endanger their safety.
- (4) A glass or transparent door must have hardware, bars or markings so that its presence and position are readily apparent.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

Provisions that incorporate other statutes and regulations that would apply in any event have been removed.

PART 4: GENERAL CONDITIONS

WORK AREA REQUIREMENTS

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| Glass | 4.36 | <p>(1) Glass or similar transparent material installed in a workplace must meet the requirements of the <i>BC Building Code</i> or other standard acceptable to the board.</p> <p>(2) A panel, window or sidelight made of glass or similar transparent material, which could be mistaken for a doorway, must have bars or markings so that its presence and position are readily apparent.</p> |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

Provisions that incorporate other statutes and regulations that would apply in any event have been removed.

PART 4: GENERAL CONDITIONS

ILLUMINATION

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| Illumination measurement | 4.68 | <p>(1) The measurement of illumination must be done in accordance with the procedures in the <i>Lighting Handbook - Reference and Application, 8th Edition, 1993 (IES Handbook)</i> published by the Illuminating Engineering Society of North America, or other standard acceptable to the board.</p> <p>(2) A photometer used to measure illumination levels must be colour and cosine corrected.</p> |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 4: GENERAL CONDITIONS

INDOOR AIR QUALITY

**Design and
operation**

- 4.72** (1) An employer must ensure that a ventilation system for the supply and distribution of air and removal of indoor air contaminants is designed, constructed and operated in accordance with
- (a) established engineering principles, and
 - (b) *ASHRAE Standard 62-1989, Ventilation for Acceptable Indoor Air Quality*, ~~or other standard acceptable to the board.~~
- (2) An adequate supply of outdoor air must be provided to the workplace in accordance with Table 2 of *ASHRAE Standard 62-1989*, ~~or other standard acceptable to the board.~~
- (3) For a building ventilation system installed prior to 1989, an adequate supply of outdoor air must be provided in accordance with the ASHRAE standard in place at the time the ventilation system was designed, ~~or other standard acceptable to the board.~~

Note: If workers occupying a building exhibit signs or report symptoms of illness the circumstances must be investigated as required by Part 5 (Chemical and Biological Substances). If such signs or symptoms are attributed to an inadequate supply of outdoor air, the board will, under subsection (3), consider a standard other than the ASHRAE standard in place at the time the ventilation system was designed where necessary to address the circumstances.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 4: GENERAL CONDITIONS

ENVIRONMENTAL TOBACCO SMOKE

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| Designated areas | 4.82 | <p>(1) A designated smoking area provided under section 4.81(b) must be clearly identified to the workforce by signs or other effective means and be a</p> <ul style="list-style-type: none">(a) safe outdoor location, or(b) room structurally separated from other work or break areas. <p>(2) If necessary to prevent tobacco smoke from entering a workplace, the designated smoking room must be provided with a separate, non-recirculating exhaust ventilation system which</p> <ul style="list-style-type: none">(a) meets the requirements for a smoking lounge specified in <i>ASHRAE Standard 62-1989, Ventilation for Acceptable Indoor Air Quality</i> or other standard acceptable to the board,(b) is designed in accordance with expected occupancy rates,(c) maintains adequate air flows from non-smoking to smoking areas, and(d) discharges directly to the outdoors. <p>(3) An employer must ensure that a worker does not work in an indoor area where smoking is permitted except if</p> <ul style="list-style-type: none">(a) the worker must enter the indoor area to respond to an emergency endangering life, health or property,(b) the worker must enter the indoor area to investigate for illegal activity,(c) the workplace is a public entertainment facility, as defined in section 4.83(1), that conforms to the requirements of section 4.83 and the entry conforms with section 4.83(8), or(d) the tobacco smoke has been effectively removed. |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 5: CHEMICAL AND BIOLOGICAL SUBSTANCES

VENTILATION

- Flammable air contaminants** **5.71**
- (1) If an operation or work process produces a combustible or flammable air contaminant in concentrations that may present a risk of fire or explosion, the employer must provide a separate exhaust ventilation system for the operation or work process.
 - (2) Electrical components of an exhaust ventilation system required by subsection (1) must comply with Class I Division I requirements of *CSA Standard C22.1-94, Canadian Electrical Code, Part 1* if the components contact the air stream, ~~unless otherwise specified in a standard acceptable to the board.~~
 - (3) A dust collector having an internal volume greater than 0.6 m³ (20 ft³) and being used to control combustible dusts must be located and constructed so that no worker will be endangered in the event of an explosion inside the collector.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 6: SUBSTANCE SPECIFIC REQUIREMENTS

ASBESTOS

Definitions **6.1** In sections 6.2 to 6.32

"asbestos-containing material" means any manufactured article or other material which contains 1% or more asbestos by weight at the time of manufacture, or which contains 1% or more asbestos as determined by WCB Method 0205 (dispersion staining, polarized light microscope), **or** x-ray diffraction ~~or other analytical technique acceptable to the board;~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

SAFETY HEADGEAR

- General requirement**
- 8.11**
- (1) Safety headgear must be worn by a worker in any work area where there is a danger of head injury from falling, flying or thrown objects, or other harmful contacts.
 - (2) Safety headgear must meet the requirements of
 - (a) *CSA Standard CAN/CSA-Z94.1-92, Industrial Protective Headwear,*
 - (b) *ANSI Standard Z89.1-1986, American National Standard for Personnel Protection - Protective ~~Headgear~~ Headwear for Industrial Workers Requirements, or*
 - (c) *Japanese Industrial Standard JIS T8131 - 1990, Industrial Safety Helmets, ~~for Class AB or ABE headgear, or~~ for Class AB or ABE headgear.*
 - ~~(d) other standard acceptable to the board.~~
 - (3) If a worker may be exposed to an electrical hazard the safety headgear must have an appropriate non-conductive rating.
 - (4) Chin straps or other effective means of retention must be used on safety headgear when workers are climbing or working from a height exceeding 3 m (10 ft), or are exposed to high winds or other conditions that may cause loss of the headgear.
 - (5) Safety headgear manufactured after January 1, 2000 must have provision for a 4 point chin strap attachment.
 - (6) Damaged headgear or headgear with missing, mismatched, or modified components must be removed from service.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

A minor editorial change has been made to sections 8.11(2)(b) and (c) to correct the name of the standards.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

SAFETY HEADGEAR

Use with all-terrain vehicles, snowmobiles, motorcycles

- 8.12 (1) Operators and passengers on all-terrain vehicles, snowmobiles and motorcycles must wear headgear meeting the requirements of
- (a) *CSA Standard CAN3-D230-M85, Protective Headgear in Motor Vehicle Applications,*
 - (b) *British Safety Institution Standard BS5361:1976, Specification: Protective Helmets for Vehicle Users, (as amended to 1981),*
 - (c) *Snell Memorial Foundation 1995 Standard for Protective Headgear for Use with Motorcycles and Other Motorized Vehicles, or*
 - (d) *US Federal Standard for Motorcycle Helmets (Title 49 - Transportation - Part 571.218), or.*
 - ~~(e) other standard acceptable to the board.~~
- (2) Headgear in good condition meeting earlier editions of a standard listed in subsection (1) may remain in service if purchased before April 15, 1998.
- (3) When an all-terrain vehicle is operated within a specific location, with no significant hazard of rollover or loss of control and at a speed not exceeding 20 km/h (13 mph), safety headgear meeting the requirements of section 8.13 may be used in place of headgear specified in subsection 8.12(1).

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

SAFETY HEADGEAR

**Use with
bicycles and
skates**

- 8.13** (1) A worker riding a bicycle or using in-line skates or similar means of transport must wear headgear meeting the requirements of
- (a) *CSA Standard CAN/CSA-D113.2-M89, Cycling Helmets,*
 - (b) *Snell Memorial Foundation 1994 Standard for Protective Headgear for Use in Non-Motorized Sports, or*
 - (c) *Snell Memorial Foundation 1995 Standard for Protective Headgear for Use in Bicycling, or.*
 - ~~(d) other standard acceptable to the board.~~
- (2) If a bicycle or similar conveyance is operated at speeds not exceeding 20 km/h (13 mph) within a specific location, safety headgear meeting the requirements of section 8.11 is acceptable when worn with a chin strap.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

EYE AND FACE PROTECTION

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| Prescription safety eyewear | 8.15 | <p>(1) Prescription safety eyewear must meet the requirements of CSA <i>Standard CAN/CSA-Z94.3-92, Industrial Eye and Face Protectors</i>, or other standard acceptable to the board.</p> <p>(2) Bifocal and trifocal glass lenses must not be used if there is danger of impact unless they are worn behind impact-rated goggles or other eye protection acceptable to the board.</p> <p>(3) If the use of polycarbonate or plastic prescription lenses is impracticable, due to the conditions of the workplace, and there is no danger of impact, workers may use prescription lenses made of treated safety glass meeting the requirements of <i>ANSI Standard Z87.1-1989, Practice for Occupational and Educational Eye and Face Protection</i>, or other standard acceptable to the board.</p> |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

EYE AND FACE PROTECTION

- Face protection** **8.17** (1) If there is a risk of face injury, suitable face protection must be worn.
- (2) Face protectors and non-prescription safety eyewear must meet the requirements of
- (a) *CSA Standard CAN/CSA-Z94.3-92, Industrial Eye and Face Protectors, or*
 - (b) *ANSI Standard Z87.1-1989, Practice for Occupational and Educational Eye and Face Protection, or,*
 - ~~(c) other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

LIMB AND BODY PROTECTION

- Leg protection** **8.21**
- (1) Leg protective devices must be worn by a worker operating a chain saw if there is a danger of leg injury.
 - (2) Leg protective devices must meet the requirements of *WCB Standard, PPE 1-1997 Leg Protective Devices*, ~~or other standard acceptable to the board.~~
 - (3) Every leg protective device must have a label permanently affixed to the outer surface of the device indicating the standard it meets.
 - (4) The requirement to wear leg protective devices does not apply to a firefighter using a chain saw at the scene of a structural fire.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

FOOTWEAR

**General
requirement**

- 8.22**
- (1) A worker's footwear must be of a design, construction, and material appropriate to the protection required.
 - (2) To determine appropriate protection under subsection (1) the following factors must be considered: slipping, uneven terrain, abrasion, ankle protection and foot support, crushing potential, temperature extremes, corrosive substances, puncture hazards, electrical shock and any other recognizable hazard.
 - (3) If a determination has been made that safety protective footwear is required to have toe protection, metatarsal protection, puncture resistant soles, dielectric protection or any combination of these, the footwear must meet the requirements of
 - (a) *CSA Standard CAN/CSA-Z195-M92, Protective Footwear,*
 - (b) *ANSI Standard Z41-1991, American National Standard for Personal Protection - Protective Footwear,*
 - (c) *British Safety Institution Standard BS EN 345:1993 Specification for Safety Footwear for Professional Use, or*
 - (d) *British Safety Institution Standard BS EN 346:1993 Specification for Protective Footwear for Professional Use, or,*
 - ~~(e) other standard acceptable to the board.~~
 - (4) A worker must wear the appropriate footwear and ensure that it is in a condition to provide the required protection.
 - (5) If it is not practicable for workers in the performing arts to wear safety footwear meeting the requirements of subsection (3) other effective measures must be taken for protection from injury.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

HIGH VISIBILITY AND DISTINGUISHING APPAREL

High visibility apparel

- 8.24** (1) A worker directing traffic must wear
- (a) high visibility apparel meeting the Type 1 or Type 2 criteria of *WCB Standard Personal Protective Equipment Standard 2-1997, High Visibility Garment* ~~or other standard acceptable to the board,~~ and
 - (b) wrist bands fitted with a minimum 5 cm (2 in) wide fluorescent retroreflective strip about their entire circumference, except that wrist bands are not required for workers who direct traffic on an emergency or a temporary basis and not as part of their normal duties.
- (2) A worker exposed to the hazards of vehicles travelling at speeds in excess of 30 km/h (20 mph) must wear high visibility apparel meeting the Type 1 or Type 2 criteria of the standard referenced in subsection (1), ~~or other standard acceptable to the board.~~
- (3) A worker whose duties on the work site result in exposure to the hazards of mobile equipment must wear high visibility apparel meeting at least the Type 3 criteria of the standard referenced in subsection (1), ~~or other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

BUOYANCY EQUIPMENT

**Compliance
with standards**

8.27 Buoyancy equipment must be labelled and otherwise meet the requirements of

- (a) *CGSB Standard CAN/CGSB-65.7-M88, Lifejackets, Inherently Buoyant Type* with a minimum buoyancy of 93 N (21 lbs),
- (b) *CGSB Standard CAN/CGSB-65.11-M88, Personal Flotation Devices* with a minimum buoyancy of 69 N (15.5 lbs),
- (c) *CGSB Standard 65-GP-14M, Lifejackets, Inherently Buoyant, Standard Type* with a minimum buoyancy of 125 N (28 lbs), **or**
- (d) *British Safety Standard BS EN 396-1994, Lifejackets and Personal Buoyancy Aids - Lifejacket 150 N*, automatically inflatable units with a minimum buoyancy of 150 N (34 lbs), ~~or.~~
- ~~(e) other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

BUOYANCY EQUIPMENT

Working alone **8.28** If a worker working alone is exposed to risk of drowning, the worker must wear a lifejacket meeting the requirements of section ~~8.27(a), (c), (d) or (e)~~ **8.27(a), (c) or (d)**.

Explanatory Note

The amendment is consequential to the proposed deletion of section 8.27(e).

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

RESPIRATORY PROTECTION

- Selection** **8.33** (1) The employer, in consultation with the worker and the occupational health and safety committee, if any, or the worker health and safety representative, if any, must select appropriate respiratory protective equipment in accordance with *CSA Standard CAN/CSA-Z94.4-93, Selection, Use, and Care of Respirators* ~~or other standard acceptable to the board.~~
- (2) Only respiratory protective equipment which meets the requirements of a standard acceptable to the board may be used for protection against airborne contaminants in the workplace.
- Note:** NIOSH approved respirators are acceptable to the board.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 8: PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

RESPIRATORY PROTECTION

Respirable air quality	8.37	Compressed breathing air supplied for equipment such as an SCBA and a supplied air respirator must be tested at least annually to ensure that the air being supplied meets the requirements of <i>CSA Standard CAN3-Z180.1-M85, Compressed Breathing Air and Systems</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 9: CONFINED SPACES

LOCKOUT AND ISOLATION

Blanks and blinds

9.20

- (1) Unless certified by a professional engineer to provide adequate safety for the particular conditions of anticipated pressure, temperature and service, a blank or blind must be manufactured in accordance with the specifications of one of the following standards, ~~or other standard acceptable to the board:~~
 - (a) *ANSI Standard API 590-1985, Steel Line Blanks;*
 - (b) *ANSI Standard ASME/ANSI B16.5-1988, Pipe Flanges and Flanged Fittings;*
 - (c) *ANSI Standard ASME B31.1-1992, Power Piping;*
 - (d) *ANSI Standard ASME B31.3-1993, Chemical Plant and Petroleum Refinery Piping.*
- (2) If a blank or blind is certified by a professional engineer, the employer must keep a record of its certification, location and conditions of service.
- (3) If required, an allowance for corrosion must be made in the design of a blank or a blind.
- (4) A blank or blind must be stamped with or otherwise indicate its pressure rating.
- (5) If a line is to be opened for disconnection or to insert a blank or a blind, written safe work procedures must be prepared and followed to prevent hazardous exposure of workers to its contents.
- (6) Visual indication that a blank or blind has been installed must be provided at the point of installation.
- (7) If required to prevent leakage, gaskets must be installed on the pressure side of blanks or blinds and flanges must be tightened to make the blanks or blinds effective.
- (8) If threaded lines are used, threaded plugs or caps must be used to blind the lines.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

GENERAL REQUIREMENTS

Standards	12.3	The application, design, construction and use of safeguards, including an opening in a guard and the reach distance to a hazardous part , must meet the requirements of <i>CSA Standard Z432-94, Safeguarding of Machinery</i> , or other standard acceptable to the board, unless otherwise specified in this Regulation.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation* (“OHSR”), as amended. In addition, this section has been amended to include the requirements in section 12.7, which has been proposed for deletion in the *OHSR*.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

GENERAL REQUIREMENTS

Opening and reach distance	12.7	An opening in a guard and the reach distance to a hazardous part must meet the requirements of Appendix A of <i>CSA Standard Z432-94, Safeguarding of Machinery</i>, or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation* (“OHSR”), as amended. In addition, the requirements are incorporated in section 12.3 of the *OHSR* as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

CONVEYORS

Standards	12.22	Unless otherwise permitted by this Regulation, a conveyor must meet the requirements of <i>ANSI Standard ANSI/ASME B20.1-1993, Safety Standards for Conveyors and Related Equipment</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

CONVEYORS

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| Screw-type conveyors | 12.24 | <ol style="list-style-type: none">(1) The moving parts of a screw-type conveyor must be guarded from contact by a worker.(2) Each guard on a screw-type conveyor must be secured by fasteners requiring a tool for removal.(3) The openings in mesh and grid guards must meet the requirements of Appendix A of <i>CSA Standard Z432-94, Safeguarding of Machinery</i>, or other standard acceptable to the board. |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

POWER PRESSES, BRAKE PRESSES AND SHEARS

Standards	12.29	Point of operation safeguarding, and the design, construction and reliability of operating controls of a power press, brake press, ironworker or shear must meet the requirements of the following applicable standard: <ul style="list-style-type: none">(a) <i>CSA Standard CAN/CSA-Z142-M90, Code for Punch Press and Brake Press Operation: Health, Safety, and Guarding Requirements;</i>(b) <i>ANSI Standard B11.4-1993, American National Standard for Machine Tools - Shears - Safety Requirements for Construction, Care, and Use;</i>(c) <i>ANSI Standard B11.5-1988(R1994), American National Standard for Machine Tools - Ironworkers - Safety Requirements for Construction, Care, and Use;</i>(d) other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

ABRASIVE EQUIPMENT

Standards	12.44	An abrasive wheel must be guarded, used and maintained to meet the requirements of <i>ANSI Standard B7.1-1988, The Use, Care and Protection of Abrasive Wheels</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

POWDER ACTUATED TOOLS

Standards	12.51	A powder actuated fastening system, consisting of the tool, power loads and fasteners must meet the requirements of <i>ANSI Standard A10.3-1995, American National Standard for Construction and Demolition Operations - Safety Requirements for Powder-Actuated Fastening Systems</i> or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

CHAIN SAWS

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| Standards | 12.72 | (1) A chain saw must meet the requirements of <i>CSA Standard Z62.1-95, Chain Saws</i> , or other standard acceptable to the board. |
| | | (2) A chain saw must have a chain brake that activates automatically upon kickback regardless of the position of the power head or operator's hands. |
| | | (3) A chain saw manufactured before January 1, 1999, with a guide bar exceeding 66 cm (26 in), measured from the top of the cutters at the bar tip to the point of the "dogs" or "bumper spikes", is exempt from the requirement for a chain brake. |

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

AUTOMOTIVE LIFTS AND OTHER VEHICLE SUPPORTS

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| Standards | 12.74 | (1) An automotive lift or hoist must meet the requirements of <i>ANSI Standard ANSI/ALI B153.1-1990, American National Standard for Automotive Lifts - Safety Requirements for the Construction, Care, and Use</i> , or other standard acceptable to the board. |
| | | (2) A shop crane, jack, axle stand, ramp or other type of vehicle support must meet the requirements of the applicable section of <i>ANSI Standard ASME PALD-1993, Portable Automotive Lifting Devices</i> , or other standard acceptable to the board. |

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 12: TOOLS, MACHINERY AND EQUIPMENT

MISCELLANEOUS EQUIPMENT

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| Industrial robots | 12.83 | An industrial robot or robot system must be installed, safeguarded, maintained, tested and started, used, programmed and workers trained to meet the requirements of <ul style="list-style-type: none">(a) <i>CSA Standard CAN/CSA - Z434-94, Industrial Robots and Robot Systems - General Safety Requirements, or</i>(b) <i>ANSI Standard ANSI/RIA R15.06-1992, American National Standard Industrial Robots and Robot Systems - Safety Requirements, or.</i>(c) other standard acceptable to the board. |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 14: CRANES AND HOISTS

GENERAL REQUIREMENTS

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| Standards | 14.2 | <p>(1) Except as otherwise required by this Regulation Part, a crane or hoist must be designed, constructed, erected, disassembled, inspected, maintained and operated as specified by the manufacturer or a professional engineer, and to meet the requirements of the applicable standard listed in subsections (2) to (12) or other standard acceptable to the board.</p> <p>(2) A bridge, jib, monorail, gantry or overhead travelling crane must meet the design requirements of</p> <ul style="list-style-type: none">(a) for electrical components and functions, <i>CSA Standard C22.1-94, Canadian Electrical Code, Part 1, Section 40 and and CSA Standard C22.2 No. 33-M1984 (Reaffirmed 1992), Construction and Test of Electric Cranes and Hoists</i>, and(b) <i>ANSI Standard MH27.1-1981, Specifications for Underhung Cranes and Monorail Systems</i>, or(c) <i>Crane Manufacturers Association of America (CMAA) Specification #70, (Revised 1988) Specifications for Electric Overhead Traveling Cranes</i>, or(d) <i>Crane Manufacturers Association of America (CMAA) Specification #74, Specifications for Top Running and Under Running Single Girder Electric Overhead Traveling Cranes Utilizing Under Running Trolley Hoist.</i> <p>(3) A bridge, jib, monorail, gantry or overhead travelling crane must meet the safety requirements of</p> <ul style="list-style-type: none">(a) <i>CSA Standard B167-96, Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists, and Trolleys</i>,(b) <i>ANSI Standard ANSI/ASME B30.2-1990, Overhead and Gantry Cranes (Top Running Bridge, Single or Multiple Girder, Top Running Trolley Hoist)</i>,(c) <i>ANSI Standard ANSI/ASME B30.11-1993, Monorails and Underhung Cranes</i>,(d) <i>ANSI Standard ANSI/ASME B30.16-1993, Overhead Hoists (Underhung)</i>, or(e) <i>ANSI Standard ANSI/ASME B30.17-1992, Overhead and Gantry Cranes (Top Running Bridge, Single Girder, Underhung Hoist).</i> <p>(4) A mobile crane, telescoping or articulating boom truck or aerial ladder truck must meet the requirements of</p> <ul style="list-style-type: none">(a) <i>CSA Standard Z150-1974, Safety Code for Mobile Cranes</i>,(b) <i>ANSI Standard ANSI/ASME B30.5-1994, Mobile and Locomotive Cranes</i>, or(c) <i>ANSI Standard ANSI/ASME B30.22-1993, Articulating Boom Cranes.</i> <p>(5) A tower or hammerhead crane must meet the requirements of <i>CSA Standard Z248-1975, Code for Tower Cranes.</i></p> <p>(6) A portal, tower or pillar crane must meet the requirements of <i>ANSI Standard ASME B30.4-1990, Portal, Tower, and Pillar Cranes.</i></p> <p>(7) A construction material hoist must meet the requirements of <i>CSA Standard CAN/CSA-Z256-M87, Safety Code for Material Hoists.</i></p> |
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PROPOSED AMENDMENTS TO THE *OCCUPATIONAL HEALTH AND SAFETY REGULATION*
RE: DUPLICATION AND REDUNDANCY – STANDARDS ACCEPTABLE TO THE BOARD

- (8) A chimney hoist must meet the requirements of *ANSI Standard A10.22-1990, Rope-Guided and Nonguided Workers' Hoists - Safety Requirements*.
- (9) A base mounted drum hoist must meet the requirements of *ANSI Standard ASME B30.7-1994, Base Mounted Drum Hoists*.
- (10) A guy, stiffleg, basket, breast, gin pole, Chicago boom, shearleg or A-frame derrick must meet the requirements of *ANSI Standard ASME B30.6-1990, Derricks*.
- (11) A side boom tractor used for pipe laying or similar operations must meet the requirements of *ANSI Standard ASME B30.14-1991, Side Boom Tractors*.
- (12) A miscellaneous material hoist must meet the requirements of a standard acceptable to the board.

Note: Permanently installed passenger and freight elevators, permanently installed platform-type material hoists which operate on more than one level or floor, personnel hoists operating within rails and installed above ground for construction purposes, dumbwaiters, escalators, moving walks, stage lifts, amusement rides, permanently installed handicapped lifts, motorized rotating platforms carrying people and lifts covered by *CSA Standard B311-M1979, Safety Code for Manlifts* are governed by the *Elevating Devices Safety Act*.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended. In addition, "Part" has been replaced by "Regulation" in subsection 1 to ensure that the subsection does not override the Board's general authority to recognize other standards in the amended section 4.4.

PART 14: CRANES AND HOISTS

GENERAL REQUIREMENTS

- Cab windows** **14.30** (1) Cab windows on a mobile crane must be made of safety glazing materials meeting the requirements of *ANSI/SAE Z26.1-1990, American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways - Safety Code*, ~~or other standard acceptable to the board.~~
- (2) Cab windows on a crane or hoist which is not a mobile crane must be laminated glass, tempered glass, wired glass or clear polycarbonate plastic.
- (3) Operator cab windows must be kept clear and must provide an unobstructed field of vision toward the load hook, and window wipers must be functional.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 14: CRANES AND HOISTS

MOBILE CRANES, BOOM TRUCKS AND AERIAL LADDER CRANES

- Load weight indicators** **14.64**
- (1) After January 1, 2000, a mobile crane or boom truck with a rated capacity of 10 tonnes (11 tons) or more must have a device that measures and indicates the weight of the load on the load hook or disengages crane functions whose movement can cause the mobile crane or boom truck to lift beyond the rated capacity.
 - (2) A load indicating device must meet the requirements of *ANSI/SAE Recommended Practice J376-APR85, Load Indicating Devices in Lifting Crane Service* ~~or other standard acceptable to the board.~~
 - (3) A crane being used for duty cycle work is exempt from the requirements of subsection (1) if the load applied to the crane is safely below the rated capacity of the crane and if the possibility of an unexpected overload does not exist.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 14: CRANES AND HOISTS

TOWER CRANES

Structural inspection

- 14.77**
- (1) Before erection of a tower crane, the structural components of the crane must be
 - (a) inspected to determine their integrity by a qualified person using non-destructive testing (NDT) methods meeting the requirements of the Canadian General Standards Board (CGSB) ~~or other method acceptable to the board~~, and
 - (b) repaired as necessary and such repairs certified by a professional engineer as safe for use.
 - (2) If a tower crane remains erected at a workplace for more than 12 months,
 - (a) its structural components must be inspected to determine their integrity by a qualified person using NDT methods meeting the requirements of the CGSB ~~or other method acceptable to the board~~, and
 - (b) after the inspection required by paragraph (a), the crane, including any necessary repairs, must be certified by a professional engineer as safe for use.
 - (3) The inspection and certification of a tower crane scheduled to be dismantled within 15 months of erection may be delayed until prior to the next erection of the crane.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 15: RIGGING

SLINGS

Standards	15.30	Unless otherwise required by this Regulation, w Wire rope, alloy steel chain, metal mesh, synthetic fibre rope and synthetic fibre web slings must meet the requirements of <i>ASME B30.9-1990, Slings</i> or other standard acceptable to the board, unless otherwise noted in this Part.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended. In addition “Part” has been replaced by “Regulation” to ensure that the section does not override the Board’s general authority to recognize other standards in the amended section 4.4.

PART 15: RIGGING

BELOW-THE-HOOK LIFTING DEVICES

Standards	15.57	Spreader bars and other specialized below-the-hook lifting devices must be constructed, inspected, installed, tested, maintained and operated according to the requirements of <i>ASME B30.20-1993, Below-the-Hook Lifting Devices</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GENERAL REQUIREMENTS

- Standards** **16.7** The design, fabrication, use, inspection and maintenance of mobile equipment must meet the requirements of the following applicable standard ~~or other standard acceptable to the board:~~
- (a) Articulating Boom Cranes: *ANSI Standard ASME B30.22-1993, American National Standard for Articulating Boom Cranes;*
 - (b) Four Wheel All-Terrain Vehicles: *ANSI Standard SVIA-1-1990, American National Standard for Four Wheel All-Terrain Vehicles - Equipment, Configuration, and Performance Requirements;*
 - (c) Mobile and Locomotive Cranes: *CSA Standard Z150-1974, Safety Code for Mobile Cranes, or ANSI Standard ASME B30.5-1994, Mobile and Locomotive Cranes;*
 - (d) Powered Industrial Trucks (low lift and high lift): *ANSI Standard ASME B56.1-1993, Safety Standard for Low Lift and High Lift Trucks;*
 - (e) Rough Terrain Forklifts: *ANSI Standard ASME B56.6-1992, Safety Standard for Rough Terrain Forklift Trucks;*
 - (f) Side Boom Tractors: *ANSI Standard ASME B30.14-1991, Side Boom Tractors;*
 - (g) Vehicles with Mounted Aerial Devices (except fire-fighting equipment): *CSA Standard CAN/CSA-C225-M88, Vehicle Mounted Aerial Devices;*
 - (h) Vehicles with Mounted Aerial Devices (fire fighting equipment): *NFPA 1904, Aerial Ladder and Elevating Platform Fire Apparatus, 1991 Edition;*
 - (i) Safety and hazard warnings: *ISO Standard 9244:1995 Earth-moving machinery-safety signs and hazard pictorials—General principles;*
 - (j) Lift Truck Operator training: *CSA Standard B335-94, Industrial Lift Truck Operator Training.*

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GENERAL REQUIREMENTS

- Lights** **16.9** (1) Mobile equipment used during the period from ½ hour after sunset to ½ hour before sunrise, or when persons or vehicles are not clearly discernible at a distance of 150 m (500 ft), must have and use lights to adequately illuminate
- (a) the direction of travel,
 - (b) the working area about the mobile equipment, and
 - (c) the cab instruments.
- (2) A headlight and backing light required by subsection (1)(a) must meet the requirements of *Society of Automotive Engineers (SAE) J1029 MAR86, Lighting and Marking of Construction and Industrial Machinery*, ~~or other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GENERAL REQUIREMENTS

Window standards

- 16.11** (1) Windows on mobile equipment must be made of safety glazing meeting the requirements of *ANSI Standard Z26.1-1990, American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways - Safety Code*, ~~or other standard acceptable to the board.~~
- (2) If the maximum travel speed of a machine is 40 km/h (25 mph) or less, tempered windscreen glazing meeting the requirements of *ANSI/SAE Z26.1-1990, American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways - Safety Code*, section 4, item 2 is permitted for use as the windshield on the front of the machine.
- (3) If wipers are used on plastic glazing, the glazing surface must be hard coated.
- (4) Each window on mobile equipment manufactured after February 1, 2002 or otherwise installed on mobile equipment after that date must be marked to identify the manufacturer, the standard to which the window conforms, and in the case of polycarbonate windows, the thickness and grade of material.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GENERAL REQUIREMENTS

Braking requirements

- 16.13 (1) Mobile equipment must have braking systems meeting the requirements of the following applicable standard, ~~or other standard acceptable to the board:~~
- (a) *Society of Automotive Engineers (SAE) Standard J1473 OCT90, Brake Performance - Rubber-Tired Earthmoving Machines;*
 - (b) *Society of Automotive Engineers (SAE) Standard J1026 APR90, Braking Performance - Crawler Tractors and Crawler Loaders;*
 - (c) *Society of Automotive Engineers (SAE) Standard J1178 ISO11169 DEC94, Machinery for Forestry - Wheeled Special Machines - Vocabulary, Performance Test Methods, and Criteria for Brake Systems;*
 - (d) *Society of Automotive Engineers (SAE) Standard J1472 JUN87, Braking Performance - Roller Compactors;*
 - (e) *ANSI Standard ASME B56.1-1993, Safety Standard for Low Lift and High Lift Trucks;*
 - (f) *ANSI Standard ANSI/ASME B56.6-1992, Safety Standard for Rough Terrain Forklift Trucks;*
 - (g) *SAE J/ISO 11512 MAR96, Machinery for Forestry - Tracked Special Machines - Performance Criteria for Brake Systems.*
- (2) Mobile equipment manufactured before the publication of the standards listed in subsection (1) may remain in service using the brake system originally specified by the manufacturer unless, in the opinion of the board, modification is necessary to ensure that the braking system is adequate.
- (3) Mobile equipment used as an off-road transport vehicle on a slope greater than 20% must have a braking system meeting the performance requirements of *Society of Automotive Engineers (SAE) Standard J1178 ISO11169 DEC94, Machinery for Forestry - Wheeled Special Machines - Vocabulary, Performance Test Methods, and Criteria for Brake Systems*, ~~or other standard acceptable to the board.~~
- (4) Mobile equipment must have a parking system that does not use gas or fluid pressure to maintain its application and the parking system control must be located so that the operator, in the operator's seat, can activate it.
- (5) If mobile equipment depends on engine power for stopping and power failure will result in loss of adequate capability to stop, supplementary means must be provided to enable the operator to bring the equipment to a controlled stop.
- (6) If the board is satisfied that it is not practicable to comply with subsections (1) to (5), the board may exempt the mobile equipment from their application subject to conditions the board specifies.

Note: Under subsection (5) the automatic and gradual application of spring brakes is an acceptable supplementary means if warning devices are installed to warn of low air pressure and allow the operator to bring the vehicle to a controlled stop.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GENERAL REQUIREMENTS

- Supplementary steering** **16.14** (1) If wheeled mobile equipment depends on engine power for steering and power failure will result in loss of adequate directional control, a supplementary system must be provided to enable the operator to steer to a controlled stop.
- (2) The supplementary steering system required by subsection (1) for equipment capable of a travel speed greater than 20 km/h (13 mph) must meet the requirements of *Society of Automotive Engineers (SAE) Standard J1511 ISO5010 FEB94, Steering For Off-Road, Rubber-Tired Machines*, ~~or other standard acceptable to the board.~~
- (3) A rubber tired skidder manufactured after January 1, 2000 must have a supplementary steering system meeting the requirements of subsection (2).

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GUARDS

Protective structures

- 16.21** (1) Operators of mobile equipment must be protected against falling, flying or intruding objects or material by means of suitable cabs, screens, grills, shields, deflectors, guards or structures.
- (2) The means of protection must meet the requirements of the following applicable standard, ~~or other standard acceptable to the board:~~
- (a) *WCB Standard - G601, Standard for Log Loader and Log Yarder Backstops;*
 - (b) *WCB Standard - G602, Standard for Log Loader and Log Yarder Raised Cabs;*
 - (c) *WCB Standard - G603, Standard for Log Loader and Log Yarder Window Guards;*
 - (d) *WCB Standard - G604, Standard for Light-Duty Screen Guards for Off-Highway Equipment;*
 - (e) *WCB Standard - G605, Standard for Mobile Equipment Half-Doors;*
 - (f) *WCB Standard - G607, Standard for Medium Duty Screen Guards - Front End Log Loader;*
 - (g) *WCB Standard - G608, Standard for Mobile Equipment Roof Structures - Heavy Duty;*
 - (h) *WCB Standard - G609, Standard for Mobile Equipment Roof Structures - Light Duty;*
 - (i) *Society of Automotive Engineers (SAE) Recommended Practice J231 JAN81, Minimum Performance Criteria for Falling Object Protective Structure (FOPS);*
 - (j) *Society of Automotive Engineers (SAE) Standard J1043 SEP87, Performance Criteria for Falling Object Protective Structure (FOPS) for Industrial Machines;*
 - (k) *ISO Standard 3449:1992, Earth-Moving Machinery - Falling-Object Protective Structures - Laboratory Tests and Performance Requirements;*
 - (l) *Society of Automotive Engineers (SAE) Recommended Practice J1084 APR80, Operator Protective Structure Performance Criteria for Certain Forestry Equipment;*
 - (m) *Society of Automotive Engineers (SAE) Recommended Practice J1356 FEB88, Performance Criteria for Falling Object Guards for Excavators.*
- (3) A worker must not remain in the cab of a vehicle while loads are elevated over the cab unless the cab is protected by an adequate overhead guard.
- Note:** Information on the selection of guarding for mobile equipment used in various applications is provided in the WCB publication *Standards for Operator Protective Structures (OPS)*.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 16: MOBILE EQUIPMENT

GUARDS

ROPS standards

- 16.23** A ROPS must meet the requirements of one of the following applicable standards:
- (a) *CSA Standard B352.0-95, Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines - Part 1: General Requirements, and*
 - (i) *CSA Standard B352.1-95, Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines - Part 2: Testing Requirements for ROPS on Agricultural Tractors, or*
 - (ii) *CSA Standard B352.2-95, Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines - Part 3: Testing Requirements for ROPS on Construction, Earthmoving, Forestry, Industrial, and Mining Machines;*
 - (b) *Society of Automotive Engineers (SAE) Standard J1040 MAY94, Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines;*
 - (c) *ISO Standard 3471: 1994, Earth-moving Machinery - Rollover Protective Structures - Laboratory Tests and Performance Requirements;*
 - (d) ~~other standard acceptable to the board.~~
Note: Clause 6 of *CSA Standard B352-M80, Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines* is a standard acceptable to the board **under section 4.4(2)** for the design of a ROPS for a one-of-a-kind machine.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

Amendment to the “note” section is made to reference the Board’s general authority to recognize other standards in the amended section 4.4.

PART 16: MOBILE EQUIPMENT

SEAT BELTS

- Provision** **16.32** (1) Mobile equipment with ROPS and side boom tractors must have seat belts which meet the requirements of *Society of Automotive Engineers (SAE) Standard J386 JUN93, Operator Restraint System for Off-Road Work Machines*, ~~or other standard acceptable to the board.~~
- (2) Seat belts must be maintained in good condition.
Note: The board may accept alternatives to seat belts designed to provide at least equivalent protection and operator comfort.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 19: ELECTRICAL SAFETY

GENERAL ELECTRICAL REQUIREMENTS

Testing equipment

- 19.8**
- (1) Electrical testing equipment may be used if it meets the requirements of
 - (a) *CSA Standard C22.2 No. 160-M1985 (Reaffirmed 1992), Voltage and Polarity Testers, or*
 - (b) *CSA Standard CAN/CSA-C22.2 No. 231 Series-M89, CSA Safety Requirements for Electrical and Electronic Measuring and Test Equipment, or.*
 - ~~(c) other standard acceptable to the board.~~
 - (2) Electrical testing equipment not meeting a standard specified in subsection (1) may be used if it has
 - (a) fusing or circuitry designed to protect the operator in the event of a fault resulting from inadvertent misuse of the meter, or a fault on the circuit being tested,
 - (b) clearly and unambiguously marked measurement ranges,
 - (c) lead wire insulation rated to the maximum voltage reading of the meter,
 - (d) lead wires that are not cracked or broken, and having a current carrying capacity (ampacity) that meets or exceeds the maximum current measurement of the meter, and
 - (e) a minimum exposure of metal on lead wire probes.
 - (3) Appropriate safe work procedures must be established and followed for testing electrical equipment and circuits.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 19: ELECTRICAL SAFETY

GENERAL ELECTRICAL REQUIREMENTS

**Insulated
aerial device**

- 19.9**
- (1) An insulated aerial device must be dielectrically tested at least annually in accordance with *CSA Standard CAN/CSA-C225-M88 Vehicle Mounted Aerial Devices* or other standard acceptable to the board and its insulating capability certified by the testing agency.
 - (2) An insulated aerial device which has not passed the testing required by subsection (1) must be considered noninsulated and any markings or identification on the device indicating insulated capability must be removed or effectively covered over and the user informed of the noninsulated status of the device.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 20: CONSTRUCTION, EXCAVATION AND DEMOLITION

CONCRETE FORMWORK AND FALSEWORK

- Specifications and plans** **20.17** (1) The employer must ensure that a set of plans and specifications meeting the requirements of *CSA Standard S269.1-1975, Falsework for Construction Purposes* and *CSA Standard CAN/CSA-S269.3-M92, Concrete Formwork*, ~~or other standard acceptable to the board~~ is prepared for the formwork for each job and for all items of concrete work, the failure of which could cause injury.
- (2) Erection drawings and supplementary instructions for concrete formwork, falsework and reshoring must be certified by a professional engineer and available at the site during erection, use and removal of the concrete formwork, falsework and reshoring.
- (3) The following types of concrete formwork require erection drawings and supplementary information certified by a professional engineer:
- (a) flyforms;
 - (b) gang forms;
 - (c) jump forms;
 - (d) vertical slip forms;
 - (e) formwork more than 4 m (13 ft) in height;
 - (f) suspended forms for slabs, stairs and landings;
 - (g) beam forms;
 - (h) single sided forms over 2 m (6.5 ft) in height;
 - (i) cantilever forms;
 - (j) bridge deck forms;
 - (k) shaft lining forms;
 - (l) tunnel lining forms;
 - (m) forms so designated by the designer of the structure.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 20: CONSTRUCTION, EXCAVATION AND DEMOLITION

WORK IN COMPRESSED AIR

Compliance with standards	20.123	The employer must ensure that equipment and work processes carried out at an air pressure greater than 7 kPa (1 psi) above atmospheric pressure meet the requirements of <i>CSA Standard CAN/CSA-Z275.3-M86, Occupational Safety Code for Construction Work in Compressed Air</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 22: UNDERGROUND WORKINGS

WORKING REQUIREMENTS

Heating equipment

- 22.28** (1) The installation of underground heating equipment acceptable to the board must include provisions for mounting, clearances and air supply, and must meet the applicable requirements of the following standards and codes as amended from time to time, ~~or other standard acceptable to the board:~~
- (a) *CSA Standard CAN/CSA-B139-M91, Installation Code for Oil Burning Equipment,*
 - (b) *CGA Code CAN/CGA-B149.1-M91, Natural Gas Installation Code;*
 - (c) *CGA Code CAN/CGA-B149.2-M91, Propane Installation Code;*
 - (d) *CSA Standard C22.1-94, Canadian Electrical Code, Part 1;*
 - (e) *CSA Standard B51-M1991, Boiler, Pressure Vessel, and Pressure Piping Code.*
- (2) With the exception of embedded pipes or ducts, all parts of the heating system must be readily accessible for inspection, maintenance, repair, and cleaning.
- (3) The heating system must be protected from freezing.
- (4) A carbon monoxide detector, capable of detecting concentrations below 25 ppm and shutting down the heater if this level is exceeded, must be installed 15 m (50 ft) downstream from where the heated air enters the underground working.
- (5) Pipelines with gas pressures in excess of 3.5 kPa (0.5 psi) must not be located within 15 m (50 ft) of an underground working.
- (6) Pressure regulating stations must be clearly marked and protected from physical damage.
- (7) Propane storage tanks must be located so that any leak will not enter an underground working.
- (8) A vibration switch that will shut down the heater at prescribed vibration limits must be mounted on the fan cage.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 22: UNDERGROUND WORKINGS

WORKING REQUIREMENTS

Electrical installations	22.34	Electrical equipment and wiring in an underground working must meet the requirements of <i>CSA Standard CAN/CSA-M42 1-93, Use of Electricity in Mines</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 22: UNDERGROUND WORKINGS

UNDERGROUND USE OF EXPLOSIVES

- Blasting line** **22.76** The blasting line must
- (a) meet the requirements of *CSA Standard CAN/CSA-M421-93, Use of Electricity in Mines*, ~~or other standard acceptable to the board,~~
 - (b) be readily identifiable as blasting cable,
 - (c) be suspended from insulated supports, and
 - (d) not be located in close proximity to any electrical lighting or power line.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 22: UNDERGROUND WORKINGS

FIXED AND MOBILE EQUIPMENT IN UNDERGROUND WORKINGS

Internal combustion engines

- 22.85**
- (1) Only diesel fueled internal combustion engines may be used underground.
 - (2) Before using a diesel engine underground the employer must first obtain permission from the board.
 - (3) Diesel fuel for use underground must meet the requirements of *CGSB Standard CAN/CGSB-3.16-M88 Mining Diesel Fuel*, ~~or other standard acceptable to the board~~, but flash point restrictions may be relaxed in accordance with the supplier's recommendations for cold weather conditions.
 - (4) All diesel fueled equipment used underground must be equipped with adequate devices to control exhaust emissions.
 - (5) If diesel fueled equipment used underground is fitted with an exhaust scrubber it must be of a type acceptable to the board.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 22: UNDERGROUND WORKINGS

RAISES

Raise climbers

- 22.110**
- (1) Before a raise climber is installed, the board must be notified and, if required, the employer must submit the design drawings and technical details of the installation, including construction materials, rated load capacities, dimensions, operating controls and safety features.
 - (2) The materials and procedures used in the construction of a raise climber must conform to the requirements of appropriate standards of the CSA or ASTM, ~~or other equivalent national or international standards acceptable to the board.~~
 - (3) A raise climber must not be put into service unless a certificate is available from the manufacturer, or a professional engineer, attesting that all critical load bearing components of the complete assembly and its accessories have been inspected and non-destructively tested by approved methods.
 - (4) At least once a year after it has been put into service, or when ordered by the board, any part of a raise climber installation which if it failed could endanger workers must be non-destructively tested by persons certified in accordance with *CGSB Standard CAN/CGSB-48.9712-95, Qualification and Certification of Non-destructive Testing Personnel*, ~~or other standard acceptable to the board~~ and a copy of the test report must be made available on site for inspection by an officer.
 - (5) A raise climber that has previously been in use in any place beyond the control of the present employer must not be re-installed until the inspections and tests required by subsection (3) have been carried out.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 23: OIL AND GAS

GENERAL REQUIREMENTS

- Fire extinguishers** **23.10**
- (1) Non-freezing fire extinguishers, other firefighting equipment and firefighting personnel must be provided as required by subsections (2), (3) and (4) and Table 23-1.
 - (2) The minimum requirements for a twin agent unit are
 - (a) 1,100 litres (250 imp gal) pre-mixed ATC foam solution at 6%,
 - (b) 680 kg (1,500 lbs) potassium bicarbonate dry chemical system,
 - (c) 30 m (100 ft) discharge hose, and
 - (d) two firefighting personnel.
 - (3) The minimum requirements for a continuous foam unit are
 - (a) 475 litres (100 imp gal) ATC foam concentrate,
 - (b) 680 kg (1,500 lbs) potassium bicarbonate dry chemical system,
 - (c) 1,900 litres (400 imp gal) per minute centrifugal certified fire pump with one 65 mm (2.5 in) discharge port, two 38 mm (1.5 in) discharge ports, and one 125 mm (5 in) suction port, and
 - (d) two firefighting personnel.
 - (4) Firefighting equipment must meet the requirements of *NFPA 10, Portable Fire Extinguishers, 1990 Edition*, ~~or other standard acceptable to the board.~~

TABLE 23-1 NOT PRINTED

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 23: OIL AND GAS

DRILLING AND SERVICING RIGS

Inspection and repair

- 23.32** (1) Each drilling and service rig must be inspected and repaired in accordance with the following applicable standards published by the Canadian Association of Oilwell Drilling Contractors, ~~or other standard acceptable to the board:~~
- (a) *Recommended Practice 1.0, for Drilling Rigs, Mast Inspection and Certification, January 1, 1994;*
 - (b) *Recommended Practice 2.0, for Drilling Rigs, Overhead Equipment Inspection and Certification, January 1, 1994;*
 - (c) *Recommended Practice 3.0, for Service Rigs, Inspection and Certification of Masts, January 1, 1994;*
 - (d) *Recommended Practice 4.0, for Service Rigs, Overhead Equipment Inspection and Certification, January 1, 1994;*
 - (e) *Recommended Practice 1.0A, Addendum for Drilling Rigs, Substructure Inspection and Certification, September 12, 1995.*
- (2) Inspections and repairs must be recorded in a Canadian Association of Oilwell Drilling Contractors log book or equivalent log acceptable to the board.
- (3) The log must be available on site for review by an officer.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 23: OIL AND GAS

DRILL STEM TESTING, SWABBING, CEMENTING, WELL SERVICING AND STIMULATION

General requirements

- 23.64** (1) Drill stem testing procedures must conform to *Alberta Recommended Practices for Well Testing and Fluid Handling, ARP 4.1 Drill Stem Testing, June, 1993*, ~~or other standard acceptable to the board.~~
- (2) During drill stem testing
- (a) motors and engines or other sources of ignition not required for the operation must be shut off, and
 - (b) motor vehicles must not be permitted within 25 m (80 ft) of the well bore.
- (3) The rig manager, testing supervisor and, if required, representatives of other contractors doing work must be present to ensure that
- (a) workers are trained to carry out their responsibilities during the test, and
 - (b) the equipment supplied is in good repair and will function as designed.
- (4) If liquids are recovered during drill stem tests
- (a) the liquids must be reverse circulated from the drill pipe,
 - (b) prior to reverse circulating, drill pipe may be pulled from the hole using test plugs on every joint of drill pipe disconnected, until well fluids are encountered at the surface, and
 - (c) if reverse circulation is not practicable due to a failure of the pump out sub, the drill pipe may continue to be tripped out of the hole with extreme caution, using test plugs and a mud can.
- (5) If test fluid recovery is encountered during darkness
- (a) the liquids recovered must be reverse circulated, and
 - (b) if reverse circulation is not practicable due to failure of the pump out sub, additional drill pipe must not be pulled and disconnected until daylight.
- (6) Whenever oil, water or gas has been encountered during drill stem testing,
- (a) tests for the presence of hydrogen sulfide must be done, and
 - (b) if hydrogen sulfide is found, the sour fluids encountered must be reverse circulated to a vented tank not less than 50 m (165 ft) from the well, or to a flare pit.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 23: OIL AND GAS

GAS SAMPLE CONTAINERS

- Standards** **23.88** (1) Gas sample containers must meet the requirements of CSA Standard *CAN/CSA-B339-88 Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods*, ~~or other standard acceptable to the board.~~
- (2) Gas sample containers must be used in accordance with CSA Standard *CAN/CSA-B340-M88, Selection and Use of Cylinders, Spheres, Tubes, and Other Containers for the Transportation of Dangerous Goods, Class 2*, ~~or other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

General Requirements

- Evidence of competency**
- 24.13**
- (1) The employer and diving supervisor must ensure that all divers
 - (a) meet the minimum requirements of *CSA Standard Z275.4-97 Competency Standard for Diving Operations* ~~or other standard acceptable to the board~~, and
 - (b) are competent to use the diving equipment that will be used in the diving operation.
 - (2) A certified copy of competency documents for each diver must be available for inspection on site by an officer.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

General Requirements

- | | | |
|----------------------|--------------|--|
| Diving tables | 24.21 | <p>(1) Diving operations, repetitive dives, and treatment of divers, must be carried out in strict accordance with tables and procedures published or approved by the Defense and Civil Institute of Environmental Medicine (Canada), or other standard acceptable to the board.</p> <p>(2) Sport diving tables must not be used.</p> <p>(3) Diving computers must not be used in place of primary diving tables.</p> |
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 24: DIVING, FISHING AND OTHER MARINE OPERATIONS

Submersible Compression Chambers (SCC) and Lock-Out Submersibles (LOS)

Standards	24.52	Submersible Compression Chambers and Lock-Out Submersibles must meet the requirements of <i>CSA Standard Z275.1-93, Hyperbaric Facilities</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 30: LABORATORIES

GENERAL REQUIREMENTS

- Biological safety cabinets**
- 30.12**
- (1) The limitations of a biological safety cabinet must be clearly posted on the unit and followed by workers.
 - (2) Biological safety cabinets must be certified by a qualified person at least annually and before use after
 - (a) initial installation,
 - (b) change of the HEPA (high efficiency particulate air) filter,
 - (c) moving of the unit, and
 - (d) any repair or maintenance that could affect the seal of the HEPA filter.
 - (3) Certification procedures used for compliance with subsection (2) must meet the requirements of the *National Sanitation Foundation (NSF) Standard 49-1992, Class II (Laminar Flow) Biohazard Cabinetry* ~~or other standard acceptable to the board~~, and a record of the results must be maintained.
 - (4) Recirculation of exhaust air into a workspace from a biological safety cabinet is not permitted where volatile toxic materials or flammable liquids or gases are used in the cabinet, or where radioactive materials are used in amounts greater than specified by the Atomic Energy Control Board, or any successor agency.
 - (5) Any recirculated air must be directed through a HEPA filter.
 - (6) Biological organisms listed as Risk Groups 3 or 4 under the Medical Research Council of Canada (MRCC) or World Health Organization (WHO) system of risk groups must be handled in biological safety cabinets that exhaust to the outdoors through dedicated ducting.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 30: LABORATORIES

SPECIFIC SUBSTANCES AND PROCEDURES

- Biohazardous materials** **30.26**
- (1) Adequate facilities must be readily available for personal decontamination of workers who come in contact with biohazardous materials.
 - (2) Work procedures which may generate aerosols containing biohazardous materials must be performed only under controlled conditions designed to minimize creation of the aerosols and prevent worker exposure to them.
 - (3) For Risk Group 2 microorganisms, sealed centrifuge safety heads, rotors or trunnion cups must be opened within a fume hood or biological safety cabinet unless there is a means of visually determining, by use of clear safety caps or other effective means, that no breakage or leaking has occurred.
 - (4) For Risk Group 3 microorganisms, sealed centrifuge safety heads, rotors or trunnion cups must be loaded and unloaded within a biological safety cabinet.
 - (5) Work involving Risk Group 4 microorganisms must be done as required by *Health Canada Laboratory Biosafety Guidelines - 2nd edition (1996)*, ~~or other standard acceptable to the board.~~
Note: See Part 6 (Substance Specific Requirements) for other requirements on biohazardous materials.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

**Safety
headgear**

- 31.13**
- (1) Safety headgear must be worn by firefighters required to approach the seat of a fire or enter a structure or other hazardous area during an incident.
 - (2) Safety headgear must meet the requirements of *NFPA 1972, Helmets for Structural Firefighting: Structural Fire Fighters Helmets, 1992 Edition*, ~~or other standard acceptable to the board.~~
 - (3) Headgear meeting the requirements for safety headgear in Part 8 (Personal Protective Clothing and Equipment) may be used by firefighters
 - (a) while determining the cause of fires, or carrying out duties associated with preventing fires, or
 - (b) at the discretion of the incident commander, while fighting a fire in vegetation that is not within a structure.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

**Protective
coats, pants
and hoods**

- 31.14** Firefighters required to approach the seat of a fire or enter a structure or other hazardous area during an incident must wear protective coats, pants and hoods meeting the requirements of
- (a) *NFPA 1971, Protective Clothing for Structural Fire Fighting, 1991 Edition, or*
 - (b) *CGSB Standard CAN/CGSB-155.1-M88, Firefighters' Protective Clothing for Protection Against Heat and Flame, or,*
 - ~~(c) other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

**Working
gloves**

31.16 Firefighters required to approach the seat of a fire or enter a structure or other hazardous area during an emergency incident must wear gloves meeting the requirements of *NFPA 1973, Gloves for Structural Fire Fighting, 1988 Edition*, ~~or other standard acceptable to the board.~~

Note: See Part 19 (Electrical Safety) for personal protective equipment and other safety measures required for work involving electrical hazards.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT

Fall protection

- 31.17 (1) A firefighter working on an aerial ladder must wear a safety belt and lanyard meeting the requirements of *CSA Standard Z259.1-95, Safety Belts and Lanyards* ~~or other standard acceptable to the board~~, and the securing lanyard must limit a fall to no more than 30 cm (12 in).
- (2) A firefighter located on an aerial platform must wear a full body harness and lanyard meeting the requirements of Part 11 (Fall Protection).
- (3) Rescue ropes, rappelling lines and safety belts and harnesses including safety hooks, rope grabs, lowering devices, and related equipment must meet the requirements of *NFPA 1983, Fire Service Life Safety Rope, Harness and Hardware, 1990 Edition*, ~~or other standard acceptable to the board~~.
- (4) The incident commander may depart from the requirements of Part 11 (Fall Protection) to use a fall protection system if, in the incident commander's opinion, such compliance is not practicable or may create a greater hazard, but subsections (1) to (3) of this section must be complied with.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

RESPIRATORY PROTECTION

Operation of SCBA	31.21	Respirators must be used in accordance with <i>CSA Standard CAN/CSA-Z94.4-93, Selection, Use, and Care of Respirators, Section 9.1</i> , or other standard acceptable to the board.
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Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

RESPIRATORY PROTECTION

- Sealing and fit testing** 31.22
- (1) Firefighters who use a self-contained breathing apparatus must be clean shaven to ensure that the mask forms a positive seal against the face.
 - (2) Fit tests must be performed in accordance with *CSA Standard CAN/CSA-Z94.4-93, Selection, Use, and Care of Respirators*, ~~or other standard acceptable to the board.~~
 - (3) Personal protective equipment that is worn with self-contained breathing apparatus and might interfere with a proper fit must be worn during the fit test.
 - (4) Only corrective eyewear designed for use with self-contained breathing apparatus may be worn.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

AERIAL DEVICES AND GROUND LADDERS

General **31.33** An aerial device used for firefighting must meet the requirements of *NFPA 1904, Aerial Ladder and Elevating Platform Fire Apparatus, 1991 Edition*, or other standard acceptable to the board.

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

AERIAL DEVICES AND GROUND LADDERS

- Annual inspection and certification**
- 31.34** (1) A fire department aerial device must be inspected and tested in accordance with good engineering practice at intervals not exceeding 12 months, and certified as safe for use by a professional engineer or the equipment manufacturer.
- (2) The inspection and testing of a fire department aerial device must be done in accordance with the requirements of *NFPA 1914, Testing Fire Department Aerial Devices, 1991 Edition*, ~~or other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.

PART 31: FIREFIGHTING

AERIAL DEVICES AND GROUND LADDERS

**Ground
ladders**

- 31.37** (1) A ground ladder used by firefighters must meet the requirements of *NFPA 1931, Design of and Design Verification Tests for Fire Department Ground Ladders, 1989 Edition*, ~~or other standard acceptable to the board.~~
- (2) A ground ladder must be used, tested and maintained in accordance with the requirements of *NFPA 1932, Use, Maintenance, and Service Testing of Fire Department Ground Ladders, 1989 Edition*, ~~or other standard acceptable to the board.~~

Explanatory Note

Provisions that allow the Board to accept publications, codes, standards, practices, procedures or rules other than those specified in a provision have been removed. These provisions have been replaced with one general provision in section 4.4 of the *Occupational Health and Safety Regulation*, as amended.