

chapter S-2.1, r. 13

## **Regulation respecting occupational health and safety**

### **Act respecting occupational health and safety**

(chapter S-2.1, s. 223).

#### **DIVISION I**

##### **INTERPRETATION AND SCOPE**

###### **1. Definitions:** In this Regulation,

"ACNOR" means the Canadian Standards Association or the Association canadienne de normalisation;

"aerial basket lifting device" means any elevator equipped with an extendable/retractable or jointed arm designed to be fitted with a carrier and used to lift workers or supplies by means of a basket on work sites;

"air recirculation" means local exhaust ventilation by extraction, filtering of the air and redistribution of the filtered air in a work area;

"all-terrain vehicle" means any passenger vehicle designed for sports driving off public highways and whose net weight does not exceed 450 kg;

"ANSI" means the American National Standards Institute;

"asbestos" means the fibrous form of mineral silicates belonging to rock-forming minerals of the serpentine group, namely chrysotile, and the amphibole group, namely actinolite, amosite, anthophyllite, crocidolite, tremolite or any mixture containing one or more of these minerals;

"asbestos dust" means airborne asbestos particles or deposited asbestos particles liable to become airborne in the work area;

"ASME" means the American Society of Mechanical Engineers;

"ASTM" means the American Society for Testing and Materials;

"calculator" means a calculation tool that can be used to evaluate the daily noise exposure level ( $L_{EX,8h}$  or  $L_{ex,8h}$ ) for the purpose of reducing the duration of workers' daily exposure to noise;

"CEN" means the European Committee for Standardization;

"CGA" means the Canadian Gas Association or the Association canadienne du gaz;

"confined space" means any space that is completely or partially enclosed, such as a reservoir, a silo, a vat, a hopper, a chamber, a vault, a pit, including a pit and a reception pit for manure, a sewer, a pipe, a chimney, an access shaft, a truck or freight car tank, or a wind turbine blade, and that presents one or more of the following risks due to the confinement:

(1) a risk of asphyxia, intoxication, loss of consciousness or judgment, fire or explosion associated with the atmosphere or internal temperature;

(2) a risk of being buried;

(3) a risk of drowning or being carried away due to the level or flow of a liquid;

"CSA" means the Canadian Standards Association or the Association canadienne de normalisation;

"daily noise exposure level" means the equivalent continuous sound pressure level (dBA) for an 8-hour working day. It results from measurements that include all the types of noise present, including impulse noises;

"dBA" means an A-weighted decibel measurement - the weighting reduces the significance of extreme frequencies, in particular low frequencies below 200 Hz, and increases the significance of frequencies around 2,500 Hz. A-weighting must be used for all measurements to evaluate  $L_{EX,8h}$  or  $L_{ex,8h}$ ;

"dBc" means a C-weighted decibel measurement - the weighting reduces the significance of frequencies at or below 31 Hz and increases the significance of frequencies at or above 8,000 Hz. C-weighting must be used for all measurements to evaluate peak sound pressure level;

"EN" a European standard issued by the European Committee for Standardisation;

"equivalent continuous sound pressure level (dBA)" means the A-weighted continuous sound pressure level measured over a given period of time. It is identical to the sound pressure level of a constant noise having the same total A-weighted sound energy over the same period of time. It results from measurements that include all the types of noise present, including impulse noises. In the formulas used to calculate daily noise exposure level, it corresponds to  $L_{p,A,eq,T_e}$  or  $L_{eq,T_e}$ , which is the A-weighted equivalent continuous sound pressure level for the duration of the working day in hours ( $T_e$  or  $T_w$ );

"free fall distance" means the vertical distance measured from the beginning of a fall, from the harness D-ring to which the fall arrest connecting device is attached, to the point where the fall arrest system begins to apply force to stop the fall;

"friable material" means material that can be crumbled, pulverized or powdered by hand pressure when dry or that is crumbled, pulverized or powdered;

"heat stress" means heat unbalance in a worker caused by working in a hot environment;

"high-efficiency filter" means any filter capable of filtering particles 0.3 µm in size at an efficiency rate of at least 99.97%;

"hoisting apparatus" includes cranes, travelling cranes, gantries, winches, blocks, lift trucks, aerial basket lifting devices, work platform lifts, screw-type jacks, rack-type jacks and other similar apparatus but does not include elevators and dumb-waiters;

"IEC" means the International Electrotechnical Commission;

"impulse noise" means a noise of short duration (generally less than one second), peaking at a high level and characterized by a sharp increase and rapid decrease in sound level. The parameter used to measure an impulse noise is the C-weighted peak sound pressure level;

"instructor" means a person in charge of the practical training and communication of theoretical knowledge required for the acquisition of occupational skills;

"ISO" means the International Organization for Standardization;

"lanyard" means a rope or strap fastened at one end to a safety harness and at the other end to an anchorage system or other component of a fall arrest connecting device;

"lifeline" means a synthetic fibre rope, a steel wire rope or a strap attached to an anchorage system and used to guide a rope grab;

"machine" means an assembly, fitted with or intended to be fitted with a drive system other than directly applied human or animal effort, consisting of linked parts or components, at least one of which moves, and which are joined together for a specific application;

"NF EN" means the European standard, the French version of which (NF) is published in France by the Association française de normalisation;

"NFPA" means the National Fire Protection Association;

"NIOSH" means the National Institute for Occupational Safety and Health;

"peak sound pressure level" means the instantaneous peak sound pressure level measured in C-weighted decibels;

"rated load" means the maximum load set by the manufacturer or an engineer;

"respirable asbestos fibre" means asbestos fibre having a ratio of length to diameter of more than 3:1; only fibres longer than 5 µm must be taken into account for measurement purposes;

"respiratory zone" means the zone within a hemisphere having a 300 mm radius extending in front of the face and measured from the midpoint of an imaginary line joining the ears;

"SAE" means the Society of Automotive Engineers;

"safety factor" means the ratio between the rupture load and the working load;

"self-propelled vehicle" means a motor vehicle mounted on wheels, on tracks or on rails, used for the transportation of objects or materials, or for towing or pushing trailers or materials, with the exception of an all-terrain vehicle or an elevating or lifting device;

"stationary work station" means any work station in which a worker is required to perform his duties for at least 4 hours of his working day over a usual work surface of 30 m<sup>2</sup> or less;

"washroom" means any room containing one or several toilets, urinals, sinks or showers to meet the sanitary needs of the workers of an establishment;

"work station" means any place, including a vehicle occupied by a worker to perform his work;

"ULC" means the Underwriters' Laboratories of Canada or the Laboratoires des assureurs du Canada.

O.C. 885-2001, s. 1; O.C. 510-2008, s. 1; O.C. 1411-2018, s. 1; O.C. 49-2022, s. 1; O.C. 1223-2021, s. 1; O.C. 644-2022, s. 1; O.C. 821-2023, s. 1; O.C. 781-2021, s. 1; O.C. 43-2023, s. 1; I.N. 2023-08-01; O.C. 1112-2023, s. 1.

## 2. Scope:

Notwithstanding any provisions to the contrary, this Regulation applies to all establishments.

Sections 1 to 5, 17, 40, 42, 44 to 48, 64 and 65, subparagraphs 1 to 3 of the first paragraph and the second paragraph of section 66, sections 107 to 111, 113 to 115, 121 to 124 and 144, the first paragraph of section 145 and sections 148 to 151 and Division XXVI.1 also apply, with the necessary modifications, to construction sites or, if applicable, to categories of sites specified therein.

O.C. 885-2001, s. 2; O.C. 119-2008, s. 8; O.C. 425-2010, s. 1; O.C. 428-2015, s. 8; O.C. 287-2021, s. 1.

## DIVISION II

### GENERAL PROVISIONS

**3. Purpose:** The purpose of this Regulation is to establish standards pertaining in particular to the quality of air, temperature, humidity, heat stress, lighting, noise and other contaminants, sanitary facilities, ventilation, hygiene, sanitation and cleanliness in establishments, area conditions, storage and handling of dangerous substances, machine and tool safety, certain high risk tasks, individual protective equipment and the transportation of workers to ensure the quality of the work environment, to safeguard the health of workers and to ensure their safety and physical well-being.

O.C. 885-2001, s. 3.

**4. Employer's obligations:** The employer shall comply with the standards set hereunder, with the exception of those of sections 312.5 and 339.

O.C. 885-2001, s. 4; O.C. 425-2010, s. 2.

**5. Operational status of equipment:** Any equipment used or installed in an establishment for purposes of preventing the emission of gases, dusts, fumes and vapours, to ensure proper conditions for lighting, ventilation, temperature, salubrity and hygiene prescribed hereunder or to ensure that noise or heat stress conditions comply with the requirements hereunder, shall always be in operational condition and shall give optimal performance during the establishment's business hours in such manner as to provide the performance for which it was designed.

O.C. 885-2001, s. 5.

## DIVISION III

## ESTABLISHMENT CONDITIONS

**6. Access routes and passageways:** Access routes providing access to buildings and reserved pedestrian passages shall be:

- (1) kept in good condition and free from any obstructions;
- (2) maintained to keep the surface from becoming slippery;
- (3) protected from falling objects or materials;
- (4) properly lit.

O.C. 885-2001, s. 6.

**7. Passageway markings:** In yards, passages and walkways reserved for pedestrians, and if applicable, their intersections with vehicle roadways, shall be clearly marked with signs in full view.

O.C. 885-2001, s. 7.

**8. Yards:** Yards or parts of yards used for the handling and transportation of supplies shall be kept level and drained so as to ensure safe usage, particularly in preventing the destabilization of loads, vehicles and equipment.

O.C. 885-2001, s. 8.

**9. (Revoked).**

O.C. 885-2001, s. 9; O.C. 1411-2018, s. 2.

**10. Vertical openings:** Any opening made through a wall that presents a falling hazard for an object that may cause injuries shall be protected with a net or a protective screen.

O.C. 885-2001, s. 10; O.C. 1411-2018, s. 3.

**11. (Revoked).**

O.C. 885-2001, s. 11; O.C. 1411-2018, s. 4.

**12. Guardrails:** Any guardrail incorporated in a building, with the exception of a guardrail that is part of any equipment, shall comply with the National Building Code as applied at the time of its installation.

Temporary guardrails shall be so designed, constructed and installed as to withstand the following minimum loads:

- (1) a 900 N horizontal single point load applied at any location on the top rail;
- (2) a 450 N load applied vertically at the top rail.

In addition, such guardrails shall be provided with

- (1) a top rail located between 1 m and 1,2 m from the floor;
- (2) at least an intermediate rail fixed at midway between the top rail and the floor. The intermediate rail may be replaced by balusters or panels;
- (3) a toeboard at floor level at least 90 mm high.

At locations where there is a concentration of workers and at other locations where the intermediary guardrails may be subject to extraordinary pressures, they shall be reinforced accordingly.

O.C. 885-2001, s. 12; O.C. 1411-2018, s. 5.

**13. (Revoked).**

O.C. 885-2001, s. 13; O.C. 1411-2018, s. 6.

**14. Floor:** Any floors shall be:

- (1) kept in good order, clean and free from any obstruction;
- (2) provided with walkways that comply with section 15;
- (3) provided with drains, if required for maintenance and the draining off of liquids;
- (4) free from any opening capable of causing an accident, unless they are protected with a guardrail or a cover capable of bearing a load of at least 2,4 kN/m<sup>2</sup>.

Where a motorized vehicle is likely to travel on a cover, the cover must have a resistance at least equivalent to 3 times the maximum load that may be imposed by the vehicle.

O.C. 885-2001, s. 14; O.C. 1411-2018, s. 7.

**15. Walkways:** Walkways inside a building shall:

- (1) be kept in good order and free from any obstruction;
- (2) be maintained to keep the surface from becoming slippery, even through wear or humidity;
- (3) be wide enough to allow the safe handling of materials and be at least 600 mm wide;
- (4) be at least 1,100 mm wide if they serve as direct access to an exit;
- (5) be clearly marked out by lines traced on the floor or be bordered by facilities, equipment, walls or material or merchandise depots, to permit the safe passage of persons;
- (6) have a free space of at least 2 m above the floor unless the danger is made known by means of a visible sign;
- (7) be free from any opening capable of causing an accident, unless they are protected with a guardrail or a cover capable of withstanding a load of at least 2,4 kN/m<sup>2</sup>.

Where a motorized vehicle is likely to travel on a cover, the cover must have a resistance at least equivalent to 3 times the maximum load that may be imposed by the vehicle.

O.C. 885-2001, s. 15; O.C. 1411-2018, s. 8.

**16. Work stations:** A work station shall

- (1) be kept in good condition and free from any obstructions;
- (2) be situated on a surface that is maintained so as not to become slippery, even through wear or humidity;
- (3) have sufficient free space between machines, facilities or material depots in order that workers may carry out their task safely; this free space shall not be less than 600 mm.

Subparagraph 3 of the first paragraph does not apply to a work station in a vehicle.

O.C. 885-2001, s. 16.

**17. Cleaning:** Subject to section 326, the upkeep of the work premises of an establishment shall be ensured through vacuuming, wet mopping or any other method that controls and reduces to a maximum the stirring up of dust.

O.C. 885-2001, s. 17.

**18. Refuse containers:** Refuse, sweepings and other residues shall be removed from work stations.

Appropriate containers shall be available in various locations for such purpose.

O.C. 885-2001, s. 18.

**19. Location of machines:** Machines shall be located in such manner as to provide necessary free space for their upkeep and the safe handling of material and refuse.

O.C. 885-2001, s. 19.

**20. Machine guidance tracks:** Machine guidance tracks such as those of conveyors, gantries or machines used for transporting persons or things, can only be crossed in the following cases:

- (1) at places protected and so designated;
- (2) according to a procedure ensuring worker safety;
- (3) at any place where they can be crossed safely, in the case of a slow-moving conveyor.

O.C. 885-2001, s. 20.

**21. Work station access:** Machines, machine rooms or service platforms for these machines, which constitute a work station, shall, if they are situated above or below a floor and if they are not serviced by a stairway, be accessible by a service stairway, an access ramp or a fixed ladder.

However, access to such a place by means of a fixed ladder is prohibited when a worker cannot use both hands for holding onto the side rails or rungs of the permanent ladder.

This section does not apply to a vehicle.

O.C. 885-2001, s. 21.

**22. Service stairs:** Any service stairs shall:

- (1) have a minimum width of 550 mm for stairways built or modified on or after 2 August 2001;
- (2) have a slope between at least 20° and at most 50° with the horizontal, except for stairways installed before 1 January 1973 which may have a slope up to 60°;
- (3) be provided with guardrails securely fastened and supported on the open sides, including landings;
- (4) be provided with steps having:

- (a) a uniform depth and width in any one flight;
  - (b) a depth of at least 150 mm (nose excluded);
  - (c) a maximum height of 240 mm, except for stairs built before 1 January 1973 for which the stair height may reach 280 mm;
- (5) have a free space of at least 2 m above each stair, measured from the nose or the forward part of the stair.

The depth of stairs on circular or spiral service stairs shall measure 230 mm from the post or the supports for the inside railing.

Subparagraph 5 of the first paragraph applies only to stairs built, installed or modified on or after 2 August 2001 and whose construction, installation or modification does not require a modification of the existing building structure. Stairs that do not have to comply with subparagraph 5 shall have an adequate warning sign.

O.C. 885-2001, s. 22; O.C. 1411-2018, s. 9.

**22.1. Ramp:** A ramp must be provided with a guardrail securely fastened and supported on the open sides where the workers are exposed to a falling hazard of 1,5 m or more.

O.C. 1411-2018, s. 10.

**23. Permanent ladders:** Permanent ladders used to replace service stairs shall:

- (1) be of safe construction and solidly anchored to withstand a mass of 90 kg at the centre of the rungs with a safety factor of 4;
  - (2) for ladders exceeding 9 m, have rest platforms equipped with guardrails, at least at 6 m intervals;
  - (3) have a free space behind the rungs of at least 150 mm;
  - (4) have a free space on each side of at least 375 mm and forward of at least 800 mm, measured from the centre of a rung;
  - (5) extend 900 mm beyond the top storey;
  - (6) be provided with guardrails surrounding the floor opening with a removable gate for access to the ladder;
- (7) be provided with a fall arrestor in compliance with CSA Standard Z259.2.5 Fall Arresters and Vertical Lifelines, or CSA Standard Z259.2.4 Fall Arresters and Vertical Rigid Rails where there is danger of a fall greater than 6 m.

Subparagraphs 3 and 4 of the first paragraph apply only to permanent ladders built, installed or modified on or after 2 August 2001.

Despite subparagraph 7, permanent ladders installed before 3 January 2019 may, until they are modified, be provided with crinolines, cages or a fall arrestor in compliance with CAN/CSA Standard Z259.2.1-98 Fall Arresters, Vertical Lifelines and Rails, where there is danger of a fall greater than 6 m.

O.C. 885-2001, s. 23; O.C. 1411-2018, s. 11.

**24. Exception:** Notwithstanding subparagraph 2 of section 23, the fixed ladders servicing elevated towers, water reservoirs or other elevated constructions to which workers only occasionally have access, may be exempt from rest platforms.

O.C. 885-2001, s. 24; O.C. 1411-2018, s. 12.

**25. Compliance with the standard:** Any portable ladder and any stepladder used on a work site shall be manufactured and certified in accordance with CSA Z11 standard, Portable Ladders, applicable at the time of its manufacture.

This section does not apply to three-rail orchard ladders.

O.C. 885-2001, s. 25; O.C. 502-2018, s. 1.

**25.1. Conditions of use:** The use of a portable ladder or a stepladder is permitted for work of short duration.

The type of portable ladder or a stepladder used shall be:

- (1) chosen on the basis of the work to be performed or the work environment;
- (2) inspected before its use to ensure that it is in good condition;
- (3) placed near the work to be performed to avoid any unsteadiness;
- (4) moved when it is closed or folded while avoiding any obstacle such as electrical wires.

O.C. 502-2018, s. 2.

**26. Installation conditions:** Portable ladders shall:

- (1) rest on a firm base with the upper part propped on the 2 siderails;
- (2) be firmly held in place by one or more persons, if they are not firmly attached and if their length is equal to or more than 9 m;
- (3) be protected against any sliding and against any shock that could compromise equilibrium;
- (4) if not firmly fixed, be so inclined that the horizontal distance between the base of the ladder and the vertical plane of its top support is approximately between the quarter and the third of the length of the ladder between its supports;

- (5) where used as a means of access:
  - (a) be firmly fixed in place;
  - (b) extend 900 mm beyond the top storey;
  - (c) have a space behind the rungs of at least 150 mm;
- (6) be set in such a manner that there is sufficient space at the base allowing safe access;
- (7) (paragraph revoked);
- (8) never be linked to another ladder, end to end, by lapped joints;
- (9) (paragraph revoked);
- (10) (paragraph revoked);
- (11) not be put on scaffolding, an elevated platform, an aerial basket or platform, on crates, barrels or in front of a door opening onto the ladder;
- (12) if applicable, have the sections properly assembled and the locks properly engaged.

O.C. 885-2001, s. 26; O.C. 502-2018, s. 3.

**27. Portable extension ladder:** The length of a portable extension ladder with 2 or more extensions, measured along the siderails, cannot exceed 15 m.

Where the ladder is deployed, the raised section shall mandatorily be on top of the lower section at all times during use.

O.C. 885-2001, s. 27; O.C. 502-2018, s. 4.

**28. Stepladders:** Any stepladder used on a work site shall have the legs fully spread and the retaining device locked.

O.C. 885-2001, s. 28; O.C. 502-2018, s. 5.

**29. Prohibited usages:** It is prohibited:

- (1) to use a portable ladder or a stepladder near an exposed electrical circuit, if it is made of metal or is metal-reinforced;
- (2) to use a portable ladder or a stepladder as a horizontal support;
- (3) to stand up on
  - (a) the last 2 rungs of a portable ladder;
  - (b) the top rung, on the pail shelf, on the rear section or on the top of a stepladder, except if it was so designed by the manufacturer;
- (4) to use the intermediate or upper section of a multiple-section ladder or of an extension ladder as the lower section, unless such use is authorized by the manufacturer.

O.C. 885-2001, s. 29; O.C. 502-2018, s. 6.

**30. Safety precautions:** The worker shall:

- (1) be facing the portable ladder or stepladder at all times;
- (2) remain in the centre of the steps or rungs of the portable ladder or stepladder and comply at all times with the maximum height indicated by the manufacturer;
- (3) maintain 3 points of contact while climbing or descending the portable ladder or stepladder, unless a means of protection against falls is used.

O.C. 885-2001, s. 30; O.C. 502-2018, s. 7.

**31. Gangways and stationary platforms:** Gangways and stationary platforms shall:

- (1) not be subject to loads greater than the ones specified by the manufacturer or by an engineer;
- (2) be provided with guardrails on the sides exposed to falls of 1,5 metres or more;
- (3) if made of perforated materials and located more than 1.8 m from the floor or the ground, not include openings through which a sphere 30 mm in diameter can pass;
- (4) have a minimum width of 600 mm for gangways or platforms built or modified on or after 2 August 2001;
- (5) have a free space of at least 2 m above and below, unless a danger sign is posted.

O.C. 885-2001, s. 31; O.C. 1411-2018, s. 13.

**31.1. Suspended scaffolding:** Any suspended scaffolding shall be used with a full body harness secured to an anchorage system by a fall arrest connecting device in accordance with section 347. Where the suspended scaffolding is hung from 4 hoisting cables, the anchorage system may be installed on the platform.

The suspended scaffolding shall comply with CAN/CSA Standard Z271 Safety Code for Suspended Platforms and be used in accordance with CAN/CSA Standard Z91 Health and Safety Code for Suspended Equipment Operations. These 2 standards are those applicable on the date of manufacture of the scaffolding.

Where a rope grab fastened to a vertical lifeline is used, it shall have a feature that prevents the sliding of the rope grab along the lifeline should it be grabbed in a panic during a fall.

O.C. 1411-2018, s. 14.

**32. Installation of scaffolds:** Scaffolds or devices designed and built for lifting persons shall be used in places where workers, from the ground or a solid structure, are unable to perform their work.

O.C. 885-2001, s. 32; O.C. 502-2018, s. 8.

**33. Operating conditions:** Scaffolds shall be designed for the type of work to be performed and the probable risks. They shall meet the following conditions:

- (1) be so designed, constructed, trussed, braced and maintained as to support any loads and stresses they may be subjected to, and resist wind action;
- (2) have a safety factor of at least 4 for each constituent element;
- (3) rest on firm ground or foundations;
- (4) be provided with guardrails when the workers are at risk of falling
  - (a) into a liquid or dangerous substance;
  - (b) from a height of 1,5 m or more in a well, a basin, a tank, a reservoir, a vat, a container for the storing or mixing of substances, or where the workers are handling a load; or
  - (c) from a height greater than 3 m in other cases.

Despite subparagraph 4, a guardrail is not required for each of the sides of a scaffold floor located less than 350 mm from a wall or another floor.

The guardrails of the scaffolds may be temporarily removed if they prevent the carrying out of work that cannot reasonably be performed otherwise. In this case, the wearing of a full body harness secured to an anchorage system by a fall arrest connecting device is mandatory for the worker, in accordance with section 347.

O.C. 885-2001, s. 33; O.C. 1411-2018, s. 15.

### **DIVISION III.1** **PROTECTION AGAINST FALLS**

O.C. 1411-2018, s. 16.

**33.1. Cases where workers must be protected:** Workers shall be protected against falls in the following cases:

- (1) if they are at risk of falling more than 3 m unless they are only using a means of access or exit;
- (2) if they are at risk of falling
  - (a) into a liquid or dangerous substance;
  - (b) on a moving component;
  - (c) on equipment or material that constitute a danger;
- (d) from a height of 1,5 m or more in a well, a basin, a tank, a reservoir, a vat, a container for the storing or mixing of substances, or where the workers are handling a load.

O.C. 1411-2018, s. 16.

**33.2. Safety measures:** Where workers must be protected in accordance with section 33.1 and subject to section 33.3, one or several of the following measures shall be taken by the employer to ensure the safety of workers:

- (1) change the work position of workers so that they can work on the ground or on another surface from which they are not at risk of falling;
- (2) install guardrails or a system which, by limiting the movements of workers, prevent them from being at risk of falling;
- (3) use common protective devices and equipment, such as a safety net in accordance with section 354;
- (4) ensure that workers wear safety harnesses secured to an anchorage system by a fall arrest connecting device, in accordance with section 347 when they are working. When workers cannot position themselves without the help of their fall arrest connecting device, ensure that they also use a means of positioning, such as a plank on brackets, a positioning tether or strap, a suspension cable or a platform;
- (5) use another means that ensures equivalent safety for workers.

O.C. 1411-2018, s. 16.

**33.3. Installation of guardrails:** Guardrails must be placed on open sides of a roof or around any area from which workers may fall:

- (1) into a liquid or dangerous substance;
- (2) a height of 1,5 m or more in a well, a basin, a tank, a reservoir, a vat, a container for the storing or mixing of substances, or where the workers are handling a load; or
- (3) a height greater than 3 m in other cases.

Despite the foregoing, the guardrail may be removed during the time of the work if it prevents the carrying out of a task that could not be reasonably performed otherwise. In such a case, workers must wear a safety harness secured to an anchorage system by a fall arrest connecting device, in accordance with section 347. The work area must then be delimited in particular by a continuous barrier or trestles of a minimum height of 0,7 m, located at a distance varying between 0,9 m and 1,2 m from the place where workers are at risk of falling, or by a warning line complying with the requirements of section 354.1, so as to prevent access thereto by persons not working therein.

O.C. 1411-2018, s. 16.

**33.4. Water basins:** Sections 33.1 to 33.3 do not apply to water basins used for leisure purposes.

O.C. 1411-2018, s. 16.

**33.5. Warning line instead of a guardrail:** Despite section 33.3, during roofing work, a warning line complying with section 354.1 may be installed to replace the use of a guardrail and delimit a work area on a roof with a slope equal to or less than 15° (3/12).

In such a case, another recognized protection mechanism against falls, such as a safety harness secured to an anchorage system by a fall arrest connecting device in accordance with section 347 shall be used outside the area delimited by the warning line.

O.C. 1411-2018, s. 16.

#### DIVISION IV EMERGENCY SAFETY PRECAUTIONS

**34. Evacuation plan:** In any establishment, an emergency evacuation plan shall be drawn up and be in force, if applicable.

O.C. 885-2001, s. 34.

**35. Drills:** Rescue and evacuation drills shall be held at least once a year. These drills are to be adapted to risks found in the establishment as well as to the nature of activities carried on there.

O.C. 885-2001, s. 35.

**36. Portable fire extinguishers:** portable fire extinguishers shall be installed in all buildings so that action may be taken in the early stages of a fire.

The choice, installation, utilization and maintenance of these portable fire extinguishers shall comply with the NFPA-10 Portable Fire Extinguishers standard, applicable according to the year the extinguishers were installed.

Additional fire extinguishers shall be installed in places where there is a localized risk of fire.

O.C. 885-2001, s. 36.

**37. Operating conditions:** Portable fire extinguishers shall:

- (1) be approved by Underwriters' Laboratories of Canada (ULC);
- (2) provide protection according to the nature of the hazard;
- (3) be filled after use;
- (4) bear the name of the person entrusted therewith and the date of the last inspection.

O.C. 885-2001, s. 37.

**38. Emergency systems:** Alarm and detection systems as well as emergency lighting shall always be in good working order.

O.C. 885-2001, s. 38.

#### DIVISION V AIR QUALITY

**39. Replacement:** Insofar as possible, dangerous substances that are sources of dusts, fumes, mists, vapours or gases shall be replaced with substances that are not dangerous or are the least dangerous possible.

O.C. 885-2001, s. 39.

**39.1.** The use of crocidolite, amosite or a product containing either of these substances is prohibited, except where their replacement is not reasonable or practicable.

**40.** No worker in an establishment shall be exposed to:

- (1) a concentration of airborne oxygen below 19.5% in volume at normal atmospheric pressure;
- (2) gases, fumes, vapours, dusts or mists, beyond the limits provided for in Schedule I.

Subparagraph 2 of the first paragraph also applies to a work station located in a vehicle, wherever situated.

O.C. 885-2001, s. 40; O.C. 49-2022, s. 3.

**41.** In order to comply with the values provided in section 40, the employer must control or improve the quality of the air by eliminating air contaminants or replacing dangerous substances, as provided in section 39. Failing that, the employer must take other measures favouring the following:

- (1) containment, to prevent the source of contamination from reaching the worker or affecting the percentage of oxygen;
- (2) the control of processes such as dust abatement, as well as the installation or improvement of an establishment's local and then general ventilation.

In addition, such measures must be taken by the employer when designing, organizing or making changes to an establishment.

O.C. 885-2001, s. 41; O.C. 49-2022, s. 3.

**41.1.** Notwithstanding section 41, an employer may provide a respirator in compliance with Division VI, without taking other measures, during the period required to perform work on the equipment referred to in section 5, or during the performance of temporary work of the same nature on another type of equipment or facility.

O.C. 49-2022, s. 4.

**42. Carcinogenic and isocyanate substances:** When a worker is exposed to a substance identified in Schedule I as having a known or suspected carcinogenic effect on humans or being diisocyanate or isocyanate oligomers, such exposure shall be reduced to a minimum, even when it remains within the standards in that Schedule.

O.C. 885-2001, s. 42.

**43. Measurement:** In any establishment that employs 50 workers or more where the concentration of gases, dusts, fumes, vapours or mists at a work location exceeds or could exceed the standards prescribed in Schedule I, the concentration of such gases, dusts, fumes, vapours or mists emitted into the work environment concerned shall be measured at least once a year, in compliance with paragraph 1 of section 44.

However, in any establishment where workers are exposed to asbestos, the concentration of airborne asbestos dust and the concentration of respirable asbestos fibres in the respiratory zone of the workers shall also be measured at least once a year. A sampling strategy may provide for more frequent measuring, at shorter intervals, depending on the extent of the risk to the health, safety or physical well-being of the workers.

These measurements shall also be taken each time there is a change in industrial processes or each time facilities are installed for improving the quality of the air in the work environment of the establishment.

The results of any measurement of the quality of the air taken in the work environment by the employer shall be entered in a register that shall be kept by the employer for a period of at least 5 years.

O.C. 885-2001, s. 43.

**44. Methods:** Dusts, gases, fumes, vapours and mists found in the workplace environment shall be measured in the respiratory zone of workers or, if this proves to be impossible owing to the lack of equipment for taking a sampling in this zone, then outside the breathing zone but in a place located as close as possible to such zone.

These dusts, gases, fumes, vapours and mists found in the workplace environment shall be sampled and analyzed to obtain an accuracy equivalent to that obtained by applying the methods described in the Sampling Guide for Air Contaminants in the Workplace published by the Institut de recherche Robert-Sauvé en santé et sécurité du travail du Québec.

The sampling strategy for these contaminants shall be carried out in accordance with common practices in industrial hygiene as summarized in the aforementioned guide.

O.C. 885-2001, s. 44.

## DIVISION VI

### RESPIRATOR

O.C. 885-2001, Div. VI; O.C. 49-2022, s. 5.

**45. Respirator:** The employer must provide the worker with a respirator in the following cases:

- (1) during the period required to implement a measure provided for in section 41;
- (2) in case of an emergency where the values provided for in section 40 are not complied with;
- (3) if no measure makes it possible to comply with the values provided for in section 40.

**45.1.** Every respirator provided by the employer must be certified by the NIOSH or the CSA.

When providing such a device, the employer must draft and apply a respiratory protection program in compliance with CAN/CSA Standard Z94.4-11, Selection, Use and Care of Respirators, as published in September 2016.

O.C. 49-2022, s. 7; O.C. 280-2024, s. 1.

**46. Prohibition:** Notwithstanding section 45.1, an employer may not provide the worker with a self-contained or air-supplied protective respiratory apparatus equipped with an automatic device which interrupts or restricts the air supply in the part of the apparatus covering the face.

O.C. 885-2001, s. 46; O.C. 49-2022, s. 8.

**47. (Revoked).**

O.C. 885-2001, s. 47; O.C. 49-2022, s. 9.

**48. Air supply:** Compressed breathing air for supplied-air respirators or self-contained respiratory protective apparatuses must comply with CSA Standard CAN/CSA-Z180.1-00, Compressed Breathing Air and Systems. Systems that produce, store and distribute air must comply with the standard that applies to them.

Samples of compressed breathing air shall be taken and analyzed to obtain an accuracy equivalent to that obtained by applying the methods described in the Sampling Guide for Air Contaminants published by the Institut de recherche Robert-Sauvé en santé et sécurité du travail du Québec. The analyses must be made at least every 6 months, except for ambient air systems. The results of these analyses shall be entered in a register that shall be kept for a period of at least 5 years.

Breathable compressed air supply and distribution systems shall be maintained in compliance with the manufacturers' instructions. The date on which such maintenance is performed as well as the name of the person who performed it shall be recorded by the employer in a register that shall be kept for a period of at least 5 years.

O.C. 885-2001, s. 48; O.C. 915-2011, s. 1; O.C. 1104-2015, s. 1; O.C. 49-2022, s. 10.

## DIVISION VII

### FLAMMABLE VAPOURS AND GASES

**49. Lower explosion limit:** The concentration of inflammable vapours or gases in a building or other workplace that is not an enclosed area shall be kept below 25% of the lower explosion limit.

O.C. 885-2001, s. 49.

**50. Flammable source:** No flammable source shall be allowed either inside or outside, where the concentration of flammable gases or vapours is equal to or exceeds 25% of the lower explosion limit.

O.C. 885-2001, s. 50.

**51. Smoking prohibition:** Smoking in any area where there may be flammable vapours or gases is prohibited.

O.C. 885-2001, s. 51.

**52. Static electricity:** In areas or rooms containing flammable vapours or gases, the following rules must be complied with:

- (1) any metallic equipment and machine must be bonded together and commonly grounded or be grounded separately to a grounding network with equivalent conductivity so as to prevent the accumulation of static electricity; and
- (2) any non-metallic equipment and machine must be built and installed to first limit the accumulation of static electricity under a safety threshold and then to prevent such an accumulation in excess of the safety threshold.

O.C. 885-2001, s. 52; O.C. 392-2011, s. 1.

**53. Ventilation system:** Any ventilation system for removing flammable vapours or gases that may present a danger of fire or explosion shall:

- (1) be made of non-combustible substances;
- (2) use ventilators whose rotating parts are made of materials that do not produce sparks;
- (3) have all metallic components bonded together and commonly grounded or grounded separately to a grounding network with equivalent conductivity so as to prevent the accumulation of static electricity;
- (3.1) have all non-metallic components built and installed to first limit the accumulation of static electricity under a safety threshold and then to prevent such an accumulation in excess of the safety threshold;
- (4) be equipped with airtight exhaust conduits oriented directly outdoors without ever passing through an intermediate room, and built to resist explosions.

O.C. 885-2001, s. 53; O.C. 392-2011, s. 2.

## DIVISION VIII

### COMBUSTIBLE DUSTS AND DRY MATERIALS

**54. Preventive cleaning:** All rooms where combustible dusts are generated shall be cleaned as often as necessary to prevent the accumulation of dusts on floors, beams, equipment, and machines, in quantities that can present a fire or explosion hazard.

O.C. 885-2001, s. 54.

**55. Static electricity:** The rules provided for in section 52 apply in areas or rooms containing combustible dusts that present a fire or explosion hazard.

O.C. 885-2001, s. 55; O.C. 392-2011, s. 3.

**56. Flammable source:** No flammable source is permitted in areas where combustible dusts present a fire or explosion hazard. Smoking is prohibited.

O.C. 885-2001, s. 56.

**57. Fire or explosion hazard:** Machines and equipment presenting a fire or explosion hazard due to combustible dusts, shall be so located, constructed, enclosed or purged as to protect employees near such machines or equipment.

O.C. 885-2001, s. 57.

**58. Collection and processing systems:** In addition to the requirements of section 108, every blower, conveyor, transfer or processing system for pulverized combustible dust and any other suspended matter presenting a fire or explosion hazard must be designed, built, installed, used and maintained in compliance with the following standards according to their respective application:

- (1) NFPA Standard 61-2002 Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities;
- (2) NFPA Standard 484-2002 Combustible Metals, Metal Powders and Metal Dusts;
- (3) NFPA Standard 664-2002 Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities.

For any other field of application, the system must comply with NFPA Standard 654-2000 Prevention of Fire and Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids.

Any system referred to in the first paragraph installed before 4 January 2007 must comply with one of those standards or with the standard applicable at the time of the installation of the system.

O.C. 885-2001, s. 58; O.C. 1120-2006, s. 1.

**59. Enclosed dust collectors:** Every enclosed collector for combustible dust or any other suspended matter presenting a fire or explosion hazard must

(1) be designed, manufactured and maintained according to the rules of the trade; and

(2) be placed and installed

(a) outside a building if provided with explosion vents in compliance with NFPA Standard 68-1998 Guide for Venting of Deflagrations; vents already installed on collectors on 4 January 2007 must also comply with that standard or with the standard applicable at the time of installation of the vents and be in good order;

(b) inside a building in either of the following cases:

i. if adjacent to an outside wall or ceiling towards which the explosion vents are channelled by explosion proof ducts and if they comply with NFPA Standard 68-1998 Guide for Venting of Deflagrations; vents already installed on the collectors on 4 January 2007 must also comply with that standard or with the standard applicable at the time of the installation of the vents and be in good order; or

ii. if equipped with an automatic explosion prevention system in compliance with NFPA Standard 69-2002 Explosion Prevention Systems; the automatic prevention systems installed on the collectors on 4 January 2007 must also comply with that standard or with the standard applicable at the time of the installation of the systems and be in good order.

O.C. 885-2001, s. 59; O.C. 1120-2006, s. 1.

**59.1. Open dust collectors:** Every open collector for combustible dust or any other suspended matter presenting a fire or explosion hazard and used in the wood industry may be placed and installed inside a building

(1) if it is not connected to a sander or abrasive planer with mechanical feed;

(2) if its capacity does not exceed 2.4 m<sup>3</sup> per second;

(3) if the fan motor is designed for Class II or III locations according to the Canadian Electrical Code, First Part, Nineteenth Edition, CSA Standard C22-10-04 with Québec Amendments;

(4) if it is emptied as needed sufficiently often to ensure safety and collecting efficiency;

(5) if installed at least 6 m from a work station, a travelway or an emergency exit, unless a protective blast screen, such as a steel sheet, a fire-resistant synthetic sheet or a gypsum wall, is installed between the station, the travelway or the exit and the open dust collector if it is not possible to comply with that distance; and

(6) where there is more than one open dust collector, if the collectors are at least 6 m apart, unless a protective blast screen, such as a steel sheet, a fire-resistant synthetic sheet or a gypsum wall is installed between the collectors if it is not possible to comply with that distance.

For the purposes of this section, "open dust collector" means equipment for the separation of air from solid particles designed and used to remove dust and having the following features:

- (1) filtering is done by dust-laden air passing through a filtering element that gathers dust inside the filter and allows clean air to return to the ambient air;
- (2) the filtering element is not enclosed or installed in a rigid casing;
- (3) the filtering element is not shaken mechanically or by pulsed air jets;
- (4) the filtering element is under positive pressure; and
- (5) the cleaning of collected dust is neither continuous nor mechanical.

O.C. 1120-2006, s. 1.

**60. Silos:** Silos used for storing dry combustible substances shall be:

- (1) made of fire resistant materials;
- (2) provided with covers and adequate ventilation;
- (3) provided with explosion vents complying with NFPA Standard 68-1998 Guide for Venting of Deflagrations, where there is a risk of explosion. Vents already installed in silos on 2 August 2001 may also be used if they comply with a previous text of that standard and are in good working order.

O.C. 885-2001, s. 60.

**DIVISION IX**

SPECIAL PROVISIONS CONCERNING VARIOUS DANGEROUS SUBSTANCES

**61. (Revoked).**

O.C. 885-2001, s. 61; O.C. 476-2013, s. 1.

**62. Dust or scraps:** Any asbestos dust or scraps of crumbling material whose concentration of asbestos is at least 0.1% shall be stored and transported in a sealed container.

For the purposes of this section, the second paragraph of section 69.5 applies.

A label shall be affixed to any container referred to in the preceding paragraph. The label shall permanently include the following indications and be easily legible:

- (1) materials containing asbestos;
- (2) toxic if inhaled;
- (3) keep container tightly closed;
- (4) do not inhale the dust.

O.C. 885-2001, s. 62; O.C. 476-2013, s. 2.

**63. Protective suit:** The employer shall supply a protective suit to any worker whose personal clothing risks being contaminated by chrysotile asbestos fibres from exposure thereto while performing his duties.

The employer shall ensure the care of this protective suit that shall not be worn outside the workplace.

O.C. 885-2001, s. 63.

**64. Lead:** The recovery of lead or lead products and other related operations shall be performed inside an establishment in compliance with the requirements under section 107.

O.C. 885-2001, s. 64.

**65. Floor:** In any establishment where lead, mercury or their compounds are handled, stored or used in either solid or liquid form, the floor covering shall be made of a non-porous material.

O.C. 885-2001, s. 65.

**66. Protective clothing:** The employer shall make sure that workers wear protective clothing used exclusively for their work when performing any of the following activities:

- (1) the recovery or melting of lead or lead products;
- (2) the manufacturing of lead batteries;
- (3) the manufacturing of lead powders or salts, chlorine, fluorescent lamps or caustic soda where workers must handle lead or mercury;
- (4) any work involving exposure to crocidolite asbestos, amosite or any other type of amphibole;

(5) any work involving exposure to chrysotile asbestos fibres that cannot be contained within the exposure value levels specified in Schedule I.

Before reuse, the employer shall ensure that such clothing has been cleaned with a vacuum equipped with a high-efficiency filter, unless the clothing has been washed.

O.C. 885-2001, s. 66.

**67. Double changing room:** 2 separate lockers: one for the worker's street clothes and the other for his work clothes shall be put at his disposal in an establishment where workers are exposed to lead, mercury, asbestos or beryllium or their compounds, in the form of steam or dust.

These lockers shall be placed in 2 separate rooms used exclusively for that purpose, between which a shower room shall be installed so that the workers may take a shower before putting on their street clothes. The storage space of each locker shall be at least 0.14 m<sup>3</sup>, and there shall be a clearance of at least 600 mm in front of each row of lockers.

Workers thus exposed may not wear their work clothes elsewhere than on the work premises.

O.C. 885-2001, s. 67.

**68. Abrasive blast cleaning:** Any industrial cleaning operation using abrasive air blasting inside an establishment shall be carried out in an isolated room or booth ventilated by extraction.

O.C. 885-2001, s. 68.

**69. Other protective equipment:** In addition to the requirements under section 68, the employer shall make sure that any worker exposed to dust raised by abrasive air blast cleaning wears an air-supplied abrasive hood in compliance with Division VI, gloves, leg protectors and clothing designed to ensure protection from dust and abrasive or metal projections. This equipment shall be put at the disposal of workers by the employer.

The worker shall put on, remove and store the protective equipment described in the first paragraph away from the place where the abrasive air blast cleaning is being carried out.

O.C. 885-2001, s. 69; O.C. 49-2022, s. 11.

## DIVISION IX.I PROVISIONS ON THE SAFE MANAGEMENT OF ASBESTOS

O.C. 476-2013, s. 3.

**69.1. Definitions:** In this Division,

"flocking" means a mixture of friable materials applied by spray to cover a surface; (*flocage*)

"heat insulating material" means insulating material that covers a facility or equipment to prevent heat loss. (*calorifuge*)

O.C. 476-2013, s. 3.

**69.2. Concentration:** For the purposes of this Division, a material, product, flocking or heat insulating material contains asbestos where the asbestos concentration is at least 0.1%.

O.C. 476-2013, s. 3.

### § 1. — *Flocking and heat insulating material*

O.C. 476-2013, s. 3.

**69.3. Inspection:** Every building built before 15 February 1990 must be inspected in order to locate flocking containing asbestos.

Every building built before 20 May 1999 must be inspected in order to locate heat insulating material containing asbestos.

It is the employer's responsibility to locate flocking and heat insulating material in respect of any building under the employer's authority.

O.C. 476-2013, s. 3.

**69.4. Demonstration:** Flocking and heat insulating material are presumed to contain asbestos unless demonstrated otherwise by

(1) verifiable documentary information, such as a technical description or a safety data sheet, which establishes the composition of flocking and heat insulating material or the date of their installation; or

(2) a sampling report complying with section 69.7 including the results of an analysis carried out on a sufficient number of representative samples so that the presence of asbestos on flocking and heat insulating material may be shown in accordance with section 69.5.

O.C. 476-2013, s. 3; S.Q. 2015, c. 13, s. 17.

**69.5. Analysis:** The analysis of samples must be carried out according to one of the methods specified in the Sampling Guide for Air Contaminants in the Workplace, published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail, as it reads at the time that it is applied, or according to a method enabling to obtain an equivalent accuracy.

Depending on the analysis method used, a concentration result greater than trace is equivalent to an asbestos concentration of at least 0.1%.

The laboratory that carries out the analysis must participate in an interlaboratory quality control program.

O.C. 476-2013, s. 3.

**69.6. Results:** Flocking or heat insulating material from which a sample was taken is deemed to contain asbestos if the sample's asbestos concentration is at least 0.1%.

O.C. 476-2013, s. 3.

**69.7. Sampling report:** The employer must obtain a sampling report where samples are taken for analysis from flocking and heat insulating material.

Such a report must contain the following information:

- (1) the name and qualification of the person responsible of the sampling report;
- (2) for each flocking and heat insulating material, a list of the samples taken and their location;
- (3) the analysis report of the samples;
- (4) the analysis method used; and
- (5) the name and address of the laboratory having carried out the analyses and the identification of the interlaboratory quality control program in which the laboratory participates.

O.C. 476-2013, s. 3.

**69.8. Frequency of inspections:** The employer must check, during the initial inspection and every 2 years thereafter, flocking and heat insulating material containing asbestos, except if they are entirely enclosed in a permanent structure resistant to fibres and access to flocking and heat insulating material is only possible by a destructive operation of the structure.

For the purposes of this section, the protective coating of heat insulating material does not constitute a permanent structure.

O.C. 476-2013, s. 3.

**69.9. Corrective measures:** Where flocking or heat insulating material is liable to produce asbestos dust emissions, the employer must, taking into account the degradation and dispersal factors, remove it, enclose it entirely in a permanent structure resistant to fibres, coat it with or soak it in a binder, or cover it with material resistant to fibres.

O.C. 476-2013, s. 3.

## § 2. — Materials and products containing asbestos

O.C. 476-2013, s. 3.

**69.10. Exclusions:** For the purposes of this subdivision, gypsum boards and joint compounds manufactured after 1 January 1980 are deemed not to contain asbestos.

O.C. 476-2013, s. 3.

**69.11. Verification:** Before undertaking work liable to generate dust by a direct or indirect action on or inside a building or any civil engineering works under the employer's authority, the employer must check for the presence of asbestos in the materials and products likely to contain some.

Depending on the availability of information, the employer must also check for the presence of asbestos when purchasing those materials or products.

The employer may be exempted from the obligation imposed by the first paragraph if the employer shows that the work to be carried out is not liable to produce asbestos dust emissions.

O.C. 476-2013, s. 3.

**69.12. Applicable provisions:** Sections 69.4 to 69.7 apply to a material or product likely to contain asbestos, with the necessary modifications.

O.C. 476-2013, s. 3.

**69.13. Corrective measures:** Where an interior finish likely to contain asbestos may emit dust because of its state, the employer must repair it or remove it taking into account the degradation and dispersal factors.

O.C. 476-2013, s. 3.

**69.14. Control of dust emissions:** The employer must take the required measures to control the emission of asbestos dust before undertaking work on materials or products, including flocking and heat insulating material, containing asbestos. The

employer has, in that respect, the same obligations as those provided for in the Safety Code for the construction industry (chapter S-2.1, r. 4).

The employer may be exempted from the obligations imposed by the first paragraph if the employer shows that the work to be carried out is not liable to produce asbestos dust emissions.

O.C. 476-2013, s. 3.

**69.15. Training and information:** Before undertaking work liable to produce asbestos dust emissions, the employer must train and inform the worker of the risks, prevention methods and safe working methods relevant to the work to be carried out.

O.C. 476-2013, s. 3.

**§ 3. — Recording and disclosure of information**

O.C. 476-2013, s. 3.

**69.16. Register:** The employer must keep and update a register that must contain the following entries and documents:

- (1) the location of flocking and heat insulating material that were inspected and the location of the materials and products that were checked;
- (2) the presence and type of asbestos or the absence of asbestos, in flocking and heat insulating material, materials and products, and the verifiable documentary information or sampling reports carried out by the employer indicating the types of asbestos or showing the absence of asbestos;
- (3) the dates and results of the inspections of flocking and heat insulating material containing asbestos conducted in accordance with sections 69.3 and 69.8 and the dates and results of any other verification of materials and products; and
- (4) the nature and the date of the work carried out on flocking, heat insulating material, materials and products containing asbestos.

The employer must keep the register provided for in the first paragraph for as long as the building or civil engineer works are under the employer's authority.

The employer must put the register at the disposal of workers and their representatives who work in the employer's establishment.

O.C. 476-2013, s. 3.

**69.17. Disclosure of information:** The employer must disclose to every person who plans to or will carry out work liable to produce asbestos dust emissions the entries relevant to that work that are noted in the register provided for in section 69.16, so that the person may plan and implement the required measures.

Every person who plans to or will carry out work liable to produce asbestos dust emissions must so inform all the workers likely to be exposed to asbestos dust.

O.C. 476-2013, s. 3.

**DIVISION X**  
**STORAGE AND HANDLING OF DANGEROUS SUBSTANCES**

**§ 1. — Interpretation and general provisions**

**70. Dangerous substances:** In this Division, "dangerous substance" means a substance that is either a hazardous product or a substance that appears on the list in Schedule II and that belongs to one of the following categories:

- (1) compressed gases;
- (2) flammable and combustible substances;
- (3) combustive substances;
- (4) toxic substances;
- (5) corrosive substances;
- (6) dangerously reactive substances.

For the purposes of this Division, the 6 categories identified in the first paragraph correspond to the hazard classes identified in the following table:

Classes (Controlled Products Regulations, SOR/88-66)	Hazard Classes (Hazardous Products Regulations, SOR/2015-17)
"compressed gases"	"gases under pressure"
"flammable and combustible material"	"flammable gases", category 1; "flammable aerosols";

	"flammable liquids";
	"flammable solids";
	"pyrophoric gases";
	"pyrophoric liquids";
	"pyrophoric solids";
	"substances and mixtures which, in contact with water, emit flammable gases";
	"self-heating substances and mixtures";
"oxydizing material"	"oxydizing gases";
	"oxydizing liquids";
	"oxydizing solids";
	"organic peroxides" types A to G;
"poisonous material"	"oral, dermal or inhalation acute toxicity" categories 1, 2 and 3;
	"skin corrosion/irritation", category 2;
	"serious eye damage/eye irritation", category 2;
	"respiratory or skin sensitization";
	"germ cell mutagenicity";
	"carcinogenicity";
	"reproductive toxicity", categories 1 and 2;
	"specific target organ toxicity – repeated exposure";
	"biohazardous infectious materials";
	"health hazards not otherwise classified";
"corrosive material"	"corrosive to metals";
	products classified in one of the following categories:
	– "skin corrosion/irritation", category 1;
	– "serious eye damage/eye irritation" category 1;
"dangerously reactive material"	"self-reactive substances and mixtures", types A to F;
	"physical hazards not otherwise classified".

O.C. 885-2001, s. 70; S.Q. 2015, c. 13, s. 18; O.C. 805-2020, s. 1.

**71. Hazardous product:** In this Division, "hazardous product" means a hazardous product within the meaning of the Hazardous Products Information Regulation (chapter S-2.1, r. 8.1).

A dangerous substance that is both a hazardous product and one appearing on the list in Schedule II shall meet the requirements of this section applying to it, as regards each and every category to which it belongs both as a hazardous product and a substance appearing on the list.

O.C. 885-2001, s. 71; S.Q. 2015, c. 13, s. 19.

**72. Safety precautions:** The storage and handling of dangerous substances shall be so controlled as to prevent accidental spillage or lighting of these substances. The following precautions shall be taken:

- (1) separate or isolate any dangerous substances which when mixed with other substances, may cause a fire or an explosion, or may discharge flammable or toxic gases;
- (2) keep containers, piping and other apparatus in good working order;
- (3) clean immediately but safely any dangerous substance spilled on floors or shelves;
- (4) when pouring from one container to another, use a secure recipient taking into account the type of dangerous substance being poured;
- (5) depending on the category in which the dangerous substance is classified, it shall comply with sections 77 to 99.

O.C. 885-2001, s. 72.

**73. Monitoring devices:** The devices for monitoring any open recipient containing liquid state dangerous substances at temperatures in excess of 60 °C shall be isolated or equipped with screens in order to protect workers from splashes if such substances are agitated or heated.

O.C. 885-2001, s. 73.

**74. Level indicators:** Level indicators on reservoirs, vats or other containers with liquid state dangerous substances at temperatures in excess of 60 °C shall be provided with protective screens.

O.C. 885-2001, s. 74.

**75. Emergency equipment:** Emergency showers and eye wash fountains shall be put at the disposal of workers in the following circumstances:

(1) when a corrosive substance or other dangerous substance is likely to rapidly cause serious or irreversible damage to the skin or eyes of workers;

(2) when a toxic substance is likely to be rapidly absorbed by the skin or the eyes and cause them to have serious irritations.

In other cases, equipment for rinsing eyes and washing skin, such as showers, portable showers, eye wash fountains or any other type of plumbing shall be put at the disposal of workers, according to the nature of the dangers to which they are exposed. Such equipment shall be located near the work station of the exposed workers.

O.C. 885-2001, s. 75.

**76. Shower facilities:** Emergency showers and eye wash fountains referred to in the first paragraph of section 75 shall be clearly identified and easily accessible. In addition, they shall be located within the immediate vicinity of exposed workers and supplied with warm water.

Water from showers supplied by a drinking water network as well as water supplying portable showers shall be regularly changed to ensure its safety.

The warm water supply only applies to showers installed or modified on or after 2 August 2002.

O.C. 885-2001, s. 76.

*§ 2. — Compressed gases*

**77. Compressed gas cylinders:** All compressed gas cylinders shall:

(1) comply with the Act respecting pressure vessels (chapter A-20.01) and its regulations;

(2) be kept away from any source of heat and not be exposed to temperatures in excess of 50 °C;

(3) be used only for the purposes for which they were designed;

(4) be handled in such a manner as not to damage them, and be fastened upright or held in a cart when in use;

(5) be kept in an upright position with the valves facing upwards and be solidly held in place;

(6) be equipped with a protective cap for the valves when not connected for use.

O.C. 885-2001, s. 77.

**78. Compressed gas cylinders in series:** Compressed gas cylinders linked in a series via a collector shall be supported, held together and form a unit by means of a rack or other frame designed for such purpose, and the cocks and safety valves shall be protected from being accidentally bumped or knocked.

O.C. 885-2001, s. 78.

**79. Prohibition:** The protective cap or a valve collar shall not be used for raising a compressed gas cylinder unless the collar has been specifically designed for such purpose.

O.C. 885-2001, s. 79.

**80. Propane gas:** Any propane gas cylinder that is not connected for use shall be stored in accordance with the Propane Installation Code, CAN/CGA B149.2-M91.

Non-reusable propane gas cylinders shall also be stored in compliance with paragraph 9.5.6 of that Code.

O.C. 885-2001, s. 80.

*§ 3. — Flammable and combustible substances*

**81. Storage:** Flammable and combustible substances shall be stored:

(1) away from areas with a high fire hazard;

(2) away from combustive substances or powerful oxidizing agents.

O.C. 885-2001, s. 81.

**82. Liquid state flammables and combustibles:** The storage, handling and use of liquid state flammables and combustibles shall be carried out in accordance with NFPA Standard 30-1996 Flammable and Combustible Liquids Code.

In the case of buildings in existence on 2 August 2001, the employer may, however, take precautions that ensure a level of safety equivalent to that prescribed in that standard.

O.C. 885-2001, s. 82; O.C. 1120-2006, s. 2.

**83. Gaseous state flammable substances:** Gaseous state flammable substances such as ammonia gas, hydrogen, acetylene and hydrogen sulfide shall never be stored with combustive substances or with oxidizing agents in a gaseous state such as chlorine, fluorine, nitrogen dioxide, nitrous oxides, nitrogen tetroxide, oxygen or compressed air.

O.C. 885-2001, s. 83.

**84. Reactive substances flammable in contact with air:** Reactive substances that are flammable in contact with air to the point of being able to burn shall be kept either:

- (1) under an inert liquid;
- (2) in an inert atmosphere;
- (3) in air-tight containers.

O.C. 885-2001, s. 84.

**85. Reactive substances flammable in contact with water:** Reactive substances that are flammable in contact with water shall be stored:

- (1) in closed containers;
- (2) away from sources of humidity;
- (3) away from plumbing with condensation or drippings.

O.C. 885-2001, s. 85.

#### § 4. — Combustive substances

**86. Interpretation:** For the purposes of sections 87 to 91, powerful oxidizing agents such as chlorine and fluorine are considered to be combustive substances.

O.C. 885-2001, s. 86.

**87. Storage:** Combustive substances shall be stored away from substances with which they may react and especially from the following substances:

- (1) a corrosive substance with which they may react by exploding;
- (2) an inflammable or combustible substance with which they may react violently;
- (3) a toxic substance;
- (4) a reducing agent, especially a metallic powder;
- (5) a substance which oxidizes easily, including wood surfaces.

O.C. 885-2001, s. 87.

**88. Containers for combustive substances:** Containers having combustive substances shall:

- (1) be stored closed;
- (2) have their content clearly identified;
- (3) be kept in cool, dry places.

O.C. 885-2001, s. 88.

**89. Gaseous state combustive substances:** Gaseous state combustive substances shall never be stored with gaseous state flammable substances.

O.C. 885-2001, s. 89.

**90. Ground:** Equipment, including machines, used for processing or handling combustive substances such as organic peroxides, nitrates and chlorates shall be grounded.

O.C. 885-2001, s. 90.

**91. Contaminated clothing:** Clothing contaminated by combustive substances shall be removed immediately and washed before being worn again.

O.C. 885-2001, s. 91.

§ 5. — *Toxic substances*

**92. Storage:** Toxic substances shall be stored:

- (1) away from areas of high fire hazard and from heat sources;
- (2) away from combustive substances and powerful oxidizing agents;
- (3) in cool and well-ventilated areas.

O.C. 885-2001, s. 92.

**93. Overflow prevention devices:** Reservoirs and vats containing liquid state toxic substances shall be equipped with overflow prevention devices.

Level indicators on such open reservoirs and vats shall be provided with protective screens.

O.C. 885-2001, s. 93.

**94. Identification of cylinders:** Any cylinder containing a gaseous state toxic substance shall be clearly identified.

O.C. 885-2001, s. 94.

**95. Posting warnings:** A warning indicating the type of danger shall be posted at all entrances where a gaseous state toxic substance is stored.

O.C. 885-2001, s. 95.

§ 6. — *Corrosive substances*

**96. Storage:** Corrosive substances shall be stored:

- (1) away from areas with a high fire hazard;
- (2) away from combustive substances and powerful oxidizing agents;
- (3) protected against direct sun rays;
- (4) in cool and well-ventilated areas.

In addition, corrosive acid substances shall be stored away from corrosive antacid substances.

O.C. 885-2001, s. 96.

**97. Containers for corrosive substances:** Containers for corrosive substances shall:

- (1) be kept closed;
- (2) have their content clearly identified;
- (3) be handled with care.

O.C. 885-2001, s. 97.

**98. Protection from splashes:** Open reservoirs and vats in which liquid-state corrosive substances are agitated with compressed air or steam heated shall be protected so that workers are not exposed to splashes.

O.C. 885-2001, s. 98.

**99. Overflow prevention devices:** Reservoirs and vats containing liquid state corrosive substances shall be equipped with an overflow prevention device.

Level indicators on such reservoirs and vats shall be provided with protective screens.

O.C. 885-2001, s. 99.

§ 7. — *Dangerously reactive substances*

**100. Storage:** Dangerously reactive substances and substances that could trigger a violent polymerization, decomposition or condensation reaction due to vibrations, light or sound waves shall be stored separately, well protected and stabilized, as the case may be.

O.C. 885-2001, s. 100.

**DIVISION XI**  
**VENTILATION AND HEATING**

**101. Necessity:** Establishments shall be adequately ventilated either by natural or mechanical means, and excessive air draughts shall be avoided.

Ventilation systems and devices in service shall be designed, manufactured and installed in compliance with state-of-the-art techniques current at the time of their installation.

Except as part of work provided for in section 41.1, all work stations must be ventilated as to comply with the standards provided for in section 40.

O.C. 885-2001, s. 101; O.C. 49-2022, s. 12.

**102. Natural ventilation:** In any establishment where overall ventilation is provided by natural means, it shall be obtained by means of windows, shutters or vents having a ventilation area at least equal to the percentage of floor area indicated in the following table, according to the type of establishment in question:

Type of establishment	Percentage of floor area
Laboratories and office buildings	5%
Any other establishment	2%

For the purposes of this section, floor area does not include stairwells and other vertical empty spaces.

O.C. 885-2001, s. 102.

**103. Air changes:** Any mechanical ventilation system installed in an establishment shall be able to furnish a minimum number of fresh air changes at the time indicated in Schedule III, in accordance with the category or use of the establishment or any of its parts.

O.C. 885-2001, s. 103.

**104. Inspection:** Mechanical ventilation systems shall be inspected and adjusted at least once a year with the filters being maintained or replaced as the need arises.

O.C. 885-2001, s. 104.

**105. Ducts:** Ducts used to transport contaminated air shall not be used for any other purpose, and must not risk contaminating the workplace.

O.C. 885-2001, s. 105.

**106. Air intakes:** Air intakes shall be so placed as not to introduce into the establishment air that is already contaminated or unhealthy.

O.C. 885-2001, s. 106.

**107. Local ventilation:** Any localized source at a stationary work station that emits dusts, gases, fumes, vapours or mists shall be equipped with a local exhaust ventilation system for trapping the dusts, gases, fumes, vapours or mists at their source.

O.C. 885-2001, s. 107.

**108. Recirculation of air:** Any air recirculation system shall be designed so that:

- (1) the concentration of dusts, fumes, gases, vapours and mists in any work station is lower than the weighted average exposure value permissible in the work environment and the permissible recirculation concentration provided for in Schedule I;
- (2) a duct is provided for evacuating contaminated air outside the establishment in case the air filtering system breaks down or is not working properly;
- (3) no dusts, fumes or mists are discharged into a room where no dusts, fumes or mists were present before the air recirculation system is put into operation; and
- (4) there is no recirculation of gases, vapours, mists, fumes or dusts which are identified under Schedule I as a substance whose recirculation is prohibited.

O.C. 885-2001, s. 108.

**109. Fresh air intake:** Subject to section 108, an establishment ventilated mechanically shall be equipped with a fresh air intake system designed to replace the volume of air evacuated from the work environment with fresh air from the atmosphere.

The fresh air intake shall be situated so that no air already evacuated from an establishment is reintroduced.

O.C. 885-2001, s. 109.

**110. Adjacent facilities:** All establishments shall be designed, built, equipped and operated so that they do not emit gases, dusts, fumes, vapours, odours or mists through ceilings, walls, floors, corridors, stairwells, or freight or passenger elevator hoistways into any building or facility adjacent to the establishment.

O.C. 885-2001, s. 110.

**111. Ventilation of change rooms and toilets:** During the hours of operation of an establishment, the change rooms and washrooms shall be ventilated toward the outside of the establishment, either naturally in accordance with section 102, or mechanically by extraction in accordance with the standards prescribed in the following table:

Place	Ventilation (in cubic metres of air per hour)	
<b>Change rooms</b>	hooks or lockers for street clothes or unsoiled work clothes	18 m <sup>3</sup> /h per square metre of the room's surface area.
	hooks or lockers for damp work clothes (drying facilities)	<b>the greater of:</b> 36 m <sup>3</sup> /h per square metre of the room's surface area, and 12 m <sup>3</sup> /h per locker.
<b>Toilets and urinals</b>	<b>the greater of:</b> - 36 m <sup>3</sup> /h per square metre of the room's surface area, and - 45 m <sup>3</sup> /h per toilet or urinal, but not less than 350 m <sup>3</sup> /h.	
<b>Showers</b>	<b>the greater of:</b> - 36 m <sup>3</sup> /h per square metre of the room's surface area, and - 90 m <sup>3</sup> /h per shower head, but not less than 350 m <sup>3</sup> /h.	

Where a washroom is ventilated naturally, the ventilation area per toilet shall be 0.1 m<sup>2</sup>.

O.C. 885-2001, s. 111.

**112. Ventilation of a lunch room:** Where a lunch room is put at the disposal of workers for eating their meals, the room shall be ventilated naturally in accordance with the standards applicable to laboratories and to office buildings prescribed in section 102 or ventilated mechanically by the addition of air at the rate of 20 m<sup>3</sup> of air per hour per worker in accordance with section 109.

Where a stove is used for the cooking of food, the lunch room shall be provided with a hood for evacuating smoke and odours into the atmosphere outside the establishment.

This section does not apply to facilities used as offices.

O.C. 885-2001, s. 112.

**113. Combustion products:** Except in the cases provided for in sections 114 and 115, combustion products vented by the air heating facilities of an establishment shall be evacuated directly outside the establishment by means of a duct.

O.C. 885-2001, s. 113.

**114. Infrared heating:** In any establishment heated by a gas-fired infrared device, air contaminated by combustion gases shall be evacuated outside by natural or mechanical ventilation at the minimum rate of

9 m<sup>3</sup>/h

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MJ/h

O.C. 885-2001, s. 114.

**115. (Revoked).**

O.C. 885-2001, s. 115; O.C. 889-2020, s. 1.

**116. General conditions:** Subject to sections 117 and 118, in any closed rooms, an appropriate temperature shall be maintained considering the nature of work performed therein as well as outdoor climatic conditions; if such temperature cannot be reasonably maintained, a heated place shall be put at the disposal of workers.

O.C. 885-2001, s. 116.

**117. Stationary work station:** In any establishment, the minimum temperature prescribed in Schedule IV shall be maintained at any stationary work station inside a building according to the type of work performed, except if the purpose for which the rooms are used or the nature of a process or of the products handled requires a cooler temperature, and unless the work station is situated in a motor vehicle, or the work involves maintenance, inspection or repairs outside the workshop.

O.C. 885-2001, s. 117.

**118. Lunch room:** Where a lunch room is put at the disposal of workers for eating their meals, the room shall be kept at a minimum temperature of 20 °C.

This section does not apply to facilities used as offices.

O.C. 885-2001, s. 118.

**119. Relative humidity:** In any closed rooms, a suitable relative humidity percentage shall be maintained according to the type of work performed therein and the outdoor climatic conditions.

A relative humidity percentage of at least 20% shall be maintained during business hours in any office building or commercial establishment built or operated after 19 December 1979.

O.C. 885-2001, s. 119.

**120. Measuring humidity:** The humidity in an establishment is measured with a psychrometer or hygrometer.

O.C. 885-2001, s. 120.

#### DIVISION XIII HEAT STRESS

**121. Compulsory measurements:** In any establishment employing 50 workers or more where workers are exposed to heat stress conditions in which the heat stress index reaches or exceeds the continuous work curve in the graph in Schedule V, this index shall be measured twice a year, once during the summer, at each work station where the index is reached or exceeded.

The measurements obtained in accordance with the first paragraph shall be entered in a register. The register shall be kept for at least 5 years.

O.C. 885-2001, s. 121.

**122. Method:** For the purposes of this Regulation, the heat stress index is measured by the Wet BulbGlobe Temperature Index (WBGT method) as established in Schedule V.

O.C. 885-2001, s. 122.

**123. Index exceeds the continuous work curve:** In any establishment where workers are exposed to heat stress conditions such that the heat stress index exceeds the continuous work curve in the graph in Schedule V, the employer shall ensure that the workers thus exposed undergo medical supervision and shall provide them with water at a temperature of between 10 °C and 15 °C, and one shower per 15 exposed workers.

O.C. 885-2001, s. 123.

**124. Special measures:** In any establishment where workers are exposed to heat stress conditions such that the heat stress index exceeds the continuous work curve in the graph in Schedule V, the following measures shall be taken:

- (1) re-equip the exposed work station with reflecting screens, additional insulation or ventilation to reduce the heat stress index of the work station to a value less than or equal to the values of the continuous work curve;
- (2) if the application of paragraph 1 proves impossible or does not allow the continuous work curve to be reached, control the work load, the time of exposure and the rest time in accordance with the alternate work-rest regimen prescribed for that purpose in Schedule V;
- (3) if the application of paragraphs 1 and 2 proves impossible or does not allow the continuous work curves indicated in the graph in Schedule V to be reached or while waiting for the alterations required under paragraph 1 to be done, ensure that the workers wear appropriate individual equipment in accordance with the nature of the heat stress.

O.C. 885-2001, s. 124.

#### DIVISION XIV LIGHTING

**125. Illumination levels:** Every establishment shall be provided with natural or artificial lighting the intensity of which depends on the nature of the work done at any work station or the nature of the places where workers circulate in order to provide the illumination levels required under Schedule VI.

O.C. 885-2001, s. 125.

**126. Method of measurement:** For the purposes of section 125, the illumination level shall be measured at a distance of 750 mm from the floor on the usable work surface, with a luxmeter corrected for incident light rays.

O.C. 885-2001, s. 126.

**127. Lunch room:** Where a lunch room is put at the disposal of workers for eating their meals, the room shall have a minimum level of illumination of 250 lux.

This section does not apply to facilities used as offices.

O.C. 885-2001, s. 127.

**128. Toilets:** In any establishment, toilet facilities shall have a minimum level of illumination of 250 lux.

O.C. 885-2001, s. 128.

**129. Exception:** This Division does not apply to tasks which by their very nature shall be performed without illumination or under controlled lighting conditions.

O.C. 885-2001, s. 129.

## DIVISION XV

### NOISE

#### § 1. — General

O.C. 781-2021, s. 2.

**130.** This Division sets noise exposure limits, means for evaluating the daily noise exposure level and peak sound pressure level in an establishment, and the standards applicable.

The provisions of this Division are intended to eliminate or reduce noise at source or, at a minimum, to reduce workers' exposure to noise.

They also specify the reasonable means that an employer must implement to eliminate or reduce noise at source, comply with the noise exposure limits, and reduce workers' exposure to noise. They specify the workplace situations in which the wearing of hearing protectors is necessary.

For the purposes of this Division, "workplace situation" means a trade or a representative function of a worker or group of workers that includes all the tasks and activities of the worker or group of workers, and takes into account the workplace.

O.C. 885-2001, s. 130; O.C. 781-2021, s. 2.

#### § 2. — Noise exposure limits

O.C. 781-2021, s. 2.

**131.** The noise exposure limits are as follows:

(1) daily noise exposure level: 85 dBA, as defined using one of the following formulas:

(a) under the ISO Standard 9612:2009, Acoustics — Determination of occupational noise exposure — Engineering method:

$$L_{EX,8h} = L_{PA,eqT_e} + 10 \lg [T_e/T_0] dB,$$

where  $T_e$  = effective duration of the working day, in hours;

$T_0$  = reference duration, 8 h;

(b) under CSA Standard Z107.56-13, Measurement of noise exposure 2014:

$$L_{ex,8h} = L_{eq,t} + 10 \log (T_w/8),$$

where  $T_w$  = effective duration of the working day, in hours;

(2) peak sound pressure level ( $L_{p,peak}$ ): 140 dBC, using the following formula from ISO Standard 9612:2009, Acoustics – Determination of occupational noise exposure – Engineering method:

$$L_{p,peak} = 10 \lg[p^2_{peak}/p^2_0] dB,$$

where the reference value,  $p_0$ , is 20  $\mu$ Pa.

O.C. 885-2001, s. 131; O.C. 781-2021, s. 2.

#### § 3. — General requirements

O.C. 781-2021, s. 2.

**132.** At the time of the design and organization of an establishment, the implementation of a new process or a change to the design, organization or process, the employer must take reasonable means to eliminate or reduce noise at source or, at a minimum, reduce workers' exposure to noise.

Such means must also be taken at the time of the purchase or replacement of a machine or piece of equipment so that the one that produces the least noise is acquired.

The reasonable means referred to in this section must not compromise any other element of worker health or safety.

O.C. 885-2001, s. 132; O.C. 781-2021, s. 2.

**133.** The employer must, every 5 years, evaluate each workplace situation that exceeds the exposure limits to determine the reasonable means that would eliminate or reduce noise at source, allow the limits established pursuant to section 131 to be respected, or, at a minimum, reduce workers' exposure to noise.

In the year following the evaluation, the employer must begin to implement all the means needed to eliminate or reduce the noise at source. If they are not sufficient to ensure compliance with the exposure limits, the employer must implement the other means that are necessary in order to respect the exposure limits. The means must be fully implemented before the start of the next 5-year evaluation.

O.C. 885-2001, s. 133; O.C. 781-2021, s. 2.

**134.** The employer must, within 30 days of its occurrence, identify any change in a workplace situation that presents a risk of exceeding the exposure limits.

In the year following the change, the employer must measure the daily noise exposure level and peak sound pressure level in accordance with subdivision 4, or begin to implement reasonable means to eliminate or reduce the noise at source or comply with the limits set pursuant to section 131 or, at a minimum, reduce workers' exposure to noise.

The employer, when opting to implement reasonable means, must complete the implementation before the end of the 5-year period since the last evaluation performed pursuant to the first paragraph of section 133. However, if the period ends less than 2 years before the date on which the situation changes, the employer has a period of 2 years from the date of the change to fully implement the means.

O.C. 885-2001, s. 134; O.C. 781-2021, s. 2.

**135.** The employer must implement, among the reasonable means enabling compliance with the objectives defined in subdivision 1, those that eliminate or reduce noise at source, in particular by replacing a machine or piece of equipment by one that produces less noise, maintaining the machine or piece of equipment and keeping it in proper working order, or making a correction to the machine or piece of equipment.

The employer may also implement reasonable means that, depending on their effectiveness, make it possible to

- (1) limit the propagation of noise by enclosing a machine or piece of equipment or installing sound insulation in a work area or workplace;
- (2) reduce a worker's exposure, in particular by isolating a workstation.

When it is not possible to respect the exposure limits, the employer must implement all the reasonable means identified, even if they do not allow the noise to be reduced sufficiently to respect the exposure limits.

O.C. 885-2001, s. 135; O.C. 781-2021, s. 2.

**136.** The employer must reduce the workers' daily exposure to noise, in accordance with section 137, or provide them with hearing protectors in accordance with the rules established in subdivision 5,

- (1) during the time needed to implement reasonable means;
- (2) during the time needed to repair or maintain a machine or piece of equipment; or
- (3) when it is not possible to respect the exposure limits.

O.C. 885-2001, s. 136; O.C. 781-2021, s. 2.

**137.** To determine the reduction in the workers' daily exposure to noise, the employer must

- (1) ensure, if a worker is affected by a single workplace situation comprising a single task or activity that may exceed the exposure limits during the working day, that the worker is not exposed to the equivalent continuous sound pressure level (dBA) specified in the following table for longer than the time indicated:

Equivalent continuous sound pressure level (dBA)	Maximum permitted daily duration
82	16
83	12
85	8
88	4

91	2
94	1
97	30
100	15
103	7
106	4
109	2
112	1
115	28
118	14
121	7
124	3
127	1
130-140	< 1

Minutes

Seconds

(2) determine, if a worker is affected by a workplace situation comprising more than one task or activity that may exceed the exposure limits during the working day, a reduction in the daily exposure to noise using the calculator published by the Commission on its website. The  $L_{ex,8h}$  or  $L_{EX,8h}$  daily exposure level calculated in this way must be consistent with the daily noise exposure limit.

This section shall not have the effect of permitting a work period that is longer than the period authorized by a law or regulation, a collective agreement, an order in council or a contract of employment.

O.C. 885-2001, s. 137; O.C. 781-2021, s. 2.

#### § 4. — Measurement

O.C. 781-2021, s. 2.

**138.** The employer must measure, in accordance with this subdivision, the daily noise exposure level and peak sound pressure level when

- (1) no reasonable means can be implemented; or
- (2) all reasonable means have been implemented.

The measurement must be made in the 30 days following the end of the period provided to identify reasonable means or following the date on which the means are fully implemented, as the case may be.

O.C. 885-2001, s. 138; O.C. 781-2021, s. 2.

**139.** The measurement of the daily noise exposure level and peak sound pressure level must be made in view of the recommendations made in ISO Standard 9612:2009, Acoustics – Determination of occupational noise exposure – Engineering method, or in CSA Standard Z107.56-13, 2014, Measurement of noise exposure.

In addition, the integrating sound level meter or dosimeter used for the measurement must be a model recommended in one of the 2 standards.

O.C. 885-2001, s. 139; O.C. 781-2021, s. 2.

**140.** The measurement of the daily noise exposure level and peak sound pressure level must be made by

- (1) a professional or technician with training in occupational hygiene or specialized training in acoustics; or
- (2) a person who masters best practices in the field of noise measurement.

This section shall not have the effect of preventing the employer from designating a person to assist the person referred to in the first paragraph, provided the latter person retains entire responsibility for the measurements made pursuant to this subdivision.

O.C. 885-2001, s. 140; O.C. 781-2021, s. 2.

#### § 5. — Selection of hearing protectors

O.C. 781-2021, s. 2.

**141.** The employer must provide hearing protectors that meet the performance and selection requirements in the following clauses of CSA Standard Z94.2-2014, Hearing Protection Devices – Performance, Selection, Care, and Use:

- (1) 3 to 8.2.1;
- (2) 8.2.4 to 9.1;
- (3) 9.3.4;
- (4) 9.4;
- (5) 9.5.3 to 9.6.1;
- (6) 9.6.3 to 9.7.1;
- (7) 9.8.3;
- (8) 9.9 to 10.3.5;
- (9) 11.2.3 to 11.2.5;
- (10) 12 to 12.2.6.3;
- (11) tables 1 to 6;
- (12) annexes A, B and D.

For the purposes of Clause 9.6.4.3 of the standard, the result of a measurement performed in accordance with subdivision 4 may be used as a measurement of a worker's noise exposure, namely the  $L_{ex,8h}$  or  $L_{EX,8h}$  equivalent.

That measurement is not mandatory where the employer selects hearing protectors according to the single-number ratings method provided for in the standard.

The employer may also provide hearing protectors that meet

- (1) the performance requirements set out in the following clauses of the Hearing protectors - general requirements standard or Safety requirements and testing, as the case may be:
  - (a) 1 to 6 and annexes A and ZA of Part 1: Ear-muffs, NF EN 352-1;
  - (b) 1 to 6 and annexes A and ZA of Part 2: Earplugs, NF EN 352-2;
  - (c) 1 to 6 and annexes A and ZA of Part 3: Ear-muffs attached to an industrial safety helmet, NF EN 352-3;
  - (d) 1 to 7 and annexes A, B and ZA of Part 4: Level-dependent ear-muffs, NF EN 352-4;
  - (e) 1 to 7 and annexes A, B and ZA of Part 5: Active noise-reduction ear-muffs, NF EN 352-5;
  - (f) 1 to 7 and annexes A, B and ZA of Part 6: Ear-muffs with electrical audio input, NF EN 352-6;
  - (g) 1 to 7 and annexes A, B and ZA of Part 7: Level-dependent earplugs, NF EN 352-7; and
- (2) the selection requirements set out in the following clauses of NF Standard EN 458:2016, Hearing protectors - Recommendations for selection, use, care and maintenance - Guidance document:
  - (a) 3 to 4;
  - (b) 6 to 6.2.1;
  - (c) 6.2.3 to 6.5;
  - (d) 6.8 to 6.9.2;
  - (e) annexes A to E.

For the purposes of Clause 6.2.3.2 and Annex B of NF Standard EN 458:2016, the result of a measurement made in accordance with subdivision 4 may be used as a measurement of the peak sound pressure level.

A hearing protector meets the requirements of this section if it conforms to the most recent or second most recent version of a standard named in the section and has not exceeded the manufacturer's expiry date, if any.

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O.C. 885-2001, s. 141; O.C. 781-2021, s. 2.

**141.1.** The hearing protectors provided for a worker must attenuate noise in such a way that the worker is not exposed to levels that exceed those established in section 131.

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O.C. 781-2021, s. 2.

**141.2.** In all cases where the employer must provide hearing protectors, the employer must also provide workers with theoretical and practical training that addresses

- (1) the elements to be taken into consideration in selecting and using hearing protectors in response to different workplace situations;
- (2) the adjustment of hearing protectors;
- (3) the inspection of hearing protectors;

- (4) the maintenance of hearing protectors; and
- (5) the risks associated with noise and the importance of wearing protectors during any exposure to noise.

O.C. 781-2021, s. 2.

**141.3.** The employer must notify workers, by way of a sign, of the existence of a zone where the wearing of hearing protectors is required.

The information in the sign must be clear and precise. It must be easily legible and be clearly distinguished from any other sign placed on the same surface. In addition, it must be displayed permanently and in plain view near the zone where the wearing of protectors is mandatory.

When it is not possible to display a sign, the employer may use another way to identify a zone where the wearing of hearing protectors is required, and must inform the workers accordingly.

O.C. 781-2021, s. 2.

**141.4.** The employer must post or disseminate in another way any report of a measurement made pursuant to subdivision 4, not later than 15 days after the report becomes available.

The report must be readily accessible to workers in a visible place, for a minimum period of 3 months.

O.C. 781-2021, s. 2.

#### § 7. — *Register*

O.C. 781-2021, s. 2.

**141.5.** The employer must include and update in the prevention program, or if none in a register, the following entries and documents:

- (1) he workplace situations where noise exposure limits may be exceeded, and the date on which they were identified;
- (2) the reasonable means implemented and the start and end dates for their implementation;
- (3) the measurement reports.

The employer must keep the information for a minimum period of 10 years, and must make it available to the Commission, to workers and their representatives, to the safety representative, to the health and safety committee and to the physician responsible for the employer's establishment.

O.C. 781-2021, s. 2.

#### § 6. — *Posting*

O.C. 781-2021, s. 2.

### DIVISION XVI HAZARDOUS RADIATIONS

**142. Infra-red radiation:** All intense infra-red radiation sources shall be shielded by a worker preventive measure, such as a heat absorbent screen or a water screen.

O.C. 885-2001, s. 142; O.C. 1112-2023, s. 2.

**143. Ultra-violet radiations:** In areas where operations producing dangerous emanations of ultra-violet radiations such as arc welding and cutting and resistance welding are carried out, the following precautions shall be taken:

- (1) enclose the emanation sources with protective screens;
- (2) protect the hands and forearms of workers exposed to appreciable doses with gloves or protective creams;
- (3) protect eyes and face as required under section 343.

O.C. 885-2001, s. 143.

**144. Ionizing radiation:** Workers exposed to ionizing radiation shall be monitored by dosimetry.

In the event of an overdose, workers thus exposed shall undergo medical examinations at more or less regular intervals, depending on the duration of exposure.

O.C. 885-2001, s. 144.

### DIVISION XVII QUALITY OF WATER

**145. Drinking water:** Any establishment shall provide workers with drinking water whose quality complies with the Regulation respecting the quality of drinking water ([chapter Q-2, r. 40](#)).

The quantity of drinking water provided to the workers must be sufficient to meet their daily physiological and personal hygiene needs while taking into account, in particular, the work situation and the environmental and climatic conditions.

Without limiting the scope of the second paragraph, the quantity must at least enable each worker to drink 1 litre of drinking water, wash their hands 4 times over a period of 8 hours and take a shower once a day, when this Regulation requires that it be put at the disposal of the workers. The quantity must also ensure the proper functioning of emergency showers, if applicable.

O.C. 885-2001, s. 145; O.C. 287-2021, s. 2.

**146. (Revoked).**

O.C. 885-2001, s. 146; I.N. 2020-01-01; O.C. 287-2021, s. 3.

**147. Control:** In any establishment supplied with drinking water by a distribution system exempted from the application of Division I of Chapter III, "Quality control of drinking water", of the Regulation respecting the quality of drinking water ([chapter Q-2, r. 40](#)), the employer must have a sample of that water analyzed for the control of total coliform bacteria and Escherichia coli bacteria before the water is put at the disposal of the workers for the first time and, subsequently, once a month.

The first and second paragraphs of section 30 of the Regulation respecting the quality of drinking water apply to that sample.

Upon receiving the analyses results, the employer must keep them posted in a visible location that is easily accessible to workers until the following results are received. In default of such a location, the employer must communicate each of the results to the workers by any appropriate means.

O.C. 885-2001, s. 147; I.N. 2020-01-01; O.C. 287-2021, s. 4.

**148. Bottled water:** Any bottled water distributed in an establishment shall comply with the stipulations in the Regulation respecting bottled water ([chapter P-29, r. 2](#)).

O.C. 885-2001, s. 148.

**149. Distributors:** All establishments shall be equipped with distributors of drinking water intended for consumption by the workers in a proportion of one distributor per group of 75 workers and an additional distributor for any fraction of that number above 75 workers. In an establishment with less than 75 workers, at least one drinking water distributor shall be provided.

Drinking water distributors shall be easy to clean and made of leakproof material. They shall be kept free from any source of water contamination.

O.C. 885-2001, s. 149.

**150. Water unsafe for drinking:** Any drinking water distribution system intended for workers' consumption shall be designed and installed to eliminate any possibility of cross-connection or contamination with any piping system likely to contain water that is unsafe for drinking.

Any tap for water that is unsafe for drinking shall be identified.

O.C. 885-2001, s. 150.

**151. Paper cups:** Except where workers are provided with water fountains, they shall have at their disposal sanitary individual disposable paper cups.

The use of a common glass or cup is prohibited.

When workers are provided with paper cups, a refuse container shall be placed less than 2 m from the drinking water distributor.

O.C. 885-2001, s. 151.

## DIVISION XVIII COMMON FACILITIES

**152 .** In this Division as well as in Division XIX, the word "disinfected" means being washed with a bleach-based solution or with some comparable product.

O.C. 885-2001, s. 152.

**153. Lunch room:** A lunch room shall be provided for workers who eat their meals in the establishment.

The lunch room shall:

- (1) occupy a minimum area of 1.1 m<sup>2</sup> per worker for all workers likely to eat there at the same time;
- (2) be provided with tables and seats for all workers likely to eat there at the same time;
- (3) be separate from the work premises;
- (4) be cleaned after each meal period, except for unused spaces;
- (5) be disinfected daily;
- (6) be equipped with covered garbage containers that shall be leakproof, corrosion resistant, and cleaned daily on working days;

- (7) be provided with hooks for hanging clothes, except where cloakrooms or hooks already exist in an area adjacent to the lunch room;
- (8) not be used for storage purposes.

This section does not apply to facilities used as offices.

O.C. 885-2001, s. 153.

**154. Change rooms:** In the case of an establishment or a part of an establishment referred to in paragraph 3 of section 45, section 69 or paragraph 3 of section 124 and where the workers wear clothes used exclusively for work, the workers shall be provided with a place separate from the workplace and equipped with hooks or lockers for hanging such clothes.

This room shall be equipped with a minimum level of illumination of 250 lux and kept at a minimum temperature of 20 °C.

O.C. 885-2001, s. 154; O.C. 49-2022, s. 13.

**155. (Revoked).**

O.C. 885-2001, s. 155; O.C. 1005-2015, s. 2.

**156. Maintenance:** All change rooms and other common facilities put at the disposal of workers shall be maintained in sanitary conditions and cleaned daily.

In addition, change rooms adjacent to toilets or a bathroom or showers shall be disinfected daily.

O.C. 885-2001, s. 156.

**157. Heated shelter:** Where a sanitary landfill is operated more than 16 hours per week, a heated shelter equipped with drinking water, a telephone or a radio transceiver, lighting and a toilet facility shall be installed.

O.C. 885-2001, s. 157.

**158 . Camp:** A camp and eating facilities shall be provided to workers who perform work in remote areas that do not offer lodging accommodations, except where the work is carried out over short periods.

O.C. 885-2001, s. 158.

**159. Transportation facilities:** Where a camp is not provided in accordance with section 158, the employer shall provide workers with transportation facilities in accordance with Division XXXI.

O.C. 885-2001, s. 159.

**160. Camp facilities:** For the purposes of sections 158 and 159, "camp" means an aggregate of temporary or permanent facilities, as well as their outbuildings, that the employer organizes to lodge workers, whether it involves permanent camps, permanent summer camps or temporary camps as defined in the Regulation respecting sanitary conditions in industrial or other camps (chapter S-2.1, r. 5.1).

O.C. 885-2001, s. 160.

## DIVISION XIX SANITARY FACILITIES

**161. Sanitary facilities:** All establishments shall have installed one or more washrooms that are separate from the other rooms in the establishment.

The quantity of washrooms, toilets, urinals, sinks, showers and other facilities shall comply in number with the standards provided in Schedule IX.

O.C. 885-2001, s. 161.

**162. Sinks:** In any establishment, a sink for individual use may be replaced by a sink for common use having a length of 600 mm.

O.C. 885-2001, s. 162.

**163. Items for ensuring hygiene:** In washrooms, the following items shall be at the disposal of workers:

- (1) soap or another cleaning product;
- (2) paper towels, hand dryers or roller towels;
- (3) where paper towels are used, waste paper baskets for disposal of such towels.

O.C. 885-2001, s. 163.

**164. Accessories, operation and maintenance:** The toilets of any establishment shall be:

- (1) provided with toilet paper;
- (2) kept in good working order;

(3) provided with seats.

Any cracked or damaged toilet seat shall be replaced immediately.

O.C. 885-2001, s. 164.

**165. Facilities and upkeep:** The toilets of any establishment shall be:

- (1) used exclusively for the purposes for which they were designed;
- (2) free from any obstacle or obstruction that could prevent them from being used;
- (3) kept clean and free of vermin, rodents or insects;
- (4) maintained in sanitary condition;
- (5) cleaned and washed before each shift or on the first half of each shift, except if they have not been used;
- (6) disinfected daily.

O.C. 885-2001, s. 165.

## DIVISION XX

### SPECIAL ERGONOMIC MEASURES

**166. Handling:** Workers assigned to the handling of loads or persons shall be instructed in the proper manner of performing their work safely.

When the manual moving of loads or persons compromises the worker's safety, mechanical devices shall be put at his disposal.

O.C. 885-2001, s. 166.

**167. Working on piles:** A worker shall have the necessary equipment allowing him to reach the top of piles of material safely, such as step ladders, portable ladders, pinch grips or any other equipment designed for such purpose.

O.C. 885-2001, s. 167; O.C. 502-2018, s. 9.

**168. Level of work:** The height of workbenches and the position of chairs shall be adapted to the work and the worker in such manner as to ensure workers a correct posture and to reduce their fatigue.

O.C. 885-2001, s. 168.

**169. Position:** Tools, handles and materials shall be located in positions that facilitate work and reduce strain.

O.C. 885-2001, s. 169.

**170. Chairs and benches:** Workers shall have chairs or benches put at their disposal when the nature of their work so permits.

O.C. 885-2001, s. 170.

**171. Break for meals:** When the duration of the work exceeds 5 hours, a break of at least 30 minutes shall be granted to allow workers to eat a meal.

Unless there is agreement to the contrary, this break for meals shall begin in a 2-hour period situated in the middle of the worker's work period.

O.C. 885-2001, s. 171.

## DIVISION XXI

### MACHINES

O.C. 885-2001, Div. XXI; O.C. 1112-2023, s. 3.

**§ 1. — Definitions and purpose**

O.C. 885-2001, Sd. 1; O.C. 1112-2023, s. 3.

**172. Definitions:** In this Division, unless otherwise indicated by context,

"automatic monitoring" means the principle that ensures that safety functions that rely on a means of protection are maintained if the ability of a component or an element to perform its function is diminished, or if the operating conditions are changed in such a way that hazards are generated. Automatic monitoring either detects a fault immediately or carries out periodic checks so that a fault is detected before the next demand upon the safety function; (*autosurveillance*)

"control actuator" means an element allowing an operator to control a machine, generally through pressure from the hand or foot, and in particular a push-button, lever, switch, handle, slider, stick, control wheel, pedal, keyboard or touchscreen; (*organe de service*)

"danger zone" means any zone situated inside or around a machine which poses a risk for the health, safety or physical well-being of workers; (*zone dangereuse*)

"enabling device" means an additional manually operated device used in conjunction with a start control and which, when continuously actuated, allows a machine to function; (*dispositif de validation*)

"fixed guard" means a guard affixed in such a manner, for example, by screws, nuts, welding, that it can only be opened or removed by the use of tools or by destruction of the affixing means; (*protecteur fixe*)

"guard" means a physical barrier designed as part of a machine to protect the machine's danger zone, such as a housing, a cover, a screen, a door or a cabinet; (*protecteur*)

"guard with a start function" means an interlocking guard which, once it has reached its closed position, gives a command to initiate the machine function presenting a risk for worker health and safety without the use of a separate start control; (*protecteur commandant la mise en marche*)

"hold-to-run control device" means a control device which initiates and maintains machine functions only as long as the control actuator is activated; (*dispositif de commande nécessitant un actionnement maintenu*)

"interchangeable equipment" means equipment intended to be installed on a machine, for which the installation can be done by the operator, in order to change its function or attribute a new function; (*équipement interchangeable*)

"interchangeable tool" means a tool such as a blade, bit or excavating bucket that may be installed on a machine without altering its function or adding a new function; (*outil interchangeable*)

"interlocking guard" means a guard associated with an interlocking device to ensure that together with the control system of the machine, the machine functions presenting a risk for worker health and safety that the guard aims to protect from cannot operate until the guard is closed, that the closure of the guard does not by itself start those functions, and that a stop command is given if the guard is opened while such functions are operating; (*protecteur avec dispositif de verrouillage*)

"interlocking guard with a locking device" means a guard associated with both an interlocking and a locking device to ensure that, together with the control system of the machine, the machine functions presenting a risk for worker health and safety that the guard aims to protect from cannot operate until the guard is closed and locked, that the closure and locking of the guard do not by themselves start those functions, and that the guard remains closed and locked until the risk due to such functions has disappeared; (*protecteur avec dispositif d'interverrouillage*)

"limited movement device" means a control device, each actuation of which results, via the control system, in only a limited functioning of an element of the machine; (*dispositif de commande de marche par à-coups*)

"manually adjustable guard" means a guard that is manually adjusted and that remains fixed during an operation; (*protecteur réglable manuellement*)

"means of protection" means a guard or protective device; (*moyen de protection*)

"movable guard" means a guard that can be opened without the use of tools; the opening and closing of the guard may be power operated; (*protecteur mobile*)

"protective device" means a device other than a guard that eliminates or reduces risk, alone or associated with a guard; (*dispositif de protection*)

"safety function" means a function of a machine whose failure can result in an immediate increase of risk, with respect to a means of protection depending on a control system; (*fonction de sécurité*)

"safety-related part of the control system" means part of a control system that responds to safety-related input signals and generates safety-related output signals; (*partie du système de commande relative à la sécurité*)

"self-closing guard" means a movable guard operated by a machine element, by the workpiece or by a part of the machining jig, so that it allows the workpiece or the jig to pass and then automatically returns, for instance by means of gravity, a spring or other external power, to the closed position as soon as the opening is freed; (*protecteur à fermeture automatique*)

"sensitive protective equipment" means equipment for detecting a person or part of a person's body which generates a signal to the control system to reduce risk to the persons detected, and in particular

(1) an electro-sensitive device such as an active optoelectronic protective device, including safety light curtains and laser scanners;

(2) a pressure-sensitive device such as a mat, bar, edge or wire; (*équipement de protection sensible*)

"two-hand control device" means a control device which requires simultaneous actuation by both the operator's hands in order to initiate and to maintain machine functions presenting a risk for worker health and safety. (*dispositif de commande bimanuelle*)

O.C. 885-2001, s. 172; O.C. 1112-2023, s. 3.

**173. Purpose:** The purpose of this Division is to establish the safety requirements for the design, manufacture, modification, use, maintenance and repair of any machine brought or intended to be brought into service in an establishment, including at the time of its sale, distribution or rental.

O.C. 885-2001, s. 173; O.C. 1112-2023, s. 3.

## § 2. — General provisions

O.C. 885-2001, Sd. 2; O.C. 1112-2023, s. 3.

**174. Manufacturer's instruction manual:** Every machine must have a corresponding manufacturer's instruction manual including at least

(1) the information needed to identify and communicate with the manufacturer;

(2) a detailed description of the machine, its control actuators, its accessories, its means of protection, including, where applicable, the characteristics of each safety function, including the parameters regarding reliability, operational limits, indicators and warning signals;

(3) a description of all the uses for which the machine is designed and, where applicable, the uses that are prohibited;

- (4) instructions and, where applicable, the training required to use the machine safely;
- (5) instructions for setting and adjusting the machine that may affect worker health and safety, where applicable;
- (6) a description of the personal protective equipment the wearing of which is recommended when using the machine, where applicable, including the information and training required to use that equipment;
- (7) the nature and frequency of inspection of the safety functions, where applicable;
- (8) the risks that remain following the implementation of means of protection.

If there is no manufacturer's instruction manual or if the manual is incomplete, the elements specified in subparagraphs 2 to 8 of the first paragraph must be specified in writing by an engineer.

O.C. 885-2001, s. 174; O.C. 1112-2023, s. 3.

**175. Compliance of a machine:** A machine designed and manufactured in accordance with a specific standard is presumed to meet the requirements of sections 177, 181 to 185, 187 except as concerns maintenance, 189 to 191 and 193 when the manufacturer's documentation with which the machine is accompanied contains a statement that the machine complies with the specific standard and when no modifications, as defined in the second paragraph of section 176, have been made to the machine.

For the purposes of the first paragraph, "specific standard" means a standard drawn up by one of the standardization organizations CSA, ISO, ANSI, ASME or CEN which prescribes detailed safety requirements for a given machine or given category of machines. Standards designated as type-C safety standards in accordance with ISO 12100, Safety of machinery — General principles for design — Risk assessment and risk reduction are, in particular, deemed to be specific standards.

O.C. 885-2001, s. 175; O.C. 1112-2023, s. 3.

**176. Modifications to a machine:** A modification to a machine that may have an impact on worker health and safety must be carried out under the supervision of an engineer and the safety of the modification must be certified by that engineer.

For the purposes of the first paragraph, "modification" means a modification that, without being provided for by the manufacturer, is intended to change the purpose of a machine, incorporate it into a group of machines, add or delete a function, change its performance or operating mode, or implement means of protection that affect its safety functions.

The installation of interchangeable equipment or tools as provided for by the manufacturer of the equipment or tools is not deemed to be a modification.

O.C. 885-2001, s. 176; O.C. 1112-2023, s. 3.

### **§ 3. — General safety requirements**

O.C. 885-2001, Sd. 3; O.C. 1112-2023, s. 3.

**177. Choosing means of protection:** A machine must be designed and manufactured in such a way as to render its danger zones inaccessible. If this is not possible, the resulting risks must be eliminated or reduced to the lowest possible level by installing at least one of the following means of protection, as the case may be:

- (1) where access to the danger zone is not required during normal operation of the machine,
  - (a) a fixed guard;
  - (b) a movable interlocking guard with or without a locking device;
  - (c) sensitive protective equipment;
  - (d) a self-closing guard;
- (2) where access to the danger zone is required during normal operation of the machine:
  - (a) a movable interlocking guard with or without a locking device;
  - (b) sensitive protective equipment;
  - (c) a self-closing guard;
  - (d) a two-hand control device;
  - (e) a guard with a start function;
  - (f) a manually adjustable guard.

Notwithstanding subparagraphs 1 and 2 of the first paragraph, access to a machine's movable energy transmission elements must be protected by a fixed guard or a movable interlocking guard with or without a locking device.

Appropriate means of protection must be selected using recognized principles and methods to assess and reduce risk, such as those set out in CSA Z432, Safeguarding of Machinery, and ISO 12100, Safety of machinery — General principles for design — Risk assessment and risk reduction, and in accordance with the conditions of sections 181 to 185, where applicable.

O.C. 885-2001, s. 177; O.C. 1112-2023, s. 3.

**178. Residual risks:** When risks remain after appropriate means of protection have been implemented, or when it is foreseeable that the effect of installing a means of protection on a machine will render the function for which it was designed reasonably impractical, the residual risks must be identified and measures to control and reduce them must be taken, including in particular

- (1) working procedures and methods for the safe use of the machine that are consistent with the expected proficiency of the workers using the machine or of other persons who may be exposed to the machine's danger zone;
- (2) the training required for the safe use of the machine;
- (3) the identification of all personal protective equipment the wearing of which is necessary when using the machine, including the information and training required to use that equipment;
- (4) the disclosure of sufficient information, including warnings, about the residual risks.

The measures to control and reduce residual risks must be determined by taking into account the manufacturer's instruction manual or, where applicable, the elements specified by an engineer pursuant to section 174 and trade practice.

O.C. 885-2001, s. 178; O.C. 1112-2023, s. 3.

**179. Safety precautions:** In areas where there is a risk of contact with the moving parts of a machine that create a risk of entrapment, workers must comply with the following safety precautions:

- (1) their clothing must fit well and have no loose flaps;
- (2) necklaces, bracelets, rings and other accessories presenting such a risk must not be worn, with the exception of medical alert bracelets;
- (3) long beards or hair must be held in place by an effective means such as a band, bonnet, hat or hairnet.

O.C. 885-2001, s. 179; O.C. 1112-2023, s. 3.

**180. Proper working condition:** Machines and means of protection must be kept in proper working condition in accordance with the manufacturer's instruction manual or, where applicable, with the elements specified by an engineer pursuant to section 174 and with trade practice.

O.C. 885-2001, s. 180; O.C. 1112-2023, s. 3.

**181. Attributes of means of protection:** A guard or protective device must be designed and installed in accordance with trade practice and must, in particular,

- (1) be constructed in a sufficiently robust manner to withstand the stresses to which it can be subjected;
- (2) remain effective while the machine is being used by being held firmly in place while taking its environment into account;
- (3) be located at a safe distance from the danger zone;
- (4) not give rise to any additional risk or be in itself a source of danger because, for example, of sharp edges or angular parts;
- (5) not be easily bypassed or rendered inoperative.

O.C. 885-2001, s. 181; O.C. 1112-2023, s. 3.

**182. Guard with a start function:** A guard with a start function may be used as a means of protection when the cycle time of the machine is short and

- (1) the guard with a start function is designed and installed in accordance with the trade practice applicable to interlocking guards such as ISO Standard 14119 Safety of machinery — Interlocking devices associated with guards — Principles for design and selection;
- (2) the maximum opening time of the guard is preset to a low value, for example, equal to the cycle time, and, when that time is exceeded, the function presenting a risk for worker health and safety cannot be initiated by the closing of the guard with a start function and the cycle must be initiated only by voluntary actuation of a start control;
- (3) the dimensions or shape of the machine do not allow a person, or part of a person's body, to stay in the danger zone or between the danger zone and the guard while the guard is closed;
- (4) all other guards for the danger zone are interlocking guards;
- (5) the interlocking guard associated with the guard with a start function is designed in a manner that its failure cannot lead to an unintended or unexpected start-up of the machine, in particular through the duplication of position sensors or the use of automatic monitoring;
- (6) the guard is securely held open, for example, by a spring or counterweight, in a manner that it can be closed only by a voluntary action by the worker;
- (7) the guard with a start function and the associated control system must comply with higher safety-related performance than under normal conditions.

O.C. 885-2001, s. 182; O.C. 1112-2023, s. 3.

**183. Electrosensitive protective equipment:** Electrosensitive protective equipment may be used as a means of protection when it is integrated in the operative part of the machine and associated with its control system so that

- (1) a command is given as soon as a person or part of a person's body is detected;
- (2) the removing of the person or part of the person's body detected does not, by itself, restart the machine function presenting a risk for worker health and safety;
- (3) restarting the function presenting a risk for worker health and safety results from the voluntary actuation, by the operator, of a control device placed outside the danger zone, where that zone can be observed by the operator;
- (4) the machine cannot operate during interruption of the detection function of the electrosensitive protective equipment, except during muting phases consisting of the automatic and temporary suspension of a safety function by the safety-related parts of the control system;
- (5) the position and the shape of the detection field prevents, if applicable, together with other means of protection, a person or part of a person's body from entering or being present in the danger zone without being detected.

O.C. 885-2001, s. 183; O.C. 1112-2023, s. 3.

**184. Active optoelectronic protective device used for cycle initiation:** Notwithstanding paragraphs 2 and 3 of section 183, an active optoelectronic protective device may exceptionally be used to initiate the work cycle of a machine by the removal of a person or part of a person's body from the detection field, without any additional start command, when the cycle time of the machine is short and the following conditions are met:

- (1) the active optoelectronic protective device is designed and installed in accordance with trade practice, in particular as regards its location, minimum distance, detection capability, reliability and monitoring of the control and braking system;
- (2) after switching on the power supply, or when the machine has been stopped by the tripping function of the sensitive protective equipment, the machine cycle must be initiated only by voluntary actuation of a start control;
- (3) the facility to re-initiate the machine upon removing a person or a part of a person's body from the detection field is limited to a period commensurate with a single normal cycle;
- (4) entering the detection field of the active optoelectronic protective device or opening an interlocking guard is the only way to enter the danger zone;
- (5) if there is more than one active optoelectronic protective device used as a means of protection of the machine, only one of them can have a cycle control function;
- (6) the active optoelectronic protective device and the associated control system comply with a higher safety-related performance than under normal conditions.

O.C. 885-2001, s. 184; O.C. 1187-2015, s. 1; O.C. 1112-2023, s. 3.

**185. Two-hand control device:** A two-hand control device may be used as a means of protection when its design and installation

- (1) allow to prevent accidental or unintentional operation;
- (2) require the operator to use both hands within 500 milliseconds to initiate the cycle of the machine or its system;
- (3) require the operator to release both hands from each of the control actuators of the control device and reactivate it with both hands to initiate a machine or its system's cycle;
- (4) lead to a stop of the machine or its system as soon as the operator removes one hand from one of the control actuators of the control device during the cycle phase presenting a risk for worker health and safety;
- (5) give the operator a clear view and complete control over the danger zone covered by the protection;
- (6) allow the operator to activate the control actuators on the control device at a safe distance from the danger zone.

In addition, where a two-hand control device is used as a means of protection for more than one operator, a device must be provided for each operator. The devices must be designed to ensure that the machine can only be started when all the controls on the two-hand devices are actuated and maintained in that position by all the operators.

O.C. 885-2001, s. 185; O.C. 1187-2015, s. 2; O.C. 1112-2023, s. 3.

**186. Removal or replacement of a means of protection:** Except in the cases provided for in this Division, a means of protection may not be removed.

Where a means of protection must be replaced, the new means of protection must provide a level of safety at least equivalent to that of the original part.

O.C. 885-2001, s. 186; O.C. 1187-2015, s. 2; O.C. 1112-2023, s. 3.

**187. Control devices:** Control devices must be designed, installed and maintained so as to avoid the accidental start-up or shut-down of a machine.

O.C. 885-2001, s. 187; O.C. 1112-2023, s. 3.

**188. Control mode:** Where, for setting, maintenance, inspection or other work on a machine, a guard has to be displaced or removed or a protective device has to be neutralized, and where it is necessary for the purpose of those operations for the machinery or part of it to be put into operation, worker safety must be ensured using a specific control mode which

- (1) disables all other control modes;

- (2) allows operation of elements presenting a risk for worker health and safety only by continuous actuation of an enabling device, a two-hand control device or a hold-to-run control device;
- (3) allows operation of the elements presenting a risk for worker health and safety only in reduced risk conditions for instance, at reduced speed, under reduced power or force or in a step-by-step mode, for example, with a limited movement device;
- (4) prevents voluntary or involuntary action on the machine's sensors from triggering a function presenting a risk for worker health and safety.

O.C. 885-2001, s. 188; O.C. 1112-2023, s. 3.

**188.1. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.2. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.3. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.4. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.5. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.6. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.7. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.8. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.9. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.10. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.11. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.12. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**188.13. (Replaced).**

O.C. 1187-2015, s. 3; O.C. 1112-2023, s. 3.

**189. Selection of control and operating modes:** When a machine can be used in several control or operating modes, for example, to allow for adjustment, maintenance or inspection, it must be fitted with a mode selector which can be locked in each position or by another selection means which restricts the use of certain control and operating modes to certain categories of operators.

Where the machine is equipped with a mode selector, each position of the selector must be clearly identifiable and must exclusively allow one control or operating mode at a time.

O.C. 885-2001, s. 189; O.C. 1112-2023, s. 3.

**189.1. (Replaced).**

O.C. 1187-2015, s. 4; O.C. 1112-2023, s. 3.

**190. Safety-related part of the control system:** The safety-related part of a control system must be designed, manufactured and installed in accordance with trade practice such as ISO Standard 13849, Safety of machinery — Safety-related parts of control systems — Part 1: General principles for design, and IEC Standard 62061, Safety of machinery - Functional safety of electrical, electronic and programmable electronic control systems.

It must, among other things, withstand the stresses to which it is subjected to prevent any situation that may create risks for worker safety, in particular following the failure of the control system's hardware or software, an error affecting system logic, or a reasonably foreseeable human error during operation.

O.C. 885-2001, s. 190; O.C. 1112-2023, s. 3.

**191. Starting:** Following a stop, a machine must be started or restarted by a voluntary action on a control actuator provided for that purpose.

The rule does not apply in the cases provided for in sections 182 and 184 or to a machine operating automatically when the necessary means to protect workers against the risks associated with automatically controlled functions are in place and operating correctly.

The control system of a machine that has several starting control actuators must be designed to ensure that only one control actuator may be used at a time if the starting of the machine by one worker may create a risk for other workers.

O.C. 885-2001, s. 191; O.C. 1112-2023, s. 3.

**192. Warning device:** When the starting up of a machine constitutes a danger for anyone near the machine, a warning device or any other effective means of communication must announce the starting up of the machine. All such persons must have time to leave the danger zone.

O.C. 885-2001, s. 192; O.C. 1112-2023, s. 3.

**193. Emergency stop:** Any machine whose operation requires the presence of at least one worker must be equipped with an emergency stop device.

That device stops the machine, considering the machine's design, in the shortest possible time with no additional risk. In addition, it has the following characteristics:

- (1) it is easily visible and within reach of the worker;
- (2) a single action activates it;
- (3) it is clearly identified;
- (4) it triggers or may trigger, as required, certain functions to reduce risk such as a reversal or limitation of motion;
- (5) it is available and operational at all times, whatever the machine's control or operating mode.

The resetting of the emergency stop device after it is used shall not by itself cause the machine to start up.

This section does not apply to a portable power tool or a machine for which an emergency stop device would not reduce the risk.

O.C. 885-2001, s. 193; O.C. 1112-2023, s. 3.

**194. Group of machines:** The overall control system of a group of machines designed to operate in series must be designed to ensure that the use of the starting or stopping control actuator on each machine does not create a risk for worker safety, in particular by ensuring that an emergency stop device of a machine stops not only that machine, but also the other machines in the group when their continued operation creates such a risk.

O.C. 885-2001, s. 194; O.C. 1112-2023, s. 3.

#### § 4. — Lockout and other energy control methods

O.C. 885-2001, Sd. 4; O.C. 1112-2023, s. 3.

**195.** In this subdivision,

“energy control method” means a method designed to maintain a machine out of working order, such as its reoperation, the closing of an electrical circuit, the opening of a valve, the release of stored energy or the movement of a part by gravity, in such a way that the working order cannot be altered without the voluntary action of every person having access to the danger zone; (*méthode de contrôle des énergies*)

“individually keyed” means a special layout of the components of a lock making it possible to open it with a single key; (*cléage unique*)

“lockout” means an energy control method designed to install an individually keyed lock on an energy isolating device or on any other device allowing for the control of energy such as a lockout box. (*cadenassage*)

O.C. 885-2001, s. 195; O.C. 1112-2023, s. 3.

**196.** Before undertaking any work in the danger zone of a machine, such as erecting, installing, adjusting, inspecting, unjamming, setting up, decommissioning, maintaining, dismantling, cleaning, servicing, refurbishing, repairing, altering or unlocking, lockout, or, failing that, any other method that ensures equivalent safety must be applied in accordance with this subdivision.

This subdivision does not apply

- (1) where work is carried out in the danger zone of a machine that has a specific control mode as defined in section 188;
- (2) where a machine is unplugged within the reach and under the exclusive control of the person who uses it, where the machine has a single energy source and where there remains no residual energy after the machine is unplugged.

**197.** Lockout must be carried out by every person having access to the danger zone of a machine.

**198.** Where the employer having authority over the establishment intends to apply an energy control method other than lockout, the employer must first ensure the equivalent safety of that method by analyzing the following:

- (1) the machine features;
- (2) identification of the health and safety risks when using the machine;
- (3) the estimate of the frequency and seriousness of the potential employment injuries for each risk identified;
- (4) the description of prevention measures that apply for each risk identified, the estimate of the level of risk reduction thus obtained and the assessment of residual risks.

The results of the analysis must be recorded in a written document.

The method referred to in the first paragraph must be developed from the elements mentioned in subparagraphs 1 to 4 of the first paragraph.

**199.** The employer must, for every machine situated in an establishment over which the employer has authority, ensure that one or more procedures describing the energy control method are developed and applied.

The procedures must be easily accessible on the sites where work is carried out in written form intelligible for consulting by every person having access to the danger zone of a machine, the health and safety committee of the establishment and the safety representative.

The procedures must be reviewed periodically, in particular every time a machine is altered or a failure is reported, so as to ensure that the energy control method remains efficient and safe.

**200.** A procedure describing the energy control method must include the following:

- (1) identification of the machine;
- (2) identification of the person responsible for the energy control method;
- (3) identification and location of every control device and of every energy source of the machine;
- (4) identification and location of every cutoff point of every energy source of the machine;
- (5) the type and quantity of material required for applying the method;
- (6) the steps required to control the energy;
- (7) where applicable, the measures designed to ensure the continuity of application of the energy control method during a staff rotation, in particular the transfer of required material;
- (8) where applicable, the applicable characteristics, such as the release of residual or stored energy, the required personal protective equipment or any other complementary protection measure.

**201.** Where lockout is the method applied, the steps required to control energy for the purposes of paragraph 6 of section 200 must include

- (1) deactivation and complete shutdown of the machine;
- (2) elimination or, if that is impossible, control of any residual or stored energy source;
- (3) lockout of the machine's energy source cutoff points;
- (4) verification of lockout by using one or more techniques making it possible to reach the highest level of efficiency;
- (5) safely unlocking and reoperating the machine.

**202.** Before applying an energy control method, the employer who has authority over the establishment must ensure that the persons having access to the danger zone of the machine are trained and informed on the health and safety risks related to work carried out on the machine and on the prevention measures specific to the energy control method applied.

**203.** An employer or a self-employed worker must obtain written authorization from the employer who has authority over the establishment before undertaking work in the danger zone of a machine. The employer who has authority over the establishment must ensure that the employer or self-employed worker will apply an energy control method that complies with this subdivision.

**204.** Where one or more employers or self-employed workers carry out work in the danger zone of a machine, it is the responsibility of the employer who has authority over the establishment to coordinate the measures to be taken to ensure the application of the energy control method, in particular by determining their respective roles and their means of communication.

O.C. 885-2001, s. 204; O.C. 1112-2023, s. 3.

**205.** The employer who has authority over the establishment must provide lockout material including individually keyed locks, except if an employer or self-employed worker is responsible therefor pursuant to section 204.

The name of the person who installs an individually keyed lock must be clearly indicated on the individually keyed lock. Despite the foregoing, the employer may provide persons having access to the danger zone of a machine with individually keyed locks with no name indication, if the employer keeps a record thereof.

The record contains at least the following information:

- (1) identification of each individually keyed lock;
- (2) the name and telephone number of each person to whom a lock is given;
- (3) where applicable, the name and telephone number of the employer of each worker to whom a lock is given;
- (4) the date and time at which the lock is given;
- (5) the date and time at which the lock is returned.

O.C. 885-2001, s. 205; O.C. 1112-2023, s. 3.

**206.** Where a lock is forgotten or a key is lost, the employer who has authority over the establishment may, with the agreement of the person who carried out lockout, authorize the lock to be removed after ensuring that it does not involve any danger for the health, safety and physical well-being of that person.

Where the agreement of the person who carried out lockout is not obtained, the employer who has authority over the establishment must, before authorizing the lock to be removed, inspect the danger zone of the machine accompanied by a representative of the certified association of which the person is a member, if he or she is available on the work site or, failing that, by a worker present on the work site designated by the employer.

Every instance of a lock being removed must be entered in a written document kept by the employer for at least one year following the day on which the applicable energy control method is altered.

O.C. 885-2001, s. 206; O.C. 1112-2023, s. 3.

**207.** This subdivision applies, with the necessary modifications, to any work on an electrical installation.

O.C. 885-2001, s. 207; O.C. 1112-2023, s. 3.

**208.** *(Replaced).*

O.C. 885-2001, s. 208; O.C. 1112-2023, s. 3.

**209.** *(Replaced).*

O.C. 885-2001, s. 209; O.C. 1112-2023, s. 3.

**210.** *(Replaced).*

O.C. 885-2001, s. 210; O.C. 1112-2023, s. 3.

**211.** *(Replaced).*

O.C. 885-2001, s. 211; O.C. 1112-2023, s. 3.

**212.** *(Replaced).*

O.C. 885-2001, s. 212; O.C. 1112-2023, s. 3.

**213.** *(Replaced).*

O.C. 885-2001, s. 213; O.C. 1112-2023, s. 3.

**214.** *(Replaced).*

O.C. 885-2001, s. 214; O.C. 1112-2023, s. 3.

**215.** *(Replaced).*

O.C. 885-2001, s. 215; O.C. 1112-2023, s. 3.

**216.** *(Replaced).*

O.C. 885-2001, s. 216; O.C. 1112-2023, s. 3.

**217.** *(Replaced).*

O.C. 885-2001, s. 217; O.C. 1112-2023, s. 3.

**218.** *(Replaced).*

O.C. 885-2001, s. 218; O.C. 1112-2023, s. 3.

**219.** *(Replaced).*

O.C. 885-2001, s. 219; O.C. 1112-2023, s. 3.

**220.** *(Replaced).*

O.C. 885-2001, s. 220; O.C. 1112-2023, s. 3.

**221.** *(Replaced).*

O.C. 885-2001, s. 221; O.C. 1112-2023, s. 3.

**222.** *(Replaced).*

O.C. 885-2001, s. 222; O.C. 1112-2023, s. 3.

**223.** *(Replaced).*

O.C. 885-2001, s. 223; O.C. 1112-2023, s. 3.

**224.** *(Replaced).*

O.C. 885-2001, s. 224; O.C. 1112-2023, s. 3.

**225.** *(Replaced).*

O.C. 885-2001, s. 225; O.C. 1112-2023, s. 3.

**226.** *(Replaced).*

O.C. 885-2001, s. 226; O.C. 1112-2023, s. 3.

## DIVISION XXII

### HAND TOOLS AND PORTABLE POWER TOOLS

**227. Safe usage:** Hand tools and portable power tools shall be appropriate for the job for which they are intended and be used solely for the purposes for which they were designed.

O.C. 885-2001, s. 227.

**228. Inspection and maintenance:** Hand tools and portable power tools shall be examined regularly and if found defective, be repaired or replaced.

O.C. 885-2001, s. 228.

**229. Storage of hand tools:** Hand tools shall not:

- (1) be left on the floor, in passages, on stairs or in other areas where people work or circulate;
- (2) be placed in elevated locations from where they could fall on people.

O.C. 885-2001, s. 229.

**230. Handles:** Handles for tools such as: axes, hammers, sledge-hammers, shall be carefully adjusted at the heads, firmly fixed and replaced if found defective.

O.C. 885-2001, s. 230.

**231. Files:** Files shall have metal ferruled handles or other sturdy handles and shall not be used without them.

O.C. 885-2001, s. 231.

**232. Extensions:** It is prohibited to adapt an extension to a tool used for tightening or loosening nuts, screws, bolts or pipes unless the tool was designed to be fitted with such an extension.

O.C. 885-2001, s. 232.

**233. Burrs:** The head of a steel tool used with a hammer or a sledge-hammer, such as a punch, stone chisel or other similar tool, shall be kept free of burrs.

O.C. 885-2001, s. 233.

**234. Cutting tool:** A cutting tool, such as an axe or a saw shall be transported in such manner as to prevent any contact with the worker, namely by being stored in a box or in a covered container, or firmly attached to the vehicle.

**235. Ground:** A portable electric power tool shall use an extension with a third conductor for grounding which is connected to the tool's exterior metal casing, unless the tool is battery powered or equipped with double-layered insulation.

**236. Position of trigger:** The trigger on a portable electric power tool shall be so designed as to eliminate any risk of an accidental start-up.

**237. Air supply inlet valve control:** The switch for an air-driven portable tool shall, in addition, be designed to automatically close the compressed air supply inlet valve when the operator releases the trigger.

**238. Electrical wire and flexible hose:** If they hamper circulation, the electrical wire feeding an electric power tool and the flexible hose supplying an air-driven power tool with compressed air shall:

- (1) when left on the ground, be protected so as not to be damaged and be secured so as to eliminate any risk of falling;
- (2) when suspended, be at a sufficient height to ensure clearance, but at least at 2 m.

**239. (Revoked).**

**240. Safety precautions:** When carrying a portable power tool from one working area to another, the following precautions shall be taken:

- (1) cut off the power supply;
- (2) wait for the tool to come to a complete stop.

**241. Chain saw:** Portable power saws and chain saws shall comply with the CAN3-Z62.1-M85 Chain Saw standard.

Notwithstanding the first paragraph, they shall be equipped with an anti-vibrating system.

**242. Conditions for using a chain saw:** A portable power saw or chain saw shall only be used under the following conditions:

- (1) it may only be started at a distance of over 3 m from the place where the gasoline tank was filled;
- (2) it may only be started if the chain stopper is applied;
- (3) it may only be started if it is firmly set on the ground or if the worker holds it by gripping the main handle near the chain stopper while securing the rear handle between his knees except if it weighs less than 4.3 kg;
- (4) it shall be used by holding it with both hands and with both feet firmly standing on a stable surface;
- (5) it shall have the chain stopper applied when not held firmly by the worker and while being carried from one work area to another;
- (6) it shall be equipped with a chain that is sharpened, adjusted and maintained according to the manufacturer's recommendations;
- (7) it shall never be used any higher than shoulder level;
- (8) it shall only be adjusted or serviced when the motor is turned off;
- (9) it shall never be fueled when there is a fire or explosion hazard.

## DIVISION XXIII

### HANDLING AND TRANSPORTING MATERIAL

#### § 1. — *Handling techniques*

**243. Inclined plane:** Where a worker uses an inclined plane for raising or lowering heavy objects, he shall:

- (1) avoid standing on the lower end of the plane;
- (2) control the movement of such objects by means of cables, blocks, wedges or other apparatus.

**244. Rollers:** Where rollers are used for moving objects, tools designed for this type of work such as bars or sledge-hammers shall be used; it is prohibited to use one's hands or feet to change the position of moving rollers.

O.C. 885-2001, s. 244.

§ 2. — *Hoisting devices*

**245. Operating conditions:** Every hoisting device shall be used, maintained and repaired in such a manner that its use does not compromise the health, safety or physical well-being of workers. Consequently, such a device shall:

- (1) be inspected before it is used for the first time;
- (2) have its motor turned off when filling the gas tank;
- (3) not be used if strong winds, storms or extreme temperatures make it dangerous to use;
- (4) not be used when repair or maintenance work is being carried out;
- (5) be inspected and maintained in accordance with the manufacturer's instructions or standards offering equivalent safety;
- (6) when one of its parts is repaired, reconditioned or replaced, provide as regards this part a level of safety that is equivalent to that of the original part;
- (7) not be modified to increase its rated load or to be used for any other purpose without a signed and sealed certificate from an engineer or a written certificate from the manufacturer, indicating that the modification is safe.

O.C. 885-2001, s. 245.

**246. Hoisting accessories:** Hoisting accessories shall be solidly built, have requisite resistance, depending on their use, and be kept in good working order.

O.C. 885-2001, s. 246.

**247. Safe access:** When a hoisting device has an operator's station for moving the device about or a control station for hoisting, the latter shall be safely accessible by means of a permanent ladder, steps, grip handles or any other means.

O.C. 885-2001, s. 247; O.C. 502-2018, s. 10.

**248. Precautions:** A hoisting device shall not:

- (1) be loaded beyond its rated load;
- (2) be subject to sudden movements.

O.C. 885-2001, s. 248.

**249. Rated load:** The rated load shall be indicated on all hoisting devices, at a place where it is easy to read.

O.C. 885-2001, s. 249.

**250. Load-rating table:** A table shall indicate the rated loads of a crane or of a similar device. This table shall:

- (1) be so placed as to be easily read by the operator;
- (2) provide information which complies with that provided by the manufacturer;
- (3) furnish all the necessary information for the safe operation of the crane or apparatus.

O.C. 885-2001, s. 250.

**251. Mobile crane:** A mobile crane shall meet the requirements of the CSA Z150-1974 Safety Code for Mobile Cranes standard and its supplement No. 1-1977, or any other recognized standard offering equivalent safety.

O.C. 885-2001, s. 251.

**252. Transformed mobile crane:** A mobile crane with a luffing boom transformed and used for purposes other than the hoisting of loads, and serving as a scoop, a dragging bucket, a clamshell bucket or a pile hammer shall be equipped:

- (1) with bumpers or boom stops;
- (2) a high boom angle switch.

O.C. 885-2001, s. 252.

**253. Signalman:** If the operator of a hoisting device does not have an unrestricted view during any manoeuvre, one or more signalmen shall assist the operator. The signalman shall:

- (1) observe the movement of the apparatus or the load when it is out of sight of the operator;
- (2) communicate with the operator by a well-established, uniform signal code or by means of a telecommunication system, when conditions so require or when the operator judges it necessary.

O.C. 885-2001, s. 253.

**254. Travelling crane:** A general purpose overhead travelling crane, with the exception of a single-girder overhead crane, shall conform to the CSA B167-1964 General Purpose Electric Overhead Travelling Cranes standard.

O.C. 885-2001, s. 254.

**254.1. Training of the overhead travelling crane operator:** An overhead travelling crane must be operated exclusively by an operator who has received theoretical and practical training given by an instructor.

The theoretical training must cover, among other things,

- (1) a description of the different types of overhead travelling cranes and hoisting accessories used in the establishment;
- (2) the workplace and how it affects the operation of the overhead travelling crane;
- (3) the operations involved in operating the over-head travelling crane and hoisting accessories, such as using slings and control devices, signalling using the universal system, handling and moving loads, and any other manoeuvre necessary to the operation of the overhead travelling crane;
- (4) the means of communication used in the operation of the overhead travelling crane;
- (5) the inspection to verify the working order and proper functioning of the overhead travelling crane and hoisting accessories prior to operation by the operator; and
- (6) the rules governing the operation of the overhead travelling crane, and the establishment's directives regarding the work environment.

The practical training must pertain to the subjects described in subparagraphs 1 to 6 of the second paragraph and be given in the workplace under conditions that do not expose the operator and other workers to hazards arising from the overhead travelling crane operation training. The training must also be of sufficient duration to enable the overhead travelling crane and hoisting accessories to be operated safely.

When the operation of the overhead travelling crane and hoisting accessories requires the presence of a signaller or slinger, those persons must also be given theoretical and practical training on the duties they are to perform.

O.C. 510-2008, s. 3.

**255. Safe handling of loads:** The handling of loads on a work site shall take place in accordance with the following standards:

- (1) before hoisting a load, the operator or the signalman shall ensure that all the cables, chains, slings or other moorings are properly attached to the load and that hoisting does not present any hazard;
- (2) the hoisting of loads shall be done vertically;
- (3) when oblique hoisting is absolutely necessary, precautions dictated by the circumstances shall be taken, and this operation shall be performed in the presence of a competent person representing the employer;
- (4) if the uncontrolled movement or the swinging of a raised load involves a danger, one or more guide ropes shall be used;
- (5) the hoisting device shall not be left unsupervised when a load is suspended therefrom;
- (6) the moving of loads above people shall be avoided and, if this is not possible, then specific measures shall be taken to ensure the safety of these persons;
- (7) it is prohibited for any person to stand on a load, a hook or a sling suspended from a hoisting device;
- (8) the hooks used to hoist loads as well as those attached to slings shall be equipped with a safety catch except where these hooks are specifically designed for the safe hoisting of certain loads.

O.C. 885-2001, s. 255.

**256. Lift truck:** A lift truck built on or after 2 August 2001 shall conform to the ASME B56.1-1993 Safety Standard for Low Lift and High Lift Trucks.

A lift truck built before 2 August 2001 shall conform to the CSA B335.1-1977 Low Lift and High Lift Trucks standard or the ANSI B56.1-1975 Low Lift and High Lift Trucks standard.

O.C. 885-2001, s. 256.

**256.1. Lift truck operator retention device:** A counterbalanced high-lift truck with a centre operating station, that cannot be lifted with the operator in a sitting position, referred to in the second paragraph of section 256, must be equipped with a retention device, such as a safety belt, mesh doors, enclosed cabin, bucket seat or winged seat to prevent the operator from being crushed by the structure of the truck in the event the lift truck tips over.

The devices must, where applicable, be kept in good order and used.

O.C. 1120-2006, s. 4.

**256.2. Minimum age of operator:** Every operator of a fork lift truck must be at least 16 years old.

O.C. 1120-2006, s. 4.

**256.3. Training of operator:** A fork lift truck must be operated only by an operator who has undergone

- (1) training including
  - (a) basic notions concerning fork lift trucks;
  - (b) the work environment and how it affects the operation of a fork lift truck;
  - (c) the operation of a fork lift truck; and
  - (d) safety rules and measures; and
- (2) practical training under the supervision of an instructor and dealing with the operation of a fork lift truck such as starting, moving and stopping, handling loads and any other manoeuvre necessary to operate a fork lift truck.

The practical training must begin, if possible, outside of the area used for current operations and then be completed in the regular work area.

In addition, the training prescribed in subparagraphs 1 and 2 must include the directives concerning the work environment, its specific conditions and the type of fork lift truck to be operated.

O.C. 1120-2006, s. 4.

**257. Lifting jacks:** Lifting jacks that are used to lift loads shall:

- (1) rest on solid bases;
- (2) be lined up with the load to lift;
- (3) be equipped with a positive stop to prevent overstop or a stop indicator.

O.C. 885-2001, s. 257.

**258. Hoisting devices that can be dismantled:** Hoisting devices that can be dismantled shall be assembled, maintained and dismantled in accordance with the manufacturer's instructions or trade practice.

O.C. 885-2001, s. 258.

**259. Brakes and warning device:** A hoisting device shall be equipped with:

- (1) hoisting brakes so designed and installed as to stop a load of at least one and half times that of the rated load;
- (2) a warning device when the hoisting device is motorized, except in the case of a person-lifter.

The warning device shall be used each time that a load is moved over a work station or a traffic area.

O.C. 885-2001, s. 259.

**260. Prohibition:** Subject to section 261, no operator shall lift a worker using a hoisting device, unless the latter was designed for that purpose by the manufacturer.

O.C. 885-2001, s. 260.

**261. Lifting of a worker:** The lifting of a worker using a mobile crane is permitted if the conditions set out in section 3.10.7 of the Safety Code for the construction industry ([chapter S-2.1, r. 4](#)) are respected.

The lifting of a worker using a fork lift truck must be done in compliance with ASME Standard B56.1 (1993-A.1995) Safety Standard for Low Lift and High Lift Trucks.

Each worker must wear a safety harness secured by a fall arrest connecting device to an anchorage system in accordance with section 347.

O.C. 885-2001, s. 261; O.C. 1120-2006, s. 5; O.C. 1411-2018, s. 17.

**262. Aerial basket lifting device:** Every aerial basket lifting device must be designed, manufactured and installed on a carrier vehicle in compliance with CSA Standard C225 or ANSI Standard A92.2 applicable at the time of its manufacture.

O.C. 885-2001, s. 262; O.C. 1120-2006, s. 6.

**263. Aerial basket lifting device - design and manufacture:** Every aerial basket lifting device designed and manufactured before November 1976 must

- (1) be equipped with an emergency stop button located within reach of the worker occupying the basket; and
- (2) be installed on a carrier that must provide a stable and structurally sound support when the basket is used.

O.C. 885-2001, s. 263; O.C. 1120-2006, s. 6.

**263.1. Aerial basket lifting device - training:** Every worker operating an aerial basket lifting device must undergo training in compliance with articles 10.11 to 10.11.3 of CSA Standard C225-00 Vehicle-Mounted Aerial Devices and more specifically on the operating methods related to the operation in motion of the carrier vehicle of the aerial basket lifting device.

**264. Protection against falls:** The wearing of a safety harness is compulsory for any worker occupying the aerial basket of a lifting device, except if the worker is protected by some other device that provides him with equivalent safety.

The safety harness shall be secured by a fall arrest connecting device to an anchorage system provided by the device's manufacturer or, failing that, to an anchorage system complying with sections 349 and 349.1.

The harness shall comply with CAN/CSA Standard Z259.10 Full Body Harnesses and the fall arrest connecting device shall comply with section 348.

O.C. 885-2001, s. 264; O.C. 1411-2018, s. 18.

**§ 3. — Conveyors**

**265. Carrying elements:** The carrying elements of conveyors shall be designed to safely support the loads that are hauled.

O.C. 885-2001, s. 265.

**266. (Revoked).**

O.C. 885-2001, s. 266; O.C. 1112-2023, s. 4.

**267. Protection from falling objects:** Conveyors shall preferably not be installed above passages and work stations; otherwise they shall be provided with guardrails to prevent the falling of objects.

O.C. 885-2001, s. 267.

**268. (Revoked).**

O.C. 885-2001, s. 268; O.C. 1411-2018, s. 19.

**269. Safety precaution:** When a conveyor is in operation, it is prohibited to climb onto the moving part or to stand on the conveyor frame.

This prohibition does not apply to conveyors designed specifically for moving people and used for such purpose, or to slow-moving conveyors to which workers may safely have access.

O.C. 885-2001, s. 269.

**270. (Revoked).**

O.C. 885-2001, s. 270; O.C. 1112-2023, s. 4.

**271. Bucket conveyors:** A bucket conveyor shall be:

- (1) covered on all sides and from top to bottom;
- (2) equipped with doors or removable panels to facilitate inspection, cleaning and repairs. These panels shall be equipped with an interlocking device.

O.C. 885-2001, s. 271.

**§ 4. — Self-propelled vehicles**

**272. Conditions of use and maintenance:** Every self-propelled vehicle shall be used, made and repaired in such way that it does not compromise the health, safety and well-being of workers. Consequently:

- (1) the vehicle motor shall be in the off position during fueling, except if a safe work method has been established;
- (2) the vehicle shall not be used if repair or maintenance work is being carried out on it;
- (3) the vehicle shall be maintained and inspected in accordance with the manufacturer's instructions or standards offering equivalent safety;
- (4) when one of its parts is repaired, reconditioned or replaced, this new part shall provide a level of safety that is equivalent to that of the original part.

O.C. 885-2001, s. 272.

**273. Safe access:** The control or operating station of a self-propelled vehicle shall be easily and safely accessible by means of a step, grip handles or a permanent ladder.

O.C. 885-2001, s. 273; O.C. 502-2018, s. 10.

**274. Brakes and warning device:** Every self-propelled vehicle shall:

- (1) be equipped with efficient brakes;
- (2) be equipped with a warning device (siren).

The warning device shall be used in yards and in buildings when there are persons nearby and in areas presenting a risk, such as doors and around bends.

Subparagraph 2 of the first paragraph does not apply to tracked bulldozers and hauling machines.

O.C. 885-2001, s. 274.

**275. Design and safe layout:** A self-propelled vehicle shall be designed, built and laid out so as to ensure that the driver is not struck or does not get caught by a moving vehicle part, and is not otherwise injured by operating the vehicle or on entering or leaving the cab.

O.C. 885-2001, s. 275.

**276. Protection of the driver:** The self-propelled vehicle shall be equipped with a roof, a protective screen, a cab or a structure to protect the driver in the following cases:

- (1) where there is a risk of falling objects;
- (2) if the driver risks impact with an object being handled.

O.C. 885-2001, s. 276.

**277. Protective structure of self-propelled vehicles:** The following self-propelled vehicles manufactured on or after 2 August 2001 shall be provided before 28 January 2002 with a roll-over protective structure which meets the CSA B352-M1980 Roll-over Protective Structures standard for farm, construction, landscaping, forestry, industrial and mining vehicles:

- (1) industrial tractors, motor graders, prime movers, tracked hauling machines, crawler tractors, tracked loaders, wheeled tractors and wheeled loaders, whose mass is greater than 700 kg;
- (2) compacting machines and rollers whose mass is greater than 2,700 kg, except machines designed for compacting asphalt;
- (3) wheeled agricultural tractors of more than 15 kW.

This section does not apply to a low profile agricultural tractor when it is used in an orchard.

O.C. 885-2001, s. 277.

**278. Protective structures of existing self-propelled vehicles:** The following self-propelled vehicles manufactured before 2 August 2001 shall be provided with a roll-over protective structure which meets a standard from the Society of Automotive Engineers (SAE) standardization organization or a standard providing equivalent safety:

- (1) power rams, and tracked or wheeled loaders and hauling machines;
- (2) graders;
- (3) tractor scrapers;
- (4) agricultural and industrial tractors of more than 15 kW.

The design, manufacture or installation of a protective structure is deemed to be in compliance with the standard if it has been certified, signed and sealed by an engineer.

This section does not apply to graders or loaders used for snow removal if these vehicles only circulate in places where there is no risk of overturning. Nor does it apply to a low profile agricultural tractor when used in an orchard.

O.C. 885-2001, s. 278.

**279. Identification plate:** A plate shall be attached to the roll-over protective structure. This plate shall indicate:

- (1) the name of the manufacturer;
- (2) the protective structure's serial number;
- (3) the standard with which it complies;
- (4) the make and model of equipment for which it was designed.

The plate shall be permanently attached and the inscriptions thereupon shall be legible at all times.

O.C. 885-2001, s. 279.

**280. Safety belt:** The wearing of a safety belt is mandatory for the driver of a self-propelled vehicle equipped with a roll-over protective structure as well as for any worker in the vehicle while it is in motion.

O.C. 885-2001, s. 280.

**281. Protective shield:** Self-propelled vehicles equipped with a winch for towing materials shall have a protective shield between the winch and the driver if there is a risk of injuring the driver should the cable snap.

O.C. 885-2001, s. 281.

**282. Seat and belt:** Any persons other than the driver are prohibited from being on a self-propelled vehicle, if it is not equipped with a seat and a belt to accommodate each person.

O.C. 885-2001, s. 282.

**283. Vehicle in motion:** No worker shall remain on the load of a self-propelled vehicle in motion.

O.C. 885-2001, s. 283.

**284. Signalman:** When a self-propelled vehicle moves in reverse, a signalman shall direct the driver if such a move poses a risk for the safety of a worker or the driver.

O.C. 885-2001, s. 284.

**285. Prohibition:** The driver of a self-propelled vehicle referred to in section 277 or 278 shall not leave his vehicle unattended when the mobile part of the device used for lifting, towing or pushing a load is in a raised position.

O.C. 885-2001, s. 285.

§ 5. — *All terrain vehicles*

**286. Operating conditions:** The use of an all-terrain vehicle is only permitted under the following conditions:

- (1) the vehicle is mounted on at least 4 wheels;
- (2) it is equipped with a portable fire extinguisher of the type ABC approved by Underwriters' Laboratories of Canada (ULC), if the task involves any risk of fire;
- (3) it is equipped with a yellow warning flag measuring at least 0.05 m<sup>2</sup> and placed at least 1.5 m above ground level, if the vehicle is used in yards;
- (4) the workers have been trained and warned of the specific dangers related to the use of this type of vehicle;
- (5) the driver shall wear the following individual protective equipment:
  - (a) a protective helmet of the type for motorcyclists or snowmobile users in compliance with the Protective Helmets Regulation (chapter C-24.2, r. 6);
  - (b) protective goggles or a visor designed to be attached to a protective helmet;
  - (c) flexible gloves that provide a firm grip on the vehicle's handles and controls;
- (6) The wearing of protective equipment provided in subparagraphs a and b of paragraph 5 is also mandatory for all passengers.

O.C. 885-2001, s. 286.

**287. Prohibition:** It is prohibited to use an all-terrain vehicle for pulling a load with any attachment which in the event it snaps, may cause a backlash effect.

O.C. 885-2001, s. 287.

**DIVISION XXIV**  
**PILING OF MATERIALS**

**288. Piles of material:** Piling of materials shall be performed such that the piles do not obstruct:

- (1) the proper distribution of natural or artificial lighting;
- (2) the proper operation of machines or other facilities;
- (3) traffic in passages, aisles, stairs, elevators and near doors;
- (4) access to electric panels;
- (5) access to showers and other emergency equipment;
- (6) the efficient operation of automatic sprinkler systems or access to fire fighting equipment.

The distance between the pile and the sprinkler shall not be less than 450 mm.

O.C. 885-2001, s. 288.

**289. Resistance of walls and bulkheads:** No material shall be piled against building walls or bulkheads without there being a previous determination that such walls or bulkheads can withstand the lateral pressure.

O.C. 885-2001, s. 289.

**290. Stability of piles:** Material shall not be piled to a height that may compromise the stability of the pile.

O.C. 885-2001, s. 290.

**DIVISION XXV**

## HANDLING AND USING EXPLOSIVES

**291. Scope:** This Division applies to all blasting work or all work requiring the use of explosives. However, it does not apply to such work when carried out in a mine within the meaning of the Regulation respecting occupational health and safety in mines (chapter S-2.1, r. 14).

O.C. 885-2001, s. 291.

**292. Shot-firer:** Every person who carries out blasting operations or any work requiring the use of explosives shall hold a valid shot-firer's certificate issued by the Commission des normes, de l'équité, de la santé et de la sécurité du travail or by an agency recognized by the latter.

O.C. 885-2001, s. 292.

**293. Assistants:** A shot-firer may not be assisted by more than 2 assistants who do not hold the shot-firer's certificate referred to in section 292.

Assistants can help the shot-firer in his work, with the exception of setting off the blast which shall be done by the shot-firer himself.

The shot-firer shall supervise and co-ordinate the work of his assistants.

O.C. 885-2001, s. 293.

**294. Minimum age:** Every worker must be at least 18 years old to perform blasting work or any work requiring the use of explosives.

O.C. 885-2001, s. 294.

**295. Handling and use of explosives:** All blasting work or all work requiring the use of explosives shall be carried out in conformity with Division IV of the Safety Code for the construction industry (chapter S-2.1, r. 4), with the exception of Subdivision 4.2.

O.C. 885-2001, s. 295.

**296. Cancellation or suspension:** The Commission des normes, de l'équité, de la santé et de la sécurité du travail shall cancel the certificate of a shot-firer who is found guilty of an offence under section 236 or 237 of the Act respecting occupational health and safety (chapter S-2.1).

The Commission can also cancel or suspend, for a period of from 3 to 24 months, the certificate of a shot-firer when the work he does is the subject of a remedial order under section 182 of the Act respecting occupational health and safety or of an order under section 186 of that Act, by reason that he refused to comply with the Act or this Regulation.

O.C. 885-2001, s. 296.

## DIVISION XXVI

### WORKING IN AN ENCLOSED AREA

**296.1. Scope:** This Division applies to all confined spaces and all work performed in a confined space.

O.C. 43-2023, s. 2.

**297. Definitions:** For the purposes of this Division,

"hot work" means any work that requires the use of a flame or that can produce an ignition source;

"qualified person" means a person who, by reason of his knowledge, his training or his experience, is able to identify, assess and control the dangers relating to an enclosed area.

O.C. 885-2001, s. 297.

**297.1. Layout of a confined space:** In the case of a new confined space or the renovation of an existing confined space, its layout must integrate equipment and installations that make it possible to intervene from the outside. In addition, the corresponding work methods, taking into account the risks around the confined space, must be developed and be available on the work site before the confined space is put into service.

Where it is impossible, in the cases provided for in the first paragraph, to integrate equipment and installations that make it possible to intervene from the outside, the layout of the confined space must allow for the efficient control of the risks identified according to the gathering of information prescribed in section 300. In addition, that layout must in particular integrate equipment and installations that make it possible to

- (1) control the atmospheric risks, the risk of being buried or the risk of drowning;
- (2) facilitate entry and exit, movements inside, as well as rescue;
- (3) control access to the confined space and prevent falls;
- (4) control the other risks that could compromise the health or safety of a worker.

O.C. 43-2023, s. 3.

**298. Qualified workers:** Only those workers aged 18 or over and who have the knowledge, training or experience required to do work in an enclosed area are qualified to perform work there.

O.C. 885-2001, s. 298; O.C. 43-2023, s. 4.

**299. Entry prohibited:** Entry to an enclosed area is prohibited for any person who is not assigned to do work, to perform a task or to carry out a rescue there.

O.C. 885-2001, s. 299.

**300. Gathering information and preventive measures before performing work:** Before any work or task is performed in a confined space, the following information and preventive measures must be available, in writing, on the work premises:

- (1) information on the risks associated with the atmosphere, including those that may be introduced during the work, and that concern
  - (a) a lack or an excess of oxygen;
  - (b) contaminants, inflammable or toxic gases or vapours, or combustible dust;
  - (c) the materials present that may emit gases or vapours, or consume oxygen;
  - (d) heat stress;
  - (e) an insufficiency of natural or mechanical ventilation;
- (2) information on the risks associated with the free flow materials that are present and that can cause the worker to be buried or to drown, such as sand, grain or a liquid;
- (3) information on the other risks that could compromise the safety or evacuation of a worker and that concern
  - (a) the means of entering or leaving the interior configuration, lighting conditions and communications;
  - (b) energies such as electricity, moving mechanical parts, noise and hydraulic energy;
  - (c) ignition sources such as open flames, lighting, welding and cutting, grinding, static electricity or sparks;
  - (d) other categories of contaminants likely to be present in the confined space or nearby;
  - (e) any other special circumstances such as the presence of vehicles, animals or insects;
- (4) the preventive measures to be taken to protect the health of workers and ensure their safety and physical well-being, in particular those concerning
  - (a) safe methods and techniques to carry out the work;
  - (b) appropriate and necessary work equipment to carry out the work;
  - (c) the personal or collective protective means and equipment that the worker must use when working;
  - (d) the rescue methods in the rescue plan provided for in section 309.

The information referred to in subparagraphs 1, 2 and 3 of the first paragraph must be gathered by a qualified person.

The preventive measures referred to in subparagraph 4 of the first paragraph must be determined by a qualified person and be implemented.

O.C. 885-2001, s. 300; O.C. 43-2023, s. 5.

**301. Information provided to workers prior to performing work:** Information referred to in subparagraphs 1 to 4 of the first paragraph of section 300 shall be conveyed and explained to all workers before they enter an enclosed area; this information shall be given by someone who is capable of adequately informing the workers on how to perform the work safely.

O.C. 885-2001, s. 301; O.C. 43-2023, s. 6.

**302. Ventilation:** Except in cases where the safety of workers is ensured in compliance with paragraph 3 of section 303, no worker may enter or be present in an enclosed area unless the latter is ventilated either by natural or mechanical means such that the following atmospheric conditions are maintained:

- (1) the concentration of oxygen shall be greater than or equal to 20.5% and less than or equal to 23%;
- (2) the concentration of inflammable gases or vapours shall be less than or equal to 5% of the lower explosion limit;
- (3) the concentration of one or more contaminants referred to under the sub subparagraph of subparagraph 1 of the first paragraph of section 300 shall not exceed the standards provided in Schedule I for these contaminants;

If it proves impossible by ventilating the enclosed area to maintain an internal atmosphere in compliance with the standards provided under subparagraphs 1 and 3 of the first paragraph, a worker may only enter or be present in this area if he wears a respirator in accordance with Division VI and if the internal atmosphere of this enclosed area complies with subparagraph 2 of the first paragraph.

O.C. 885-2001, s. 302; O.C. 49-2022, s. 14; O.C. 43-2023, s. 7.

**303. Combustible dusts:** No worker may enter or be present in an enclosed area where there are combustible dusts posing a risk of fire or explosion unless the safety of the worker is ensured by the implementation of one of the following procedures:

- (1) by maintaining and controlling such dusts at a safe level;
- (2) by controlling existing ignition sources in the enclosed area associated with the training of the worker, by a qualified person, on the methods and techniques to be used for performing the work safely;
- (3) by making the atmosphere in the enclosed area inert, associated with the worker wearing a respirator in accordance with Division VI and the training of the latter in compliance with paragraph 2.

O.C. 885-2001, s. 303; O.C. 49-2022, s. 15.

**304. Hot work:** Wherever hot work is performed in an enclosed area, a worker may only enter or be present therein if the following conditions are met:

- (1) the conditions provided under sections 302 and 303;
- (2) a continuous monitoring of the concentration of inflammable gases and vapours found therein is carried out by a direct reading instrument equipped with an alarm.

O.C. 885-2001, s. 304.

**305. (Revoked).**

O.C. 885-2001, s. 305; O.C. 43-2023, s. 8.

**306. Method and frequency of atmospheric readings:** Where risks associated with the atmosphere are identified, readings of the oxygen concentration in the enclosed area as well as of inflammable gases and vapours and contaminants measurable by direct reading and likely to be present in the enclosed area or nearby shall be made:

- (1) before workers enter the enclosed area and, subsequently, on a continuous or periodic basis, according to the evaluation of the danger made by a qualified person;
- (2) if circumstances modify the internal atmosphere of the enclosed area and result in the evacuation of workers due to the fact that the quality of the air no longer complies with the standards set out in subparagraphs 1 to 3 of the first paragraph of section 302;
- (3) if the workers leave the enclosed area and the work site, even momentarily, unless continuous monitoring is maintained;
- (4) when an atmospheric risk other than those identified in accordance with section 300 is identified and likely to modify the internal atmosphere of the confined space, such as the introduction of a product or material that may emit toxic or flammable gases or vapours.

The readings shall be taken in such a manner as to obtain an accuracy equivalent to that obtained following the methods described in section 44 or, when these measures cannot be applied, by following another recognized method.

O.C. 885-2001, s. 306; O.C. 1120-2006, s. 7; O.C. 43-2023, s. 9.

**307. Register of readings:** The results of the readings made under section 306 shall be recorded by the employer in a register, on the work premises, identifying the enclosed area in question.

However, in the case where the readings are made using continuous reading instruments equipped with alarms that sound when the air quality does not meet the standards set out in subparagraphs 1 to 3 of the first paragraph of section 302, the readings shall only be recorded in the register if the alarm goes off.

Only those entries in the register that do not comply with the standards set out in subparagraphs 1 to 2 of the first paragraph of section 302 shall be kept for a period of at least 5 years.

O.C. 885-2001, s. 307.

**308. Attendant:** When a worker is present in a confined space, a person designated by the employer as an attendant must be positioned outside and near the entrance in order to initiate, if necessary, rescue procedures. The attendant must

- (1) have the necessary skills and knowledge;
- (2) remain in contact with the worker using a 2-way communication system;
- (3) be able to order the worker, if necessary, to evacuate the confined space.

O.C. 885-2001, s. 308; O.C. 43-2023, s. 10.

**308.1. Unforeseen situation:** The attendant must prohibit entry and, where applicable, order the evacuation of a confined space if the attendant, a qualified person or a qualified worker identifies a risk for the safety of a worker, other than those identified in accordance with section 300.

O.C. 43-2023, s. 10.

**308.2. Resumption of work:** Work that is interrupted pursuant to section 308.1 may resume only if a qualified person reviews the gathered information and determines the appropriate preventive measures in accordance with section 300.

O.C. 43-2023, s. 10.

**309. Rescue plan:** A rescue plan, which includes the equipment and methods to rapidly rescue any worker performing work in a confined space, must be developed.

The equipment required by a rescue plan and any accessories must be

- (1) adapted to the intended use and to the specific conditions of the work and the confined space;
- (2) inspected and kept in good order;
- (3) present and easily accessible near the confined space for a rapid intervention.

The rescue plan must include a call and communication protocol to initiate rescue operations. In addition, a specific person must be appointed in the rescue plan to direct the rescue operations.

The workers who are assigned to the application of rescue operations must have received training developed by a qualified person, including techniques for avoiding endangering their safety and that of other workers.

The rescue plan must be tested with exercises that allow in particular workers to become familiar with their role, the communication protocol and the use of the rescue equipment concerned.

O.C. 885-2001, s. 309; O.C. 43-2023, s. 10.

**310. Unobstructed access:** The personal or collective protective means or equipment used by workers shall not obstruct them when entering or leaving an enclosed area.

O.C. 885-2001, s. 310.

**311. Precautions regarding free flow solid materials:** No person may enter a confined space used to store free flow solid materials.

Where it is indispensable for a worker to enter such a confined space, one of the safety measures provided for in section 33.2 must be used so that the worker cannot fall or be buried in the stored materials. In addition, that worker may not enter

- (1) when filling or emptying operations are taking place, and precautions such as the closing and locking of flow hatches or the application of energy control measures, have not been taken to prevent an accidental resumption of those operations;
- (2) without first verifying and eliminating the risks associated with
  - (a) cavities that may be present under the surface of the stored materials;
  - (b) the shifting of piled materials or falling pieces of agglomerated materials;
- (3) from under an arch formed by the materials present in the confined space.

O.C. 885-2001, s. 311; O.C. 1120-2006, s. 8; O.C. 43-2023, s. 11.

**312. Precautions regarding liquid materials:** No person may enter a confined space where there is a risk of drowning without applying an isolation procedure for the section where the work is taking place or a liquid flow control procedure to prevent the influx or an increase in the level of a liquid.

The procedure to isolate the section or control the flow of liquid may in particular provide for the drainage or the derivation of the liquid, the blocking of pipes or the closing and locking of valves.

O.C. 885-2001, s. 312; O.C. 1411-2018, s. 20; O.C. 43-2023, s. 11.

## DIVISION XXVI.I UNDERWATER WORK

O.C. 425-2010, s. 3.

**312.1. Definitions:** In this Division,

“area of influence” means a part of a watercourse upstream or downstream from a hydraulic structure or hydroelectric plant that, following a variation in the flow of turbine discharge or discharged water, is subject to current variations that constitute danger for the diver; (*zone d'influence*)

“bottom time” means the time, rounded to the nearest whole minute, comprised between the time the dive begins and the time the diver begins to ascend; (*temps de fond*)

“breathing mixture” means compressed breathing air or a gas mixture containing oxygen in a proportion sufficient to enable the diver to breathe freely without any danger of physiological problems; (*mélange respirable*)

“buddy diving” means any free-swimming scuba diving by a team of 2 divers who ensure each other’s safety; (*plongée en compagnonnage*)

“contaminated environment” means a liquid environment containing contaminants or dangerous substances within the meaning of the Act respecting occupational health and safety (chapter S-2.1); (*milieu contaminé*)

“decompression accident” means the formation of gas bubbles in the blood and tissues following bad decompression while diving; (*accident de décompression*)

"decompression tables" means the tables indicating the duration of the stops to be complied with in the ascent of a diver according to the characteristics of the dive, such as depth, breathing mixture used and bottom time, in order to reduce the risk of decompression accidents; (*tables de plongée ou de décompression*)

"deep diving" means any diving to depths greater than 40 m; (*plongée profonde*)

"dive time" means the time period comprising the bottom time and the time required to resurface, including decompression time; (*durée de plongée*)

"diving bell" means a vessel linked to the surface, with the bottom open and having, at its top, a dry compartment for the diver; (*cloche de plongée*)

"diving station" means a location on the surface, such as a bank, jetty, floating wharf or boat, large enough to safely hold the dive team and other workers, allow the installation of the required diving equipment and material and ensure the smooth running of the operations; (*poste de plongée*)

"environment with an obstruction" means a submerged work area from which a diver cannot be returned to the surface because of an obstacle exerting a resistance when the umbilical is pulled from the surface; (*milieu à obstacle*)

"free-swimming scuba diving" means scuba diving without a lifeline secured to the surface or a buoy; (*en nage libre ou plongée en nage libre*)

"hyperbaric chamber" means a pressure vessel and associated equipment designed to submit a person to pressures greater than atmospheric pressure; (*caisson hyperbare*)

"police diving" means any diving by police divers who are members of a diving unit constituted within a police force in Québec, during an intervention regarding public order and security in accordance with the laws in force, in particular, rescue, safety of sites, or search and recovery of persons or clues linked to an investigation; (*plongée policière*)

"restricted access area" means a submerged work area, such as a tank, from which a diver can only exit or be taken out through a narrow passageway; (*milieu à accès restreint*)

"saturation diving" means any diving consisting in maintaining the diver pressurized in a submersible compression chamber so that the total pressure of inert gases in the diver's body remains equal to the ambient pressure at the depth of the dive and thus allowing a longer bottom time without lengthening the duration of the decompression; (*plongée à saturation*)

"scientific diving" means any diving to gather specimens or data for scientific purposes, in particular, in archaeology, biology, environment sciences, oceanography, halieutics or microbiology; (*plongée scientifique*)

"scuba diving" means any diving carried out with an open-circuit underwater breathing apparatus attached only to at least one cylinder containing a breathing mixture worn by a diver; (*plongée en mode autonome*)

"Service d'assistance médicale pour les urgences en plongée" means the medical assistance service in case of diving emergency designated by the Ministère de la Santé et des Services sociaux;

"site likely to show a pressure differential" means an underwater site where a crack, piping erosion or opening can cause a difference in pressure causing a source of suction for the diver; (*site susceptible de présenter un différentiel de pression*)

"stage" means the equipment used to bring a diver to the point of entry into the water, in particular a cage, submersible compression chamber, platform or diving bell; (*nacelle de plongeur*)

"submersible compression chamber" means a submersible hyperbaric chamber equipped with a variable pressure lock used to lower divers under pressure or bring them up at the atmospheric pressure; (*tourelle*)

"surface-supply diving" means any diving carried out with an open-circuit underwater breathing apparatus attached to an umbilical supplied from the surface with a breathing mixture; (*plongée en mode non autonome*)

"therapeutic recompression" means the treatment received by a diver, usually in a hyperbaric chamber, in accordance with the recognized treatment tables and practices; (*recompression thérapeutique*)

"treatment tables" means the hyperbaric treatment protocols, including the therapeutic recompression profiles used when treating a diver who was the victim of a decompression accident; (*tables de traitement*)

"umbilical" means a bundle of cables and flexible hoses linking a diver to the surface to supply breathing mixture, power and communication. (*ombilical*)

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O.C. 425-2010, s. 3; S.Q. 2015, c. 13, s. 20.

**312.2. Scope:** This Division applies to any underwater work, except section 312.6, subparagraph *d* of subparagraph 1 of the second paragraph of section 312.16, paragraph 5 of section 312.20, section 312.27, paragraph 1 of section 312.86, section 312.87 and paragraph 1 of section 312.91 that do not apply to police diving.

However, this Division does not apply to the teaching and practice of recreational diving that are governed by the Act respecting safety in sports (chapter S-3.1).

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O.C. 425-2010, s. 3; O.C. 1104-2015, s. 2.

§ 1. — General

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**312.3. Object:** The purpose of this Division is to establish standards applicable to underwater work in order to ensure the health, safety and physical integrity of divers and any other workers, in particular with regard to the training of dive team members, composition and operation of the dive team, required equipment and material, breathing mixture to be used, diving documents, medical monitoring and general and special safety standards to apply.

O.C. 425-2010, s. 3.

**312.4. Employer's obligations:** An employer must in particular ensure that each member of the dive team performs the duties assigned.

In a scientific dive performed by a government agency, educational institution, non-profit research institution or any other non-profit institution, the employer must comply with the provisions of this Division or the Canadian Association for Underwater Science Standard of Practice for Scientific Diving, 3rd Edition, October 1998.

O.C. 425-2010, s. 3.

**312.5. Diver's obligations:** A diver must

- (1) inform the diving supervisor of any health condition that may make the diver unfit for diving; and
- (2) keep an up-to-date diving logbook and retain it for at least 5 years.

O.C. 425-2010, s. 3.

*§ 2. — Diving modes*

O.C. 425-2010, s. 3.

**312.6. Diving mode according to work:** Surface-supply diving is required for the following:

- (1) work performed on a construction site within the meaning of section 1 of the Act respecting occupational health and safety (chapter S-2.1);
- (2) welding or cutting;
- (3) jetting or suction dredging;
- (4) work requiring the use of a lifting device to handle loads underwater;
- (5) work requiring the handling or use of explosives;
- (6) deep diving work;
- (7) work in a contaminated environment requiring the exceptional preventive measures referred to in sections 312.74 to 312.79;
- (8) work involving dives with special hazards requiring the safety measures referred to in sections 312.86 to 312.91; and
- (9) inspecting submerged structures or infrastructures.

O.C. 425-2010, s. 3.

*§ 3. — Dive team*

O.C. 425-2010, s. 3.

**312.7. Composition of the dive team:** All diving must be performed in teams.

Subject to sections 312.19, 312.76, 312.80, 312.84, paragraph 1 of section 312.86, section 312.87, paragraph 1 of section 312.88, the first paragraph of section 312.89 and paragraph 1 of section 312.91, a dive team must consist of at least 3 divers sharing the duties of diving supervisor, diver, standby diver and diver's tender, according to the following:

- (1) the diving supervisor may also act as standby diver or diver's tender; and
- (2) the standby diver may also act as diving supervisor but not as diver's tender.

In addition, the dive team includes 2 hyperbaric chamber operators when such a chamber is required.

O.C. 425-2010, s. 3.

**312.8. Training of dive team members:** Within 12 months after 10 June 2010, each dive team member, according to the diving mode and the position held, must

- (1) receive training in occupational diving according to CSA Standard CSA Z275.5-05, Occupational Diver Training, and hold a certificate to that effect issued by an educational institution authorized to offer such training by the Ministère de l'Éducation, du Loisir et du Sport or by an educational institution approved by an occupational diving certification agency recognized by the Commission des normes, de l'équité, de la santé et de la sécurité du travail, or obtain skills recognition according to CSA Standard CAN/CSA Z275.4-02, Competency Standard for Diving Operations, from such an institution or agency;
- (2) receive, in the case of a dive carried out in a site likely to show a pressure differential, training on the intervention techniques in a situation of pressure differential and hold a certificate to that effect issued by an educational institution authorized by the

Ministère de l'Éducation, du Loisir et du Sport to offer training in occupational diving; or

(3) receive, in the case of police diving, diving training provided by a police force or recognized by the École nationale de police du Québec and, where applicable, hold a certificate to that effect.

In addition, at least every 3 years, each dive team member referred to in subparagraph 2 must update his or her knowledge and hold a certificate to that effect issued by an educational institution authorized by the Ministère de l'Éducation, du Loisir et du Sport to offer training in occupational diving.

Subparagraph 2 and the second paragraph also apply in the case of police diving. The training must however be provided by a police force or recognized by the École nationale de police du Québec.

Every person who holds a certificate of training in occupational diving or a certificate to the same effect, depending on the diving mode and the position held, issued by an occupational diving school recognized by the Commission de la santé et de la sécurité du travail before 10 June 2010 is exempt from the requirements in subparagraph 1.

O.C. 425-2010, s. 3.

**312.9. Minimum age:** A dive team member must be at least 18 years of age.

O.C. 425-2010, s. 3.

**312.10. Experience of the diving supervisor:** The diving supervisor responsible for underwater work on a construction site must have carried out 100 dives and have at least 1,000 hours of underwater work on a construction site declared to the Commission de la construction du Québec, in accordance with the Act respecting labour relations, vocational training and workforce management in the construction industry (chapter R-20).

O.C. 425-2010, s. 3.

**312.11. Duties of the diving supervisor:** Every dive must be supervised by a diving supervisor who must, in particular,

- (1) before performing underwater work upstream or downstream from a hydraulic structure or a hydroelectric plant, communicate with its owner. Section 312.89 applies if the work is performed in the area of influence;
- (2) before each dive in seaways or port facilities, notify the authorities concerned;
- (3) before each dive, prepare a dive plan that complies with section 312.31, brief the dive team members on the plan, discuss it with them and obtain their agreement;
- (4) ensure that the diving equipment and installations comply with those described in this Division and are in good working order;
- (5) ensure that each diver wears the required diving equipment, in particular that the standby diver's mask or helmet and suit provide protection equivalent to the underwater diver's mask or helmet and suit, and that it is installed correctly;
- (6) ensure that each diver checks his or her equipment once in the water, before starting the dive;
- (7) see to the implementation of the dive plan and to the prior setting up of any installation enabling the standby diver to take action quickly and in particular to deal with any emergency;
- (8) supervise dive team members;
- (9) remain on the surface unless an intervention is required because the safety of a diver is threatened and only after delegating the responsibilities of diving supervisor to a diver on the surface;
- (10) designate the dive team member on the surface who is responsible for radio communication with each diver underwater;
- (11) prepare and update a register of the dives supervised; and
- (12) ensure that any other activity does not endanger the health or safety of the dive team members.

O.C. 425-2010, s. 3.

**312.12. Duties of the standby diver:** The standby diver must

- (1) remain on the surface and dive only in case of emergency to help a diver underwater;
- (2) ensure that the required diving and communication equipment is ready for use in the environmental conditions surrounding the diver underwater; and
- (3) be ready to dive in the environmental conditions surrounding the diver underwater within not more than
  - (a) 5 minutes for scuba diving; or
  - (b) 7 minutes for surface-supply diving.

In addition, the standby diver may not assist more than one diver at a time, except if the distance separating the standby diver from the divers' entry points does not exceed 30 m.

A scuba diver may not act as a standby diver for a surface-supplied diver.

O.C. 425-2010, s. 3.

**312.13. Duties of the diver's tender:** The diver underwater must always be assisted by a diver's tender who must

- (1) constantly monitor the diver's lifeline; and
- (2) see to the operation of the breathing mixture supply and distribution system used by the surface-supplied diver.

O.C. 425-2010, s. 3.

**312.14. Duties of the hyperbaric chamber operator:** The hyperbaric chamber operator must

- (1) see exclusively to the operation of the hyperbaric chamber; and
- (2) be assisted by another member of the dive team if the operator has been diving within the last 6 hours.

O.C. 425-2010, s. 3.

**312.15. Exclusivity of the duties of the dive team:** Dive team members must carry out only the duties assigned to them.

The duties performed on the surface in relation to diving operations must be assumed by workers who are not members of the dive team.

O.C. 425-2010, s. 3.

#### **§ 4. — General safety standards**

O.C. 425-2010, s. 3.

**312.16. Lifeline:** Subject to section 312.19, a diver must be tethered to the surface by a lifeline.

The lifeline must

- (1) be made of cord
  - (a) of material other than natural fibre or monofilament polypropylene;
  - (b) at least 12 mm in diameter;
  - (c) whose total minimum length is 15 m greater than the length used underwater;
  - (d) with a breaking strength greater than 20 kN; and
  - (e) free of knots and splices, except at the ends where only splices are allowed;
- (2) be secured, on the surface,
  - (a) to an anchorage point that ensures a breaking strength greater than 20 kN, for surface-supply diving, unless that point is a boat that cannot ensure that strength, in which case the cord must be secured to an anchorage point as solid as possible; or
  - (b) to an anchorage point that ensures a sufficient breaking strength when the lifeline is at its maximum tension, for scuba diving; and
- (3) be attached to a diving harness.

In addition, the lifeline must

- (a) allow to transmit line signals, pull a diver up or stop a diver's movement underwater; and
- (b) protect the air hose and communication cable against tension when it is integrated into an umbilical.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 3.

**312.17. Lifeline of a standby diver:** In addition to the standards listed in section 312.16, the lifeline of a standby diver must be at least 3 m longer than that of the diver underwater.

O.C. 425-2010, s. 3.

**312.18. Umbilical:** The umbilical must be protected against kinking or crushing likely to hinder its operation and free of any intermediate linkage over its entire length.

An umbilical may be used as a lifeline if it was designed for that purpose. If not, a lifeline must be integrated to protect the umbilical against any tension.

O.C. 425-2010, s. 3.

**312.19. Free-swimming scuba diving:** If a diver's lifeline could get stuck or tangled, the diving supervisor, when another work method cannot be used, may authorize free-swimming scuba diving, on the condition that an accompanying diver secured to the surface by a lifeline goes underwater and maintains permanent visual contact with the free-swimming diver. The accompanying diver is added to the dive team referred to in section 312.7.

If the lifeline of the accompanying diver could also get stuck or tangled, the diving supervisor may authorize the 2 divers to buddy dive in accordance with section 312.20.

O.C. 425-2010, s. 3.

**312.20. Buddy diving:** While buddy diving, the divers must

- (1) establish a communication code by hand signals to be used in case of emergency or failure of the voice communication system;
- (2) maintain constant visual contact with each other during the entire dive;
- (3) terminate the dive immediately if one of the divers begins to ascend;
- (4) apply the emergency measures in the dive plan if one of the divers does not respond to a signal; and
- (5) be tethered to the surface by a cord attached to a buoy, which must be constantly visible and monitored so that immediate help may be provided to the divers in case of emergency.

O.C. 425-2010, s. 3.

**312.21. Decompression tables:** Except in saturation diving, dives, ascents and rest periods must comply with the decompression tables of the Defence and Civil Institute of Environmental Medicine of the Department of National Defence of Canada corresponding to the breathing mixture used.

Except in case of emergency, a diver must never be in a situation of undue exposure defined in those tables.

O.C. 425-2010, s. 3.

**312.22. Communication system by line signals:** Except in the case of a buddy dive in accordance with section 312.20, a 2-way communication system by line signals must be established for each dive so that

- (1) a diver may immediately obtain help from the dive team members on the surface, if needed; and
- (2) the dive team on the surface may, at any time, call a diver back to the surface.

O.C. 425-2010, s. 3.

**312.23. Voice communication system:** In addition to the system referred to in section 312.22, a 2-way voice communication system between the diver underwater and the dive team members on the surface must be used for all dives

- (1) that are surface-supplied;
- (2) with a buddy and free-swimming;
- (3) at the end of submerged pipes;
- (4) in an environment with an obstruction;
- (5) in a restricted access area;
- (6) under ice;
- (7) in a contaminated environment; and
- (8) to a depth of more than 40 m in the case of a police dive when the location does not allow the transportation of a hyperbaric chamber to the diving station.

During a dive to a depth of more than 50 m, the 2-way voice communication between the diver and the surface must be recorded for the entire dive. The recording must be kept for at least 48 hours.

A dive must be interrupted if the 2-way voice communication system should fail.

O.C. 425-2010, s. 3.

**312.24. Features of the voice communication system:** The communication system referred to in section 312.23 must

- (1) have a transmission quality that allows the diver's breathing to be clearly heard; and
- (2) be equipped with a voice unscrambler if a gas mixture containing helium or other sound-distorting gas is used.

O.C. 425-2010, s. 3.

**312.25. Dive time:** The sum of a diver's dive times must never exceed 4 hours per 24-hour period.

O.C. 425-2010, s. 3.

**312.26. Signalling:** Any underwater work in navigational waters must be signalled in accordance with the Collision Regulations (C.R.C., c. 1416) and the Private Buoy Regulations (SOR/99-335).

When a diver is in the water, no boat or other floating equipment in the work area may be moved without the authorization of the diving supervisor.

O.C. 425-2010, s. 3.

**312.27. Current:** When the current at the underwater workstation where the diver must perform duties is over 1 knot, a current deflector must be used to reduce the current to not more than 1 knot. The deflector manufacturing and installation drawings must be approved by an engineer and be available at the dive site.

If it is impossible to use a deflector, another means ensuring equivalent safety must be approved by an engineer.

O.C. 425-2010, s. 3.

**312.28. Handling and use of explosives:** Any work requiring the handling or use of explosives underwater must be carried out in accordance with Division IV of the Safety Code for the construction industry (chapter S-2.1, r. 4), except Subdivision 4.2 in the case of a police dive.

In addition, the lead wire must not be attached to the detonator before all divers have moved at least 800 m away from the explosion site on the water or have taken shelter on shore.

O.C. 425-2010, s. 3.

**312.29. Underwater welding and cutting:** Any underwater welding or cutting, as well as the installation, handling and maintenance of equipment required to that effect, must be carried out in accordance with Clause 9.5 of CSA Standard CAN/CSA W117.2-01, Safety in Welding, Cutting and Allied Processes, except Clause 9.5.3.3.

O.C. 425-2010, s. 3.

**312.30. Protection against electrical hazards:** Electric voltage of devices, equipment and tools used underwater must not exceed 110 V in direct current or 42 V in alternating current.

Those devices, equipment and tools must be

- (1) insulated;
- (2) equipped with a shut-off switch;
- (3) equipped with a ground fault detector if the power supply is alternating current from the public network or its equivalent; and
- (4) grounded, in the case of equipment.

O.C. 425-2010, s. 3.

#### *§ 5. — Diving documents*

O.C. 425-2010, s. 3.

**312.31. Dive plan:** The dive plan that must be prepared by the diving supervisor in accordance with section 312.11 must include at least the following items:

- (1) the description of the dive sites, seabed characteristics and the nature of the work to be carried out;
- (2) the depth and duration of the dive;
- (3) the current velocity and, if applicable, the preventive measures to be taken to eliminate the risk of drifting;
- (4) the diving mode prescribed and the required equipment and material, including the nature and quantity of the breathing mixture used;
- (5) the identification of the hazards and the preventive measures to be taken to eliminate or control them;
- (6) the preventive measures in a contaminated environment and whether they are general or exceptional;
- (7) the duties assigned to each member of the dive team;
- (8) the establishment of a code for communication and recall to the surface by line signals;
- (9) the measures to be taken in case of emergency, such as communication failure between the surface and a diver, equipment failure or poor environmental conditions, such as wind, bad weather, currents, waves, bad visibility and contaminants or dangerous substances; those measures must include an underwater rescue simulation at every dive site, including a site likely to show a pressure differential, or when 50% or more of the dive team is replaced;
- (10) the evacuation and transportation methods for an injured diver, in particular, air transport, if applicable;
- (11) the contact information of the medical services to contact in case of decompression accident or other, particularly the contact information of the Service d'assistance médicale pour les urgences en plongée; and
- (12) the contact information of the administrative authorities concerned by the underwater work, such as the police, the port authority and the authorities in charge of the navigational waters, water intakes, water purification plants and hydraulic structures.

O.C. 425-2010, s. 3; S.Q. 2015, c. 13, s. 21.

**312.32. Diving logbook:** The diving logbook that must be prepared by the diving supervisor in accordance with section 312.11 must include, for each dive supervised, a record containing the information referred to in the second paragraph of section 312.33.

The logbook must be retained by the employer for at least 5 years.

O.C. 425-2010, s. 3.

**312.33. Diver's logbook:** The logbook kept by each diver in accordance with section 312.5 must contain the following information and documents:

- (1) the diver's name, address and date of birth;
- (2) the training certificates or recognition referred to in sections 312.8 and 312.60; and
- (3) the medical certificate referred to in section 312.57.

In addition, the diver must enter the following information in the logbook after each dive:

- (1) the name of the employer for which the dive was performed;
- (2) the description of the work;
- (3) the date and time of the dive;
- (4) the diving devices and breathing mixture used;
- (5) the maximum depth reached during the dive;
- (6) the dive time;
- (7) the bottom time;
- (8) the water temperature;
- (9) the time of ascent and arrival on the surface;
- (10) the interval between successive dives;
- (11) in the case of a dive from a submerged or pressure vessel, the depth of that vessel as well as its time of arrival and departure; and
- (12) any other relevant information, such as weather conditions, currents, emergency simulation, use of a therapeutic recompression or hyperbaric exposure and the protocol carried out.

The diver's logbook must be available at all times at the diving station.

O.C. 425-2010, s. 3.

**312.34. Maintenance logbook:** Maintenance information on the diving equipment and material, including the breathing mixture supply system, such as a description of the location and the material maintained, the date of the maintenance as well as the name of the person doing the work, must be recorded in a logbook.

The logbook must be retained by the employer for at least 5 years.

O.C. 425-2010, s. 3.

#### **§ 6. — Equipment and material**

O.C. 425-2010, s. 3.

**312.35. Scuba diving equipment:** The use of the following minimum equipment is compulsory for any scuba diving:

- (1) an open-circuit underwater breathing apparatus attached to at least one cylinder containing a breathing mixture and equipped with a demand regulator;
- (2) a submersible pressure gauge;
- (3) an emergency self-contained breathing apparatus;
- (4) subject to section 312.37 and paragraph 2 of section 312.69, a wet suit appropriate to the work conditions;
- (5) a diving mask;
- (6) an inflatable buoyancy compensator;
- (7) a pair of swim fins;
- (8) a harness, designed for diving by a manufacturer, with pelvic support and at least 2 attachment points, including 1 dorsal point, with a breaking strength greater than 20 kN and that are accessible and visible when the diver is dressed and equipped;
- (9) a releasable weight belt equipped with a quick-release buckle or ballasting system;
- (10) a depth gauge;
- (11) a knife suitable for the work; and
- (12) a light and a rescue or stroboscopic beacon for night diving.

O.C. 425-2010, s. 3.

**312.36. Surface-supply diving equipment:** The use of the following equipment is compulsory for any surface-supply diving:

- (1) a surface-supplied underwater breathing apparatus including a helmet or a full face mask equipped with a continuous or demand regulator, in addition to protective headgear;
- (2) an umbilical;
- (3) an emergency self-contained breathing apparatus attached to the appropriate accessories, with a regulator equipped with a shut-off valve and a submersible pressure gauge;
- (4) subject to section 312.37 and paragraphs 2 of sections 312.69 and 312.78, a wet suit suitable for the work conditions;
- (5) non-releasable ballast;
- (6) a depth gauge or pneumo depth gauge for deep diving;
- (7) a harness, designed for diving by a manufacturer, with pelvic support and at least 5 attachment points, including 1 dorsal point accessible to the diver using an extension of at least 20 kN; in addition, the harness and the 5 attachment points must have the following features:
  - (a) a breaking strength greater than 20 kN;
  - (b) they are accessible and visible by the standby diver when the diver is dressed and equipped;
- (8) a suitable knife;
- (9) a pair of swim fins and, for bottom work, safety boots especially designed to protect against the risks of puncture or the fall of heavy or sharp objects; and
- (10) a light for night diving.

O.C. 425-2010, s. 3.

**312.37. Thermal protection when diving:** Diving in water whose temperature is higher than 40 °C is prohibited.

A diver must wear a controlled temperature suit in the following cases:

- (1) when diving in water between 35 °C and 40 °C for more than 15 minutes; and
- (2) when diving in water at 5 °C or colder for more than 90 minutes.

A diver must wear a variable volume dry suit in the following cases:

- (1) when diving in water at 14 °C or colder for more than 15 minutes; and
- (2) when diving in water at 5 °C or colder for 90 minutes or less.

The heating or cooling unit used to warm up or cool down the controlled temperature suit must be equipped with a temperature control and a hot or cold water reserve, as the case may be, to warm up or cool down the suit for the time required by the diver's ascent in case of failure of the heating or cooling unit.

Water supplying a heating or cooling unit must not come from a contaminated environment.

A diver must wear a wet suit under the diving suit in the cases referred to in subparagraphs 1 and 2 of the second paragraph.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 4.

**312.38. Diving station and required material:** All dives require the installation of a diving station that must include at least the following material:

- (1) a weighted descent line, at least 12 mm in diameter and long enough to reach the bottom at the maximum depth of the underwater workstation, that must be used in particular to guide the diver during descent and ascent; if such a line cannot be used, any other appropriate means to guide the diver, taking into account the depth and diving conditions;
- (2) a bottom timer and clock;
- (3) a copy of the decompression tables of the Defence and Civil Institute of Environmental Medicine of the Department of National Defence of Canada;
- (4) a copy of the standards referred to in this Division; and
- (5) in addition to the equipment required in accordance with the First-aid Minimum Standards Regulation (chapter A-3.001, r. 10), an oxygen inhalation kit containing at least the items described in Part 1 of Schedule X and, if applicable, enough oxygen to be administered to a diver who was the victim of an accident until the diver enters the hyperbaric chamber or until medical attendants are able to administer oxygen to the diver.

O.C. 425-2010, s. 3.

**312.39. Stage:** A stage must be used to move divers to the entry point into the water if the diving station is more than 2 m above water.

The stage must

- (1) be built to prevent tipping or spinning;

(2) have a floor surface of at least 0.83 m<sup>2</sup>; and

(3) be able to support the weight of at least 2 divers with their diving equipment.

If the stage is a cage, submersible compression chamber, platform or diving bell, it must meet, in addition to the requirements referred to in the second paragraph, the requirements referred to in paragraph 3 of section 3.10.7 of the Safety Code for the construction industry (chapter S-2.1, r. 4), except subparagraph *d* of that paragraph.

If the entry point into the water is 2 m or less from the water surface and there is no stage, a ladder must be available to the divers.

When the site's configuration does not allow for a stage to be used, another means providing equivalent safety may be used to move the diver to the entry point. The drawings of the means must be prepared by an engineer and available at the diving station.

O.C. 425-2010, s. 3.

**312.40. Hoisting of a stage:** A stage must be hoisted using a crane, boom truck or device designed for lifting a worker according to the following conditions:

(1) the crane or boom truck must comply with the requirements in subparagraphs *d* and *e* of paragraph 2 and paragraph 4 of section 3.10.7 of the Safety Code for the construction industry (chapter S-2.1, r. 4); and

(2) the device designed for lifting a worker must

(a) comply with the requirements in paragraph 1 of section 3.10.7 of the Safety Code for the construction industry; and

(b) be the subject of drawings, including the installation and disassembly processes, signed and sealed by an engineer and available at the diving station.

The crane, boom truck or device referred to in the first paragraph must be available at all times to move divers. The crane, boom truck or device may not be used for other purposes while divers are still in the water.

Only dive team members may give instructions to the operator of the crane, boom truck or device referred to in the first paragraph. The operator must be linked to the dive team members' 2-way voice communication system when such a system is required.

O.C. 425-2010, s. 3.

**312.41. Booster power supply:** In case of main power source failure, another power source must be turned on rapidly to maintain the operation of all diving devices and equipment required to return a diver to the surface.

O.C. 425-2010, s. 3.

#### § 7. — Breathing mixture

O.C. 425-2010, s. 3.

**312.42. Compressed breathing air, pure gases and gas mixtures:** Subject to the second paragraph, compressed breathing air, pure gases and gas mixtures supplying diving equipment must comply with the requirements of Clauses 4.7.5.1, 4.7.5.2, 4.8, 4.9, 4.10, 4.11.1 and 4.11.6 of CAN/CSA Standard Z275.2-11, Occupational Safety Code for Diving Operations.

Gases and gas mixtures may not have particles exceeding 0.3 µm.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 5.

**312.43. Sampling and analysis:** Sampling and analysis of compressed air, pure gases and gas mixtures used for diving must be carried out in accordance with Clause 4.9 and Clauses 4.11.2 to 4.11.5 of CAN/CSA Standard Z275.2-11, Occupational Safety Code for Diving Operations. The results of those analyses must be entered by the employer in a register that must be kept for a period of at least 5 years.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 5.

**312.44. (Revoked).**

O.C. 1104-2015, s. 6.

**312.45. (Revoked).**

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 6.

#### § 8. — Supply system

O.C. 425-2010, s. 3.

**312.45.1. Compressed breathing air or gas mixture supply system:** Subject to sections 312.46 to 312.54, any compressed breathing air or gas mixture supply system and its components must comply with Clauses 6.1 to 6.6 of CAN/CSA Standard Z275.2-11, Occupational Safety Code for Diving Operations.

The employer must keep the maintenance record set up under Clause 6.1.1 (e) of that standard for a period of at least 5 years.

**312.46. Composition of the supply system:** The system must supply the breathing mixture to the diver at the required temperature, pressure and rate.

The system must include the following components:

- (1) a main supply capable of supplying the required quantity of breathing mixture for the entire dive;
- (2) an auxiliary breathing mixture reserve at the diving station; and
- (3) an emergency self-contained breathing apparatus with sufficient breathing mixture reserve to allow the diver to resurface or re-enter a diving bell or another submersible chamber in case of emergency; the apparatus must contain the following minimum quantities:
  - (a) for surface-supply diving
    - i. to a depth equal to or less than 15 m, 1,415 litres at a minimum nominal pressure of 70%; and
    - ii. to a depth greater than 15 m, under ice, in an environment with an obstruction or in a submerged pipe, 2,265 litres at a minimum nominal pressure of 70%;
  - (b) for scuba diving
    - i. to a depth equal to or less than 15 m, 368 litres; and
    - ii. to a depth greater than 15 m, 850 litres.

Each component of the supply system must operate independently. An interruption of the main supply must not prevent supply from the auxiliary reserve or the emergency self-contained breathing apparatus.

O.C. 425-2010, s. 3.

**312.47. Auxiliary reserve:** The auxiliary reserve referred to in subparagraph 2 of the second paragraph of section 312.46 must include,

- (1) for scuba diving, a complete diving breathing apparatus, including a half mask and a full cylinder, for each diver underwater;
- (2) for surface-supply diving, a breathing mixture reserve equal to 2.5 times the required quantity to allow each diver to ascend and undergo decompression; and
- (3) if a submersible compression chamber is used, a breathing mixture reserve that would allow the underwater work to be extended for 72 hours.

O.C. 425-2010, s. 3.

**312.48. Gas mixture containing helium:** Any gas mixture supply system must include a mixture heater, if the gas mixture includes helium.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 8.

**312.49. Lines:** Each line of the breathing mixture or oxygen supply system must

- (1) be clearly identified to the diver supplied;
- (2) include an easy-to-reach shockproof supply valve;
- (3) be equipped with a pressure gauge, downstream from the supply valve, indicating the supply pressure of the breathing mixture or oxygen, with a dial and numbers easily readable by the diver's tender.

For the purposes of this section, "lines" means the rigid and flexible hoses and fittings of the breathing mixture or oxygen supply and distribution system.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 8.

**312.50. (Revoked).**

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 9.

**312.51. (Revoked).**

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 9.

**312.52. Mask, helmet and regulator:** Masks, helmets and regulators must be cleaned and disinfected in the manner provided for in Clause 11.2 and Annex F to CAN/CSA Standard Z94.4-11, Selection, Use and Care of Respirators, as published in September 2016.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 10; O.C. 49-2022, s. 16.

**312.53. Check valve:** A surface-supplied diver's helmet and mask must be equipped with a check valve that must be checked before each dive.

O.C. 425-2010, s. 3.

**312.54. Pressure gauge:** A pressure gauge must be checked at least every 6 months, unless the manufacturer has given instructions to the contrary.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 11.

**312.55. (Revoked).**

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 12.

**§ 9. — Medical monitoring**

O.C. 425-2010, s. 3.

**312.56. Competence of the diving physician:** A diving physician must comply with CSA Standard CAN/CSA Z275.4-02, Competency Standard for Diving Operations. The physician must

- (1) have the basic training in Level I diving medicine provided for in the standard, in order to detect the symptoms of exposure to undue pressures and examine a diver's state of health; and
- (2) have the advance training in Level II diving medicine provided for in the standard, in order to treat in a hyperbaric chamber a diver who was the victim of a decompression accident and supervise at a distance a chamber operator during that treatment.

O.C. 425-2010, s. 3.

**312.57. Medical examination and certificate:** Every 2 years, divers must undergo a physical examination by a diving physician or more often if the physician deems it necessary and obtain a medical certificate attesting that they are fit to dive. The medical certificate is valid for a maximum of 2 years.

The diving supervisor may also require that a diver again undergo the physical examination referred to in the first paragraph and obtain a new medical certificate, if the supervisor considers that the diver is unfit to dive safely.

O.C. 425-2010, s. 3.

**312.58. Contents of the medical certificate:** The medical certificate must indicate

- (1) the name of the diver;
- (2) the date of the physical examination and the expiry date of the medical certificate;
- (3) whether the diver's health allows the diver to dive in the required mode;
- (4) any restriction regarding the diver's health likely to limit diving activities; and
- (5) the name and address of the diving physician who issued the certificate.

The certificate must be attached to the diver's logbook.

O.C. 425-2010, s. 3.

**312.59. Medical alert bracelet or tag:** Every diver must wear a medical alert bracelet or tag for at least 24 hours after a dive. The following information must be engraved on the bracelet or tag:

- (1) the words "professional diver"; and
- (2) the telephone number of the Service d'assistance médicale pour les urgences en plongée.

O.C. 425-2010, s. 3.

**312.60. First-aid attendants:** Every dive team member must

- (1) be trained in occupational first-aid including a component dealing with near-drowning and hold a certificate to that effect; and
- (2) attend a 4-hour training course on the administration of oxygen to a diver victim of an accident and on the use and maintenance of the oxygen inhalation kit required in section 312.38 and hold a certificate to that effect.

Those certificates must be issued by an agency recognized by the Commission des normes, de l'équité, de la santé et de la sécurité du travail, be renewed every 3 years and be attached to the diver's logbook or be available on request.

O.C. 425-2010, s. 3.

**312.61. Communication with the Service d'assistance médicale pour les urgences en plongée:** A communication system with the Service d'assistance médicale pour les urgences en plongée must be available at all times at the diving station so that any diver who is injured or was the victim of a decompression accident may receive the required medical supervision.

O.C. 425-2010, s. 3.

**312.62. Air transport of a diver:** When transporting by air a diver who was the victim of a decompression accident, the cabin pressure must not be lower than the pressure at an altitude of 300 m from the diving station and in-flight conditions must be established by the Service d'assistance médicale pour les urgences en plongée.

O.C. 425-2010, s. 3.

**312.63. Decompression accident:** If a diver is the victim of a decompression accident, the hyperbaric chamber operator must initiate the treatment of the decompression accident victim in the chamber.

The operator must also communicate as soon as possible with the Service d'assistance médicale pour les urgences en plongée so that the treatment may be continued under the supervision of a diving physician.

Before diving again, the diver must obtain a medical report attesting that the diver is fit to dive.

O.C. 425-2010, s. 3.

**312.64. Hyperbaric chamber and chamber medical kit:** Subject to section 312.65, a Class A hyperbaric chamber built, used and maintained in accordance with CAN/CSA Standard Z275.1-05, Hyperbaric Facilities, except Clauses 8 and 14, as well as a chamber medical kit with the basic content described in Part 3 of Schedule X, must be available at all times at the diving station in the following cases:

- (1) the dive exceeds the no-decompression limit; or
- (2) the dive depth exceeds 40 m, or 15 m for the work provided for in section 312.6.

The chamber and kit are for the divers' exclusive use. They must be kept in good condition.

No diver may accompany the victim of a diving accident in a hyperbaric chamber if the diver is not medically capable of being pressurized or has dived within the last 18 hours.

A diver who accompanies the victim of a diving accident in a hyperbaric chamber may not dive within 24 hours after coming out of the chamber.

For the purposes of this section, "no-decompression limit" means the bottom time that, according to the decompression tables, does not require any decompression stop because of dive depth and duration.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 13.

**312.65. Special measures concerning the hyperbaric chamber:** The following measures must be taken when a police dive is carried out in a location not accessible by land or in any other location where a hyperbaric chamber cannot be transported to the diving station:

- (1) air transport must be available on the site;
- (2) a satellite telephone must be available, if needed; and
- (3) prior to the dive, communication must be established with the nearest hospital equipped with a hyperbaric chamber in order to ensure its availability in case of emergency.

O.C. 425-2010, s. 3.

#### *§ 10. — Special safety standards*

O.C. 425-2010, s. 3.

**312.66. Applicable provisions:** The other provisions of this Division apply, with the necessary modifications, to the types of dive referred to in this subdivision.

O.C. 425-2010, s. 3.

##### *§ 10.1. — General preventive measures for diving in a contaminated environment*

O.C. 425-2010, s. 3.

**312.67. General preventive measures:** The general preventive measures described in sections 312.68 to 312.73 apply to a dive in a contaminated environment as a result of industrial, agricultural or water purification activities.

O.C. 425-2010, s. 3.

**312.68. Additional preventive measures in the dive plan:** In addition to the items referred to in section 312.31, the dive plan must refer to

- (1) the protective clothing and respiratory equipment that the workers other than divers must use, if applicable;
- (2) the required material and decontamination and cleaning measures for the divers and other workers and their equipment;
- (3) a depot for contaminated clothing and equipment; and
- (4) the measures to be taken in case of intoxication, including the nature of the first-aid to be given and the telephone numbers of the Centre antipoison du Québec and the Service du répertoire toxicologique of the Commission des normes, de l'équité, de la santé et de la sécurité du travail.

O.C. 425-2010, s. 3.

**312.69. Diving equipment:** In addition to the equipment referred to in sections 312.35 and 312.36, except paragraph 4, the following equipment must be worn:

- (1) a positive pressure full face mask;
- (2) a dry suit; and
- (3) a pair of watertight gloves.

O.C. 425-2010, s. 3.

**312.70. Equipment and installation maintenance:** Before each dive in a contaminated environment, the equipment and the installation must

- (1) be inspected to detect any wear;
- (2) be decontaminated before being used; and
- (3) be destroyed if they cannot be decontaminated.

O.C. 425-2010, s. 3.

**312.71. Safety instructions:** In the surface work area, the following safety instructions must be followed:

- (1) access to the work area is restricted to authorized persons only;
- (2) no food, drink or tobacco product may be brought into that area; however, drinking water protected from contamination must be available to prevent dehydration; and
- (3) the workers and their equipment must be decontaminated or cleaned before leaving the work area.

O.C. 425-2010, s. 3.

**312.72. Vaccination:** Any diver working in a contaminated environment must be provided free of charge with vaccines against polio, tetanus, hepatitis A and any other vaccine prescribed by a diving physician.

O.C. 425-2010, s. 3.

**312.73. Medical certificate:** Any diver contaminated after diving in a contaminated environment must undergo a physical examination by a diving physician and obtain a medical certificate attesting that the diver is fit to dive again.

O.C. 425-2010, s. 3.

#### *§ 10.2. — Exceptional preventive measures for diving in a contaminated environment*

O.C. 425-2010, s. 3.

**312.74. Exceptional preventive measures:** In addition to the general preventive measures referred to in sections 312.68 to 312.73, the exceptional preventive measures prescribed in sections 312.75 to 312.79 apply to any dive operation in a contaminated environment conducted in one of the following locations:

- (1) at the discharge point or in the vicinity of the discharge point of effluents from an industrial plant, a water treatment or wastewater purification station;
- (2) in the vicinity of a chemical, biological or radioactive pollutant spill; or
- (3) in a nuclear plant.

Likewise, the measures apply if sediments containing contaminants are moved with equipment resulting in their suspension at the underwater workstation.

O.C. 425-2010, s. 3.

**312.75. Identification of contaminants:** The following information must be available in writing at the diving station before the dive operation and handed over to the dive team:

- (1) the identification and concentration level of contaminants present on the surface and at the underwater workstation;
- (2) the health and safety risks that the contaminants represent for the workers; and
- (3) the safety data sheet provided for in section 62.3 of the Act respecting occupational health and safety (chapter S-2.1) if the contaminants are hazardous products.

If the concentration level of contaminants may not be established before the dive, the preventive measures in a contaminated environment in sections 312.76 to 312.79 must nevertheless be complied with.

O.C. 425-2010, s. 3; S.Q. 2015, c. 13, s. 22.

**312.76. Composition of the dive team:** The dive team must consist of at least 4 divers, including 1 diving supervisor, 1 diver, 1 standby diver and 1 diver's tender.

O.C. 425-2010, s. 3.

**312.77. Surface-supply diving:** Surface-supply diving is compulsory.

**312.78. Diving equipment:** In addition to the equipment referred to in section 312.36, except paragraph 4, the following equipment must be worn:

- (1) a surface-supply diving helmet suitable for working in a contaminated environment; and
- (2) a diving suit, made of non-absorbing material, resistant to the contaminants present, to which the diving helmet is attached by a positive seal and lock device.

O.C. 425-2010, s. 3.

**312.79. Delimitation of the work areas:** The exclusion, decontamination and support areas must be delimited.

The limits of each area must be clearly defined and marked and the following instructions must be followed:

- (1) only workers wearing the required protective clothing and respiratory equipment may enter the exclusion area; and
- (2) when leaving the exclusion area, the divers and their equipment must exit through the decontamination area to be cleaned and decontaminated.

For the purposes of this section,

- (1) "exclusion area" means the area in the contaminated environment where the dive is performed;
- (2) "decontamination area" means the area used for decontaminating divers and their equipment; and
- (3) "support area" means the area outside the contaminated environment intended for the management, monitoring and technical and medical support operations of the underwater work.

O.C. 425-2010, s. 3.

#### *§ 10.3. — Deep diving*

O.C. 425-2010, s. 3.

**312.80. Composition of the dive team:** Subject to section 312.84, when deep diving, the dive team must consist of at least 5 divers, including 1 diving supervisor, 1 diver, 2 diver's tenders and 1 standby diver.

O.C. 425-2010, s. 3.

**312.81. Equipment:** The following equipment is compulsory for any deep dive to lower divers to their underwater workstation and return them to the surface:

- (1) a descent line, stage or any other suitable equipment allowing the diver to stop at the various levels in the decompression tables if the depth of the dive does not exceed 50 m;
- (2) a diving bell or submersible compression chamber, if the depth of the dive is between 50 m and 80 m; and
- (3) a submersible compression chamber, if the depth of the dive exceeds 80 m.

The submersible compression chamber referred to in subparagraphs 2 and 3 must comply with CSA Standard Z275.1-05, Hyperbaric Facilities, except Clauses 8 and 14.

The diver's umbilical exiting the diving bell or submersible compression chamber must not exceed the distance that can be covered by the diver's emergency self-contained breathing apparatus to re-enter the diving bell or the submersible compression chamber.

O.C. 425-2010, s. 3.

**312.82. Breathing mixture:** Compressed breathing air is prohibited if the depth of the dive exceeds 50 m.

O.C. 425-2010, s. 3.

**312.83. Communication system:** For any deep diving, a 2-way voice communication system must be available to the standby diver in the submersible compression chamber to allow communication with the diver underwater, outside the submersible compression chamber, as well as with the dive team members on the surface.

O.C. 425-2010, s. 3.

#### *§ 10.4. — Diving in a submersible compression chamber*

O.C. 425-2010, s. 3.

**312.84. Composition of the dive team:** For diving in a submersible compression chamber, the dive team must consist of at least 5 divers, including 1 diver and 1 standby diver in the chamber, 1 diving supervisor, 1 diver and 1 diver's tender on the surface and the required personnel on the surface to place the submersible compression chamber in the water and ensure adequate operation of the chamber and the chamber system.

The standby diver in the submersible compression chamber also acts as tender.

O.C. 425-2010, s. 3.

**312.85. Equipment and communication system:** The second and third paragraphs of section 312.81 and section 312.83 apply to any dive in a submersible compression chamber.

O.C. 425-2010, s. 3.

**§ 10.5. — Other dives with special hazards**

O.C. 425-2010, s. 3.

**312.86. Diving near a submerged pipe intake or discharge or inside the pipe:** When diving near a submerged pipe intake or discharge or inside the pipe or another submerged installation, such as a wastewater or wastewater spillway, the water flow must be completely controlled and the following safety standards must be complied with:

- (1) the dive team must consist of at least 4 divers, including 1 diver, 1 standby diver and 2 diver's tenders, 1 of whom is the diving supervisor;
- (2) every pipe end must be located and the end where the dive is carried out must be clearly identified;
- (3) the power source or circuit of any machine or mechanism controlling the flow or that may represent a safety risk for the divers must be locked in accordance with subdivision 4 of Division XXI;
- (4) a diver may not enter a submerged pipe or other installation if its diameter is smaller than 1 m and turning inside is difficult; and
- (5) a diver may not proceed further than 100 m inside a submerged pipe or other installation.

O.C. 425-2010, s. 3; O.C. 1187-2015, s. 5; O.C. 1112-2023, s. 5.

**312.87. Diving in an environment with an obstruction:** When diving in an environment with an obstruction, the dive team must consist of at least 6 divers, including 2 divers underwater to allow 1 diver to lead the other diver's umbilical to the location where an obstacle exerts a resistance when the umbilical is pulled on, 3 diver's tenders and 1 standby diver on the surface, 1 of whom is the diving supervisor.

O.C. 425-2010, s. 3.

**312.88. Diving in a restricted access area:** Divers must comply with the following safety standards when diving in a restricted access area:

- (1) the dive team must consist of at least 4 divers, including 1 diver, 1 standby diver and 2 diver's tenders, 1 of whom is the diving supervisor;
- (2) the diver's tender who is not acting as diving supervisor must always be able to pull directly on the umbilical to return the diver to the surface, if required;
- (3) the water flow must be completely controlled; and
- (4) a diver lifting device meeting the requirements provided for in section 312.40 must be available on the surface, except if a diver is within easy reach.

O.C. 425-2010, s. 3.

**312.89. Diving in an area of influence:** When diving in an area of influence, the diving team must consist of at least 4 divers, including 1 diver, 1 standby diver and 2 diver's tenders, 1 of whom is the diving supervisor.

The diving operation referred to in the first paragraph may be performed if the employer has agreed with the owner of a hydraulic structure or a hydroelectric plant that measures to control the flow of turbine discharge or discharged water must be planned and implemented before beginning the work and maintained until the work is completed in order to ensure stability in the current at the dive site. A copy of the agreement must be available at the diving station.

O.C. 425-2010, s. 3.

**312.90. Inspection dive at a site likely to show a pressure differential:** Before performing work underwater at a site likely to show a pressure differential, the underwater work area and a width of at least 5 m in the surrounding of the area must be inspected in order to detect any source of suction and eliminate it, if applicable, if it constitutes a danger for the diver.

In addition, the following safety standards must be complied with:

- (1) the diver must be lowered underwater so as to progressively go near the area to inspect; and
- (2) the diver must be lowered underwater in one of the following manners:
  - (a) in a cage that complies with section 312.39 and hoisted according to section 312.40; or
  - (b) attached by a dorsal lifting ring or link to a cable, other than the lifeline, with a breaking strength greater than 20 kN and linked to a locking device.

O.C. 425-2010, s. 3.

**312.91. Ice diving:** The following safety standards must be complied with when ice diving:

- (1) the dive team must consist of at least 4 divers, including 1 diver, 1 standby diver and 2 diver's tenders, 1 of whom is the diving supervisor;

- (2) no diver may go under the ice more than 50 m from the point of entry into the water;
- (3) the bearing capacity of the ice must be evaluated;
- (4) the hole made in the ice must
  - (a) be triangular;
  - (b) allow the passage of 2 divers; and
  - (c) have a perimeter visibly defined; and
- (5) the piece of ice taken from the hole must be
  - (a) removed from the water to avoid forming an obstacle or binding the lifeline; and
  - (b) put back into place after the dive.

O.C. 425-2010, s. 3.

## DIVISION XXVI.II

### WORK WHICH INVOLVES A RISK OF DROWNING IN WATER

O.C. 1223-2021, s. 2.

**312.92. Scope:** This Division applies to work which involves a risk of drowning in water, subject to the following exclusions:

- (1) it is underwater work;
- (2) the worker is adequately protected from falling into water by common protective devices or equipment.

Despite the first paragraph, this Division also applies to work on a deck boat or an open boat.

O.C. 1223-2021, s. 2.

**312.93. Work which involves a risk of drowning:** A worker is at risk of drowning when the worker is above or at less than 2 m from a location where the depth of the water exceeds 1.2 m over more than 2 m in width or a location where the water flow may carry a person away.

O.C. 1223-2021, s. 2.

**312.94. Gathering information and measures for preventing drowning:** Before beginning the work, the following information must be available in writing at the workplace:

- (1) risks associated to work conditions, according to real data or, if real data is not available, estimated data, in particular information on
  - (a) the characteristics of the body of water or watercourse, including
    - i. the depth and flow of the water;
    - ii. waves, currents and tides; and
    - iii. the temperature of the water;
  - (b) the weather conditions during the work;
  - (c) the characteristics of the work stations and travelways, including
    - i. the condition of the surface at the water's edge and the slope to reach it; and
    - ii. transportation or movement on the water;
  - (d) the equipment, work methods and site location, including means of communication; and
  - (e) the clothing and equipment to be worn to perform the work;
- (2) the prevention measures to be taken to protect the health and ensure the safety and physical well-being of workers, in particular with respect to
  - (a) measures for preventing drowning in accordance with section 312.96; and
  - (b) the rescue measures in the rescue plan provided for in section 312.98 and the time for recovering a person who has fallen into the water.

The information referred to in subparagraphs 1 and 2 of the first paragraph must be determined by a qualified person.

For the purposes of this section, a qualified person means a person who, by reason of knowledge, training or experience, is able to identify, assess and control the risks of drowning.

O.C. 1223-2021, s. 2.

**312.95. Information provided to workers prior to performing work:** Before beginning the work, the information referred to in subparagraphs 1 and 2 of the first paragraph of section 312.94 must be conveyed and explained to the worker by a person

who is capable of adequately informing the worker on how to perform the work safely.

O.C. 1223-2021, s. 2.

**312.96. Wearing of a personal floatation device or a life jacket:** A worker must wear a personal floatation device or a life jacket complying with section 312.97 where no other safety measure may provide efficient protection.

O.C. 1223-2021, s. 2.

**312.97. Characteristics of a personal floatation device or a life jacket:** A personal floatation device or a life jacket must be adapted to the work conditions identified for the purposes of subparagraph 1 of the first paragraph of section 312.94 and have enough floatability to keep the worker's head above water.

It must also

- (a) be of the right size;
- (b) be bright in colour and equipped with reflecting strips visible when in water;
- (c) be equipped with a whistle;
- (d) be equipped with a locator device, such as a light or locator beacon, where the weather conditions or waves interfere with location in water; and
- (e) bear a Transport Canada approval stamp or tag or be approved compliant with ISO Standard12402, Personal flotation devices. Despite the foregoing, where it is used for navigation, it must be approved by Transport Canada.

Despite the first paragraph, it must have a minimum floatability of 69 N (15.5 lbs) and, in whitewater, floatability must be ensured by buoyant materials, regardless of the floatability level required.

For the purposes of the first paragraph, where floatability requires more than 69 N and the site is not in whitewater, floatability may be ensured by buoyant materials, an automatic inflatable system activated upon immersion or a combination of the two.

A personal floatation device or a life jacket must be maintained and checked in accordance with the manufacturer's instructions.

O.C. 1223-2021, s. 2.

**312.98. Rescue plan:** A rescue plan including the estimated response time, the equipment and the measures for rescuing a worker who fell into water within that time must be prepared.

The equipment required by a rescue plan and any accessories must be

- (a) adapted to the intended use, the conditions specific to the work and the characteristics of the body of water or the watercourse;
- (b) checked and kept in good order; and
- (c) in place and easily accessible on the work site to be able to respond rapidly.

The rescue plan must include a call and communication protocol to initiate rescue operations and a specific person must be appointed for directing rescue operations.

The rescue plan must be tested through drills that enable in particular workers to become familiar with their role, the communication protocol and the use of the rescue equipment provided.

O.C. 1223-2021, s. 2.

**312.99. Rescue boat:** Where the rescue plan provides for the use of a rescue boat, such boat must meet the following conditions in addition to the requirements set out in the second paragraph of section 312.98:

- (a) be adapted and equipped for the search and recovery of persons;
- (b) be equipped with a propulsion system adapted to the boat;
- (c) be equipped with the following rescue equipment:
  - i. 2 rope bags, each containing 1 single-length buoyant heaving line that remains flexible, with a minimum diameter of 9.5 mm and a minimum length of 15 m;
  - ii. a life buoy with a minimum outside diameter of 762 mm attached to a buoyant heaving line and approved by Transport Canada as evidenced by the tag or approval stamp affixed to it;
  - iii. a boat hook;
- (d) be used by a team of at least 2 rescue attendants trained in the approach and recovery of a person in the conditions set out in subparagraph 1 of the first paragraph of section 312.94.

O.C. 1223-2021, s. 2.

**312.100. Thermal protection:** Where the response time provided for in the rescue plan is greater than 15 minutes and the water temperature is less than 15 °C, a worker must wear thermal protective clothing.

The thermal protection must be sufficient to prevent hypothermia during the response time provided for in the rescue plan.

O.C. 1223-2021, s. 2.

### DIVISION XXVI.III

#### ARBORICULTURE WORK

O.C. 821-2023, s. 2; I.N. 2023-07-01.

##### § 1. — Definitions

O.C. 821-2023, s. 2.

**312.101.** For the purposes of this Division,

“approach distance” means the distance, determined by the electrical power company operating the power line, that shall be kept at all times between a live element and the worker or the conducting or non-conducting part of an element used or carried by the worker; (*distance d'approche*)

“arboriculture work” means the manual work for vegetation management of the rights of way of power distribution systems or telecommunications networks, pruning, non-forest trimming of trees, non-forest felling of predetermined trees, grubbing, non-forest chipping, tree and shrub surgery, and guying; (*travaux d'arboriculture*)

“electrical power company” means a person, firm, company, cooperative society or municipality operating an electric energy transportation or distribution network; (*entreprise d'exploitation d'énergie électrique*)

“work area” means the area within which arboriculture work is performed and where the workers who perform that work circulate; (*aire de travail*)

“work near a power line” means work during which a branch, log, tool, equipment, machine or person might be less than 3 m from a power line of more than 750 V but less than 125,000 V. (*travaux à proximité d'une ligne électrique*)

O.C. 821-2023, s. 2.

##### § 2. — Scope and general provisions

O.C. 821-2023, s. 2.

**312.102. Scope:** This Division applies to all arboriculture work, except work carried out in a nursery and horticulture work.

O.C. 821-2023, s. 2.

**312.103. Certificate of qualification:** An employer may not have a worker perform arboriculture work unless the worker holds a certificate of qualification in arboriculture of the appropriate class or a valid qualification as an apprentice issued under a vocational training and qualification program established by the Minister of Employment and Social Solidarity under section 29.1 of the Act respecting workforce vocational training and qualification ([chapter F-5](#)).

Workers who carry out arboriculture work shall be able to show that they hold such a certificate or qualification.

O.C. 821-2023, s. 2.

**NOTE** The requirement to hold the certificate of qualification or qualification as an apprentice takes effect from 8 June 2025.

**312.104. Organization of the work:** Before undertaking work, the employer shall ensure that the employer's representative or, failing that, the person in charge of the team, holds a meeting on the work site to be attended by all team members and during which the employer's representative or person in charge of the team shall provide instructions on the duties to be performed and the safety precautions to be taken with regard to

- (1) the delimitation of the work area and danger zones;
- (2) the presence of potential risks, in particular,
  - (a) an electric network;
  - (b) working at a height;
  - (c) sharp objects;
  - (d) tools, equipment and machinery requiring particular attention;
  - (e) poor weather; and
  - (f) the health of the tree;
- (3) the special characteristics of the place where the work is to be carried out, such as material property, steep grades or dead trees;
- (4) the working methods to adopt in order to eliminate the identified risks;
- (5) the use of personal protective equipment;
- (6) the sharing of responsibilities among the team members; and

(7) the establishment of the emergency measures and procedures.

The person in charge of holding the meeting referred to in the first paragraph shall hold a valid certificate of qualification in arboriculture. That person shall remain on the work site at all times while the work is being carried out.

O.C. 821-2023, s. 2.

**312.105. Work area:** Before any work is undertaken, the work area shall be delimited by means of cones, tape or other means that prevent the public from accessing it.

O.C. 821-2023, s. 2.

**312.106. Rescue procedure:** A tested rescue procedure making it possible to rapidly assist any worker performing work at a height shall be established by a person with the required knowledge, training or experience.

The procedure shall be implemented as soon as any situation so requires.

O.C. 821-2023, s. 2.

**§ 3. — Personal protective equipment**

O.C. 821-2023, s. 2.

**312.107. Applicable standards:** For the purposes of this subdivision, the compliance of personal protective equipment with a standard is determined using the most recent version of that standard or the previous version if the equipment has not reached its expiry date.

O.C. 821-2023, s. 2.

**312.108. Compulsory personal protective equipment in the work area:** Every worker in the work area shall wear the following personal protective equipment:

- (1) a safety hat that is equipped with a permanent chin strap and complies with CSA Standard Z94.1, Industrial Protective Headwear – Performance, Selection, Care and Use, ANSI/ISEA Standard Z89.1, American National Standard for Industrial Head Protection, or EN Standard 397, Industrial safety helmets;
- (2) eye protective equipment that complies with CSA Standard Z94.3, Eye and face protectors, ANSI/ISEA Standard Z87.1, American National Standard for Occupational and Educational Personal Eye and Face Protection Devices, or EN Standard 166, Personal eye protection – Specifications;
- (3) protective footwear that complies with CSA Standard Z195, Protective footwear, or EN ISO Standard 20345, Personal protective equipment: Safety footwear;
- (4) a class 1 high-visibility safety garment that complies with CSA Standard Z96, High-visibility safety apparel, and does not have suspenders; and
- (5) gloves adapted to the work to be carried out.

O.C. 821-2023, s. 2.

**312.109. Additional requirements when using a chain saw:** When a worker uses a chain saw, the worker shall wear footwear for chain saw users that complies with CSA Standard Z195, Protective footwear, or ISO Standard 17249, Safety footwear with resistance to chain saw cutting, and pants for chain saw users that comply with ISO Standard 11393-2, Protective clothing for users of hand-held chainsaws — Part 2: Performance requirements and test methods for leg protectors, or category A, C or D of ASTM Standard F3325, Standard Specification for Leg-Protective Devices for Chainsaw Users.

O.C. 821-2023, s. 2.

**312.110. Additional requirements when performing work near a power line:** Every worker who performs work near a power line shall wear the following personal protective equipment:

- (1) electric-shock resistant footwear that complies with CSA Standard Z195, Protective footwear;
- (2) a safety hat that complies with class E of ANSI/ISEA Standard Z89.1, American National Standard for Industrial Head Protection, or CSA Standard Z94.1, Industrial Protective Headwear – Performance, Selection, Care and Use;
- (3) fire-resistant upper body clothing that complies with CAN/ULC Standard S801, Standard on Electric Utility Workplace Electrical Safety for Generation, Transmission and Distribution;
- (4) a class 2 high-visibility safety garment that complies with CSA Standard Z96, High-visibility safety apparel, and does not have suspenders; and
- (5) eye protective equipment that is made from non-conducting materials and complies with CSA Standard Z94.3, Eye and face protectors.

O.C. 821-2023, s. 2.

**312.111. Additional requirements when using a stump grinder:** Every worker who uses a stump grinder shall wear a polycarbonate face shield that complies with CSA Standard Z94.3, Eye and face protectors.

O.C. 821-2023, s. 2.

**312.112. Full body harness:** The use of a full body harness is required when the work is carried out in a tree or from a portable ladder or a basket.

The full body harness shall comply with CSA Standard Z259.10, Full Body Harnesses, ANSI/ASSP Standard Z359.11, Safety Requirements for Full Body Harnesses, or NF EN Standard 361, Personal protective equipment against falls from a height - Full body harnesses.

When work is carried out in a tree, the full body harness is also compliant if it meets NF EN Standard 813, Personal fall protection equipment - Sit harnesses.

O.C. 821-2023, s. 2.

**312.113. Anchorage of a harness on a basket:** When work is carried out from a basket, the full body harness shall be secured by a fall arrest connecting device to an anchorage system provided by the device's manufacturer or, failing that, to an anchorage system complying with section 349. The fall arrest connecting device shall comply with section 348.

O.C. 821-2023, s. 2.

**312.114. Anchorage of a harness on a tree:** When work is carried out in a tree, the anchorage point of the full body harness shall be installed on the axil of a healthy division formed by a main axis, such as the trunk, and a branch. The anchorage point may also be a constriction around a main healthy axis at least 10 cm in diameter.

The anchorage system shall be installed in such a way as to limit pendular movements and be tested mechanically when installed from the ground.

O.C. 821-2023, s. 2.

**312.115. Anchorage of a harness on the axil of a healthy division of a tree:** When the anchorage of a harness is installed on the axil of a healthy division of a tree formed by a main axis, such as the trunk, and a branch, the fork of the division shall be "U"-shaped and shall not have included bark. At the anchorage point, the main axis shall be approaching vertical and at least 10 cm in diameter.

When the anchorage system is installed around the trunk, the branch forming the division shall be at least 5 cm in diameter. When the anchorage system is installed around a branch, the branch shall be at least 10 cm in diameter.

The anchorage system shall be installed at a height that enables the characteristics listed in the first and second paragraphs to be checked from the ground.

O.C. 821-2023, s. 2.

#### *§ 4. — Work near a power line*

O.C. 821-2023, s. 2.

**312.116. Prior authorization:** No person may undertake work near a power line without first obtaining written authorization from the electrical power company that operates the line.

O.C. 821-2023, s. 2.

**312.117. Training:** Only persons who have received the training required by the electrical power company may perform work near a power line operated by the electrical power company. The training shall at least pertain to

- (1) the description of the situations requiring the power line to be turned off or the reactivation device to be switched off-circuit from the circuit breaker device that powers it;
- (2) the list of components of the power line that have an anomaly in order to detect any situation likely to compromise the worker's safety;
- (3) the safety precautions required to ensure that the worker is isolated from the power line being cleared;
- (4) the necessity, on the basis of the work to be carried out and the risks identified, to have a worker on the ground supervise the worker who is clearing the power line; and
- (5) the approach distances applied by the electrical power company and the additional safety precautions to be taken if the worker cannot clear the power line while respecting the applicable approach distance.

O.C. 821-2023, s. 2.

**312.118. Equipment and tools:** Any equipment or tool likely to be used within the approach distances of a power line shall be designed, tested and maintained in accordance with ASTM Standard F711, Standard Specification for Fiberglass-Reinforced Plastic (FRP) Rod and Tube Used in Live Line Tools.

The insulated arms of the aerial basket lifting devices used near a power line shall comply with CSA Standard C225, Vehicle-mounted aerial devices.

O.C. 821-2023, s. 2.

#### *§ 5. — Aerial basket lifting device*

O.C. 821-2023, s. 2.

**312.119. Aerial basket lifting device:** An aerial basket lifting device used to carry out the work referred to in this Division shall be inspected and maintained in accordance with the manufacturer's instructions and at the frequency set out in those instructions. Despite the foregoing, an inspection shall be carried out at least once a year.

A label indicating the date of the last inspection shall be affixed to the aerial basket lifting device at an easily visible place on the equipment.

Maintenance shall be performed by the manufacturer, a person authorized by the manufacturer or a person who has shown the knowledge and skills required to solve problems related to the equipment.

O.C. 821-2023, s. 2.

## DIVISION XXVII

### WELDING AND CUTTING

**313. Prohibition:** Welding and cutting operations are prohibited close to combustible substances or in places containing flammable gases or vapours or combustible dusts presenting a fire or explosion hazard, unless special precautions are taken to prevent any risk of fire or explosion.

O.C. 885-2001, s. 313.

**314. Arc welding and cutting:** Any task involving arc welding or cutting, as well as the installation, handling and maintenance of equipment required for doing so, shall comply with Chapter 5 of the CAN/CSA W117.2-M94 Code for safety in welding, cutting and adjacent processes standard.

O.C. 885-2001, s. 314.

**315. Resistance welding:** Any task involving resistance welding, as well as the installation, handling and maintenance of equipment required for doing so, shall comply with Chapter 6 of the CAN/CSA W117.2-M94 Code for safety in welding, cutting and adjacent processes standard.

O.C. 885-2001, s. 315.

**316. Gas welding, brazing and cutting:** Any task involving gas welding, brazing or cutting, as well as the installation, handling and maintenance of equipment required for doing so, shall comply with Chapter 8 of the CAN/CSA W117.2-M94 Code for safety in welding, cutting and adjacent processes standard.

O.C. 885-2001, s. 316.

**317. Protective screens:** Permanent or movable protective screens shall be installed in places where welding or cutting operations are ordinarily performed and where people, other than welders, work or circulate.

O.C. 885-2001, s. 317.

**318. Work performed on a recipient:** Before performing welding, cutting or heating operations on a recipient, such as a reservoir, it shall be established that the recipient did not previously contain materials that are combustible or likely to discharge toxic or inflammable vapours when heated.

If the recipient has already contained such materials, no work involving welding, cutting or heating may be undertaken on the recipient until it has been properly cleaned in order to eliminate any material that is combustible or likely to discharge toxic or inflammable vapours when heated.

If after having cleaned the recipient and made a reading of the concentration of inflammable vapours and gases, there remains a risk of explosion, the work involving welding, cutting or heating may only be performed if one of the following conditions is met:

- (1) the recipient is filled with water to within a few centimetres of the point of welding, cutting or heating and the remaining space is ventilated to ensure the evacuation of hot air;
- (2) the recipient has been purged with inert gases.

Conduits and connections shall be disconnected, then closed to eliminate the spilling of any material that is combustible or likely to discharge toxic or inflammable vapours when heated.

O.C. 885-2001, s. 318.

**319. Antiback-up arresters:** The oxygen lead hose and the combustible gas lead hose to a torch must be equipped with at least one antiback-up gas arrester and one antiback-up flame arrester. The arresters must be installed in compliance with the manufacturer's instructions.

O.C. 885-2001, s. 319; O.C. 1120-2006, s. 9.

**320. Ground:** A portable welding machine powered by an internal combustion engine shall be grounded if it is equipped with auxiliary 120 V or 240 V plugs and if these plugs are used at the same time as the welding process.

However, such grounding is not necessary if the tools, appliances or accessories connected to the auxiliary plugs are equipped with double insulation or a third conductor ensuring the continuity of the grounding, or if the branch circuits are protected by Class A ground fault circuit interrupters.

O.C. 885-2001, s. 320.

**321. Prohibited current return circuits:** The use of electric conductors or conduits containing gases or inflammable liquids as a welding or cutting current return circuit is prohibited.

O.C. 885-2001, s. 321.

**DIVISION XXVIII**  
**OTHER HIGH RISK TASKS**

**322. Work performed in an isolated environment:** When a worker performs a task alone in an isolated environment where it is impossible for him to request assistance, an efficient means of surveillance, whether continuous or intermittent, shall be installed.

O.C. 885-2001, s. 322.

**323. Tasks involving maintenance or repairs:** In the case of tasks involving maintenance or repairs, the areas where such work is being performed must be marked off in order to protect anyone likely to be exposed to danger.

O.C. 885-2001, s. 323; O.C. 1112-2023, s. 6.

**323.1. Barriers, barricades or warning line:** Continuous barriers or barricades of a minimum height of 0,7 m or a warning line complying with section 354.1 must be set up on the edge of any escarpment or digging

- (a) whose depth is more than 3 m; or
- (b) which might constitute a hazard to workers.

O.C. 1411-2018, s. 21.

**324. (Revoked).**

O.C. 885-2001, s. 324; O.C. 1411-2018, s. 22.

**325. Compressed air cleaning:** It is prohibited to clean a person with compressed air.

O.C. 885-2001, s. 325.

**326. Air pressure limit:** The pressure of compressed air used for the cleaning of a machine or piece of equipment shall be less than 200 kPa, unless the cleaning is carried out in an enclosure specially designed for abrasive air blasting and equipped with a vacuum system.

This section does not apply to automated cleaning systems.

O.C. 885-2001, s. 326.

**327. Piping for compressed air:** Piping in which compressed air flows shall be protected from all impacts and be clearly identified as to the nature of its contents.

O.C. 885-2001, s. 327.

**328. Attachments:** Flexible hoses in which compressed air flows shall be equipped with one of the following attachments in the event of section-by-section assembly:

- (1) collars located on either side of the connection and held together by an attachment;
- (2) an automatic locking device;
- (3) a coupling fitted with a clamping device.

O.C. 885-2001, s. 328.

**329. (Revoked).**

O.C. 885-2001, s. 329; O.C. 1005-2015, s. 2.

**330. Using a sealing pistol:** Any work carried out with a sealing pistol shall be done in compliance with Division VII of the Safety Code for the construction industry (chapter S-2.1, r. 4).

O.C. 885-2001, s. 330.

**331. Work performed near an electric power line:** Any work carried out near an electric power line shall be done in compliance with Division V of the Safety Code for the construction industry (chapter S-2.1, r. 4).

O.C. 885-2001, s. 331.

**332. Deforestation work:** Deforestation work not involving the recovery of wood, which is mainly performed prior to the construction of an electric power line, shall be performed in compliance with the Regulation respecting occupational health and safety in forest development work (chapter S-2.1, r. 12.1).

O.C. 885-2001, s. 332; O.C. 499-2013, s. 53.

**DIVISION XXIX**

## VEHICLE MAINTENANCE

**333. Automotive lifts and elevating platforms:** In buildings built on or after 2 August 2001, automobile vehicle or self-propelled vehicle maintenance and repair garages shall be equipped with automotive lifts and elevating platforms instead of ground level pits, unless such pits are needed for technical reasons.

O.C. 885-2001, s. 333.

**334. Pits:** Garage pits in existence on the date that this Regulation comes into force and pits that are needed for technical reasons in new garages shall meet one of the following standards:

(1) the floor of the pit shall be higher than the level of the outside ground, with an opening towards the outside at the lowest level of the pit floor, allowing for natural ventilation;

(2) in the event that the pit is arranged differently, it shall be equipped with a separate mechanical ventilation system capable of providing an air flow equal to at least 12 times the volume of the pit per hour. As such, the floor shall have a 1 to 120 incline and have an opening at the lowest level of the pit to allow for the evacuation of air.

O.C. 885-2001, s. 334.

**335. Protection of workers in the pit area:** A pit shall be clearly visible by surrounding it with at least a non-slip bright-colored strip, at least 30 cm wide.

Movable walkways equipped with guardrails shall be available and easy to put into place for doing work at the end of a vehicle, where the vehicle is shorter than the pit.

O.C. 885-2001, s. 335; O.C. 1411-2018, s. 23.

**335.1. Access to pits:** The work area shall be delimited to prevent access to the pits by persons not working in them by installing a fixed barrier at least 0,7 m in height, at a minimum distance of 1 metre around the pit, or a warning line complying with section 354.1. A sign prohibiting access to all, except for authorized personnel, shall also be posted near the access points.

If it is impossible to install a barrier or a warning line, a guardrail around the pit, a cover or a wire fence whose strength complies with that provided for in subparagraph 4 of the first paragraph of section 14 shall be installed to eliminate the risk of falling.

O.C. 1411-2018, s. 24.

**335.2. Unused pit:** Where a pit is no longer in use, it must be surrounded by a guardrail or closed with a cover that can bear a load at least 3 times the maximum load that may be imposed by a vehicle, or be condemned by completely filling it.

O.C. 1411-2018, s. 24.

**336. Safety posters:** Posters requiring that vehicle motors be turned off and prohibiting smoking during fueling shall be installed prominently in sight near gasoline pumps.

O.C. 885-2001, s. 336.

**337. Wheels under pressure:** This section applies to vehicles mounted on wheels under pressure whose weight, to which the rated load is added, is 4,500 kg or more. A wheel is composed of a one-piece or multi-piece rim assembled with a compatible tire.

Work on a wheel under pressure, including handling and inspection, must be carried out according to trade practice.

The inflating of tires must be done according to trade practice, in particular by using a holding device that prevents the projection of wheel components, such as a cage, support, chain, bar assembly or, in the absence of such device, any other means that ensures the safety of workers.

O.C. 885-2001, s. 337; O.C. 252-2014, s. 1.

## DIVISION XXX

### MEANS AND EQUIPMENT FOR INDIVIDUAL AND GROUP PROTECTION

**338. Employer's obligations:** The employer shall provide the worker free-of-charge with the individual or collective means and equipment required under this Regulation and ensure that the workers have received the information necessary for using those means and equipment.

O.C. 885-2001, s. 338; O.C. 1411-2018, s. 25.

**339. Worker's obligations:** The worker shall wear or use, as the case may be, the individual or collective protective means and equipment required under this Regulation.

O.C. 885-2001, s. 339; O.C. 1411-2018, s. 26.

**340. (Revoked).**

O.C. 885-2001, s. 340; O.C. 1112-2023, s. 7.

**341. Safety hat:** Subject to the second and third paragraphs, the wearing of a safety hat complying with CAN/CSA Standard Z94.1-05, Industrial Protective Headgear - Performance, Selection, Care, and Use, is mandatory for all workers exposed to head injuries.

As of 3 April 2014, any new safety hat must comply with the most recent version of CAN/CSA Standard Z-94.1 Industrial Protective Headgear - Performance, Selection, Care, and Use.

For activities not subject to the standard prescribed in the first or second paragraph, a means of protection appropriate to the activity must be used.

O.C. 885-2001, s. 341; O.C. 252-2014, s. 2.

**342. (Replaced).**

O.C. 885-2001, s. 342; O.C. 252-2014, s. 2.

**343. Eye and face protectors:** The wearing of an eye protector or a face protector acquired on or after 5 May 2011 and complying with the CAN/CSA Z94.3 Eye and Face Protectors standard is mandatory for any worker who is exposed to a danger that may cause injury to his eyes or face by:

- (1) particles or objects;
- (2) dangerous substances or molten metals;
- (3) intense radiation.

However, protectors in good condition and complying with the CAN/CSA Z94.3-92, CAN/CSA Z94.3-99 or CAN/CSA Z94.3-02 standard are considered to offer adequate protection.

An eye protector or a face protector complies with the requirements of this section if it meets the most recent version or the previous version of the standard referred to in the first paragraph and if it has not reached the expiry date provided for by the manufacturer, where applicable.

O.C. 885-2001, s. 343; O.C. 392-2011, s. 4; O.C. 889-2020, s. 2.

**344. Protective footwear:** The wearing of protective shoes in compliance with CAN/CSA-Z195-14 Protective Footwear is mandatory for all workers exposed to foot injuries incurred in the following cases:

- (1) by perforation;
- (2) by electric shock;
- (3) by an accumulation of electrostatic charges;
- (4) by the falling of heavy, burning or sharp objects;
- (5) by contact with molten metal;
- (6) by contact with dangerous substances in a liquid state and at intense temperatures;
- (7) by contact with dangerous substances that are corrosive;
- (8) during other dangerous tasks.

O.C. 885-2001, s. 344; O.C. 1120-2006, s. 10; O.C. 889-2020, s. 3.

**345. Protectors for other parts of the body:** The wearing of protective equipment suited to the type of work performed such as a hood, an apron, leggings, protective sleeves and gloves is mandatory for all workers exposed to burning objects or objects with sharp edges or dangerous projections, splashes of molten metals or in contact with dangerous or infectious substances.

O.C. 885-2001, s. 345.

**346. (Revoked).**

O.C. 885-2001, s. 346; O.C. 1411-2018, s. 27.

**347. Full body harness:** A full body harness shall comply with CAN/CSA Standard Z259.10 Full Body Harnesses and be secured by a fall arrest connecting device to an anchorage system, in accordance with sections 348 to 349.1. Such assembly shall limit the maximum fall arrest force to 6 kN or the free fall distance to 1,8 m.

O.C. 885-2001, s. 347; O.C. 1411-2018, s. 28.

**348. Fall arrest connecting device:** A fall arrest connecting device shall be composed of one or more of the following equipment, including at least the equipment provided for in paragraph 1 or 2:

- (1) a shock absorber and a lanyard complying with CAN/CSA Standard Z259.11 Shock Absorbers and Lanyards. The lifeline, including the shock absorber, shall have a maximum length of 2 m;
- (2) a self retracting lanyard complying with CAN/CSA Standard Z259.2.2 Self-Retracting Devices;
- (3) a rope grab complying with CSA Standard Z259.2.5 Fall Arresters and Vertical Lifelines or CSA Standard Z259.2.4 Fall Arresters and Vertical Rigid Rails;
- (4) a vertical lifeline complying with CSA Standard Z259.2.5 Fall Arresters and Vertical Lifelines or CSA Standard Z259.2.4 Fall Arresters and Vertical Rigid Rails, which shall never be directly in contact with a sharp edge and shall
  - (a) be used by one person only;

- (b) be less than 90 m in length;
  - (c) be free of defects, knots and splices, except at the terminations of the lifeline;
- (5) a connecting component, such as a spring hook, D-ring or snap hook in compliance with CAN/CSA Standard Z259.12 Connecting Components for Personal Fall Arrest Systems.

O.C. 885-2001, s. 348; O.C. 1411-2018, s. 28.

**349. Securing to an anchorage system:** The fall arrest connecting device of a full body harness shall be secured to one of the following anchorage systems:

- (1) a single point of anchorage with one of the following characteristics:
  - (a) have a breaking strength of at least 18 kN;
  - (b) be designed and installed in accordance with an engineer's plan in compliance with CSA Standard Z259.16 Design of Active Fall-Protection Systems, and
    - i. have a strength equal to twice the maximum arrest force as certified by an engineer; or
    - ii. be certified in accordance with EN 795 Personal Protective Equipment against Falls - Anchor devices - published by the European Committee for Standardization or with CAN/CSA Standard Z259.15 Anchorage Connectors;
- (2) a flexible continuous anchorage system (horizontal lifeline) with one of the following characteristics:
  - (a) be in compliance with the following minimum standards:
    - i. have a steel cable of a minimum diameter of 12 mm slackened to a minimum angle of 1 vertical to 12 horizontal, or 5° from horizontal;
    - ii. have a maximum distance of 12 m between the end anchors;
    - iii. have end anchors with a breaking strength of at least 90 kN;
  - (b) be designed and installed in accordance with an engineer's plan in compliance with CSA Standard Z259.13 Flexible Horizontal Lifeline Systems and CSA Standard Z259.16 Design of Active Fall-Protection Systems;
- (3) a rigid continuous anchorage system designed and installed in accordance with an engineer's plan in compliance with CSA Standard Z259.16 Design of Active Fall-Protection Systems.

A flexible continuous anchorage system complying with subparagraph a of subparagraph 2 of the first paragraph may not be used by more than 2 workers simultaneously.

An anchorage system having the characteristics described in subparagraphs b of subparagraphs 1 and 2 of the first paragraph and an anchorage system referred to in subparagraph 3 of the first paragraph shall, before it is first brought into service, be inspected and tested by an engineer or a qualified person acting under the supervision of an engineer, to ensure that the system is in compliance with the design and installation plans.

O.C. 885-2001, s. 349; O.C. 510-2008, s. 4; O.C. 1411-2018, s. 28.

**349.1. Anchorage system:** An anchorage system

- (1) cannot be used by more than 1 person at a time, except in the case of a continuous anchorage system, such as a horizontal lifeline, or a rigid anchorage system, such as a rail;
- (2) must be designed so that the D-ring of the suspension point of a worker's safety harness cannot be moved horizontally by more than 3 m or an angle of 22°; and
- (3) must be designed so that properly attached personal protective equipment cannot be detached involuntarily.

The structure on which the anchorage system is installed must be able to withstand the effort exerted by the anchorage system in addition to the other efforts that it must ordinarily withstand.

O.C. 1411-2018, s. 28.

**350. Safety belt:** Where a worker is equipped with a safety belt, it can be used only to limit the movement of a worker or to keep him in his working position.

Such a belt shall comply with CAN/CSA Standard Z259.1 Body Belts and Saddles for Work Positioning and Travel Restraint.

A safety belt may not be used as individual protective equipment to stop the fall of a worker.

O.C. 885-2001, s. 350; O.C. 1411-2018, s. 29.

**351. (Revoked).**

O.C. 885-2001, s. 351; O.C. 1411-2018, s. 30.

**352. (Revoked).**

O.C. 885-2001, s. 352; O.C. 1411-2018, s. 30.

**353. (Revoked).**

O.C. 885-2001, s. 353; O.C. 1411-2018, s. 30.

**354. Using a safety net:** A safety net shall:

- (1) be installed in accordance with the manufacturer's instruction manual and be placed in such a way as to prevent a person from falling more than 6 m in free fall;
- (2) have sufficient surface spread to intercept a falling person;
- (3) be capable of supporting a mass of 115 kg falling from a maximum height of 6 m and with a safety factor of 3;
- (4) be sufficiently flexible to break the fall and retain the person;
- (5) be resistant to atmospheric agents;
- (6) be free of all foreign matter;
- (7) have a mesh measuring about 150 mm × 150 mm;
- (8) be installed such that upon use the person falling into it will not strike any object above or below the net or be struck by any object whatsoever;
- (9) bear an indication of the manufacturer's name and make, the identification number, the year of manufacture and the minimum resistance.

O.C. 885-2001, s. 354; O.C. 1411-2018, s. 31.

**354.1. Characteristics of a warning line:** A warning line must be

- (1) continuous and installed on all sides of the work area that it delimits;
- (2) placed at a distance of 2 m or more from any place where a worker may fall from a height;
- (3) made of a rigid strip, a cable or a chain able to withstand a tractive force of at least 2,22 kN;
- (4) equipped with flags made of high-visibility materials and placed at intervals of not more than 2 m;
- (5) capable of withstanding a load of 100 N applied horizontally at the line's highest point or vertically at its midpoint between 2 stanchions;
- (6) completed at each access point, storage area or hoisting area by a path formed by 2 parallel lines not exceeding 3 m in length. In places where the access path starts at a roof edge, a guardrail must be installed on the side of the roof, in compliance with section 33.3, so as to cover the first 3 m on either side of the access path's starting point; and
- (7) installed so that the line is
  - (a) located between 0,7 m above the work surface at the line's lowest point and 1,2 m above that surface at its highest point;
  - (b) supported by stanchions placed at intervals of not more than 2,5 m; and
  - (c) attached to each stanchion so that pushing on the line between 2 stanchions does not reduce the height of the line between adjacent stanchions by an equivalent amount.

O.C. 1411-2018, s. 32.

**355. (Revoked).**

O.C. 885-2001, s. 355; O.C. 889-2020, s. 4; O.C. 1223-2021, s. 3.

**356. (Revoked).**

O.C. 885-2001, s. 356; O.C. 889-2020, s. 5; O.C. 1223-2021, s. 3.

**357. (Revoked).**

O.C. 885-2001, s. 357; O.C. 889-2020, s. 6; O.C. 1223-2021, s. 3.

**DIVISION XXXI**  
**TRANSPORTING WORKERS**

**358. Exception:** This Division does not apply to automobiles used in general as common carriers.

O.C. 885-2001, s. 358.

**359. Application of the Highway Safety Code:** Any automobile used for transporting workers shall be arranged and used in compliance with the Highway Safety Code (chapter C-24.2) and its regulations, except insofar as they are modified under this Division.

O.C. 885-2001, s. 359.

**360. Prohibited transport:** The transport of workers in trailers and semi-trailers is prohibited.

O.C. 885-2001, s. 360.

**361. Other safety standards:** The vehicle used for transporting workers shall:

- (1) be driven by a person who has an appropriate licence issued in compliance with the Highway Safety Code (chapter C-24.2);
- (2) be examined and maintained so as to protect the health and ensure the safety and physical well-being of workers.

O.C. 885-2001, s. 361.

**362. Safety equipment:** Any vehicle used primarily or regularly for transporting workers shall be equipped with a first aid kit in compliance with the First-aid Minimum Standards Regulation (chapter A-3.001, r. 10).

In addition, if the vehicle is a bus or a minibus, it shall be equipped with:

- (1) a dry chemical fire extinguisher, of a type not less than 2A:10B:C, approved by Underwriters' Laboratories of Canada;
- (2) at least 3 pyrotechnic flares, 3 flashlights or 3 reflectors. In the event of a breakdown on the road or less than 3 m from the roadway, 2 of these devices shall be placed in front of or behind the vehicle on the traffic side, one at a distance of 3 m and the other at 30 m from the vehicle. The third device shall be placed based on the specific danger, such as the proximity of a sharp turn, fog, smog or haze conditions, or the presence of a person working on the vehicle.

O.C. 885-2001, s. 362.

**363. Explosives and dangerous substances:** A vehicle used for transporting workers shall not carry:

- (1) explosives, unless such explosives are transported in compliance with the Safety Code for the construction industry (chapter S-2.1, r. 4);
- (2) dangerous pesticides and flammable and combustible substances, unless the substances are carried in containers designed for this purpose and outside the compartments occupied by the driver or passengers.

O.C. 885-2001, s. 363.

**364. Measures for protecting passengers:** Simultaneous transporting of both workers and materials in the same compartment is subject to the following conditions:

- (1) in the case of small material, as long as a stowing device prevents any movement of the material likely to injure passengers;
- (2) in the case of bulk material, if a strong device prevents the material from invading the passenger space.

O.C. 885-2001, s. 364.

## DIVISION XXXII FINAL PROVISIONS

**365. Repealed regulation:** The Safety Code for the wood-working industry (R.R.Q., 1981, c. S-2.1, r. 5) is repealed.

O.C. 885-2001, s. 365.

**366. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 366.

**367. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 367.

**368. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 368.

**369. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 369.

**370. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 370.

**371. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 371.

**372. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 372.

**373. Amendment integrated into c. S-2.1, r. 6.**

O.C. 885-2001, s. 373.

**374.** *Amendment integrated into c. S-2.1, r. 6.*

O.C. 885-2001, s. 374.

**375.** *Amendment integrated into c. S-2.1, r. 6.*

O.C. 885-2001, s. 375.

**376.** *Amendment integrated into c. S-2.1, r. 6.*

O.C. 885-2001, s. 376.

**377.** *Amendment integrated into c. S-2.1, r. 6.*

O.C. 885-2001, s. 377.

**378.** *Amendment integrated into c. S-2.1, r. 9.*

O.C. 885-2001, s. 378.

**379.** *Amendment integrated into c. S-2.1, r. 15.*

O.C. 885-2001, s. 379.

**380.** *Amendment integrated into c. S-2.1, r. 15.*

O.C. 885-2001, s. 380.

**381.** *Amendment integrated into c. S-2.1, r. 19.1.*

O.C. 885-2001, s. 381.

**382.** *Amendment integrated into c. S-2.1, r. 19.1.*

O.C. 885-2001, s. 382.

**383.** *Amendment integrated into c. S-2.1, r. 19.1.*

O.C. 885-2001, s. 383.

**384.** *Amendment integrated into c. S-2.1, r. 20.*

O.C. 885-2001, s. 384.

**385.** *Amendment integrated into c. S-2.1, r. 20.*

O.C. 885-2001, s. 385.

**386.** *Amendment integrated into c. S-2.1, r. 20.*

O.C. 885-2001, s. 386.

**387.** *Amendment integrated into c. S-2.1, r. 20.*

O.C. 885-2001, s. 387.

**388.** *Amendment integrated into c. S-2.1, r. 22.*

O.C. 885-2001, s. 388.

**389.** *Amendment integrated into c. S-2.1, r. 22.*

O.C. 885-2001, s. 389.

**390.** *Amendment integrated into c. S-2.1, r. 22.*

O.C. 885-2001, s. 390.

**391.** *Amendment integrated into c. S-2.1, r. 22.*

O.C. 885-2001, s. 391.

**392.** *Amendment integrated into c. S-2.1, r. 22.*

O.C. 885-2001, s. 392.

**393.** *Amendment integrated into c. S-2.1, r. 22.*

O.C. 885-2001, s. 393.

**394.** *(Omitted).*

## SCHEDULE I

(ss. 41, 42, 43, 66, 108 and 302)

### PERMISSIBLE EXPOSURE VALUES FOR GASES, DUSTS, FUMES, VAPOURS OR MISTS IN THE WORK ENVIRONMENT

#### DEFINITIONS AND NOTES

This Schedule must be read in accordance with the following notations and definitions:

(1) CARCINOGENS: The designations under "carcinogen" in the Designation and remarks column refer to the following:

C1: carcinogenic effect detected in humans

C2: carcinogenic effect suspected in humans

C3: carcinogenic effect detected in animals. Results of studies relating to the carcinogenicity of these substances in animals are not necessarily applicable to humans.

(2) CAS: Number given by the Chemical Abstracts Service, a division of the American Chemical Society, for the identification of a substance (see part 4).

(3) C: CEILING: The designation "C" in the STEV/Ceiling column refers to a concentration never be exceeded during any length of time whatsoever.

(4) EM: A substance to which exposure must be reduced to a minimum in accordance with section 42.

(4.1) EX: a substance that is flammable and exposure to the permissible exposure value level involves a risk of exceeding 10% of the lower explosion limit.

(5) EXCURSION LIMITS: These limits apply to substances which do not have a short-term exposure value. Provided the time-weighted average exposure value is not exceeded, excursions in exposure levels may exceed 3 times that value for a cumulative period not exceeding a total of 30 minutes during a workday. Notwithstanding the foregoing, none of those excursions in exposure levels may exceed 5 times the time-weighted average exposure value during any length of time whatsoever.

(5.1) IFV: inhalable fraction and vapour.

(5.2) J: excluding stearates of toxic metals.

(6) mg/m<sup>3</sup>: milligram per cubic meter (milligram of substance per cubic meter of air).

(7) Pc: SKIN (percutaneous): The designation "Pc" in the Designation and remarks column refers to the potentially significant contribution to the overall exposure by the cutaneous route. Exposure is by contact with vapours or, of probable greater significance, by direct skin contact with the substance. The cutaneous route includes mucous membranes and the eyes.

(8) ppm: part per million (parts of gas or vapour per million parts of airborne contaminants per volume measured at 25 °C and 101.3 kPa).

(9) Rd: Respirable dust.

(9.1) Pi: inhalable aerosol fraction.

(10) RESPIRABLE FIBRES (other than respirable asbestos fibres): Objects, other than respirable asbestos fibres, longer than 5 µm, having a diameter of less than 3 µm and a ratio of length to diameter of more than 3 :1.

(11) Pr: respirable aerosol fraction.

(12) TPM: total particulate matter.

(12.1) Pthor: thoracic aerosol fraction.

(13) SIMPLE ASPHYXIANT: A physiologically inert gas which acts primarily by displacing airborne oxygen and that can cause a decrease in the percentage in volume of airborne oxygen below the 19.5% provided for in section 40 and required to maintain blood oxygen saturation.

(14) STEV: SHORT-TERM EXPOSURE VALUE: The 15-minute time-weighted average concentration for exposure to a chemical substance (in the form of gases, dusts, fumes, vapours or mists), present in the air in a worker's respiratory zone which should not be exceeded at any time during a workday, even if the time-weighted average exposure value is not exceeded.

The average exposure for a 15-minute consecutive period may be include between the TWAEV and the STEV, insofar as such exposures are not repeated more than 4 times a day and have intervals between them of periods of at least 60 minutes.

(14.1) S(D): a substance causing dermal sensitization.

(14.2) S(R): a substance causing respiratory sensitization.

(14.3) OTO: OTOTOXIC: the "OTO" notation in the Designation and remarks column indicates that repeated exposure to the substance may cause hearing impairment alone or in combination with noise, even below 85 dBA.

(15) Td: Total dust.

(15.1) Thord: thoracic dust.

(16) TWAEV: TIME-WEIGHTED AVERAGE EXPOSURE VALUE: The time-weighted average concentration for an 8-hour workday and a 40-hour workweek of a chemical substance (in the form of gases, dusts, fumes, vapours or mists) present in the air in a worker's respiratory zone.

For any work period equal to or longer than 4 hours but less than 8 hours or a period in excess of 8 hours but less than or equal to 16 hours, an adjusted average exposure value (AAEV) must be established in accordance with the Guide to the adjustment of permissible exposure values for unusual work schedules, published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail. Under no circumstance may the AAEV be higher than the TWAEV.

#### EXPLANATION OF NOTES:

Note 1: The standard corresponds to dust containing no asbestos and the percentage in crystalline silica is less than 1%.

Note 2a: Permissible asbestos exposure values in number of respirable fibres per cm<sup>3</sup>.

Note 2b: Permissible recirculation concentration of asbestos respirable dust: 0.1 mg/m<sup>3</sup>.

Note 3: Where the use of these products is permitted.

Note 4: Permissible exposure values in number of respirable fibres per cm<sup>3</sup>.

#### Part 1

##### PERMISSIBLE EXPOSURE VALUES FOR AIRBORNE CONTAMINANTS

Substance	[#CAS]	TWAEV		STEV/Ceiling		Designation and remarks
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	
Abate		See Temephos				
Acetaldehyde	[75-07-0]			C25	C45	<b>C3,RP</b>
Acetamide	[60-35-5]	1				<b>C3,IFV</b>
Acetic acid	[64-19-7]	10	25	15	37	
Acetic anhydride	[108-24-7]	1		3		
Acetone	[67-64-1]	250		500		
Acetone cyanohydrin (as CN)	[75-86-5]			C4.7	C5	<b>Pc,RP</b>
Acetonitrile	[75-05-8]	20				<b>Pc</b>
Acetophenone	[98-86-2]	10	49			
Acetylene	[74-86-2]	Simple asphyxiant				
Acetylene dichloride		See 1,2-Dichloroethylene				
Acetylene tetrabromide		See 1,1,2,2-Tetrabromoethane				
Acetylsalicylic acid (Aspirin)	[50-78-2]		5			
Acrolein	[107-02-8]	0.1	0.23	0.3	0.69	
Acrylamide	[79-06-1]		0.03			<b>Pc,C2,EM</b>
Acrylic acid	[79-10-7]	2	5.9			<b>Pc</b>
Acrylonitrile	[107-13-1]	2	4.3			<b>Pc,C2,RP,EM</b>
Actinolite		See Asbestos				
Adipic acid	[124-04-9]		5			
Adiponitrile	[111-69-3]	2	8.8			<b>Pc</b>
Alachlore	[15972-60-8]		1			<b>C3,S(D),IVF</b>
Aldrin	[309-00-2]		0.25			<b>Pc</b>
Allyl alcohol	[107-18-6]	0.5				<b>Pc</b>
Allyl chloride		See 3-Chloropropene				
Allyl glycidyl ether (AGE)	[106-92-3]	1				
Allyl methacrylate	[96-05-9]	1				<b>Pc</b>

Allyl propyl disulfide	[2179-59-1]	0.5		<b>S(D)</b>	
Aluminum and its compounds		5		<b>Rd</b>	
4-Aminodiphenyl	[92-67-1]	Without applicable permissible exposure value		<b>Pc,C1,RP,EM</b>	
2-Aminoethanol	[141-43-5]	3	7.5	6	15
2-Aminopyridine	[504-29-0]	0.5	1.9		
3-Amino-1,2,4-triazole		See Amitrole			
Amitrole	[61-82-5]		0.2	<b>C3,RP</b>	
Ammonia	[7664-41-7]	25	17	35	24
Ammonium chloride fume	[12125-02-9]		10		20
Ammonium perfluorooctanoate	[3825-26-1]		0.01	<b>C3,Pc</b>	
Ammonium sulfamate	[7773-06-0]		10		
Amosite		See Asbestos			
Aniline	[62-53-3]	2	7.6	<b>Pc</b>	
o-Anisidine	[90-04-0]	0.1	0.5	<b>Pc,C3</b>	
p-Anisidine	[104-94-9]	0.1	0.5	<b>Pc</b>	
Anthophyllite		See Asbestos			
Antimony [7440-36-0], metal and compounds (as Sb)			0.5		
Antimony trioxide (as Sb)	[1309-64-4]		0.5	<b>C3</b>	
Antimony trioxide, production (as Sb)		Without applicable permissible exposure value		<b>C2,RP,EM</b>	
ANTU ( $\alpha$ -Naphthylthiourea)	[86-88-4]		0.3		
Argon	[7440-37-1]	Simple asphyxiant			
Arsenic, elemental [7440-38-2], and inorganic compounds (except Arsine), (as As)			0.01	<b>C1,RP,EM</b>	
Arsine	[7784-42-1]	0.005			
Asbestos – All forms (note 2a) (note 2b)	[1332-21-4]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Actinolite	[12172-67-7]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Amosite (note 3)	[12172-73-5]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Anthophyllite	[77536-67-5]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Chrysotile	[12001-29-5]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Crocidolite (note 3)	[12001-28-4]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Tremolite	[14567-73-8]		0.1 fibre/cm <sup>3</sup>	<b>C1,EM</b>	
Asphalt (petroleum) fumes	[8052-42-4]	5			
Aspirin		See Acetylsalicylic acid			
Atrazine	[1912-24-9]	5			
Attapulgite		See Fibres-Natural Mineral Fibres			
Azinphos-methyl	[86-50-0]	0.2		<b>Pc,S(D),IV/F</b>	

Barium [7440-39-3], soluble compounds (as Ba)		0.5			
Barium sulfate	[7727-43-7]	5		<i>Id, note 1</i>	
Bendiocarb	[22781-23-3]	0.1		<i>Pc</i>	
Benomyl	[17804-35-2]	1		<i>C3,S(D),Id</i>	
Benz(a)anthracene	[56-55-3]	Without applicable permissible exposure value		<i>C2,EM</i>	
Benzene	[71-43-2]	0.5	2.5	<i>C1,RP,EM,Pc</i>	
Benzene (trichloromethyl)	[98-07-7]		P0.1	<i>C2,Pc,RP,EM</i>	
Benzidine (production)	[92-87-5]	Without applicable permissible exposure value		<i>Pc,C1,RP,EM</i>	
Benzo(a)pyrene	[50-32-8]	0.005		<i>C2,RP,EM</i>	
Benzo(b)fluoranthene	[205-99-2]	Without applicable permissible exposure value		<i>C2,EM</i>	
p-Benzoquinone	[106-51-4]	0.1	0.44		
Benzoyl peroxide	[94-36-0]		5		
Benzyl acetate	[140-11-4]	10			
Benzyl chloride	[100-44-7]	1		<i>C3</i>	
	[1303-96-4]				
Beryllium [7440-41-7], metal and compounds (as Be)		0.00015		<i>C1,RP,EM,S</i>	
Biphenyl	[92-52-4]	0.2	1.3		
Bismuth telluride (as Bi <sub>2</sub> Te <sub>3</sub> )					
Se-doped		5			
Undoped	[1304-82-1]	10			
Bitumen		See Asphalt fumes			
Borate, inorganic compounds, (including boric acid)	[1330-43-4]				
	[10043-35-3]				
	[12179-04-3]	2	6	<i>Id</i>	
Borax		See Sodium tetraborate, decahydrate			
Boron oxide	[1303-86-2]	10			
Boron tribromide	[10294-33-4]		C0.7	<i>RP</i>	
Boron trichloride	[10294-34-5]		C0.7	<i>RP</i>	
Boron trifluoride	[7637-07-2]	0.1	C0.7	<i>RP</i>	
Boron trifluoride ethers	[109-63-7]; [353-42-4]	0.1	P0.7		
Bromacil	[314-40-9]	10		<i>C3</i>	
Bromine	[7726-95-6]	0.1	0.66	0.2	1.3
Bromine pentafluoride	[7789-30-2]	0.1	0.72		
Bromochloromethane		See Chlorobromomethane			
2-Bromo-2-chloro-1,1,1-trifluoroethane		See Halothane			

Bromoethane	See Ethyl bromide					
Bromoethylene	See Vinyl bromide					
Bromoform	[75-25-2]	0.5		C3		
Bromomethane	See Methyl bromide					
Bromotrifluoromethane	[75-63-8]	1000	6090			
1,3-Butadiene	[106-99-0]	2	4.4	C2,EM		
Butane	[106-97-8]	800	1900			
Butanethiol	See Butyl mercaptan					
2-Butanone	See Methyl ethyl ketone (MEK)					
2-Butoxyethanol	[111-76-2]	20		C3		
2-Butoxyethyl acetate	[112-07-2]	20		C3		
Butyl acetate (all isomers)	[105-46-4]  [110-19-0]  [123-86-4]  [540-88-5]	50	150			
n-Butyl acrylate	[141-32-2]	2		S(D)		
n-Butyl alcohol	[71-36-3]	20				
sec-Butyl alcohol	[78-92-2]	100	303			
tert-Butyl alcohol	[75-65-0]	100	303			
Butyl cellosolve®	See 2-Butoxyethanol					
tert-Butyl chromate (as CrO <sub>3</sub> )	[1189-85-1]			C0.1	Pc, RP	
n-Butyl glycidyl ether (BGE)	[2426-08-6]	3			Pc, S(D)	
tert-Butyl hydroperoxide	[75-91-2]	0.1			Pc	
n-Butyl lactate	[138-22-7]	5	30			
Butyl mercaptan	[109-79-5]	0.5	1.8			
n-Butylamine	[109-73-9]			C5	C15	Pc, RP
o-sec-Butylphenol	[89-72-5]	5	31			Pc
p-tert-Butyltoluene	[98-51-1]	1	6.1			
Cadmium elemental and compounds (as Cd)	[7440-43-9]		0.01			C2, RP, EM
Calcium carbonate	[471-34-1]		10			Td
Calcium carbonate	[1317-65-3]		10			Td, note 1
Calcium cyanamide	[156-62-7]		0.5			
Calcium hydroxide	[1305-62-0]		5			
Calcium oxide	[1305-78-8]		2			
Calcium silicate	[1344-95-2]		1			Pi, Note 1
Calcium sulfate	[7778-18-9]  [13397-24-5]  [10034-76-1]  [10101-41-4]			10		Id, note 1

Camphor (synthetic)	[76-22-2]	2	12	3	19	
Caprolactam	[105-60-2]		5			<b>IFV</b>
Captafol	[2425-06-1]		0.1			<b>Pc</b>
Captan	[133-06-2]		5			
Carbaryl	[63-25-2]		5			
Carbofuran	[1563-66-2]		0.1			<b>IVF</b>
Carbon black	[1333-86-4]		3			<b>C3 Id</b>
Carbon dioxide	[124-38-9]	5000	9000	30000	54000	
Carbon disulfide	[75-15-0]	1				<b>Pc</b>
Carbon monoxide	[630-08-0]	35		175		
Carbon tetrabromide	[558-13-4]	0.1	1.4	0.3	4.1	
Carbon tetrachloride	[56-23-5]	5	31	10	63	<b>Pc,C2,EM</b>
Carbon, fibres		See Fibres-Organic Synthetic Fibres				
Carbonyl chloride		See Phosgene				
Carbonyl fluoride	[353-50-4]	2	5.4	5	13	
Catechol	[120-80-9]	5				<b>C3,Pc</b>
Cellosolve® acetate		See 2-Ethoxyethyl acetate				
Cellulose (paper fibres)	[9004-34-6]		10			<b>Td, note 1</b>
Ceramic (fibres)		See Fibres-Artificial Vitreous Mineral Fibres				
Cesium hydroxide	[21351-79-1]		2			
Chlordane	[57-74-9]		0.5			<b>Pc,C3,IFV</b>
Chlorinated camphene	[8001-35-2]		0.5	1		<b>Pc,C3</b>
Chlorinated diphenyl oxide	[31242-93-0]		0.5			
Chlorinated diphenyl oxide	[55720-99-5]		0.5			
Chlorine	[7782-50-5]			P0.5		
Chlorine dioxide	[10049-04-4]			P0.1		
Chlorine trifluoride	[7790-91-2]			C0.1	C0.38	<b>RP</b>
2-Chloro-6-(trichloromethyl) pyridine		See Nitrapyrin				
Chloroacetaldehyde	[107-20-0]			C1	C3.2	<b>RP</b>
Chloroacetone	[78-95-5]			C1	C3.8	<b>Pc,RP</b>
α-Chloroacetophenone	[532-27-4]	0.05	0.32			
Chloroacetyl chloride	[79-04-9]	0.05	0.23	0.15	0.69	<b>Pc</b>
Chlorobenzene	[108-90-7]	10				<b>C3</b>
o-Chlorobenzylidene malononitrile	[2698-41-1]			C0.05		<b>Pc,S,RP</b>
Chlorobromomethane	[74-97-5]	200	1060			
2-Chloro-1,3-butadiene		See β-Chloroprene				
Chlorodifluoromethane	[75-45-6]	1000	3540			
Chlorodiphenyl (42% chlorine)	[53469-21-9]		1			<b>Pc,C2,EM</b>

Chlorodiphenyl (54% chlorine)	[11097-69-1]	0.5	Pc,C2,EM			
1-Chloro-2,3-epoxypropane	See Epichlorohydrin					
Chloroethane	See Ethyl chloride					
2-Chloroethanol	See Ethylene chlorohydrin					
bis (Chloroethyl) ether	See Dichloroethyl ether					
Chloroethylene	See Vinyl chloride (monomer)					
Chloroform	[67-66-3]	5	24.4	C2,RP,EM		
Chloromethane	See Methyl chloride					
Chloromethyl methyl ether	[107-30-2]	Without applicable permissible exposure value		C1,RP,EM		
bis (Chloromethyl) ether	[542-88-1]	0.001	0.0047	C1,RP,EM		
p-Chloronitrobenzene	See p-Nitrochlorobenzene					
1-Chloro-1-nitropropane	[600-25-9]	2	10			
Chloropentafluoroethane	[76-15-3]	1000	6320			
Chloropicrin	[76-06-2]	0.1	0.67			
β-Chloroprene	[126-99-8]	1		Pc,C2,RP,EM		
3-Chloropropene	[107-05-1]	1	3	2	6	Pc
2-Chloropropionic acid	[598-78-7]	0.1	0.44			Pc
o-Chlorostyrene	[2039-87-4]	50	283	75	425	
o-Chlorotoluene	[95-49-8]	50	259			
Chlorpyrifos	[2921-88-2]	0.2			Pc	
Chromium (metal)	[7440-47-3]	0.5			Pi	
Chromium III compounds (as Cr)	0.5					
Chromium VI, water insoluble inorganic compounds (as Cr)	0.001			C1,RP,EM		
Chromium VI, water soluble inorganic compounds (as Cr)	0.05			C1,RP,EM,S		
Chromyl chloride (as Cr)	[14977-61-8]	0.0001	0.00025	Pc,C1,RP,EM,S(D),S(R),IFV		
Chrysene	[218-01-9]	Without applicable permissible exposure value			C2,RP,EM	
Chrysotile	See Asbestos					
Clopidol	[2971-90-6]	3			IFV	
Coal dust	[8029-10-5];  [308062-82-0]	0.9			Pr	
Coal tar pitch volatiles, as benzene solubles	[65996-93-2]	0.2			C1,RP,EM	
Cobalt hydrocarbonyl (as Co)	[16842-03-8]	0.1				
Cobalt tetracarbonyl (as Co)	[10210-68-1]	0.1				
Cobalt, elemental and inorganic compounds (as Co)	[7440-48-4]	0.02			Pi,C3,S(D),S(R)	
Continuous filament fibres (fibrous glass)	See Fibres-Artificial Vitreous Mineral Fibres					

Copper [7440-50-8], fume (as Cu)		0.2				
Copper [7440-50-8], dusts & mists (as Cu)		1				
Cotton dust		0.1				<b><i>Thord</i></b>
Coyden®	See Clopidol					
Crag®	See Sesone					
Cresol (all isomers)	[1319-77-3]  [95-48-7]  [108-39-4]  [106-44-5]	20				<b><i>Pc,IFV</i></b>
Cristobalite	See Silica					
Crocidolite	See Asbestos					
Crotonaldehyde	[4170-30-3]		C0.3			<b><i>C3,Pc</i></b>
Crufomate®	[299-86-5]	5				
Cumene	[98-82-8]	5				<b><i>C3</i></b>
Cyanamide	[420-04-2]		2			
Cyanazine	[21725-46-2]	0.1				<b><i>Pi,C3</i></b>
Cyanides (as CN)	[143-33-9];  [151-50-8];  [592-01-8]			P5		<b><i>Pc</i></b>
Cyanogen	[460-19-5]		C5			
Cyanogen bromide	[506-68-3]		C0.3			
Cyanogen chloride	[506-77-4]		C0.3	C0.75		<b><i>RP</i></b>
Cyclohexane	[110-82-7]	300	1030			
Cyclohexanol	[108-93-0]	50	206			<b><i>Pc</i></b>
Cyclohexanone	[108-94-1]	20		50		<b><i>Pc,C3</i></b>
Cyclohexene	[110-82-7]	100				
Cyclohexylamine	[108-91-8]	10	41			
Cyclonite	[121-82-4]		0.5			<b><i>Pc</i></b>
Cyclopentane	[287-92-3]	600	1720			
Cyhexatin	[13121-70-5]	5				
2,4-D	[94-75-7]	10				<b><i>C2,EM</i></b>
DDT (Dichlorodiphenyltrichloroethane)	[50-29-3]	1				<b><i>C3</i></b>
Decaborane	[17702-41-9]	0.05	0.25	0.15	0.75	<b><i>Pc</i></b>
Demeton®	[8065-48-3]	0.01	0.11			<b><i>Pc</i></b>
Di-sec-octyl phthalate	[117-81-7]		5		10	<b><i>C3</i></b>
2,6-Di-tert-butyl-p-cresol	[128-37-0]		2			<b><i>IFV</i></b>
Diacetone alcohol	[123-42-2]	50	238			
Diacetyl	[431-03-8]	0.01		0.02		
4,4'-Diaminodiphenylmethane			See 4,4'-Methylene dianiline			

1,2-Diaminoethane		See Ethylenediamine				
1,6-Diaminohexane	[124-09-4]	0.5	2.3			
Diatomaceous earth		See Silica				
Diazinon®	[333-41-5]		0.1		<b>Pc</b>	
Diazomethane	[334-88-3]	0.2			<b>C2,RP,EM</b>	
Diborane	[19287-45-7]	0.1	0.11			
Dibromodifluoromethane		See Difluorodibromomethane				
1,2-Dibromoethane	[106-93-4]	20	155		<b>Pc,C2,RP,EM</b>	
Dibrom®		See Naled				
Dibutyl phenyl phosphate	[2528-36-1]	0.3	3.5		<b>Pc</b>	
Dibutyl phosphate	[107-66-4]		5		<b>Pc,IFV</b>	
Dibutyl phthalate	[84-74-2]		5			
2-N-Dibutylaminoethanol	[102-81-8]	0.5			<b>Pc</b>	
3,3'-Dichloro-4,4'-diamino-diphenylmethane		See 4,4'-Methylene bis (2-chloroaniline)				
1,3-Dichloro-5,5-dimethyl hydantoin	[118-52-5]		0.2	0.4		
Dichloroacetylene	[7572-29-4]			C0.1	<b>C3,RP</b>	
o-Dichlorobenzene	[95-50-1]	25		50		
p-Dichlorobenzene	[106-46-7]	10			<b>C3</b>	
3,3'-Dichlorobenzidine	[91-94-1]	Without applicable permissible exposure value			<b>Pc,C2,RP,EM</b>	
1,4-Dichloro-2-butene	[764-41-0]	0.005	0.025		<b>Pc,C2,EM</b>	
Dichlorodifluoromethane	[75-71-8]	1000	4950			
3,5-Dichloro-2,6-dimethyl-4 pyridinol		See Clopidol				
Dichlorodiphenyltrichloroethane		See DDT				
1,1-Dichloroethane	[75-34-3]	100	405			
1,2-Dichloroethane	[107-06-2]	1	4	2	8	<b>C2,EM</b>
Dichloroethyl ether	[111-44-4]	5	29	10	58	<b>Pc</b>
1,1-Dichloroethylene	[75-35-4]	1	4			
1,2-Dichloroethylene	[540-59-0]	200	793			
Dichlorofluoromethane	[75-43-4]	10	42			
Dichloromethane		See Methylene chloride				
1,1-Dichloro-1-nitroethane	[594-72-9]	2	12			
(2,4-Dichlorophenoxy) acetic acid		See 2,4-D				
1,2-Dichloropropane	[78-87-5]	10			<b>S(D)</b>	
Dichloropropene (cis and trans isomers)	[542-75-6]	1	4.5		<b>Pc,C3</b>	
2,2-Dichloropropionic acid	[75-99-0]		5		<b>Id</b>	
1,2-Dichloro-1,1,2,2-tetrafluoroethane	[76-14-2]	1000	6990			
Dichlorvos	[62-73-7]	0.1	0.9		<b>Pc</b>	
Dicrotophos	[141-66-2]		0.25		<b>Pc</b>	
4,4'-Dicyclohexyl methane diisocyanate		See Methylene bis (4-cyclohexylisocyanate)				

Dicyclopentadiene and cyclopentadiene	[77-73-6]; [542-92-7]	0.5					
Dicyclopentadienyl iron	[102-54-5]	10					
Dieldrin	[60-57-1]	0.1					C3,Pc,IFV
Diesel (fuel), (as total hydrocarbons)	[68334-30-5]						
	[68476-34-6]						
	[77650-28-3]						
	[68476-30-2]						
	[68476-31-3]	100					C3,Pc,IFV
Diethanolamine	[111-42-2]	1					C3,Pc,IFV
Diethyl ether	[60-29-7]	400	1210	500	1520		
Diethyl ketone	[96-22-0]	200		300			
Diethyl phthalate	[84-66-2]		5				
Diethylamine	[109-89-7]	5	15	15	45		Pc
2-Diethylaminoethanol	[100-37-8]	2					Pc
Diethylene triamine	[111-40-0]	1	4.2				Pc
Di(2-ethylhexyl) phthalate		See Di-sec-octyl phthalate					
Difluorodibromomethane	[75-61-6]	100	858				
Diglycidyl ether (DGE)	[2238-07-5]	0.01					
Dihydroxybenzene		See Hydroquinone					
Diisobutyl ketone	[108-83-8]	25	145				
1,6-Diisocyanatohexane		See Hexamethylene diisocyanate					
Diisopropyl ether	[108-20-3]	250	1040	310	1300		
Diisopropylamine	[108-18-9]	5	21				Pc
Dimethoxymethane		See Methylal					
Dimethyl carbamoyl chloride	[79-44-7]	Without applicable permissible exposure value					C2,RP,EM
Dimethyl sulfate	[77-78-1]	0.1	0.52				Pc,C2,RP,EM
2,6-Dimethyl-4-heptanone		See Diisobutyl ketone					
N,N-Dimethylacetamide	[127-19-5]	10					Pc,C3
Dimethylamine	[124-40-3]	5		15			S(D)
Dimethylaminobenzene		See Xylidine					
N,N-Dimethylaniline	[121-69-7]	5	25	10	50		Pc
Dimethylbenzene		See Xylene					
N,N-Dimethylformamide	[68-12-2]	5					Pc,C3
1,1-Dimethylhydrazine	[57-14-7]	0.01					C3,Pc
Dimethylnitrosoamine		See N-Nitrosodimethylamine					
Dimethylphthalate	[131-11-3]		5				
Dinitolmide	[148-01-6]		1				
Dinitro-ortho-cresol	[534-52-1]		0.2				Pc,IFV

3,5-Dinitro-ortho-toluamide		See Dinitolmide				
Dinitrobenzene (all isomers)	[99-65-0]; [100-25-4]; [528-29-0]; [25154-54-5]	0.15		<b>Pc,IVF</b>		
Dinitrotoluene	[25321-14-6]	0.2		<b>Pc,C3</b>		
Dioxane	[123-91-1]	20	72	<b>Pc,C3</b>		
Dioxathion	[78-34-2]		0.2	<b>Pc</b>		
1,3-Dioxolane	[646-06-0]	20				
Diphenyl		See Biphenyl				
Diphenyl ether		See Phenyl ether				
Diphenylamine	[122-39-4]		10			
4,4'-Diphenylmethane diisocyanate (MDI)		See Methylene bis (4-phenyl isocyanate)				
Dipropyl ketone	[123-19-3]	50				
Dipropylene glycol monomethyl ether	[34590-94-8]	100	606	150	909	<b>Pc</b>
Diquat	[231-36-7]		0.5		<b>Td, note 1</b>	
			0.1		<b>Rd, note 1</b>	
Disulfiram	[97-77-8]		2			
Disulfoton	[298-04-4]		0.05		<b>Pc,IVF</b>	
Disyston®		See Disulfoton				
Diuron	[330-54-1]		10			
Divinyl benzene	[1321-74-0]	10	53			
Dursban®		See Chlorpyrifos				
Dust, inert or nuisance particulates		See Particulates Not Otherwise Classified (PNOC)				
Dyfonate®		See Fonofos				
Endosulfan	[115-29-7]		0.1		<b>Pc,IVF</b>	
Endrin	[72-20-8]		0.1		<b>Pc</b>	
Enflurane	[13838-16-9]	75	566			
Enzymes, proteolytic		See Subtilisins				
Epichlorohydrin	[106-89-8]	2	7.6		<b>Pc,C2,PR,EM</b>	
EPN	[2104-64-5]		0.1		<b>Pc,Id</b>	
2,3-Epoxy-1-propanol		See Glycidol				
1,2-Epoxypropane		See Propylene oxide				
Erionite		See Fibres-Natural Mineral Fibres				
Ethane	[74-84-0]	Simple asphyxiant			<b>EX</b>	
Ethanethiol		See Ethyl mercaptan				
Ethanol		See Ethyl alcohol				
Ethanolamine		See 2-Aminoethanol				
Ethion	[563-12-2]	0.05			<b>Pc,IVF</b>	

2-Ethoxyethanol (EGEE)	[110-80-5]	5	18		<b>Pc</b>
2-Ethoxyethyl acetate (EGEEA)	[111-15-9]	5	27		<b>Pc</b>
Ethyl acetate	[141-78-6]	400	1440		
Ethyl acrylate	[140-88-5]	5	20	15	61
Ethyl alcohol	[64-17-5]			1000	<b>C3</b>
Ethyl amyl ketone	[541-85-5]	10			
Ethyl benzene	[100-41-4]	20			<b>C3</b>
Ethyl bromide	[74-96-4]	5			<b>Pc,C3</b>
Ethyl butyl ketone	[106-35-4]	50		75	
Ethyl chloride	[75-00-3]	100			<b>C3,Pc</b>
Ethyl ether		See Diethyl ether			
Ethyl formate	[109-94-4]	100	303		
Ethyl mercaptan	[75-08-1]	0.5	1.3		
Ethyl silicate	[78-10-4]	10	85		
Ethylamine	[75-04-7]	5		15	<b>Pc</b>
Ethylene	[74-85-1]	200			
Ethylene bromide		See Vinyl bromide			
Ethylene chlorohydrin	[107-07-3]			C1	C3.3
Ethylene dibromide		See 1,2-Dibromoethane			
Ethylene dichloride		See 1,2-Dichloroethane			
Ethylene glycol (vapour and mist)	[107-21-1]			C50	C127
Ethylene glycol dinitrate	[628-96-6]	0.05			<b>Pc</b>
Ethylene glycol monoethyl ether		See 2-Ethoxyethanol			
Ethylene glycol monoethyl ether acetate		See 2-Ethoxyethyl acetate			
Ethylene glycol monomethyl ether		See 2-Methoxyethanol			
Ethylene glycol monomethyl ether acetate		See 2-Methoxyethyl acetate			
Ethylene imine	[151-56-4]	0.05		0.1	<b>C3,Pc</b>
Ethylene oxide	[75-21-8]	1	1.8		<b>C2,RP,EM</b>
Ethylenediamine	[107-15-3]	10	25		<b>Pc, S</b>
Ethylglycol acetate		See 2-Ethoxyethyl acetate			
Ethyldene chloride		See 1,1-Dichloroethane			
Ethyldene norbornene	[16219-75-3]	2		4	
N-Ethylmorpholine	[100-74-3]	5	24		<b>Pc</b>
Fenamiphos	[22224-92-6]		0.1		<b>Pc</b>
Fensulfothion	[115-90-2]		0.1		
Fenthion	[55-38-9]		0.05		<b>Pc,IVF</b>
Ferbam	[14484-64-1]		10		
Ferrovanadium (dust)	[12604-58-9]		1	3	
Fibres-Artificial vitreous mineral fibres		1 fibre/cm <sup>3</sup>			<b>Note 4</b>

## Fibres-Natural Mineral Fibres (note 4)

Attapulgite	[12174-11-7]	1 fibre/cm <sup>3</sup>	<i>C1,EM</i>			
Erionite	[66733-21-9]	Prohibited use	<i>C1</i>			
Talc		See Talc (fibrous)				
Wollastonite	[13983-17-0]	10	<i>Td, note 1</i>			
		5	<i>Rd, note 1</i>			
Fibres-Organic Synthetic Fibres		10	<i>Td, note 1</i>			
Carbon and graphite fibres		5	<i>Rd, note 1</i>			
Polyolefines fibres		10	<i>Td, note 1</i>			
Fibrous glass dust		See Fibres-Artificial Vitreous Mineral Fibres				
Flour dust		3	<i>Id,S(R)</i>			
Fluorides (as F)		2.5				
Fluorine (as F)	[7782-41-4]	0.1	P0.5			
Fluorotrichloromethane		See Trichlorofluoromethane				
Fonofos	[944-22-9]	0.1	<i>Pc,IVF</i>			
Formaldehyde	[50-00-0]		<i>C2,EM,RP, S(D),S(R)</i>			
Formamide	[75-12-7]	1	<i>Pc,C3</i>			
Formic acid	[64-18-6]	5	9.4	10	19	
Formic aldehyde		See Formaldehyde				
Freon® 11		See Trichlorofluoromethane				
Freon® 112		See 1,1,1,2-Tetrachloro-1,2-difluoroethane				
Freon® 113		See 1,1,2-Trichloro-1,2,2-trifluoroethane				
Freon® 114		See 1,2-Dichloro-1,1,2,2-tetrafluoroethane				
Freon® 115		See Chloropentafluoroethane				
Freon® 12		See Dichlorodifluoromethane				
Freon® 12B2		See Difluorodibromomethane				
Freon® 21		See Dichlorofluoromethane				
Freon® 22		See Chlorodifluoromethane				
Furadan®		See Carbofuran				
Furfural	[98-01-1]	0.2	<i>Pc,C3</i>			
Furfuryl alcohol	[98-00-0]	0.2	<i>Pc,C3</i>			
Gasoline	[8006-61-9]	300	890	500	1480	<i>C3</i>
Germanium tetrahydride	[7782-65-2]	0.2	0.63			
Glass wool		See Fibres-Artificial Vitreous Mineral Fibres				
Glass, fibrous or dust		See Fibres-Artificial Vitreous Mineral Fibres				
Glutaraldehyde	[111-30-8]		P0.05			<i>RP,S(D),S(R)</i>
Glycerin (mist)	[56-81-5]		10			
Glycidol	[556-52-5]	2				<i>C3</i>
Glycol monoethyl ether		See 2-Ethoxyethanol				

Grain dust (oat, wheat, barley)		4		<b>Td, note 1</b>	
Graphite (all forms except fibers)	[7782-42-5]	2		<b>Rd, note 1</b>	
Graphite (fibres)		See Fibres-Organic Synthetic Fibres			
Guthion®		See Azinphos-methyl			
Gypsum		See Calcium sulfate			
Hafnium	[7440-58-6]	0.5			
Halothane	[151-67-7]	50	404		
Hard metals containing cobalt and tungsten carbide, as cobalt		0.005		<b>C2,RP,EM, S(R),Thord</b>	
Helium	[7440-59-7]	Simple asphyxiant			
Heptachlor	[76-44-8]	0.05		<b>Pc,C3</b>	
Heptachlor epoxide	[1024-57-3]	0.05		<b>Pc,C3</b>	
Heptane (all isomers)	[108-08-7]  [142-82-5]  [565-59-3]  [589-34-4]  [590-35-2]		400	500	
2-Heptanone		See Methyl n-amyl ketone			
3-Heptanone		See Ethyl butyl ketone			
Hexachlorobenzene	[118-74-1]	0.025		<b>Pc,C3</b>	
Hexachlorobutadiene	[87-68-3]	0.02	0.21	<b>Pc,C2,RP,EM</b>	
Hexachlorocyclopentadiene	[77-47-4]	0.01	0.11		
Hexachloroethane	[67-72-1]	1	9.7	<b>Pc,C3</b>	
Hexachloronaphthalene	[1335-87-1]		0.2	<b>Pc</b>	
Hexafluoroacetone	[684-16-2]	0.1	0.68	<b>Pc</b>	
Hexafluoropropylene	[116-15-4]	0.1			
Hexamethylenetetramine	[100-97-0]	1		<b>S(D),IFV</b>	
Hexamethylphosphoramide	[680-31-9]	Without applicable permissible exposure value		<b>Pc,C2,RP,EM</b>	
Hexamethylene diisocyanate	[822-06-0]	0.005	0.034	<b>EM,S</b>	
n-Hexane	[110-54-3]	50	176	<b>Pc</b>	
Hexane (other isomers)		500	1760	1000	3500
2-Hexanone		See Methyl n-butyl ketone			
Hexazinone	[51235-04-2]	3		<b>Pi</b>	
1-Hexene	[592-41-6]	50			
Hexone		See Methyl isobutyl ketone			
sec-Hexyl acetate	[108-84-9]	20	50		
Hexylene glycol	[107-41-5]		C25	C121	<b>RP</b>
Hydrazine	[302-01-2]	0.1	0.13		<b>Pc,C2,RP,EM</b>
Hydrogen	[1333-74-0]	Simple asphyxiant			
Hydrogen bromide	[10035-10-6]		C2		<b>RP</b>

Hydrogen chloride	[7647-01-0]		C2	<b>RP</b>	
Hydrogen cyanide	[74-90-8]		P4.7	<b>Pc</b>	
Hydrogen fluoride (as F)	[7664-39-3]	0.5	3	<b>Pc,RP</b>	
Hydrogen peroxide	[7722-84-1]	1		<b>C3</b>	
Hydrogen selenide (as Se)	[7783-07-5]	0.05	0.16		
Hydrogen sulfide	[7783-06-4]	8	P10		
Hydrogenated terphenyls	[61788-32-7]	0.5	4.9		
Hydroquinone	[123-31-9]		1	<b>C3, S(D)</b>	
Hydroquinone monomethyl ether		See 4-Methoxyphenol			
4-Hydroxy-4methyl-2-pentanone		See Diacetone alcohol			
2-Hydroxypropyl acrylate	[999-61-1]	0.5		<b>Pc, S(D)</b>	
2,2'-Iminodiethanol		See Diethanolamine			
Indene	[95-13-6]	5			
Indium and compounds (as In)	[7440-74-6]		0.1		
Indium tin oxide (as In)	[50926-11-9]		0.0001	<b>Pr,C3,S(D)</b>	
Insulation wool fibres		See Fibres-Artificial Vitreous Mineral Fibres			
Iodide		0.01		<b>IFV</b>	
Iodine	[7553-56-2]	0.01	0.1	<b>IFV</b>	
Iodoform	[75-47-8]	0.6	10		
Iodomethane		See Methyl iodide			
Iron dicyclopentadienyl		See Dicyclopentadienyl iron			
Iron pentacarbonyl (as Fe)	[13463-40-6]	0.1	0.23	0.2	0.45
Iron salts, soluble (as Fe)			1.0		
Iron trioxide, dust and fume (as Fe)	[1309-37-1]		5		
Isoamyl alcohol	[123-51-3]	100	361	125	452
Isobutane	[75-28-5]			1000	
Isobutyl alcohol	[78-83-1]	50	152		
Isocyanate oligomers		Without applicable permissible exposure value		<b>S</b>	
Isooctyl alcohol	[26952-21-6]	50	266		<b>Pc</b>
Isophorone	[78-59-1]		C5		<b>RP,C3</b>
Isophorone diisocyanate	[4098-71-9]	0.005	0.045		<b>EM,S</b>
Isopropoxyethanol	[109-59-1]	25	106		<b>Pc</b>
Isopropyl alcohol	[67-63-0]	200		400	
Isopropyl ether		See Diisopropyl ether			
Isopropyl glycidyl ether (IGE)	[4016-14-2]	50	238	75	356
Isopropylamine	[75-31-0]	2		5	<b>Pc</b>
N-Isopropylaniline	[768-52-5]	2	11		<b>Pc</b>
Isopropylbenzene		See Cumene			
Kaolin	[1332-58-7]		2		<b>Rd, note 1</b>

Kerosene	[8008-20-6; 64742-81-0]	200		<b>C3,Pc</b>	
Ketene	[463-51-4]	0.5	0.86	1.5	2.6
L.P.G. (Liquified petroleum gas)	[68476-85-7]	Simple asphyxiant		<b>EX</b>	
Lead [7439-92-1], and inorganic compounds, (as Pb)		0.05		<b>C3</b>	
Lead arsenate (as Pb <sub>3</sub> (AsO <sub>4</sub> ) <sub>2</sub> )	[3687-31-8]	See Lead and its inorganic compounds and Arsenic and its inorganic compounds			
Lead tetraethyl (as Pb)	[78-00-2]	0.05		<b>Pc</b>	
Lead tetramethyl (as Pb)	[75-74-1]	0.05		<b>Pc</b>	
Limestone	[1317-65-3]	10		<b>Td, note 1</b>	
Lindane	[58-89-9]	0.5		<b>C3,Pc</b>	
Lithium hydride	[7580-67-8]		0.05	<b>Id</b>	
Magnesite	[546-93-0]	10		<b>Td, note 1</b>	
Magnesium oxide	[1309-48-4]	10		<b>Id</b>	
Malathion	[121-75-5]	10		<b>Pc</b>	
Maleic anhydride	[108-31-6]	0.01		<b>IVF, S(D),S(R)</b>	
Manganese cyclopentadienyl tricarbonyl (as Mn)	[12079-65-1]	0.1		<b>Pc</b>	
Manganese - Fumes, dust and compounds (as Mn) (inhalable)	[7439-96-5]	0.2		<b>Pi</b>	
Manganese - Fumes, dust and compounds (as Mn) (respirable)	[7439-96-5]	0.05		<b>Pr</b>	
Manganese methyl cyclopentadienyl tricarbonyl (as Mn)	[12108-13-3]	0.2		<b>Pc</b>	
Marble		See Limestone			
Mequinol		See 4-Methoxyphenol			
Mercury [7439-97-6], alkyl compounds (as Hg)		0.01	0.03	<b>Pc</b>	
Mercury [7439-97-6], aryl compounds (as Hg)		0.1		<b>Pc</b>	
Mercury [7439-97-6], inorganic compounds (as Hg)		0.025		<b>Pc</b>	
Mercury [7439-97-6], mercury vapor (as Hg)		0.025		<b>Pc</b>	
Mesityl oxide	[141-79-7]	15	25		
Methacrylic acid	[79-41-4]	20	70		
Methane	[74-82-8]	Simple asphyxiant			
Methanethiol		See Methyl mercaptan			
Methanol		See Methyl alcohol			
Methomyl	[16752-77-5]	2.5			
Methoxychlor	[72-43-5]	10			
2-Methoxyethanol (EGME)	[109-86-4]	0.1		<b>Pc</b>	
2-Methoxyethyl acetate	[110-49-6]	0.1		<b>Pc</b>	
4-Methoxyphenol	[150-76-5]	5			

1-Methoxy-2-propanol						See Propylene glycol monomethyl ether
Methyl acetate	[79-20-9]	200	606	250	757	
Methyl acetylene	[74-99-7]	1000	1640			
Methyl acetylene-propadiene mixture (MAPP)	[59355-75-8]	1000	1640	1250	2050	
Methyl acrylate	[96-33-3]	2				<b>Pc, S(D)</b>
Methyl alcohol	[67-56-1]	200	262	250	328	<b>Pc</b>
Methyl amyl alcohol	[108-11-2]	20		40		
Methyl n-amyl ketone	[110-43-0]	50	233			
Methyl bromide	[74-83-9]	1				<b>Pc</b>
Methyl tert-butyl ether	[1634-04-4]	40	144			
Methyl n-butyl ketone	[591-78-6]	5		10		<b>Pc</b>
Methyl cellosolve®			See 2-Methoxyethanol			
Methyl cellosolve® acetate			See 2-Methoxyethyl acetate			
Methyl chloride	[74-87-3]	50	103	100	207	<b>Pc</b>
Methyl chloroform	[71-55-6]	350	1910	450	2460	
Methyl 2-cyanoacrylate	[137-05-3]	0.2				
Methyl demeton	[8022-00-2]		0.5			<b>Pc</b>
Methyl ethyl ketone (MEK)	[78-93-3]	50	150	100	300	
Methyl ethyl ketone peroxide	[1338-23-4]			C0.2	C1.5	<b>RP</b>
Methyl formate	[107-31-3]	100	246	150	368	
Methyl glycol			See 2-Methoxyethanol			
Methyl glycol acetate			See 2-Methoxyethyl acetate			
Methyl hydrazine	[60-34-4]	0.01				<b>C3,Pc</b>
Methyl iodide	[74-88-4]	2	12			<b>Pc,C2,EM</b>
Methyl isoamyl ketone	[110-12-3]	20		50		
Methyl isobutyl carbinol			See Methyl amyl alcohol			
Methyl isobutyl ketone	[108-10-1]	20		75		<b>C3</b>
Methyl isocyanate	[624-83-9]	0.02	0.047			<b>Pc</b>
Methyl isopropyl ketone	[563-80-4]	20				
Methyl mercaptan	[74-93-1]	0.5	0.98			
Methyl methacrylate (monomer)	[80-62-6]	50		100		<b>S(D)</b>
Methyl parathion	[298-00-0]		0.2			<b>Pc</b>
Methyl propyl ketone	[107-87-9]			150		
1-Methyl naphthalene	[90-12-0]	0.5				<b>Pc</b>
2-Methyl naphthalene	[91-57-6]	0.5				<b>Pc</b>
Methyl silicate	[681-84-5]	1	6			
α-Methyl styrene	[98-83-9]	10				<b>C3</b>
Methylacrylonitrile	[126-98-7]	1	2.7			<b>Pc</b>
Methylal	[109-87-5]	1000	3110			
Methylamine	[74-89-5]	5		15		
N-Methylaniline	[100-61-8]	0.5	2.2			<b>Pc</b>

Methylcyclohexane	[108-87-2]	400	1610					
Methylcyclohexanol	[25639-42-3]	50	234					
o-Methylcyclohexanone	[583-60-8]	50	229	75	344		<b>Pc</b>	
Methylene chloride	[75-09-2]	50	174				<b>C2,EM</b>	
4,4'-Methylene bis (2-chloroaniline) (MOCA)	[101-14-4]	0.01					<b>Pc,C2,IFV</b>	
Methylene bis (4-cylohexylisocyanate)	[5124-30-1]	0.005	0.054				<b>EM,S</b>	
4,4'-Methylene dianiline	[101-77-9]	0.1	0.81				<b>Pc,C2,EM</b>	
Methylene bis (4-phenyl isocyanate) (MDI)	[101-68-8]	0.005	0.051				<b>EM,S</b>	
5-Methyl-3-heptanone			See Ethyl amyl ketone					
Methyltetrahydrophthalic (isomers)	anhydride	[3425-89-6];  [5333-84-6];  [11070-44-3];  [19438-63-2];  [19438-64-3];  [26590-20-5];  [42498-58-8]		0.00007		0.0003		<b>Pc,S(D),S(R)</b>
N-Methyl-2,4,6-Trinitrophenyl nitramine			See Tetryl					
Metribuzin		[21087-64-9]		5				
Mevinphos®			See Phosdrin					
Mica		[12001-26-2]		0.1			<b>Pr</b>	
Microfibres (fibrous glass)			See Fibres-Artificial Vitreous Mineral Fibres					
Mineral oil (mist)								
Little or unrefined			Without applicable permissible exposure value				<b>C2,EM,RP</b>	
Pure, highly and ultra-refined			5				<b>Id</b>	
Mineral wool fibres			See Fibres-Artificial Vitreous Mineral Fibres					
Molybdenum (as Mo)								
Metal [7439-98-7] and insoluble compounds			10				<b>Id</b>	
Metal [7439-98-7] and insoluble compounds			3				<b>Rd</b>	
Soluble compounds			0.5				<b>C3,Rd</b>	
Monocrotophos	[6923-22-4]		0.25				<b>Pc</b>	
Monomethylformamide	[123-39-7]	1					<b>Pc</b>	
Morpholine	[110-91-8]	20	71				<b>Pc</b>	
Naled (Dibrom®)	[300-76-5]		3				<b>Pc</b>	

Naphtha		See VM&P Naphtha			
Naphthalene	[91-20-3]	10		<b>C3,Pc</b>	
β-Naphthylamine	[91-59-8]	Without applicable permissible exposure value		<b>C1,RP,EM</b>	
α-Naphthylthiourea		See ANTU			
Nemacur®		See Fenamiphos			
Neon	[7440-01-9]	Simple asphyxiant			
Nialate®		See Ethion			
Nickel and inorganic compounds	[7440-02-0]				
Metal		1.5		<b>Id</b>	
Insoluble compounds (as Ni)		0.2		<b>Id,C1,EM,RP</b>	
Soluble compounds (as Ni)		0.1		<b>Id</b>	
Nickel subsulfide	[12035-72-2]	3		<b>Id,C1,EM,RP</b>	
Nickel carbonyl (as Ni)	[13463-39-3]	0.001	0.007		
Nicotine	[54-11-5]	0.5		<b>Pc</b>	
Nitrapyrin	[1929-82-4]	10	20	<b>IFV</b>	
Nitric acid	[7697-37-2]	2	5.2	4	10
Nitric oxide		See Nitrogen monoxide			
p-Nitroaniline	[100-01-6]	3		<b>Pc</b>	
Nitrobenzene	[98-95-3]	1		<b>C3,Pc</b>	
p-Nitrochlorobenzene	[100-00-5]	0.1		<b>C3,Pc</b>	
4-Nitrodiphenyl	[92-93-3]	Without applicable permissible exposure value		<b>Pc,C1,RP,EM</b>	
Nitroethane	[79-24-3]	100	307		
Nitrogen	[7727-37-9]	Simple asphyxiant			
Nitrogen dioxide	[10102-44-0]	3	5		
Nitrogen monoxide	[10102-43-9]	25	31		
Nitrogen trifluoride	[7783-54-2]	10	29		
Nitroglycerin	[55-63-0]	0.05		<b>Pc</b>	
Nitromethane	[75-52-5]	20		<b>C3</b>	
1-Nitropropane	[108-03-2]	25	91		
2-Nitropropane	[79-46-9]	10	36	<b>C2,RP,EM</b>	
N-Nitrosodimethylamine	[62-75-9]	Without applicable permissible exposure value		<b>Pc,C2,RP,EM</b>	
Nitrotoluene (all isomers)	[88-72-2]				
	[99-08-1]				
	[99-99-0]				
	[1321-12-6]	2		<b>Pc</b>	
Nitrotrichloromethane		See Chloropicrin			
Nitrous oxide	[10024-97-2]	50	90		
Nonane	[111-84-2]	200	1050		
Nuisance particulates		See Particulates Not Otherwise Classified (PNOC)			

Octachloronaphthalene	[2234-13-1]	0.1	0.3	<b>Pc</b>		
Octane (all isomers)	[111-65-9]	300				
Oil mist, mineral	See Mineral oil (mist)					
Osmium tetroxide (as Os)	[20816-12-0]	0.002	0.0016	0.0006	0.0047	
Oxalic acid	[144-62-7]	1		2		
Oxygen difluoride	[7783-41-7]		C0.05	C0.11	<b>RP</b>	
Ozone	[10028-15-6]		C0.1	C0.2	<b>RP</b>	
Para-aramides fibres	See Fibres-Organic Synthetic Fibres					
Paraffin wax, fume	[8002-74-2]	2				
Paraquat, respirable particulates	[4685-14-7]	0.1				
Parathion	[56-38-2]	0.05			<b>Pc, IFV</b>	
Particulate polycyclic aromatic hydrocarbons (PPAH)	See Coal tar pitch volatiles					
Particulates Not Otherwise Classified (PNOC)	See Part 1.1					
Pentaborane	[19624-22-7]	0.005	0.013	0.015	0.039	
Pentachloronaphthalene	[1321-64-8]	0.5			<b>Pc, IFV</b>	
Pentachloronitrobenzene	[82-68-8]	0.5				
Pentachlorophenol	[87-86-5]	0.5			<b>Pc, C2, RP, EM</b>	
Pentaerythritol	[115-77-5]	10				
Pentane (all isomers)	[109-66-0]					
	[463-82-1]					
	[78-78-4]	1000				
2-Pentanone	See Methyl propyl ketone					
3-Pentanone	See Diethyl ketone					
Pentyl acetate (all isomers)	[123-92-2]					
	[620-11-1]					
	[624-41-9]					
	[625-16-1]					
	[626-38-0]					
	[628-63-7]	50	100			
Peracetic acid	[79-21-0]		0.4		<b>IFV</b>	
Perchloroethylene	[127-18-4]	25	170	100	685	<b>C3</b>
Perchloromethyl mercaptan	[594-42-3]	0.1	0.76			
Perchloryl fluoride	[7616-94-6]	0.5				
Perfluorodimethylcetone	See Hexafluoroacetone					
Perfluoroisobutylene	[382-21-8]		C0.01	C0.082		<b>RP</b>
Perlite	[83969-76-0]	10				<b>Td, note 1</b>
		5				<b>Rd, note 1</b>
Petroleum distillates	See Gasoline, Stoddard solvent, VM&P Naphtha					

Phenacyl chloride		See $\alpha$ -Chloroacetophenone				
Phenol	[108-95-2]	5	19			Pc
Phenothiazine	[92-84-2]		5			Pc
Phenyl ether, vapour	[101-84-8]	1	7	2	14	
Phenyl glycidyl ether (PGE)	[122-60-1]	0.1				Pc,S(D),C3
Phenyl isocyanate	[103-71-9]	0.005		0.015		S(D),S(R),Pc
Phenyl mercaptan	[108-98-5]	0.1				Pc
meta-Phenylenediamine	[108-45-2]		0.1			
ortho-Phenylenediamine	[95-54-5]		0.1			C2,EM
para-Phenylenediamine	[106-50-3]		0.1			Pc,S
Phenylethylene		See Styrene (monomer)				
Phenylhydrazine	[100-63-0]	0.1	0.44			Pc,C2,RP,EM
N-Phenyl- $\beta$ -naphthylamine	[135-88-6]	Without applicable permissible exposure value				C2,RP,EM
Phenylphosphine	[638-21-1]			C0.05	C0.23	RP
Phorate	[298-02-2]		0.05		0.2	Pc
Phosdrin	[7786-34-7]	0.01	0.092	0.03	0.27	Pc
Phosgene	[75-44-5]	0.1	0.40			
Phosphine	[7803-51-2]		0.05		P0.15	
Phosphoric acid	[7664-38-2]		1		3	
Phosphorus (yellow)	[12185-10-3]		0.1			
Phosphorus oxychloride	[10025-87-3]	0.1	0.63			
Phosphorus pentachloride	[10026-13-8]	0.1	0.85			
Phosphorus pentasulfide	[1314-80-3]		1		3	
Phosphorus trichloride	[7719-12-2]	0.2	1.1	0.5	2.8	
Phthalic anhydride	[85-44-9]		0.002		0.005	Pc,S(D),S(R),IFV
m-Phthalodinitrile	[626-17-5]		5			IFV
Picloram	[1918-02-1]		10			
Picric acid	[88-89-1]		0.1			S
Pindone	[83-26-1]		0.1			
Piperazine dihydrochloride	[142-64-3]		5			
Plaster of Paris		See Calcium sulfate				
Platinum	[7440-06-4]					
Metal			1			S
Soluble salts (as Pt)			0.002			S
Polychlorobiphenyls		See Chlorodiphenyl				
Polyolefines fibres		See Fibres-Organic Synthetic Fibres				
Polytetrafluoroethylene products	decomposition	[9002-84-0]	Determine quantitatively the decomposition products in the air and express the results as Fluorides (see Fluorides standards)			
Portland cement		[65997-15-1]		1		S,Rd, note 1

Potassium hydroxide	[1310-58-3]		C2	<b>RP,EM</b>
Precipitated silica		See Silica - Amorphous, precipitated		
Propane	[74-98-6]	Simple asphyxiant		<b>EX</b>
Propane sultone	[1120-71-4]	Without applicable permissible exposure value		<b>C2,RP,EM</b>
Propanol		See n-Propyl alcohol		
Propargyl alcohol	[107-19-7]	1	2.3	<b>Pc</b>
β-Propiolactone	[57-57-8]	0.5	1.5	<b>C2,RP,EM</b>
Propionaldehyde	[123-38-6]	20		
Propionic acid	[79-09-4]	10	30	
Propoxur	[114-26-1]		0.5	<b>C3,IFV</b>
Propyl acetate (isomers)	[108-21-4]; [109-60-4]	100	150	
n-Propyl alcohol	[71-23-8]	100		
n-Propyl nitrate	[627-13-4]	25	107	40
Propylene	[115-07-1]	500		172
Propylene dichloride		See 1,2-Dichloropropane		
Propylene glycol dinitrate	[6423-43-4]	0.05	0.34	<b>Pc</b>
Propylene glycol ethyl ether	[1569-02-4]	50	200	<b>Pc</b>
Propylene glycol monomethyl ether	[107-98-2]		50	100
Propylene imine	[75-55-8]	0.2		0.4
Propylene oxide	[75-56-9]			<b>C3,S(D)</b>
Propyne		See Methyl acetylene		
Propyne-Propadiene mixture		See Methyl acetylene-propadiene mixture (MAPP)		
Pyrethrum	[8003-34-7]		5	
Pyridine	[110-86-1]	5	16	
Pyrocatechol		See Catechol		
Quartz		See Silica - Crystalline, Quartz		
Quinone		See p-Benzoquinone		
RDX		See Cyclonite		
Refractory fibres		See Fibres-Artificial Vitreous Mineral Fibres		
Resin acids	[8050-09-7]		0.001	<b>Pi, S(D),S(R)</b>
Resorcinol	[108-46-3]	10	45	20
Rhodium	[7440-16-6]		90	
Metal and insoluble compounds (as Rh)		0.1		
Soluble compounds (as Rh)		0.001		
Rock wool		See Fibres-Artificial Vitreous Mineral Fibres		
Ronnel	[299-84-3]		10	
Rotenone	[83-79-4]		5	
Rubber solvent (Naphtha)	[8030-30-6]		1000	
Selenium [7782-49-2] and compounds (as Se)		0.2		

Selenium hexafluoride (as Se)	[7783-79-1]	0.05	0.16		
Sencor®		See Metribuzin			
N-Serve®		See Nitrapyrin			
Sesone	[136-78-7]		10		
Sevin®		See Carbaryl			
Silane		See Silicon tetrahydride			
Silica - Crystalline, Cristobalite	[14464-46-1]		0.05		<b>Rd</b>
Silica - Crystalline, Quartz	[14808-60-7]		0.1		<b>Rd,C2,EM</b>
Silica - Crystalline, Tridymite	[15468-32-3]		0.05		<b>Rd</b>
Silica - Crystalline, Tripoli	[1317-95-9]		0.1		<b>Rd</b>
Silicon	[7440-21-3]		10		<b>Td, note 1</b>
Silicon carbide (non fibrous)	[409-21-2]		10		<b>Td, note 1</b>
			3		<b>Rd, note 1</b>
					<b>RP</b>
Silicon tetrahydride	[7803-62-5]	5	6.6		
Silver	[7440-22-4]				
Metal		0.1			
Soluble compounds (as Ag)		0.01			
Slag wool		See Fibres-Artificial Vitreous Mineral Fibres			
Sodium azide					
Sodium azide	[26628-22-8]			CO.29	
Hydrazoic acid vapour			C0.11		
Sodium bisulfite	[7631-90-5]		5		
Sodium 2,4-dichlorophenoxyethyl sulfate		See Sesone			
Sodium fluoroacetate	[62-74-8]		0.05	0.15	<b>Pc</b>
Sodium hydroxide	[1310-73-2]			C2	<b>RP</b>
Sodium metabisulfite	[7681-57-4]		5		
Starch	[9005-25-8]		10		<b>Td, note 1</b>
Stearates	[57-11-4];		10		<b>J;Pi</b>
	[557-04-0];				
	[557-05-1];				
	[822-16-2]				
			3		<b>J;Pr</b>
Stibine (as Sb)	[7803-52-3]	0.1	0.51		
Stoddard solvent	[8052-41-3]	100	525		
Strontium chromate (as Cr)	[7789-06-2]		0.0005		<b>C2,RP,EM</b>
Strychnine	[57-24-9]		0.15		
Styrene (monomer)	[100-42-5]		50	75	
Subtilisins (Proteolytic enzymes as 100% pure crystalline enzyme)	[1395-21-7]				

	[9014-01-1]		C0.00006		<b>S,RP</b>
Succinaldehyde	[638-37-9]	1	4		<b>Pc</b>
Sucrose	[57-50-1]		10		
Sulfometuron methyl	[74222-97-2]		5		<b>Pc</b>
Sulfotep	[3689-24-5]		0.1		<b>Pc,IVF</b>
Sulfur dioxide	[7446-09-5]	2	5.2	5	13
Sulfur hexafluoride	[2551-62-4]	1000	5970		
Sulfur monochloride	[10025-67-9]			C1	C5.5
Sulfur pentafluoride	[5714-22-7]			C0.01	C0.1
Sulfur tetrafluoride	[7783-60-0]			C0.1	C0.44
Sulfuric acid	[7664-93-9]		0.2	3	<b>Thord, RP,EM(C2 for strong acid mist)</b>
Sulfuryl fluoride	[2699-79-8]	5	21	10	42
Sulprofos	[35400-43-2]		1		
Systox		See Demeton®			
2,4,5-T	[93-76-5]		10		<b>C2,RP,EM</b>
Talc, fibrous (note 4)			1 fibre/cm <sup>3</sup>		<b>C1,EM</b>
Talc, non fibrous	[14807-96-6]		2		<b>Rd,note 1</b>
Tantalum [7440-25-7], metal and oxide dusts (as Ta)			5		
TEDP		See Sulfotep			
Tellurium [13494-80-9] and compounds (as Te)			0.1		
Tellurium hexafluoride (as Te)	[7783-80-4]	0.02	0.10		
Temephos	[3383-96-8]		10		
TEPP	[107-49-3]	0.004	0.047		<b>Pc</b>
Terbufos	[13071-79-9]		0.01		<b>Pc,IVF</b>
Terephthalic acid	[100-21-0]		10		
Terphenyls	[26140-60-3]			C0.53	C5
Tert-Amyl methyl ether [TAME]	[994-05-8]	20			
1,1,2,2-Tetrabromoethane (Acetylene tetrabromide)	[79-27-6]	0.1			
1,1,1,2-Tetrachloro-2,2-difluoroethane	[76-11-9]	100			
1,1,2,2-Tetrachloro-1,2-difluoroethane	[76-12-0]	50			
1,1,2,2-Tetrachloroethane (Acetylene tetrachloride)	[79-34-5]	1			<b>C3,Pc</b>
Tetrachloroethylene		See Perchloroethylene			
Tetrachloromethane		See Carbon tetrachloride			
Tetrachloronaphthalene	[1335-88-2]		2		
Tetraethyl lead		See Lead tetraethyl			

Tetraethyl pyrophosphate		See TEPP			
Tetrahydrofuran	[109-99-9]	50	100		<b>C3,Pc</b>
Tetramethyl lead		See Lead tetramethyl			
Tetramethyl succinonitrile	[3333-52-6]		0.5		<b>Pc,IFV</b>
Tetranitromethane	[509-14-8]	0.005	0.04		<b>C2,EM</b>
Tetrasodium pyrophosphate	[7722-88-5]		5		
Tetryl	[479-45-8]		1.5		
TGIC		See Triglycidyl isocyanurate			
Thallium [7440-28-0], and compounds (as Tl)			0.02		<b>Pc,Id</b>
Thimet®		See Phorate			
4,4'-Thiobis (6-tert-butyl-m-cresol)	[96-69-5]		1		<b>Id</b>
Thiodan®		See Endosulfan			
Thiodiphenylamine		See Phenothiazine			
Thioglycolic acid	[68-11-1]	1	3.8		<b>Pc</b>
Thionyl chloride	[7719-09-7]			C1 C4.9	<b>RP</b>
Thiram®	[137-26-8]		5		
Tin and its inorganic compounds [18282-10-5; 21651-19-4], (as Sn) (except stannane and indium tin oxide)	[7440-31-5]		2		<b>Pi</b>
Titanium dioxide	[13463-67-7]		10		<b>Td, note 1</b>
Titanium tetrachloride (as hydrogen chloride)	[7550-45-0]			P0.5	
o-Tolidine	[119-93-7]	Without applicable permissible exposure value			<b>Pc,C2,RP,EM</b>
Toluene	[108-88-3]	20			<b>OTO</b>
Toluene diisocyanate (TDI) (isomers mixture)	[26471-62-5]; [584-84-9]; [91-08-7]	0.001	0.005		<b>Pc, C3, S(D), S(R), IFV</b>
o-Toluidine	[95-53-4]	2	8.8		<b>Pc,C2,RP,EM</b>
m-Toluidine	[108-44-1]	2	8.8		<b>Pc</b>
p-Toluidine	[106-49-0]	2	8.8		<b>Pc,C2,EM</b>
Toxaphene		See Chlorinated camphene			
Tremolite		See Asbestos			
Tribromomethane		See Bromoform			
Tri-n-butyl phosphate	[126-73-8]		5		<b>C3,IFV</b>
Trichloroacetic acid	[76-03-9]	0.5			<b>C3</b>
1,2,4-Trichlorobenzene	[120-82-1]			C5 C37	<b>RP</b>
1,1,2-Trichloroethane	[79-00-5]	10			<b>C3,Pc</b>
1,1,1-Trichloroethane		See Methyl chloroform			
Trichloroethylene	[79-01-6]	10	25		<b>C2,RP,EM</b>
Trichlorofluoromethane	[75-69-4]			C1000 C5620	<b>RP</b>
Trichloromethane		See Chloroform			

Trichloronaphthalene	[1321-65-9]	5		<b>Pc</b>		
Trichloronitromethane		See Chloropicrin				
2,4,5-Trichlorophenoxyacetic acid		See 2,4,5-T				
1,2,3-Trichloropropane	[96-18-4]	0.005		<b>C2,EM,RP</b>		
1,1,2-Trichloro-1,2,2-trifluoroethane	[76-13-1]	1000	7670	1250	9590	
Tri-o-cresyl phosphate	[78-30-8]		0.02			<b>Pc,IFV</b>
Tricyclohexyltin hydroxide		See Cyhexatin				
Tridymite		See Silica - Crystalline				
Triethanolamine	[102-71-6]		5			<b>S</b>
Triethylamine	[121-44-8]	0.5		1		<b>Pc</b>
Trifluorobromomethane		See Bromotrifluoromethane				
Triglycidyl isocyanurate (TGIC) (alpha-)	[59653-73-5]		0.05			
Triglycidyl isocyanurate (TGIC) (beta-)	[59653-74-6]		0.05			
Triglycidyl (TGIC) (mixed isomers)	isocyanurate [2451-62-9]		0.05			
Trimellitic anhydride	[552-30-7]		0.0005	0.002		<b>Pc,S(D),S(R),IVF</b>
Trimethyl benzene (mixed isomers)	[25551-13-7]	25				<b>S</b>
Trimethyl phosphite	[121-45-9]	2	10			
Trimethylamine	[75-50-3]	5	12	15	36	
2,4,6-Trinitrophenol		See Picric acid				
2,4,6-Trinitrophenylmethylnitramine		See Tetryl				
2,4,6-Trinitrotoluene (TNT)	[118-96-7]		0.1			<b>Pc,IFV</b>
Triphenyl amine	[603-34-9]		5			
Triphenyl phosphate	[115-86-6]		3			
Tripoli		See Silica - Crystalline				
Tungsten and compounds, in the absence of Cobalt (as W)	[7440-33-7]	3				<b>Pr</b>
Turpentine and certain monoterpenes						
Turpentine	[8006-64-2]	20	112			<b>S(D)</b>
Δ-3 Carene	[13466-78-9]	20	112			<b>S(D)</b>
α-Pinene	[80-56-8]	20	112			<b>S(D)</b>
β-Pinene	[127-91-3]	20	112			<b>S(D)</b>
Uranium (natural)						
soluble and insoluble compounds (as U)	[7440-61-1]		0.2	0.6		<b>C1,RP,EM</b>
n-Valeraldehyde	[110-62-3]	50	176			
N-Vinyl-2-pyrrolidone	[88-12-0]	0.05				<b>C3</b>
Vanadium pentoxide (as V)	[1314-62-1]		0.05			<b>C3,Id</b>
Vegetable oil mists (except castor, cashew and other similar irritant oils)	[68956-68-3]		10			
Vinyl acetate	[108-05-4]	10	35	15	53	<b>C3</b>

Vinyl benzene	See Styrene (monomer)				
Vinyl bromide	[593-60-2]	0.5			<b>C2,RP,EM</b>
Vinyl chloride (monomer)	[75-01-04]	1	2.6		<b>C1,RP,EM</b>
Vinyl cyanide	See Acrylonitrile				
Vinyl cyclohexene dioxide	[106-87-6]	0.1			<b>C3,Pc</b>
Vinyl toluene	[25013-15-4]	50	242	100	483
Vinylidene chloride	See 1,1-Dichloroethylene				
VM&P Naphtha	[8032-32-4]	300	1370		
Warfarin	[81-81-2]		0.1		
Welding fumes (not otherwise classified)			5		
Wollastonite	See Fibres-Natural Mineral Fibres				
Wood dust (western red cedar)		0.5			<b>Pi,S(D),S(R)</b>
Wood dust hard and soft, except red cedar		5			<b>Td, note 1</b>
Xylene (o-,m-,p- isomers)	[1330-20-7]				
	[95-47-6]				
	[108-38-3]				
	[106-42-3]	100	434	150	651
m-Xylene- $\alpha$ , $\alpha'$ diamine	[1477-55-0]			CO.1	<b>Pc,RP</b>
Xylylidine (mixed isomers)	[1300-73-8]	0.5			<b>C3,Pc,IFV</b>
Yttrium [7440-65-5], metal and compounds (as Y)			1		
Zinc chloride, fume	[7646-85-7]		1	2	
Zinc, oxide	[1314-13-2]		2	10	<b>Rd</b>
Zirconium and compounds (as Zr)	[7440-67-7]		5	10	
Zoalene®	See Dinitolmide				

## Part 1.1

### PARTICULATES NOT OTHERWISE CLASSIFIED (PNOC):

Particulates present in the air that meet the following conditions are considered Particulates Not Otherwise Classified (PNOC) or nuisance particulates:

- (1) no permissible exposure value is provided for them in Part 1 of Schedule I to this Regulation;
- (2) they are insoluble or poorly soluble in water;
- (3) their toxicity is low and they have no effect other than lung overload or mechanical irritation.

The permissible exposure values for such particulates are weighted average exposure values (WAEVs) of 10 mg/m<sup>3</sup> in inhalable particulates (IP) and 3 mg/m<sup>3</sup> in respirable particulates (RP).

## Part 2

### DAILY EXPOSURE TO A SPECIFIC SUBSTANCE OF A WORKER WORKING AT SEVERAL WORK LOCATIONS

Where a worker carries out his work at more than one work location during an 8-hour period, each exposure at those locations must be included in the evaluation of the daily average exposure value with respect to any substance listed in Parts 1 and 1.1 of this Schedule. The same applies when the worker performs his work at more than one work location for a period equal to or greater than 4 hours but less than 8 hours or a period greater than 8 hours but less than or equal to 16 hours.

For the purpose of evaluating average daily exposure, the method of computation prescribed in the following formula is used

Daily average exposure value:

(in mg/m<sup>3</sup> or in ppm)

$$C_1 T_1 + C_2 T_2 + \dots + C_n T_n$$

---

$$t_1 + t_2 + \dots + t_n$$

Where:

**C** = measured concentration of a substance at a work location (expressed in mg/m<sup>3</sup> or in ppm)

**t** = duration of exposure to the substance at the same work location (expressed in hours)

**1, 2, ..., n** = indication of work locations

**$t_1 + t_2 + \dots + t_n$**  = 8 hours or the total period of the shift in hours, whichever applies

### Part 3

#### DAILY EXPOSURE TO SEVERAL SUBSTANCES

Where two or more substances listed in Parts 1 and 1.1 of this Schedule are present at the work location and where they have similar effects on the same organs of the human body, the effects of these substances are considered to be additive, unless it is established otherwise.

The concentration of the substances in the mixture is computed as follows:

$$C_1 + C_2 + \dots + C_n$$

$$Rm = \frac{C_1 + C_2 + \dots + C_n}{T_1 T_2 T_n}$$

Where:

**Rm** = sum of the fractions of the mixture

**C** = measured concentration of a substance at a work location (expressed in mg/m<sup>3</sup> or in ppm)

**T** = depending on the case, the time-weighted average exposure value permitted under Parts 1 and 1.1 of this schedule or the adjusted average exposure value established in accordance with the Guide to the adjustment of permissible exposure values for unusual work schedules, published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail

**1, 2, ..., n** = indication of substances in the mixture

If **Rm** is greater than one, the time-weighted or adjusted average exposure value of the mixture of the substances is exceeded

### Part 4

#### IDENTIFICATION OF SUBSTANCES ACCORDING TO THEIR CAS NUMBER

50-00-0 Formaldehyde

50-29-3 DDT (Dichlorodiphenyltrichloroethane)

50-32-8 Benzo(a)pyrene

50-78-2 Acetylsalicylic acid (Aspirin)

54-11-5 Nicotine

55-38-9 Fenthion

55-63-0 Nitroglycerin

56-23-5 Carbon tetrachloride

56-38-2 Parathion

56-55-3 Benz(a)anthracene

56-81-5 Glycerin

57-11-4 Stearates

57-14-7 1,1-Dimethylhydrazine

57-24-9 Strychnine

57-50-1 Sucrose

57-57-8  $\beta$ -Propiolactone

57-74-9 Chlordane

58-89-9 Lindane  
60-29-7 Diethyl ether  
60-34-4 Methyl hydrazine  
60-35-5 Acetamide  
60-57-1 Dieldrin  
61-82-5 Amitrole  
62-53-3 Aniline  
62-73-7 Dichlorvos  
62-74-8 Sodium fluoroacetate  
62-75-9 N-Nitrosodimethylamine  
63-25-2 Carbaryl  
64-17-5 Ethyl alcohol  
64-18-6 Formic acid  
64-19-7 Acetic acid  
67-56-1 Methyl alcohol  
67-63-0 Isopropyl alcohol  
67-64-1 Acetone  
67-66-3 Chloroform  
67-72-1 Hexachloroethane  
68-11-1 Thioglycolic acid  
68-12-2 N,N-Dimethylformamide  
71-23-8 n-Propyl alcohol  
71-36-3 n-Butyl alcohol  
71-43-2 Benzene  
71-55-6 Methyl chloroform  
72-20-8 Endrin  
72-43-5 Methoxychlor  
74-82-8 Methane  
74-83-9 Methyl bromide  
74-84-0 Ethane  
74-85-1 Ethylene  
74-86-2 Acetylene  
74-87-3 Methyl chloride  
74-88-4 Methyl iodide  
74-89-5 Methylamine  
74-90-8 Hydrogen cyanide  
74-93-1 Methyl mercaptan  
74-96-4 Ethyl bromide  
74-97-5 Chlorobromomethane  
74-98-6 Propane  
74-99-7 Methyl acetylene  
75-00-3 Ethyl chloride  
75-01-4 Vinyl chloride  
75-04-7 Ethylamine

75-05-8 Acetonitrile  
75-07-0 Acetaldehyde  
75-08-1 Ethyl mercaptan  
75-09-2 Methylene chloride  
75-12-7 Formamide  
75-15-0 Carbon disulfide  
75-21-8 Ethylene oxide  
75-25-2 Bromoform  
75-28-5 Isobutane  
75-31-0 Isopropylamine  
75-34-3 1,1-Dichloroethane  
75-35-4 1,1-Dichloroethylene  
75-43-4 Dichlorofluoromethane  
75-44-5 Phosgene  
75-45-6 Chlorodifluoromethane  
75-47-8 Iodoform  
75-50-3 Trimethylamine  
75-52-5 Nitromethane  
75-55-8 Propylene imine  
75-56-9 Propylene oxide  
75-61-6 Difluorodibromomethane  
75-63-8 Bromotrifluoromethane  
75-65-0 tert-Butyl alcohol  
75-69-4 Trichlorofluoromethane  
75-71-8 Dichlorodifluoromethane  
75-74-1 Lead tetramethyl  
75-86-5 Acetone cyanohydrin  
75-91-2 tert-Butyl hydroperoxide  
75-99-0 2,2-Dichloropropionic acid  
76-03-9 Trichloroacetic acid  
76-06-2 Chloropicrin  
76-11-9 1,1,1,2-Tetrachloro-2,2-difluoroethane  
76-12-0 1,1,2,2-Tetrachloro-1, 2-difluoroethane  
76-13-1 1,1,2-Trichloro-1,2,2-trifluoroethane  
76-14-2 1,2-Dichloro-1,1,2,2-tetrafluoroethane  
76-15-3 Chloropentafluoroethane  
76-22-2 Camphor (synthetic)  
76-44-8 Heptachlor  
77-47-4 Hexachlorocyclopentadiene  
77-73-6 Dicyclopentadiene  
77-78-1 Dimethyl sulfate  
78-00-2 Lead tetraethyl  
78-10-4 Ethyl silicate  
78-30-8 Tri-o-cresyl phosphate

78-34-2 Dioxathion  
78-59-1 Isophorone  
78-78-4 Pentane  
78-83-1 Isobutyl alcohol  
78-87-5 1,2-Dichloropropane  
78-92-2 sec-Butyl alcohol  
78-93-3 Methyl ethyl ketone (MEK)  
78-95-5 Chloroacetone  
79-00-5 1,1,2-Trichloroethane  
79-01-6 Trichloroethylene  
79-04-9 Chloroacetyl chloride  
79-06-1 Acrylamide  
79-09-4 Propionic acid  
79-10-7 Acrylic acid  
79-20-9 Methyl acetate  
79-21-0 Peracetic acid  
79-24-3 Nitroethane  
79-27-6 1,1,2,2-Tetrabromoethane  
79-34-5 1,1,2,2-Tetrachloroethane  
79-41-4 Methacrylic acid  
79-44-7 Dimethyl carbamoyl chloride  
79-46-9 2-Nitropropane  
80-56-8 [a]-Pinene  
80-62-6 Methyl methacrylate (monomer)  
81-81-2 Warfarin  
82-68-8 Pentachloronitrobenzene  
83-26-1 Pindone  
83-79-4 Rotenone  
84-66-2 Diethyl phthalate  
84-74-2 Dibutyl phthalate  
85-44-9 Phthalic anhydride  
86-50-0 Azinphos-methyl  
86-88-4 ANTU ( $\alpha$ -Naphthylthiourea)  
87-68-3 Hexachlorobutadiene  
87-86-5 Pentachlorophenol  
88-12-0 N-Vinyl-2-pyrrolidone  
88-72-2 Nitrotoluene  
88-89-1 Picric acid  
89-72-5 o-sec-Butylphenol  
90-04-0 o-Anisidine  
90-12-0 1-Methyl naphthalene  
91-20-3 Naphthalene  
91-57-6 2-Methyl naphthalene  
91-59-8  $\beta$ -Naphthylamine

91-94-1 3,3'-Dichlorobenzidine  
92-52-4 Biphenyl  
92-67-1 4-Aminodiphenyl  
92-84-2 Phenothiazine  
92-87-5 Benzidine (production)  
92-93-3 4-Nitrodiphenyl  
93-76-5 2,4,5-T  
94-36-0 Benzoyl peroxide  
94-75-7 2,4-D  
95-13-6 Indene  
95-47-6 Xylene  
95-48-7 Cresol  
95-49-8 o-Chlorotoluene  
95-50-1 o-Dichlorobenzene  
95-53-4 o-Toluidine  
95-54-5 ortho-Phenylenediamine  
96-05-9 Allyl methacrylate  
96-18-4 1,2,3-Trichloropropane  
96-22-0 Diethyl ketone  
96-33-3 Methyl acrylate  
96-69-5 4,4'-Thiobis (6-tert-butyl-m-cresol)  
97-77-8 Disulfiram  
98-00-0 Furfuryl alcohol  
98-01-1 Furfural  
98-07-7 Benzene (trichloromethyl)  
98-51-1 p-tert-Butyltoluene  
98-82-8 Cumene  
98-83-9  $\alpha$ Methyl styrene  
98-86-2 Acetophenone  
98-95-3 Nitrobenzene  
99-08-1 Nitrotoluene  
99-65-0 Dinitrobenzene  
99-99-0 Nitrotoluene  
100-00-5 p-Nitrochlorobenzene  
100-01-6 p-Nitroaniline  
100-21-0 Terephthalic acid  
100-25-4 Dinitrobenzene  
100-37-8 2-Diethylaminoethanol  
100-41-4 Ethyl benzene  
100-42-5 Styrene (monomer)  
100-44-7 Benzyl chloride  
100-61-8 N-Methylaniline  
100-63-0 Phenylhydrazine  
100-74-3 N-Ethylmorpholine

100-97-0 Hexamethylenetetramine  
101-14-4 4,4'-Methylene bis (2-chloroaniline) (MOCA)  
101-68-8 Methylene bis (4-phenyl isocyanate) (MDI)  
101-77-9 4,4'-Methylene dianiline  
101-84-8 Phenyl ether, vapour  
102-54-5 Dicyclopentadienyl iron  
102-71-6 Triethanolamine  
102-81-8 2-N-Dibutylaminoethanol  
103-71-9 Phenyl isocyanate  
104-94-9 p-Anisidine  
105-46-4 Butyl acetate  
105-60-2 Caprolactam  
106-35-4 Ethyl butyl ketone  
106-42-3 Xylene  
106-44-5 Cresol  
106-46-7 p-Dichlorobenzene  
106-49-0 p-Toluidine  
106-50-3 p-Phenylenediamine  
106-51-4 p-Benzoquinone  
106-87-6 Vinyl cyclohexene dioxide  
106-89-8 Epichlorohydrin  
106-92-3 Allyl glycidyl ether (AGE)  
106-93-4 1,2-Dibromoethane  
106-97-8 Butane  
106-99-0 1,3-Butadiene  
107-02-8 Acrolein  
107-05-1 3-Chloropropene  
107-06-2 1,2-Dichloroethane  
107-07-3 Ethylene chlorohydrin  
107-13-1 Acrylonitrile  
107-15-3 Ethylenediamine  
107-18-6 Allyl alcohol  
107-19-7 Propargyl alcohol  
107-20-0 Chloroacetaldehyde  
107-21-1 Ethylene glycol  
107-30-2 Chloromethyl methyl ether  
107-31-3 Methyl formate  
107-41-5 Hexylene glycol  
107-49-3 TEPP  
107-66-4 Dibutyl phosphate  
107-87-9 Methyl propyl ketone  
107-98-2 Propylene glycol monomethyl ether  
108-03-2 1-Nitropropane  
108-05-4 Vinyl acetate

108-08-7 Heptane  
108-10-1 Methyl isobutyl ketone  
108-11-2 Methyl amyl alcohol  
108-18-9 Diisopropylamine  
108-20-3 Diisopropyl ether  
108-21-4 Isopropyl acetate  
108-21-4 Propyl acetate (isomers)  
108-24-7 Acetic anhydride  
108-31-6 Maleic anhydride  
108-38-3 Xylene  
108-39-4 Cresol  
108-44-1 m-Toluidine  
108-45-2 meta-Phenylenediamine  
108-46-3 Resorcinol  
108-83-8 Diisobutyl ketone  
108-84-9 sec-Hexyl acetate  
108-87-2 Methylcyclohexane  
108-88-3 Toluene  
108-90-7 Chlorobenzene  
108-91-8 Cyclohexylamine  
108-93-0 Cyclohexanol  
108-94-1 Cyclohexanone  
108-95-2 Phenol  
108-98-5 Phenyl mercaptan  
109-59-1 Isopropoxyethanol  
109-60-4 n-Propyl acetate  
109-60-4 Propyl acetate (isomers)  
109-63-7 Boron trifluoride ethers  
109-66-0 Pentane  
109-73-9 n-Butylamine  
109-79-5 Butyl mercaptan  
109-86-4 2-Methoxyethanol (EGM  
109-87-5 Methylal  
109-89-7 Diethylamine  
109-94-4 Ethyl formate  
109-99-9 Tetrahydrofuran  
110-12-3 Methyl isoamyl ketone  
110-19-0 Isobutyl acetate  
110-43-0 Methyl n-amyl ketone  
110-49-6 2-Methoxyethyl acetate (EGMEA)  
110-54-3 n-Hexane  
110-62-3 n-Valeraldehyde  
110-80-5 2-Ethoxyethanol (EGEE)  
110-82-7 Cyclohexane

110-83-8 Cyclohexene  
110-86-1 Pyridine  
110-91-8 Morpholine  
111-15-9 2-Ethoxyethyl acetate (EGEEA)  
111-30-8 Glutaraldehyde  
111-40-0 Diethylene triamine  
111-42-2 Diethanolamine  
111-44-4 Dichloroethyl ether  
111-65-9 Octane  
111-69-3 Adiponitrile  
111-76-2 2-Butoxyethanol  
111-84-2 Nonane  
112-07-2 2-Butoxyethyl acetate  
112-34-5 Diethylene glycol monobutyl ether  
114-26-1 Propoxur  
115-07-1 Propylene  
115-29-7 Endosulfan  
115-77-5 Pentaerythritol  
115-86-6 Triphenyl phosphate  
115-90-2 Fensulfothion  
116-15-4 Hexafluoropropylene  
117-81-7 Di-sec-octyl phthalate  
118-52-5 1,3-Dichloro-5,5-dimethyl hydantoin  
118-74-1 Hexachlorobenzene  
118-96-7 2,4,6-Trinitrotoluene (TNT)  
119-93-7 o-Tolidine  
120-80-9 Catechol  
120-82-1 1,2,4-Trichlorobenzene  
121-44-8 Triethylamine  
121-45-9 Trimethyl phosphite  
121-69-7 N,N-Dimethylaniline  
121-75-5 Malathion  
121-82-4 Cyclonite  
122-39-4 Diphenylamine  
122-60-1 Phenyl glycidyl ether (PGE)  
123-19-3 Dipropyl ketone  
123-31-9 Hydroquinone  
123-38-6 Propionaldehyde  
123-39-7 Monomethylformamide  
123-42-2 Diacetone alcohol  
123-51-3 Isoamyl alcohol  
123-86-4 Butyl acetate  
123-91-1 Dioxane  
123-92-2 Pentyl acetate

124-04-9 Adipic acid  
124-09-4 1,6-Diaminohexane  
124-38-9 Carbon dioxide  
124-40-3 Dimethylamine  
126-73-8 Tributyl phosphate  
126-98-7 Methylacrylonitrile  
126-99-8  $\beta$ -Chloroprene  
127-18-4 Perchloroethylene  
127-19-5 N,N-Dimethylacetamide  
127-91-3  $\beta$ -Pinene  
128-37-0 2,6-Di-tert-butyl-p-cresol  
131-11-3 Dimethylphthalate  
133-06-2 Captan  
135-88-6 N-Phenyl- $\beta$ -naphthylamine  
136-78-7 Sesone  
137-05-3 Methyl 2-cyanoacrylate  
137-26-8 Thiram7  
138-22-7 n-Butyl lactate  
140-11-4 Benzyl acetate  
140-88-5 Ethyl acrylate  
141-32-2 n-Butyl acrylate  
141-43-5 2-Aminoethanol  
141-66-2 Dicrotophos  
141-78-6 Ethyl acetate  
141-79-7 Mesityl oxide  
142-64-3 Piperazine dihydrochloride  
142-82-5 Heptane  
144-62-7 Oxalic acid  
148-01-6 Dinitolmide  
150-76-5 4-Methoxyphenol  
151-56-4 Ethylene imine  
151-67-7 Halothane  
156-62-7 Calcium cyanamide  
205-99-2 Benzo(b)fluoranthene  
218-01-9 Chrysene  
231-36-7 Diquat  
287-92-3 Cyclopentane  
298-00-0 Methyl parathion  
298-02-2 Phorate  
298-04-4 Disulfoton  
299-84-3 Ronnel  
299-86-5 Crufomate7  
300-76-5 Naled  
302-01-2 Hydrazine

309-00-2 Aldrin  
314-40-9 Bromacil  
330-54-1 Diuron  
333-41-5 Diazinon<sup>7</sup>  
334-88-3 Diazomethane  
353-42-4 Boron trifluoride ethers  
353-50-4 Carbonyl fluoride  
382-21-8 Perfluoroisobutylene  
409-21-2 Silicon carbide (non fibrous)  
420-04-2 Cyanamide  
431-03-8 Diacetyl  
460-19-5 Cyanogen  
463-51-4 Ketene  
463-82-1 Pentane  
471-34-1 Calcium carbonate  
479-45-8 Tetryl  
504-29-0 2-Aminopyridine  
506-68-3 Cyanogen bromide  
506-77-4 Cyanogen chloride  
509-14-8 Tetranitromethane  
528-29-0 Dinitrobenzene  
532-27-4  $\alpha$ -Chloroacetophenone  
534-52-1 Dinitro-ortho-cresol  
540-59-0 1,2-Dichloroethylene  
540-88-5 Butyl acetate  
541-85-5 Ethyl amyl ketone  
542-75-6 Dichloropropene (cis and trans isomers)  
542-88-1 bis (Chloromethyl) ether  
542-92-7 Cyclopentadiene  
546-93-0 Magnesite  
552-30-7 Trimellitic anhydride  
556-52-5 Glycidol  
557-04-0 Stearates  
557-05-1 Stearates  
558-13-4 Carbon tetrabromide  
563-12-2 Ethion  
563-80-4 Methyl isopropyl ketone  
565-59-3 Heptane  
583-60-8  $\alpha$ -Methylcyclohexanone  
589-34-4 Heptane  
590-35-2 Heptane  
591-76-4 Heptane  
591-78-6 Methyl n-butyl ketone  
592-41-6 1-Hexene

593-60-2 Vinyl bromide  
594-42-3 Perchloromethyl mercaptan  
594-72-9 1,1-Dichloro-1-nitroethane  
598-78-7 2-Chloropropionic acid  
600-25-9 1-Chloro-1-nitropropane  
603-34-9 Triphenyl amine  
620-11-1 Pentyl acetate  
624-41-9 Pentyl acetate  
624-83-9 Methyl isocyanate  
625-16-1 Pentyl acetate  
626-17-5 m-Phthalodinitrile  
626-38-0 Pentyl acetate  
627-13-4 n-Propyl nitrate  
628-63-7 Pentyl acetate  
628-96-6 Ethylene glycol dinitrate  
630-08-0 Carbon monoxide  
638-21-1 Phenylphosphine  
638-37-9 Succinaldehyde  
646-06-0 1,3-Dioxolane  
680-31-9 Hexamethyl phosphoramide  
681-84-5 Methyl silicate  
684-16-2 Hexafluoroacetone  
764-41-0 1,4-Dichloro-2-butene  
768-52-5 N-Isopropylaniline  
822-06-0 Hexamethylene diisocyanate  
822-16-2 Stearates  
944-22-9 Fonofos  
994-05-8 Tert-Amyl methyl ether [TAME]  
999-61-1 2-Hydroxypropyl acrylate  
1024-57-3 Heptachlor epoxide  
1120-71-4 Propane sultone  
1189-85-1 tert-Butyl chromate  
1300-73-8 Xyldidine (mixed isomers)  
1302-74-5 Corundum  
1303-86-2 Boron oxide  
1303-96-4 Borate, inorganic compounds  
1304-82-1 Bismuth telluride Undoped  
1305-62-0 Calcium hydroxide  
1305-78-8 Calcium oxide  
1309-37-1 Iron trioxide  
1309-48-4 Magnesium oxide  
1309-64-4 Antimony trioxide  
1310-58-3 Potassium hydroxide  
1310-73-2 Sodium hydroxide

1314-13-2 Zinc, oxide  
1314-62-1 Vanadium pentoxide  
1314-80-3 Phosphorus pentasulfide  
1317-35-7 Manganese tetroxide  
1317-65-3 Limestone  
1317-95-9 Silica - Crystalline, Tripoli  
1319-77-3 Cresol (all isomers)  
1321-12-6 Nitrotoluene  
1321-64-8 Pentachloronaphthalene  
1321-65-9 Trichloronaphthalene  
1321-74-0 Divinyl benzene  
1330-20-7 Xylene  
1330-43-4 Borate, inorganic compounds  
1332-58-7 Kaolin  
1333-74-0 Hydrogen  
1333-86-4 Carbon black  
1335-87-1 Hexachloronaphthalene  
1335-88-2 Tetrachloronaphthalene  
1338-23-4 Methyl ethyl ketone peroxide  
1343-98-2 Silica - Amorphous, precipitated  
1344-95-2 Calcium silicate  
1344-95-2 Calcium silicate (synthetic)  
1395-21-7 Subtilisin  
1477-55-0 m-Xylene- $\alpha$ , $\alpha'$ -diamine  
1563-66-2 Carbofuran  
1569-02-4 Propylene glycol ethyl ether  
1634-04-4 Methyl tert-butyl ether  
1912-24-9 Atrazine  
1918-02-1 Picloram  
1929-82-4 Nitrapyrin  
2039-87-4 o-Chlorostyrene  
2104-64-5 EPN  
2179-59-1 Allyl propyl disulfide  
2234-13-1 Octachloronaphthalene  
2238-07-5 Diglycidyl ether (DGE)  
2425-06-1 Captafol  
2426-08-6 n-Butyl glycidyl ether (BGE)  
2451-62-9 Triglycidyl isocyanurate (TGIC) (mixed isomers)  
2528-36-1 Dibutyl phenyl phosphate  
2551-62-4 Sulfur hexafluoride  
2698-41-1 o-Chlorobenzylidene malononitrile  
2699-79-8 Sulfuryl fluoride  
2921-88-2 Chlorpyrifos  
2971-90-6 Clopidol

3333-52-6 Tetramethyl succinonitrile

3383-96-8 Temephos

3425-89-6 Methyltetrahydrophthalic anhydride (isomers)

3687-31-8 Lead arsenate

3689-24-5 Sulfotep

3825-26-1 Ammonium perfluorooctanoate

4016-14-2 Isopropyl glycidyl ether (IGE)

4098-71-9 Isophorone diisocyanate

4170-30-3 Crotonaldehyde

4685-14-7 Paraquat, respirable particulates

5124-30-1 Methylene bis (4-cyclohexylisocyanate)

5333-84-6 Methyltetrahydrophthalic anhydride (isomers)

5714-22-7 Sulfur pentafluoride

6423-43-4 Propylene glycol dinitrate

6923-22-4 Monocrotophos

7085-85-0 Ethyl 2-cyanoacrylate

7429-90-5 Aluminum

7439-92-1 Lead

7439-96-5 Manganese

7439-96-5 Manganese – Fumes, dust and compounds (as Mn) (inhalable)

7439-96-5 Manganese – Fumes, dust and compounds (as Mn) (respirable)

7439-97-6 Mercury

7439-98-7 Molybdenum

7440-01-9 Neon

7440-02-0 Nickel

7440-06-4 Platinum

7440-16-6 Rhodium

7440-21-3 Silicon

7440-22-4 Silver

7440-25-7 Tantalum

7440-28-0 Thallium

7440-31-5 Tin

7440-33-7 Tungsten

7440-36-0 Antimony

7440-37-1 Argon

7440-38-2 Arsenic

7440-39-3 Barium

7440-41-7 Beryllium

7440-43-9 Cadmium

7440-47-3 Chromium

7440-48-4 Cobalt

7440-50-8 Copper

7440-58-6 Hafnium

7440-59-7 Helium

7440-61-1 Uranium  
7440-65-5 Yttrium  
7440-67-7 Zirconium  
7440-74-6 Indium  
7446-09-5 Sulfur dioxide  
7550-45-0 Titanium tetrachloride  
7553-56-2 Iodine  
7572-29-4 Dichloroacetylene  
7580-67-8 Lithium hydride  
7616-94-6 Perchloryl fluoride  
7631-90-5 Sodium bisulfite  
7637-07-2 Boron trifluoride  
7646-85-7 Zinc chloride  
7647-01-0 Hydrogen chloride  
7664-38-2 Phosphoric acid  
7664-39-3 Hydrogen fluoride  
7664-41-7 Ammonia  
7664-93-9 Sulfuric acid  
7681-57-4 Sodium metabisulfite  
7697-37-2 Nitric acid  
7719-09-7 Thionyl chloride  
7719-12-2 Phosphorus trichloride  
7722-84-1 Hydrogen peroxide  
7722-88-5 Tetrasodium pyrophosphate  
7726-95-6 Bromine  
7727-37-9 Nitrogen  
7727-43-7 Barium sulfate  
7758-97-6 Lead chromate  
7773-06-0 Ammonium sulfamate  
7778-18-9 Calcium sulfate  
7782-41-4 Fluorine  
7782-42-5 Graphite (all forms except fibres)  
7782-49-2 Selenium  
7782-50-5 Chlorine  
7782-65-2 Germanium tetrahydride  
7783-06-4 Hydrogen sulfide  
7783-07-5 Hydrogen selenide  
7783-41-7 Oxygen difluoride  
7783-54-2 Nitrogen trifluoride  
7783-60-0 Sulfur tetrafluoride  
7783-79-1 Selenium hexafluoride  
7783-80-4 Tellurium hexafluoride  
7784-42-1 Arsine  
7786-34-7 Phosdrin

7789-06-2 Strontium chromate  
7789-30-2 Bromine pentafluoride  
7790-91-2 Chlorine trifluoride  
7803-51-2 Phosphine  
7803-52-3 Stibine  
7803-62-5 Silicon tetrahydride  
8001-35-2 Chlorinated camphene  
8002-74-2 Paraffin wax  
8003-34-7 Pyrethrum  
8006-61-9 Gasoline  
8006-64-2 Turpentine  
8008-20-6 Kerosene  
8022-00-2 Methyl demeton  
8029-10-5 Coal dust  
8030-30-6 Rubber solvent (Naphtha)  
8032-32-4 VM&P Naphtha  
8050-09-7 Resin acids  
8050-09-7 Rosin  
8052-41-3 Stoddard solvent  
8052-42-4 Asphalt (petroleum)  
8065-48-3 Demeton7  
9002-84-0 Polytetrafluoroethylene  
9004-34-6 Cellulose (paper fibres)  
9005-25-8 Starch  
9014-01-1 Subtilisin  
10024-97-2 Nitrous oxide  
10025-67-9 Sulfur monochloride  
10025-87-3 Phosphorus oxychloride  
10026-13-8 Phosphorus pentachloride  
10028-15-6 Ozone  
10034-76-1 Calcium sulfate  
10035-10-6 Hydrogen bromide  
10043-35-3 Borate, inorganic compounds  
10049-04-4 Chlorine dioxide  
10101-41-4 Calcium sulfate  
10102-43-9 Nitrogen monoxide  
10102-44-0 Nitrogen dioxide  
10210-68-1 Cobalt tetracarbonyl  
10294-33-4 Boron tribromide  
10294-34-5 Boron trichloride  
11070-44-3 Methyltetrahydrophthalic anhydride (isomers)  
11097-69-1 Chlorodiphenyl (54% chlorine)  
11103-86-9 Zinc chromates  
12001-26-2 Mica

12001-28-4 Asbestos Crocidolite  
12001-29-5 Asbestos Chrysotile  
12035-72-2 Nickel subsulfide  
12079-65-1 Manganese cyclopentadienyl tricarbonyl  
12108-13-3 Manganese methyl cyclopentadienyl  
tricarbonyl  
12125-02-9 Ammonium chloride  
12172-67-7 Asbestos Actinolite  
12172-73-5 Asbestos Amosite  
12174-11-7 Fibres-Natural Mineral Fibres Attapulgite  
12179-04-3 Borate, inorganic compounds  
12185-10-3 Phosphorus (yellow)  
12415-34-8 Emery  
12604-58-9 Ferrovanadium (dust)  
13071-79-9 Terbufos  
13121-70-5 Cyhexatin  
13397-24-5 Calcium sulfate  
13463-39-3 Nickel carbonyl  
13463-40-6 Iron pentacarbonyl  
13463-67-7 Titanium dioxide  
13466-78-9 Δ-3 Carene  
13494-80-9 Tellurium  
13530-65-9 Zinc chromates  
13765-19-0 Calcium chromate  
13838-16-9 Enflurane  
13983-17-0 Fibres-Natural Mineral Fibres Wollastonite  
14464-46-1 Silica - Crystalline, Cristobalite  
14484-64-1 Ferbam  
14567-73-8 Asbestos Tremolite  
14807-96-6 Talc, non fibrous  
14808-60-7 Silica - Crystalline, Quartz  
14977-61-8 Chromyl chloride  
15468-32-3 Silica - Crystalline, Tridymite  
15972-60-8 Alachlore  
16219-75-3 Ethyldene norbornene  
16752-77-5 Methomyl  
16842-03-8 Cobalt hydrocarbonyl  
17068-78-9 Asbestos Anthophyllite  
17702-41-9 Decaborane  
17804-35-2 Benomyl  
19287-45-7 Diborane  
19438-63-2 Methyltetrahydrophthalic anhydride (isomers)  
19438-64-3 Methyltetrahydrophthalic anhydride (isomers)  
19624-22-7 Pentaborane

20816-12-0 Osmium tetroxide  
21087-64-9 Metribuzin  
21351-79-1 Cesium hydroxide  
21725-46-2 Cyanazine  
22224-92-6 Fenamiphos  
22781-23-3 Bendiocarb  
25013-15-4 Vinyl toluene  
25154-54-5 Dinitrobenzene  
25321-14-6 Dinitrotoluene  
25551-13-7 Trimethyl benzene  
25639-42-3 Methylcyclohexanol  
26140-60-3 Terphenyls  
26471-62-5 Toluene diisocyanate (TDI) (isomers mixture)  
26590-20-5 Methyltetrahydrophthalic anhydride (isomers)  
26628-22-8 Sodium azide  
26952-21-6 Isooctyl alcohol  
31242-93-0 Chlorinated diphenyl oxide  
34590-94-8 Dipropylene glycol monomethyl ether  
35400-43-2 Sulprofos  
37300-23-5 Zinc chromates  
42498-58-8 Methyltetrahydrophthalic anhydride (isomers)  
50926-11-9 Indium tin oxide  
51235-04-2 Hexazinone  
53469-21-9 Chlorodiphenyl (42% chlorine)  
53570-85-7 Coal dust (less than 5% crystalline silica)  
55720-99-5 Chlorinated diphenyl oxide  
59355-75-8 Methyl acetylene-propadiene mixture (MAPP)  
59653-73-5 Triglycidyl isocyanurate (TGIC) (alpha-)  
59653-74-6 Triglycidyl isocyanurate (TGIC) (beta-)  
60676-86-0 Amorphous silica, fused  
61788-32-7 Hydrogenated terphenyls  
61790-53-2 Silica - Amorphous, Diatomaceous earth  
(uncalcined)  
63231-67-4 Silica - Amorphous, gel  
64742-81-0 Kerosene  
65996-93-2 Coal tar pitch volatiles, as benzene solubles  
65997-15-1 Portland cement  
66733-21-9 Fibres-Natural Mineral Fibres Erionite  
68334-30-5 Diesel  
68476-30-2 Diesel  
68476-31-3 Diesel  
68476-34-6 Diesel  
68476-85-7 L.P.G. (Liquified petroleum gas)  
68956-68-3 Vegetable oil

69012-64-2 Silica - Amorphous, fumes

74222-97-2 Sulfometuron methyl

77536-67-5 Anthophyllite asbestos

77650-28-3 Diesel

83969-76-0 Perlite

112926-00-8 Silica - Amorphous, gel

308062-82-0 Coal dust

O.C. 885-2001, Sch. I; O.C. 1120-2006, ss. 11 and 12; O.C. 915-2011, ss. 2 and 3; O.C. 1079-2012, s. 1; O.C. 159-2020, s. 1; O.C. 159-2020, s. 2; O.C. 644-2022, ss. 2 and 3; O.C. 280-2024, s. 2.

## SCHEDULE II

### LIST OF DANGEROUS SUBSTANCES BY CATEGORY

Categories of dangerous substances					
Dangerous substances	inflammables and combustibles	oxidants	toxic	corrosives	dangerously reactive
Acetates, organic		x			
Acids, mineral (concentrated)				x	
Acids, organic		x			
Activated charcoal		x			
Air, compressed		x			
Alcohols	x				
Aldehydes	x				
Alkali metals	x				
Allyl compounds		x			
Amines	x				
Ammonium dichromate	x				
Ammonium nitrate				x	
Ammonium persulphate				x	
Anhydrides	x				
Antimony pentasulphide	x				
Arsenic compounds		x			
Bags and sacks	x				

having  
contained nitrates,  
sugar or oily  
materials

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Benzoates                    x

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Bitumen                    x

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Blasting powders                    x

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Bone oil                    x

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Bromates                    x

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Bromides (organic)                    x                    x

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Bromine                    x

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Camphor                    x

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Carbon black  
(lampblack)                    x

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Castor oil                    x

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China wood oil  
(tung oil)                    x

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Chlorates                    x

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Chlorinated  
hydrocarbons                    x

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Chlorine                    x

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Chloroethane                    x

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Chorites                    x

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Coal tar                    x

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Coconut oil, refined                    x

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Cod liver oil                    x

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Corn oil (Maize oil)                    x

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Cottonseed oil                    x

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Cresols                    x

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Cyanides                    x                    x

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Cyanogen compounds                    x

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Ethers                    x                    x

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Feeds, various	x	
Fibres, vegetable (jute, kapok, sisal, etc)	x	
Fish scraps	x	
Fluorides, inorganic		x
Fluorine	x	
Fluosulphonic acid		x
Formaldehyde solution	x	x
Fulminates		x
Fumigating substances, various	x	x
Hydrazine		x
Hydrides	x	
Hydrocarbons	x	
Hydroxylamine	x	
Hypophosphites	x	
Insecticides (when dissolved in an inflammable or combustible liquid)	x	x
Iodates	x	
Iron sponge	x	
Lanolin	x	
Lard oil	x	
Lead compounds		x
Linseed oil	x	
Lubricating oil	x	
Matches, strike- anywhere	x	
Menhaden oil	x	

**Mercury compounds**

x

Metal powders  
(finely divided)

x

Methyl cyanoformate

x

Methyl fluoroformate

x

Neatsfoot oil

x

Nitrates, inorganic

x

Nitrites, inorganic

x

Nitrogen chloride

x

Nitrogen dioxide

x

Oil: oiled  
clothing, fabrics,  
rags or silk  
soaked in

x

Olive oil

x

Organic chlorides

x

x

Paint containing  
drying oils

x

Paint scrapings

x

Palm kernal oil

x

Palm oil

x

Paraffin oil

x

Paraffin wax

x

Peanut oil

x

Perborates

x

Perchlorates

x

Perilla oil

x

Permanganates

x

Peroxides, inorganic

x

Peroxides, organic

x

x

Persulfates

x

Phenol	x
Phenolsulphonic acid	x
Phosphides	x
Phosphorous pentachloride	x
Picrates	x
Pine tar oil	x
Potassium perchlorate	x
Rags, oily	x
Resinates	x
Rubber reclaimed	x
Rubber scrap	x
Rust preventing compounds	x
Sawdust	x
Seeds	x
Selenium compounds	x
Sodium amalgam	x
Sodium azide	x
Sodium perchlorate	x
Soya bean oil	x
Sperm oil	x
Sugar beet (dry)	x
Sulfides	x
Tallow	x
Tallow oil	x
Tetraethyl lead	x
Whale oil	x

Woodwool

x

Wool wadding

x

O.C. 885-2001, Sch. II.

### SCHEDULE III

(s. 103)

#### MINIMUM RATE OF AIR CHANGE PER HOUR

Table 1

#### AVERAGE GENERAL VENTILATION

<i>Classification of establishments</i>	<i>Minimum rate of air change per hour</i>
<b>Food and beverages</b>	
Slaughterhouses and drysalting	2
Mineral oil and fats factories	3
Sausage and sausage casing manufacturing	2
Poultry processing	2
Milk concentrate manufacturing	2
Fish processing	2
Preparation and canning of fruit and vegetables	2
Biscuit manufacturing	2
Bakeries	2
Confectioneries	2
Vegetable oil mills	2
Distilleries	2
Breweries (Beer breweries)	2
Wine manufacturing	2
<b>Tobacco products</b>	
Leaf-tobacco processing	2
Tobacco products manufacturing	2

**Rubber**

Rubber footwear manufacturing	3
Tire and tube manufacturing	3
Other rubber industries	3

**Leather**

Tanneries	3
Shoe factories	2

**Textiles**

Cotton yarn and cloth mills	2
Wool yarn mills	2
Wool cloth mills	2
Synthetic textile mills	2
Fiber preparation mills	5
Thread mills	5
Cordage and twine industry	5
Carpet, mat and rug industry	2
Textile dying and finishing	3
Linoleum and coated fabrics industry	4

**Garages**

Garage for maintenance and repair	4
Garage for parking and storage - with permanent employees	3
- without permanent employees	2

**Wood**

Shingle plants	2
Sawmills	2
Veneer and plywood mills	2

Sash, door and other millwood plants (excluding hardwood flooring manufacturing) 2

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Coffin and casket industry 2

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Wood processing industry 2

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**Furniture and fixtures**

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Household furniture industry 2

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**Paper and related products**

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Pulp and paper mills 2

---

Manufacturing of asphalt roofing paper 3

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Paper box and bag manufacturing 2

---

**Metal products**

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Metal fabricating industries 4

---

Miscellaneous machinery manufacturing 2

---

Electrical appliance manufacturing 2

---

Cell and battery manufacturing 4

---

**Non-metallic products**

---

Cement industry 3

---

Lime industry 3

---

Gypsum products manufacturing 3

---

Concrete products manufacturing 2

---

Reinforced concrete industry 2

---

Clay products manufacturing (domestic clay) 2

---

Refractory products manufacturing 4

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Stone products manufacturing 4

---

Asbestos products manufacturing 6

---

Glass and glass products manufacturing 4

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Abrasive industry 4

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**Chemicals**

Explosives and ammunition manufacturing	3
Mixed fertilizers manufacturing	2
Plastics and synthetic resins industry	3
Pharmaceuticals and medical products industry	2
Paints and varnish industry	4
Maintenance products manufacturing	3
Industrial chemical products manufacturing	2

**Warehouses: See Table III of this Schedule.**

Any other class of establishment not appearing in this Table or in Table II of this Schedule	1
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The number of air changes per hour listed in this Table may be converted into cfm/ft<sup>2</sup> by using the following formula:

$$\text{ft}^3/\text{min.} = \text{Air change/hour} \times [12\text{ft} + \text{height of work level in feet (ref. main floor)}]$$

$$\text{ft}^2 \text{ 60 min./hour}$$

or to m<sup>3</sup>/h/m<sup>2</sup> by using the following formula:

$$\text{m}^3/\text{h} = \text{Air change/hour} \times [3.6\text{m} + \text{height of work level in metres (ref. main floor)}]$$

$$\text{m}^2$$

**Table 2**

## RATE OF AIR CHANGE PER HOUR FOR CERTAIN CLASSES OF ESTABLISHMENT

Classification of establishment	Total ventilation area		Fresh air	Relative pressure
	Unrefrigerated spaces (1./s./pers.)	Refrigerated spaces (1./s./pers.)		
Commercial and industrial laundry	9.4	not applicable	2.4	negative pressure not exceeding 5 Pa
Office	7.1	45	2.4	not applicable
Laboratory*	7.1	45	2.4	negative pressure not exceeding 5 Pa

Where gases, fumes, vapours, dusts or mists emitted in an establishment listed in this Table, the minimum rates of air change per hour must be increased so that the standards prescribed in Schedule 1 are complied with.

\* To compute total ventilation air and fresh air, the occupancy rate must be one person per 10 m<sup>2</sup> for laundries and offices and one person per 5 m<sup>2</sup> for laboratories.

### Table 3

#### VENTILATION IN WAREHOUSES WHERE INTERNAL COMBUSTION VEHICLES ARE OPERATED

The ventilation rate per vehicle must be computed as follows:

$$Q = K \times (U/50\%) \times (P/45kW) \times [2 - (V/4250m^3)]$$

where:

Q = air flow in m<sup>3</sup>/h prescribed per vehicle

K = ventilation constant, namely 8 500 m<sup>3</sup>/h per propane or diesel-powered vehicle, 13,500 m<sup>3</sup>/h per gas-powered vehicle

P = power of the engine in kilowatts

V = volume of space available in m<sup>3</sup> per vehicle

U = percentage (%) of use of the vehicle during a work shift.

#### Notes:

(1) if the percentage (U) of use of the vehicle or the power (P) of the engine is less than 50% or 45 KW respectively, these factors must be omitted in the formula which then must read as follows:

$$Q = K \times [2 - (V/4250m^3)]$$

(2) for the purposes of applying this Table, the volume of space available is equal to the total volume of the warehouse minus the volume occupied by the merchandise;

(3) if the volume available exceeds 4,250 m<sup>3</sup>, the formula does not apply and the minimum air supply is 8,500 m<sup>3</sup>/h per propane or diesel-powered vehicle and 13,500 m<sup>3</sup>/h per gas-powered vehicle.

O.C. 885-2001, Sch. III.

### SCHEDULE IV

(s. 117)

#### STANDARDS OF TEMPERATURE IN ESTABLISHMENTS

Nature of work performed	Minimum temperature required
light work performed while sitting, especially mental work, precision work, or which requires reading or writing	20 °C
light physical work performed while sitting, electric machine sewing and work with small machine tools	19 °C
light work performed while standing, especially machine tool work	17 °C
moderate work performed while standing, assembly and trimming	16 °C
heavy work performed while standing, drilling and manual work with heavy tools	12 °C

O.C. 885-2001, Sch. VI.

### SCHEDULE V

(ss. 121, 122, 123 and 124)

#### EVALUATION OF HEAT STRESS

Wet Bulb-Globe Temperature Index (WBGT) is computed by using the following equations:

(a) outdoors with solar load:

$$\text{WBGT} = 0.7 \text{ WB} + 0.2 \text{ GT} + 0.1 \text{ DB}$$

(b) indoors or outdoors with no solar load:

$$\text{WBGT} = 0.7 \text{ WB} + 0.3 \text{ GT}$$

where:

WB = natural wet-bulb temperature

DB = dry-bulb temperature

GT = globe thermometer temperature

To determine WBGT, the instruments required are a black globe thermometer, a natural (static) wet-bulb thermometer and a dry-bulb thermometer.

Exposure to temperatures in excess of those in Table 1 is permitted under the following conditions: the worker must be under medical supervision and it must be proven that his tolerance for working in heat is greater than that of the average worker.

**Table 1**

PERMISSIBLE HEAT EXPOSURE LIMIT VALUES, IN °C (WBGT °C (WBGT))

Alternate Regimen work/rest	Work load		
	light work	moderate work	heavy work
Continuous work	30.0	26.7	25.0
Work 75%, rest 25% (every hour)	30.6	28.0	25.9
Work 50%, rest 50% (every hour)	31.4	29.4	27.9
Work 25%, rest 75% (every hour)	32.2	31.1	30.0

**Chart**

PERMISSIBLE HEAT EXPOSURE VALUES



continuous work
- - - - - 75% work - 25% rest
• 50% work - 50% rest every hour
• • 25% work - 75% rest

### Method of measurement

WBGT values are measured as follows:

(1) The range of the dry and the natural wet bulb thermometer must be between -5 °C and +50 °C, with an accuracy of  $\pm 0.5$  °C. The dry bulb thermometer must be shielded from the sun and other radiant surfaces without restricting the airflow around the bulb. The wick of the natural wet bulb thermometer must be kept wet with distilled water for at least 30 minutes before the temperature reading is made. It is not enough to immerse an end of the wick into a reservoir of distilled water and wait until the wick becomes wet by capillarity; the wick must be wetted by direct application of water from a syringe one-half hour before each reading. The wick must extend over the bulb of the thermometer, covering the stem about one additional bulb length. The wick should always be clean, and new wicks should be washed before being used.

(2) A globe thermometer, consisting of a 15-centimetre diameter hollow copper sphere painted on the outside with a matte black finish or equivalent, must be used. The bulb or sensor of the thermometer (range: -5 °C to +100 °C; accuracy:  $\pm 0.5$  °C) must be set at the centre of the sphere. The globe thermometer must be exposed at least 25 minutes before it is read.

(3) A stand must be used to suspend the 3 thermometers so that they do not restrict free air flow around the bulbs, and so that there is no obstacle between the heat sources and the wet bulb globe thermometer.

(4) Any other type of temperature sensor may be used that gives a reading identical to that of a mercury thermometer under the same conditions.

(5) The thermometers must be placed so that the readings are representative of the conditions in which the men work or rest, respectively.

The WBGT values may also be measured using a direct-reading measuring instrument.

### Work load

The total heat load is the sum of the heat produced by the body and the environmental heat. Therefore, if the work is performed under hot environmental conditions, the workload category of each job must be established and the permissible heat exposure limit value pertinent to the work load evaluated against the applicable standard in order to protect the worker from exposure beyond the permissible limit.

The jobs performed by a worker must be classified in the following categories:

- (a) light work: up to 200 kcal/h (sitting or standing to control machines; performing light hand or arm work, etc.);
- (b) moderate work: from 200 to 350 kcal/h (walking about with moderate lifting and pushing, etc.);
- (c) heavy work: from 350 to 500 kcal/h (pick and shovel work, etc.)

Table I thus gives the permissible heat exposure limit value for the specified work load.

An activity may be assigned to a particular category by measuring the metabolism of the man at work, namely by estimating his metabolism using the following Table 2:

**Table 2**

ASSESSMENT OF WORK LOAD AND AVERAGE VALUES OF METABOLIC RATE DURING DIFFERENT ACTIVITIES

A. Body position and movement	kcal/h	
Sitting.....	18	
Standing.....	36	
Walking.....	120-180	
Walking uphill .....	Add 48 per metre of rise	
B. Type of work	Average (kcal/h)	
Range (kcal/h)		
Handwork .....	.....	12-72
light .....	24	
heavy .....	54	
Work using one arm .....	.....	42-150
light .....	60	
heavy .....	108	
Work using both arms.....	.....	60-210
light .....	90	
heavy .....	150	

Work using body .....	.....	150-900
light .....	210	
moderate.....	300	
heavy .....	420	
very heavy .....	540	
Light handwork .....	writing, knitting	
Heavy handwork .....	typing	
Heavy work using one arm .....	hammering in nails (shoemaker, upholsterer)	
Light work using both arms.....	filling metal, planning wood, raking a garden	
Moderate work using both arms.....	cleaning a floor, beating a carpet	
Heavy work using the body .....	railroad track laying, digging, barking trees	

#### C. Basal metabolism: kcal/h

Basal metabolism: minimum quantity of calorific energy used when the body is at complete rest.

Sample calculation: use of a heavy hand tool on an assembly line

A. Walking along.....	120 kcal/h
B. Intermediate value between heavy work using 2 arms and light work using the body.....	180 kcal/h
	300 kcal/h
C. Basal metabolism .....	60 kcal/h
Total .....	360 kcal/h

The tables in the following publications may also be used:

- (a) Astrand P.O., Rodahl K., *Textbook of Work Physiology*, New York, San Francisco, McGraw Hill Book Company, 1979;
- (b) *Ergonomics Guide to Assessment of Metabolic and Cardiac Cost of Physical Work*, Amer, Id. Hyg. Assoc. J., 32;
- (c) *Energy Requirements for Physical Work, Research Progress Report No 30, Purdue Farm Cardiac Project, Agricultural Experiment Station*, 1961;
- (d) Durnin, J.V.G.A., Passmore R., *Energy, Work and Leisure*, London, Heinemann Educational Books, 1967.

#### Alternate work/rest regimen

The permissible exposure limit values specified in Table I and the Graph are based on the assumption that the WBGT value of the resting place is the same or very close to that of the work location. Limits applicable to continuous work correspond to the following conditions: a 5-day week, an 8-hour working day with a short pause (about a half-hour) for a meal. Higher exposure limits are permitted if additional rest periods are allowed. All breaks, including pauses and administrative or operational waiting periods during work may be counted as rest time when additional rest periods must be given because of high environmental temperatures.

A worker whose job is self-paced will spontaneously limit his hourly work load to 30-35% of his maximum physical performance capacity, either by setting an appropriate work speed or by interspersing unscheduled breaks. Thus the daily average of the worker's metabolic rate seldom exceeds 330 kcal/h. However, within an 8-hour work shift, there may be periods when the worker's average metabolic rate will be higher.

When the WBGT index of the work location is different from that of the rest area, a time-weighted average value should be used for both environmental heat and metabolic rate. When the time-weighted average values are used, the curve to be referred to in the above graph is the solid line.

The time-rated average metabolic rate is determined by the following equation:

$$(M_1) \times (t_1) + (M_2) \times (t_2) + \dots (M_n) \times (t_n)$$

$$M_{\text{moyen}} = \frac{(M_1) \times (t_1) + (M_2) \times (t_2) + \dots (M_n) \times (t_n)}{(t_1) + (t_2) + \dots (t_n)}$$

$$(t_1) + (t_2) + \dots (t_n)$$

where  $M_1$ ,  $M_2$  and  $M_n$  are estimated metabolic rates for each of the worker's work locations for the entire work period, and  $t_1$ ,  $t_2$  and  $t_n$  are the time in minutes spent at each corresponding metabolic rate.

Similarly, the time-weighted average WBGT is determined by the equation:

$$(WBGT_1) \times (t_1) + (WBGT_2) \times (t_2) + \dots (WBGT_n) \times (t_n)$$

$$WBGT_{\text{moyen}} = \frac{(WBGT_1) \times (t_1) + (WBGT_2) \times (t_2) + \dots (WBGT_n) \times (t_n)}{(t_1) + (t_2) + \dots (t_n)}$$

where  $WBGT_1$ ,  $WBGT_2$ ,  $WBGT_n$  represent values calculated in WBGT for various tasks at rest and work stations occupied during all time periods and  $t_1$ ,  $t_2$ ,  $t_n$  constitute the time in minutes spent at each rest and work station.

When exposure to hot environmental conditions is continuous for several hours or the entire work day, the time-weighted average value must be computed as an hourly time-weighted average, i.e.  $t_1 + t_2 + \dots + t_n = 60$  minutes. Where exposure is intermittent, the time-weighted average values must be computed as two-hour time-weighted averages, i.e.  $t_1 + t_2 + \dots + t_n = 120$  minutes.

#### Scope of method

The WBGT method does not apply to unacclimatized workers who are physically incapable of performing a specific job or to workers who wear clothing especially adapted to certain dangerous tasks as protection against the heat

O.C. 885-2001, Sch. V; O.C. 889-2020, s. 7.

#### SCHEDULE VI

(s. 125)

#### ILLUMINATION LEVELS IN ESTABLISHMENTS

Nature of work	Examples of corresponding task	Minimum illumination level in Lux
Storage, reserve	Warehouses, stockrooms, supervision	50
General perception	Dormitories, grinding	250
Rough detail perception	Freight and passenger elevators, escalators	50
	General lighting, lecture rooms, moulding, manufacturing large parts	250
Average detail perception	Ironing, window dressing, packing, labeling, heavy machine or bench work, general office work	400
	Rapid general inspection, studios, study rooms, typing, reading, machine sewing, assembly of average parts, special office work	550
Difficult detail perception	Repairs, difficult inspection, lathes, hand sewing, embroidery	800

O.C. 885-2001, Sch. VI.

#### SCHEDULE VII

(Revoked)

O.C. 885-2001, Sch. VII; O.C. 781-2021, s. 3.

#### SCHEDULE VIII

(Revoked)

O.C. 885-2001, Sch. VIII; O.C. 287-2021, s. 5.

**SCHEDULE IX**

(s. 161)

**SANITARY FACILITIES**

Occupancy	W.C.		Urinals		Lavatories		Tubs or Other showers fixtures	Notes
	men	women			men	women		
Arenas								
Players	1/30	players	1/30	players	1/30	players	1/10	players
Spectators	1/600 men	3/600 women	2/600 men		2/600 men	2/600 women		
Brasseries	1/40 Customers	1/90 Customers	See (a)		1/80 Customers	1/80 Customers		
—								
Physicians, dentists and other health practitioners offices		1			2		See (b)	
Cinemas, theatres, auditoriums, exhibition and convention halls...								
1 to 100 persons	1	1			1	1		one service
101 to 200 persons	2	2			1	1		tub
201 to 400 persons	3	3	See (e)		2	2		
401 to 750 persons	add 1/600 persons	add 1/600 persons			3	3		
751 or more					add 1/1000 persons	add 1/1000 persons		
Employees: See (d)								
Medical clinics	1/floor	1/floor		1/floor	1/floor			
Bars (holding a liquor permit)								
Customers:	1/25 men	1/30 women	See (e)	1/50 men	1/60 women			
Employees: See (d)								
Dormitories, boarding houses for children							one tub per 50 persons;	
1 to 150 persons	1/10 men	1/8 women	1/25 men	1/12 men	1/12 women	See (f) or 1/8 persons	a sink tub per 100	service
151 persons	add	add	add	add	add	1/12	add	100

or more	1/10 men	1/8 women	1/50 men	1/12 men	women	1/20 persons	persons
<b>Schools</b>							
Primary	1/40 boys	1/35 girls	1/30 boys	1/50 boys	1/50 girls	See (g)	one service
Other	1/75 boys	1/75 girls	1/30 boys	1/50 boys	1/50 girls	1/5 pupils	1/tub 1/floor
Teachers: See (d)							
<b>Office buildings (See h)</b>							
1 to 15 employees of each gender	1	1		1	1		One service sink or
16 to 35 employees of each gender	2	2	See (e)	2	2		tub per floor
36 to 60 employees of each gender	3	3		2	2		
61 to 80 employees of each gender	4	4		3	3		
81 to 90 employees of each gender	5	5		3	3		
91-110 employees of each gender	5	5		4	4		
111-125 employees of each gender	6	6		4	4		
126 and + 75 employees of each gender	add 1/50 men	add 1/50 women		add 1/60 men	add 1/60 women		
Churches, chapels, places of worship	1/300 men	1/150 women	1/300 men	1/300 men	1/300 women		
Sentry-boxes, shelters, temporary buildings, See (i)		1		1			
<b>Hospitals (hospital centres)</b>							
1)Private room	1			1	1		At least one service sink per floor
2)Communal room 1/8	1/8	patients		1/8	patients	1/20	for the patients first 50
3)Waiting room	1						patients and an additional
Employees: See (d)							one per each 50 additional patients or significant fraction of 50
Hotel-Motel	See (j)			See (k)			
1) Private	1/room			1/room	1/room		

room					
2) Room with					
common					
bathroom					
1 to 4					
rooms/floor					
5 to 8	1/floor		1/floor	1/floor	
rooms/floor					
9 rooms or more/floor	1/floor add 1/8 rooms	1/floor add 1/8 rooms	1/floor add 1/8 rooms	1/floor add 1/8 rooms	1/gender add 1/8 rooms

Professional care	1	1	1	1	1 shower
			1/care unit	See (1)	
institutes, personal care					
institutes, beauty salon,					
hairstylist, barber					

Apartments				1 sink	
1 to 7 units	1/apartment		1/apartment	1 tub per per apartment	
				apartment See (m)	
8 units or more	1/apartment		1/apartment	1 tub 1 sink per per	
				apartment apartement See (n)	

Stores					
a) Retail	1		1		See (p)
(See o)					
b) Department					
Stores, Shopping Centres					
1) Customers	1/300 men	1/300 women	See (e)	1/300 men	1/300 women
					See (p)
2) Employees:					
See (d) (q)					

Rooming house	See (j)		See (k)	See (r)
(tourist, furnished, boarding, homes.)	1/10 rooms	1/10 rooms	1/10 rooms	1/10 rooms 2/10 rooms

Pools				See (s)
1) Indoors	1/60 men	1/40 women	1/60 men	1/100 men
				1/100 women
2) Outdoors	1/120 men	1/80 women	1/120 men	2/600 men
				1/300 women
3) spectators	1/600 men	3/600 women	2/600 men	1/80 swimmers
				1 Foot
				Bath
				swimmers

Jails, prisons				
1) Inmates:				
See (c)				
2) Employees:				
See (d)				

Restaurants				
1 to 25 Customers	1	See (t)	1	See (t)
26 to 50 Customers	1	see (t)	1	see (t)
51 to 100 Customers	2		1	1
101 to 150	1	1	1	2

<b>Customers</b>				
151 to 200	2	3	See (e)	
<b>Customers</b>				
201 to 300	3	3	3	3
<b>Customers</b>				
301 or more	add 1/50 men	add 1/50 women	add 1/50 men	add 1/50 women

**Employees:**  
See (d) and (u)

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**Reception**  
rooms, meeting  
halls...  
(holding a  
liquor permit)

See (a)

<b>Customers</b>	1/30 men	1/30 women	1/60 men	1/60 women	A tub or a service sink
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<b>Funeral Homes</b>	1	1	1	1	A service sink and a floor drain in the embalming room
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<b>Service stations, gas bars (See v)</b>	1	1	1	1	
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<b>Any other establishment (plants, warehouses, workshops, laundries, foundries, etc.)</b>					See (w)
See (h)					
1 to 10 employees of each gender	1	1	1	1	add add
11 to 25 employees of each gender	2	2	1	1/10	men women
26 to 50 employees of each gender	3	3	2		
51 to 75 employees of each gender	4	4	2		
76 to 100 employees of each gender	5	5	3	1/15	women
101 or more of each gender	add 1/50 men	add 1/50 women	add 1/90 men	add 1/15 men	

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(a) 2/3 of men W.C. may be replaced by urinals.

(b) A sink shall be installed in the examination room in addition to the one in the toilet room.

(c) According to the requirements of authorities.

(d) Sanitary accommodations for employees shall be the same as those required for office buildings.

(e) For men, half the compulsory W.C. may be replaced by urinals.

- (f) In a women's dormitory, a bathtub shall be added in a proportion of 1/30.
- (g) In the gymnasium and according to the largest group that uses it.
- (h) Only one toilet room is required for 10 employees or less of both genders.
- (i) One W.C. and a lavatory shall be installed, except if written permission is given to use an existing washroom within a maximum radius of 30 m.
- (j) Toilet facilities for general use shall be separate from bathrooms and lavatories.
- (k) One lavatory is required for each room not equipped with a private toilet.
- (l) One shower for each similar massage, physiotherapy or health treatment unit.
- (m) One laundry tray per apartment or one connection for an automatic clothes washer).
- (n) One double basin laundry tray or one automatic clothes washer per 10 apartments; one automatic washing machine per 20 apartments.
- (o) Several stores may use a common washroom provided it is accessible via an indoor passageway.
- (p) A tub or sink must be installed in a food store. In dog kennels and pet shops, a tub or a service sink and a floor drain must be installed.
- (q) Fixtures for employees may be situated in the customers' washrooms.
- (r) In a home for the elderly, tubs must be installed in a proportion of 1 unit per 10 persons.
- (s) The maximum number of swimmers is determined in a proportion of one swimmer per every 1.4 sq. surface metres in the shallow zone and 2.2 sq surface metres in the deep zone. The floor plan for rooms must be arranged so that swimmers may go through the toilet area to get to the showers.
- (t) Under 26 customers, 1 W.C. and 1 lavatory will be enough for both customer and employee use. From 26 to 50 customers, 2 W.C. and 2 lavatories will be enough for both customers and employees, but in two separate washrooms. Where customers eat outside, separate washrooms for both genders with access from the outside are required.
- (u) Toilet facilities are not required for fewer than 5 employees.
- (v) Separate rooms for both genders with access to the outside are compulsory.
- (w) A shower is compulsory per 15 employees exposed to excessive heat or to skin contact with corrosive, noxious, irritating or infectious.

O.C. 885-2001, Sch. IX.

## SCHEDULE X

### Part 1

(s. 312.38)

#### Basic content of an oxygen inhalation kit

The oxygen inhalation kit must contain at least the following:

- 1 type D oxygen cylinder (450 litres) at a gauge pressure between 13.8 and 15.2 MPa
- 1 regulator compatible with the oxygen cylinder valve, equipped with a high pressure gauge and a flowmeter
- 1 pocket mask
- 1 Ambu manual resuscitator
- 1 demand regulator
- 1 high concentration mask
- 1 pair of latex gloves
- 1 instructions manual

### Part 2

(Revoked)

### Part 3

(s. 312.64)

#### Basic content of a hyperbaric chamber medical kit

The hyperbaric chamber medical kit must contain at least the following items:

##### (I) Diagnostic material

	Quantity
- flashlight	1
- Littmann Classic II stethoscope	1
- Welch Allyn otoscope and ophthalmoscope	1
- Tycos sphygmomanometer	1
- electronic thermometer to measure hypothermia and hyperthermia	1
- tuning fork, 128 vibrations per second	1
- reflex hammer	1
- tongue depressors	50
- safety pins	24
- wooden cotton swabs	100

**(II) Treatment material**

- oropharyngeal airways (sizes 3 to 8)	(2 of each size)
- Ambu and Ambu mask of medium and large sizes for adults	(1 of each size)
- bandage scissors (7 1/2 in.)	1
- aluminum blanket	1
- packaged sterile gauze pads (4 in. x 4 in.)	25

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 14.

**TRANSITIONAL**

2023

**(O.C. 1112-2023) SECTION 9.** Section 174 of the Regulation respecting occupational health and safety, as replaced by section 3 of this Regulation, applies only to machines brought into service in an establishment on or after 27 July 2023.

**SECTION 10.** Section 176 of the Regulation respecting occupational health and safety, as replaced by section 3 of this Regulation, applies only to modifications made to a machine on or after 27 July 2023.

**(O.C. 781-2021) SECTION 4.** From 16 June 2023, the employer has one year to identify the workplace situations that may exceed exposure limits in the employer's establishment.

The identification of these situations is, for the purposes of this Regulation, a change in a workplace situation for the purposes of section 134.

For the purposes of this section, the result of any measurement made in the 2 years preceding the coming into force of this Regulation (2023-06-16) may be used to meet the measurement requirement in section 139 if

- (1) the measurement was made in accordance with the requirements of this Regulation; and
- (2) since the measurement was made, no change has occurred in the workplace situation concerned.

**(O.C. 821-2023) SECTION 3.** The requirement to hold the certificate of qualification or qualification as an apprentice referred to in section 312.103, made by section 2 of this Regulation, takes effect from 8 June 2025.

**SECTION 4.** Despite section 312.109, made by section 2 of this Regulation, a worker may wear, until 8 June 2025, pants for chain saw users that comply with Category A of CAN/BNQ Standard 1923-450-M91, Leg Protective Device for Chain Saw Users, provided the pants were purchased before 8 June 2023.

2013

**(O.C. 476-2013) SECTION 6.** The location of flocking and heat insulating material of the buildings referred to in section 69.3 of the Regulation respecting occupational health and safety must be carried out within 2 years of the coming into force of this Regulation (2015-06-06).

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