Part 18 Personal Protective Equipment

Duty to use personal protective equipment

228(1) If the hazard assessment indicates the need for personal protective equipment, an employer must ensure that
   (a) workers wear personal protective equipment that is correct for the hazard and protects workers,
   (b) workers properly use and wear the personal protective equipment,
   (c) the personal protective equipment is in a condition to perform the function for which it was designed, and
   (d) workers are trained in the correct use, care, limitations and assigned maintenance of the personal protective equipment.

228(2) A worker must
   (a) use and wear properly the appropriate personal protective equipment specified in this Code in accordance with the training and instruction received,
   (b) inspect the personal protective equipment before using it, and
   (c) not use personal protective equipment that is unable to perform the function for which it is designed.

228(3) An employer must ensure that the use of personal protective equipment does not itself endanger the worker.

Eye Protection

Compliance with standards

229(1) If a worker’s eyes may be injured or irritated at a work site, an employer must ensure that the worker wears properly fitting eye protection equipment that
   (a) is approved to
      (i) CSA Standard Z94.3-07, Eye and Face Protectors,
      (ii) CSA Standard Z94.3-02, Eye and Face Protectors, or
      (iii) CSA Standard Z94.3-99, Industrial Eye and Face Protectors, and
   (b) is appropriate to the work being done and the hazard involved.

229(2) Prescription eyewear may be worn if it
   (a) is safety eyewear,
   (b) meets the requirements of
      (i) CSA Standard Z94.3-07, Eye and Face Protectors,
      (ii) CSA Standard Z94.3-02, Eye and Face Protectors, or
(iii) CSA Standard Z94.3-99, Industrial Eye and Face Protectors, and (c) is appropriate to the work and the hazard involved.

229(2.1) Prescription safety eyewear having glass lenses must not be used if there is danger of impact unless it is worn behind equipment meeting the requirements of subsection (1).

229(2.2) If the use of plastic prescription lenses is impracticable, and there is no danger of impact, a worker may use lenses made of treated safety glass meeting the requirements of
(a) ANSI Standard Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, or
(b) ANSI Standard Z87.1-1989, Practice for Occupational and Educational Eye and Face Protection.

229(2.3) Despite subsection (2), prescription safety eyewear may consist of frames that meet the requirements of ANSI Standard Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices provided the lenses meet the requirements of CSA Standard Z94.3-07, Eye and Face Protectors.

229(3) If a worker must wear a full face piece respirator and the face piece is intended to prevent materials striking the eyes, an employer must ensure that the face piece
(a) meets the requirements of
(i) CSA Standard Z94.3-07, Eye and Face Protectors, or
(ii) CSA Standard Z94.3-02, Eye and Face Protectors, or
(b) meets the impact and penetration test requirements of section 9 of
(i) ANSI Standard Z87.1-2003, Occupational and Educational Personal Eye and Face Protection Devices, or

Contact lenses

230 An employer must ensure that, if wearing contact lenses poses a hazard to the worker’s eyes during work, the worker is advised of the hazards and the alternatives to wearing contact lenses.

Electric arc welding

231 A worker must not perform electric arc welding if it is reasonably possible for another worker to be exposed to radiation from the arc unless the other worker is wearing suitable eye protection or is protected by a screen.
Flame Resistant Clothing

Use of flame resistant clothing

232(1) If a worker may be exposed to a flash fire or electrical equipment flashover, an employer must ensure that the worker wears flame resistant outerwear and uses other protective equipment appropriate to the hazard.

232(2) A worker must ensure that clothing worn beneath flame resistant outerwear and against the skin is made of flame resistant fabrics or natural fibres that will not melt when exposed to heat.

Foot Protection

Footwear

233(1) An employer must ensure that a worker uses footwear that is appropriate to the hazards associated with the work being performed and the work site.

233(2) If the hazard assessment identifies that protective footwear needs to have toe protection, a puncture resistant sole, metatarsal protection, electrical protection, chainsaw protection or any combination of these, the employer must ensure that the worker wears protective footwear that is approved to

(a) CSA Standard Z195-02, Protective Footwear, or
(b) ASTM Standard F2413-05, Specification for Performance Requirements for Protective Footwear,

if the protective footwear was manufactured on or after July 1, 2009.

233(3) Despite subsection (2), if a worker is likely to be exposed to a hazard other than those referred to in subsection (2), the employer must ensure that the worker uses footwear appropriate to the hazard.

233(4) If a worker is unable, for medical reasons, to wear protective footwear that complies with subsection (2), the worker may substitute external safety toecaps if the employer ensures that

(a) the safety toecaps meet the impact force requirements of
   (i) CSA Standard Z195-02, Protective Footwear, or
   (ii) ASTM Standard F2413-05, Specification for Performance Requirements for Protective Footwear,
(b) metatarsal protection is not needed to protect the feet from injury,
(c) the hazard assessment confirms that the worker will not be exposed to any sole penetration hazards, and
(d) wearing the safety toecaps does not itself create a hazard for the worker.
233(5) An employer must ensure that a fire fighter wears safety footwear that is approved to
(a) CSA Standard Z195-02, Protective Footwear,
(b) NFPA Standard 1971, Protective Ensemble for Structural Fire Fighting, 2007 Edition, or
(c) NFPA Standard 1977, Protective Clothing and Equipment for Wildland Fire Fighting, 2005 Edition,
if the safety footwear was manufactured on or after July1, 2009.

Head Protection

Industrial headwear

234(1) Subject to sections 235, 236 and 237, if there is a foreseeable danger of injury to a worker’s head at a work site and there is a significant possibility of lateral impact to the head, an employer must ensure that the worker wears industrial protective headwear that is appropriate to the hazards and meets the requirements of
(a) CSA Standard CAN/CSA-Z94.1-05, Industrial Protective Headwear, or
(b) ANSI Standard Z89.1-2003, American National Standard for Industrial Head Protection, for Type II head protection,
if the protective headwear was manufactured on or after July1, 2009.

234(2) Subject to sections 235, 236 and 237, if there is a foreseeable danger of injury to a worker’s head at a work site and the possibility of lateral impact to the head is unlikely, an employer must ensure that the worker wears industrial protective headwear that is appropriate to the hazard and meets the requirements of
(a) CSA Standard CAN/CSA-Z94.1-05, Industrial Protective Headwear, or
(b) ANSI Standard Z89.1-2003, American National Standard for Industrial Head Protection,
if the protective headwear was manufactured on or after July1, 2009.

Bicycles and skates

235(1) An employer must ensure that a worker who is riding a bicycle or using in-line skates or a similar means of transport wears a safety helmet
(a) that is approved to one of the following standards for bicycle safety helmets if the helmet was manufactured on or after July1, 2009:
(i) CSA CAN/CSA-D113.2-M89 (R2004), Cycling Helmets;
(ii) CPSC, Title 16 Code of U.S. Federal Regulations Part 1203, Safety Standard for Bicycle Helmets;
(iii) Snell Memorial Foundation B-90A, 1998 Standard for Protective Headgear for Use with Bicycles;
(iv) Snell Memorial Foundation B-95A, 1998 *Standard for Protective Headgear for Use with Bicycles*;
(v) Snell Memorial Foundation N-94, 1994 *Standard for Protective Headgear in Non-Motorized Sports*;
(vi) ASTM F1447-06, *Standard Specification for Helmets Used in Recreational Bicycling or Roller Skating*;
(vii) Repealed;
(viii) Repealed;
(ix) Repealed;
(x) Repealed; and
(b) that is free of damage or modification that would reduce its effectiveness.

235(2) Despite subsection (1), if workers at a work site normally wear industrial protective headwear in accordance with section 234, that protective headwear may be worn by workers using a bicycle or similar means of transport at the work site if
(a) the worker travels at a speed of not more than 20 kilometres per hour, and
(b) the protective headwear is worn with a fastened chin strap.

**All-terrain vehicles, snow vehicles, motorcycles**

236(1) An employer must ensure that a worker riding an all-terrain vehicle, snow vehicle, motorized trail bike or motorcycle or, subject to subsection (2), a small utility vehicle at a work site wears a safety helmet approved to one of the following standards:
(b) BSI Standard BS 6658: 05, *Specification for Protective Helmets for Vehicle Users*;

If the safety helmet was manufactured on or after July 1, 2009.

236(1.1) Subsection (1) does not apply to small utility vehicles equipped with seat belts and rollover protection.

236(2) Protective headwear in good condition that meets the requirements of an earlier version of a standard listed in subsection (1) may be used unless it is damaged.
236(3) Subsection (1) does not apply if the vehicle is equipped with rollover protective structures that comply with section 270 and seat belts or restraining devices that comply with section 271.

236(4) A worker who wears protective headwear under subsection (1) and who uses an all-terrain vehicle, snow vehicle, motorized trail bike or motorcycle to travel to a remote work site may continue to wear that protective headwear while working at the work site if
   (a) the work does not subject the worker to potential contact with exposed energized electrical sources, and
   (b) the work is done for a short period of time.

Fire fighters
237 Despite section 234, an employer may permit a fire fighter to wear protective headwear that meets the requirements of the following standards considering the nature of the hazard:
   (a) NFPA Standard 1971, Protective Ensemble for Structural Fire Fighting, 2007 Edition, or
   (b) NFPA Standard 1977, Protective Clothing and Equipment for Wildland Fire Fighting, 2005 Edition,
if the protective headwear was manufactured on or after July 1, 2009.

Bump hat
238 Despite section 234, an employer may permit a worker to wear a bump hat at the work site if the danger of injury is limited to the worker’s head striking a stationary object.

Exemption from wearing headwear
239(1) Despite section 234, if it is impractical for a worker to wear industrial protective headwear during a particular work process,
   (a) the employer must ensure that the worker’s head is protected using an adequate alternative means of protection during the work process, and
   (b) the worker may conduct the work while the alternative means of protection is in place.

239(2) A worker must wear industrial protective headwear if the foreseeable danger of injury to the worker’s head persists immediately after completing the work process referred to in subsection (1).
Life Jackets and Personal Flotation Devices

Compliance with standards

240(1) An employer must ensure that a life jacket is approved to CGSB Standard CAN/CGSB 65.7-M88 AMEND, Lifejackets, Inherently Buoyant Type, and any amendments for approved small vessel life jackets.

240(2) An employer must ensure that a personal flotation device is approved to CGSB Standard CAN/CGSB 65.11-M88 AMEND, Personal Flotation Device, and any amendments for personal flotation devices, type 1 (inherently buoyant).

Use of jackets and flotation devices

241(1) If there is a foreseeable danger that a worker could be exposed to the hazard of drowning, an employer must ensure that the worker wears a life jacket.

241(2) A worker who could be exposed to the hazard of drowning must wear a life jacket.

241(2.1) Subsections (1) and (2) do not apply if other safety measures are in place that will protect a worker from the hazard of drowning.

241(3) Despite subsections (1) and (2), if a worker performs work from a boat for an extended period of time, the worker may wear a personal flotation device if the employer ensures that there is also a life jacket readily accessible to each worker on the boat.

Limb and Body Protection

Limb and body protection

242 If there is a danger that a worker’s hand, arm, leg or torso may be injured, an employer must ensure that the worker wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified.

Skin protection

243 An employer must ensure that a worker’s skin is protected from a harmful substance that may injure the skin on contact or may adversely affect a worker’s health if it is absorbed through the skin.
Respiratory Protective Equipment

Respiratory dangers

244(1) An employer must determine the degree of danger to a worker at a work site and whether the worker needs to wear respiratory protective equipment if
(a) a worker is or may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits,
(b) the atmosphere has or may have an oxygen concentration of less than 19.5 percent by volume, or
(c) a worker is or may be exposed to an airborne biohazardous material.

244(2) In making a determination under subsection (1), the employer must consider
(a) the nature and exposure circumstances of any contaminants or biohazardous material,
(b) the concentration or likely concentration of any airborne contaminants,
(c) the duration or likely duration of the worker’s exposure,
(d) the toxicity of the contaminants,
(e) the concentration of oxygen,
(f) the warning properties of the contaminants, and
(g) the need for emergency escape.

244(3) Based on a determination under subsection (1), the employer must
(a) subject to subsection 3(b), provide and ensure the availability of the appropriate respiratory protective equipment to the worker at the work site, and
(b) despite section 247, when the effects of airborne biohazardous materials are unknown, provide and ensure the availability of respiratory protective equipment appropriate to the worker’s known exposure circumstances.

244(3.1) Subsection (3) does not apply when an employer has developed and implemented procedures that effectively limit exposure to airborne biohazardous material.

244(4) A worker must use the appropriate respiratory equipment provided by the employer under subsection (3).
Code of practice

245(1) If respiratory protective equipment is used at a work site, an employer must prepare a code of practice governing the selection, maintenance and use of respiratory protective equipment.

245(2) In the case of a health care worker who may be exposed to airborne biohazardous material, an employer must ensure that the code of practice required under subsection (1) includes training on at least an annual basis.

Approval of equipment

246 An employer must ensure that respiratory protective equipment required at a work site is approved

(a) by NIOSH, or

(b) by another standards setting and equipment testing organization, or

combination of organizations, approved by a Director of Occupational Hygiene.

Selection of equipment

247 An employer must ensure that respiratory protective equipment used at a work site is selected in accordance with CSA Standard Z94.4-02, Selection, Use and Care of Respirators.

Storage and use

248(1) An employer must ensure that respiratory protective equipment kept ready to protect a worker is

(a) stored in a readily accessible location,

(b) stored in a manner that prevents its contamination,

(c) maintained in a clean and sanitary condition,

(d) inspected before and after each use to ensure it is in satisfactory working condition, and

(e) serviced and used in accordance with the manufacturer’s specifications.

248(2) An employer must ensure that respiratory protective equipment that is not used routinely but is kept for emergency use is inspected at least once every calendar month by a competent worker to ensure it is in satisfactory working condition.
Quality of breathing air

249(1) An employer must ensure that air used in a self-contained breathing apparatus or an air line respirator

(a) is of a quality that meets the requirements of Table 1 of CSA Standard Z180.1-00 (R2005), Compressed Breathing Air and Systems, and

(b) does not contain a substance in a concentration that exceeds 10 percent of its occupational exposure limit.

249(2) Subsection (1)(b) does not apply to substances listed in Table 1 of CSA Standard Z180.1-00 (R2005), Compressed Breathing Air and Systems.

Effective facial seal

250(1) An employer must ensure that respiratory protective equipment that depends on an effective facial seal for its safe use is correctly fit tested and tested in accordance with

(a) CSA Standard Z94.4-02, Selection, Use and Care of Respirators, or

(b) a method approved by a Director of Occupational Hygiene.

250(2) An employer must ensure that, if a worker is or may be required to wear respiratory protective equipment and the effectiveness of the equipment depends on an effective facial seal, the worker is clean shaven where the face piece of the equipment seals to the skin of the face.

Equipment for immediate danger

251 If an employer determines under section 244 that breathing conditions at a work site are or may become immediately dangerous to life or health, the employer must ensure that a worker wears self-contained breathing apparatus or an air line respirator that

(a) is of a type that will maintain positive pressure in the face piece,

(b) has a capacity of at least 30 minutes unless the employer’s hazard assessment indicates the need for a greater capacity,

(c) provides full face protection in situations where contaminants may irritate or damage the eyes,

(d) in the case of an air line respirator, is fitted with an auxiliary supply of respirable air of sufficient quantity to enable the worker to escape from the area in an emergency, and

(e) in the case of a self-contained breathing apparatus, has an alarm warning of low pressure.
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Equipment — no immediate danger

252 An employer must ensure that a worker wears self-contained breathing apparatus or an air line respirator having a capacity of at least 30 minutes if
(a) the employer determines under section 244 that conditions at the work site are not or cannot become immediately dangerous to life or health but
   (i) the oxygen content of the atmosphere is or may be less than 19.5 percent by volume, or
   (ii) the concentration of airborne contaminants exceeds or may exceed that specified by the manufacturer for air purifying respiratory equipment, and
(b) the complete equipment required by section 251 is not provided.

Air purifying equipment

253 An employer may permit workers to wear air purifying respiratory protective equipment if
(a) the oxygen content of the air is, and will continue to be, 19.5 percent or greater by volume,
(b) the air purifying equipment used is designed to provide protection against the specific airborne contaminant, or combination of airborne contaminants, present, and
(c) the concentration of airborne contaminants does not exceed the maximum concentration specified by the manufacturer for the specific type of air purifying equipment, taking into consideration the duration of its use.

Emergency escape equipment

254(1) Despite sections 251 and 252, if normal operating conditions do not require the wearing of respiratory protective equipment but emergency conditions may occur requiring a worker to escape from the work area, the employer may permit the escaping worker to wear
(a) a mouth bit and nose-clamp respirator if
   (i) the respirator is designed to protect the worker from the specific airborne contaminants present, and
   (ii) the oxygen content of the atmosphere during the escape is 19.5 percent or greater by volume, or
(b) alternative respiratory protective equipment that can be proven to give the worker the same or greater protection as the equipment referred to in clause (a).
254(2) Before permitting a worker to use the equipment referred to in subsection (1), the employer must consider the length of time it will take the worker to escape from the work area.

Abrasive blasting operations

255 If a worker is performing abrasive blasting, the employer must ensure that the worker wears a hood specifically designed for abrasive blasting, supplied with air that is at a positive pressure of not more than 140 kilopascals.