

chapter S-2.1, r. 13

Regulation respecting occupational health and safety

Act respecting occupational health and safety
(chapter S-2.1, s. 223)

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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;

“CGA” means the Canadian Gas Association or the Association canadienne du gaz;

“continuous noise” means a steady noise including a noise caused by mechanical shocks of solid bodies or by impulses repeated at a frequency greater than one per second;

“corrected dBA” means the sound level expressed in dBA after an increase in the measured level of the predominant frequency band;

“CSA” means the Canadian Standards Association or the Association canadienne de normalisation;

“dB” means a dimensionless unit used to express in logarithmic form the relation existing between a measured quantity and a reference value which, when applied to sound pressure, is established in accordance with section 3 of publication No. 179 (second edition, 1973) of the Central Office of the International Electrotechnical Commission;

“dBA” means the value of the overall sound level measured on the A scale established in accordance with the standards and methods prescribed in publication No. 179 (second edition, 1973) of the Central Office of the International Electrotechnical Commission;

“EN”: a European standard issued by the European Committee for Standardisation;

“enclosed area” means any area that is completely or partially enclosed, especially a reservoir, a silo, a vat, a hopper, a chamber, a vault, a tank, a sewer including a ditch and a temporary manure storage ditch, a pipe, a chimney, an access shaft, a truck or freight car tank, which has the following inherent conditions:

(1) is not designed for human occupation, nor intended to be, but may occasionally be occupied for the performance of work;

(2) access to which can only be had by a restricted entrance/exit;

(3) can represent a risk for the health and safety of anyone who enters, owing to any one of the following factors:

(a) its design, construction or location, except for the entrance/exit provided for in paragraph 2;

(b) its atmosphere or insufficiency of natural or mechanical ventilation;

(c) the materials or substances that it contains;

(d) or other related hazards;

“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;

“impact noise” means any noise caused by mechanical shocks of solid bodies or by impulses repeated or not repeated at a frequency less than or equal to one per second;

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

“linear dB” means the overall sound level measured in such a way that the various frequencies of the sound spectrum are in no way attenuated;

“NFPA” means the National Fire Protection Association;

“peak value” means the maximum level reached by a sound wave;

“predominant frequency band” means a frequency band whose level passes through a maximum that exceeds the arithmetic average of the levels of the preceding and following octave bands by 4 dB or more, and for the bands at the upper and lower limits of the sound spectrum, whose level exceeds that of the contiguous octave band by 5 dB;

“protective device” means a set of devices which when used alone or with a protector on machinery, eliminates dangers or reduces risks for the health, safety and physical well-being of workers;

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

“respirable asbestos fibre” means asbestos fibre having a diameter of less than 3 µm and a ratio of length to diameter of more than 3:1. Only fibres longer than 5 µm are 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 m² 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.

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 146, 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.

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. Horizontal openings: Excavations, wells or basins presenting a falling hazard shall be solidly covered or protected with guardrails on all exposed sides.

The same applies to vats, tanks, reservoirs, basins and other containers used for the storing or mixing of substances that are open and whose opening is less than 750 mm above floor level or above a working platform.

This section does not apply to basins used for recreational or fish-breeding purposes.

O.C. 885-2001, s. 9.

10. Vertical openings: Any opening made through a wall that presents a falling hazard for a worker or for any object shall be protected with a guardrail or a protective screen.

O.C. 885-2001, s. 10.

11. Exceptions: Sections 9 and 10 do not apply when the use of a cover, guardrail or protective screen prevents the carrying out of a task that could not be reasonably performed otherwise.

In such a case, the cover, guardrail or protective screen may be removed, but only while the work is being performed. The wearing of a safety harness is then compulsory for any worker exposed to a danger of falling in the opening, except if the worker is protected by some other device that provides him with equivalent safety or by a safety net.

O.C. 885-2001, s. 11.

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.

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

- (1) a 0.55 kN horizontal single point load applied at any location on the top rail;
- (2) a 1.5 kN per linear metre load applied vertically at the top rail.

In addition, such guardrails shall be provided with a top rail located between 900 mm and 1,100 mm from the floor and 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.

O.C. 885-2001, s. 12.

13. Toeboard: If there is danger from falling objects capable of causing injuries, the guardrails shall be fitted with a minimum 100 mm high toeboard at floor level.

O.C. 885-2001, s. 13.

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 withstanding loads to which they may be exposed.

O.C. 885-2001, s. 14.

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 equipped with a guardrail wherever there is a falling hazard.

O.C. 885-2001, s. 15.

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 along any free side;
- (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.

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 crinolines or 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.

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

O.C. 885-2001, s. 23.

24. Exception: Notwithstanding subparagraph 2 of section 23, the permanent 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.

25. Compliance with the standard: Any portable ladder and any stepladder used on a work site shall comply with the CAN3-Z11-M81 Portable Ladders standard.

However, portable ladders and stepladders in use on 2 August 2001 may also be used if they are in good condition and if they comply with the ACNOR Z11-1969 Portable Ladders standard.

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

O.C. 885-2001, s. 25.

26. Operating 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) never be used as a horizontal prop;
- (8) never be linked to another ladder, end to end, by lapped joints;
- (9) when used close to electrical conductors, be made of wood or other insulating material;
- (10) have a sufficient length so the worker does not work from the 2 top rungs;
- (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.

O.C. 885-2001, s. 26.

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

O.C. 885-2001, s. 27.

28. A stepladder: Any stepladder used on a work site shall:

- (1) when used close to electrical conductors, be made of wood or other insulating material;
- (2) have the legs fully spread and the retaining device locked.

O.C. 885-2001, s. 28.

29. Prohibited usage: The top and the pail shelf of a stepladder shall never be used as a step.

O.C. 885-2001, s. 29.

30. Safety precaution: The worker shall always be turned facing the ladder or stepladder while climbing or descending.

O.C. 885-2001, s. 30.

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 complying with sections 12 and 13 on the sides exposed to falls, if their height from the ground or floor is higher than 450 mm, except for unloading piers and loading platforms;
- (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.

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.

However, the use of a ladder or stepladder is permitted for work of short duration.

O.C. 885-2001, s. 32.

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 workers are exposed to a danger of falling more than 3 m.

The guardrails of the scaffolds may be temporarily removed if they prevent the carrying out of work that cannot reasonably be performed otherwise. In these cases, the wearing of a safety harness is compulsory for the worker and the worksite shall be marked off to prevent access to those persons not working there.

O.C. 885-2001, s. 33.

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.

40. Oxygen: Subject to section 45, the percentage in volume of airborne oxygen in any work location of an establishment shall not be less than 19.5% at normal atmospheric pressure.

O.C. 885-2001, s. 40.

41. Standards: Subject to section 45, any establishment whose operation could cause the emission of gases, dusts, fumes, vapours and mists into the work area shall be operated so that the concentration of any gas, dust, fume, vapour or mist does not exceed, in the respiratory zone of the workers, the standards provided for in Schedule I for any time period specified therein.

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

Such an establishment shall be designed, constructed, fitted or provided with an evacuation system for gases, dusts, fumes, vapours or mists to comply with the standards provided for in the first paragraph.

The first paragraph also applies to any work station located in a vehicle, wherever situated.

O.C. 885-2001, s. 41.

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

INDIVIDUAL PROTECTIVE RESPIRATORY EQUIPMENT

45. Protective equipment: Where existing technology prevents an employer from complying with sections 40 and 41, and for work involving maintenance, inspection or repairs outside the workshop, or transportation where the standards provided for in sections 40 and 41 are not complied with or, where the technology exists, while waiting for the measures required for compliance with those sections to be implemented, the employer shall provide the worker, free-of-charge, with respiratory protective equipment and ensure that he uses it, as indicated in the Guide des appareils de protection respiratoire utilisés au Québec, published by the Institut de recherche Robert-Sauvé en santé et en sécurité du travail.

The equipment shall be selected, adjusted, used and cared for in accordance with the CSA Standard Z94.4-93 Selection, Use and Care of Respirators. A respiratory protection program shall be drafted and applied in compliance with that standard.

Notwithstanding the foregoing, where the exposure of a worker to asbestos does not exceed 5 times the time-weighted average exposure value, the employer may provide him with a mask certified at a minimum FFP2, pursuant to the Appareils de protection respiratoire: demi-masques filtrants contre les particules: exigences, essais, marquage EN-149 Standard of the European Committee for Standardisation, by a laboratory accredited by the latter. In such case, the employer shall make sure that the worker wears this equipment.

The preceding provision in no way diminishes the employer's obligation to reduce at the source the dangers to the health, safety and physical well-being of workers.

O.C. 885-2001, s. 45.

46. Prohibition: Notwithstanding section 45, 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.

47. Use of protective equipment: The respiratory protective equipment prescribed in section 45 shall be:

- (1) designed to offer protection from the danger to which the worker is exposed;
- (2) kept in good working order;
- (3) inspected by the worker each time he wears it;
- (4) inspected by the employer at least once a month and each time the worker using the equipment reports to his employer that it is not working properly;
- (5) disinfected before being used by another worker, except in an emergency;
- (6) stored in a clean place.

The principles of operation and the use of the equipment shall be explained to the workers, and the employer shall ensure that its use is fully understood by the workers.

O.C. 885-2001, s. 47.

48. Air supply: Compressed breathing air for supplied-air respirators or self-contained respiratory protective apparatuses referred to in section 45 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.

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 m³ 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 m³, 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, 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.

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.

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

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.

In addition, all work stations shall be ventilated as to comply with the standards provided under sections 40 and 41, with the exception of work stations assigned to out-of-shop inspections, maintenance or repairs.

O.C. 885-2001, s. 101.

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

Where a washroom is ventilated naturally, the ventilation area per toilet shall be 0.1 m².

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 m³ 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 m³/h

_____ MJ/h

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

115. Make-up air heaters: Any make-up air heater used in an establishment and operated with natural or propane gas shall comply with CGA Standard 3.7-1976 of the Canadian Gas Association published in a document entitled Direct Gas-Fired Non-Recirculating Make-up Air Heaters and with the standards of the Installation Code for natural gas burning appliances and equipment and the Installation Code for propane burning appliances and equipment (O.C. 174-80, 80-01-23).

O.C. 885-2001, s. 115.

DIVISION XII

HEATING ENVIRONMENT

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 (W.B.G.T. 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

130. Operations and organization: Any establishment the operation of which is likely to emit noise at the auditory level of workers shall be operated in accordance with section 136 so that the noise measured at any work station does not exceed the standards prescribed in sections 131 to 135 for any time period indicated therein.

An establishment shall be designed, constructed or equipped so that the standards and requirements prescribed in the first paragraph are complied with and so that the ceilings, walls, floors, corridors, stairwells, or freight or passenger elevator hoistways of the establishment do not emit noise toward any building or facility adjacent to the establishment.

O.C. 885-2001, s. 130.

131. Continuous noise: No worker in an establishment may be exposed to the continuous noise levels prescribed below during a time period longer than that indicated in the following table:

Sound level (in dBA, corrected dBA or dBA equivalent)	Duration of exposure* permitted (hours per day)
85	16
86	13.9
87	12.1
88	10.6
89	9.2
90	8
91	7
92	6
93	5.3
94	4.6
95	4
96	3.5
97	3
98	2.6
99	2.3
100	2
101	1.75
102	1.50
103	1.3
104	1.2
105	1
106	0.9
107	0.8
108	0.7
109	0.6
110	0.5
111	0.45
112	0.4
113	0.35
114	0.30
115	0.25
>115	0

* THIS INCLUDES ANY CONTINUOUS EXPOSURE OR NUMBER OF SHORT TERM EXPOSURES DURING A WORKER'S WORK PERIOD.

The permitted duration of exposure for any worker at any sound level indicated in the preceding table is reduced by one half, effective from a date to be determined by a regulation made in accordance with section 223 of the Act respecting occupational health and safety (chapter S-2.1).

O.C. 885-2001, s. 131.

132. Continuous noises at different levels: Where a worker is exposed to continuous noises at different levels, the combined effect of those levels shall be computed by using one of the following methods:

(1) by adding the following fractions:

$C_1 + C_2 + \dots + C_m$, where C indicates the total time in hours

$$\frac{\quad}{T_1} \quad \frac{\quad}{T_2} \quad \frac{\quad}{T_m}$$

of exposure at a specific level and where T indicates the total duration in hours of exposure permitted in accordance with section 131;

(2) by computing the equivalent sound level in dBA equivalent with the following formula:

$$L_{eq} = 16.61 \log_{10} \frac{1}{T} \int_0^T 10^{L(t)/16.61} dt,$$

where: L_{eq} = equivalent sound level

L = instantaneous sound level in dBA

T = total duration of worker's exposure, expressed in hours and by using the sound level thus obtained to apply the table in section 131.

Where the method of computation specified in subparagraph 1 of the first paragraph is used, a worker shall not be exposed to a sound level such that the sum of the fractions exceeds the unit.

The computations specified in this evaluation shall not include any exposure of a worker to a sound level of less than 85 dBA.

O.C. 885-2001, s. 132.

133. Predominant frequency band: Where a continuous noise includes predominant frequency bands, the continuous level shall be computed in corrected dBA in accordance with the method prescribed in Schedule VII.

O.C. 885-2001, s. 133.

134. Impact noise: In an establishment, the daily exposure of a worker to impact noise shall not exceed the number indicated in the following table:

Sound level in dB linear as peak value	Permitted number of impacts (per 8 hours)
120	10,000
121	7,943
122	6,310
123	5,012
124	3,981
125	3,162
126	2,512
127	1,995
128	1,585
129	1,259
130	1,000
131	794
132	631
133	501
134	398
135	316
136	251
137	200
138	158
139	126
140	100
>140	0

O.C. 885-2001, s. 134.

135. Impact noises at different levels: Where a worker is exposed to impact noises at different levels, the combined effect of these levels shall be computed by using one of the following methods:

(1) by adding the following fractions:

$C_1 + C_2 + \dots + C_m$, where C indicates the total number of impacts at a specific level and N indicates the total

number of impacts permitted according to section 134;

$\frac{C_1}{N_1} + \frac{C_2}{N_2} + \dots + \frac{C_m}{N_m}$

(2) by computing the equivalent level in dB linear peak value with the following formula:

$$L_{eq} = 10 \log_{10} \frac{1}{N} \sum_{n=0}^N 10^{L_{(n)}/10} n$$

$$SEA = L_{eq} + 10 \log N$$

where: SEA = sum of acoustic energies

L_{eq} = equivalent level of impact noises

L_n = impact noise level in dB linear peak value

N = total number of impact noises to which a worker is exposed per day

n = number of impact noises for each sound level of impact noises

Where the method of computation specified in subparagraph 1 of the first paragraph is used, a worker shall not be exposed to an impact sound level such that the sum of the fractions exceeds the unit.

Where the measurements are taken pursuant to subparagraph 2 of the first paragraph, a worker shall not be exposed to impact noises such that the SAE exceeds 160 or such that the peak value in dB linear exceeds 140.

The computations in this evaluation shall not include any exposure of a worker to a sound level of less than 120 dB linear as peak value.

O.C. 885-2001, s. 135.

136. Corrective measures and individual protective equipment: The employer shall comply with the standards established under sections 131 to 135 by implementing the measures indicated hereafter in the following order:

- (1) reduce the noise at its source;
- (2) isolate any work station exposed to the noise;
- (3) insulate the work areas acoustically.

When, in taking the measures presented in the first paragraph, it proves to be impossible to comply with the standards prescribed in sections 131 to 135 or until the changes stipulated in the said paragraph are made, the employer shall put hearing protectors at the disposal of workers or shall limit the time that they are exposed to noise, in conjunction with an audiometric testing program.

The measures stipulated in the first paragraph shall be implemented, even if the employer is unsuccessful in complying with the standards prescribed under sections 131 to 135.

O.C. 885-2001, s. 136.

137. Hearing protectors: Any hearing protector provided to a worker in accordance with the second paragraph of section 136 shall reduce the noise such that the worker is no longer exposed to noises that exceed the standards established in sections 131 to 135.

These hearing protectors shall comply with the CSA Standard Z.94.2-1974 entitled Hearing Protectors.

They shall also be disinfected before being used by another worker, except in an emergency.

O.C. 885-2001, s. 137.

138. Posting of notices: Where a worker is exposed to noises that exceed the standards established in sections 131 to 135, a poster indicating that the wearing of ear protectors is mandatory shall be displayed near

the work station or room where the worker is assigned. If the notice includes characters, the latter shall be at least 30 mm high.

O.C. 885-2001, s. 138.

139. Measuring devices: For the purposes of this Division, the sound level shall be measured with a Type 2 sound level meter for general use or a Type I sound level meter for precision purposes as prescribed in CSA Standard Specifications for Sound Level Meters Z.107.1-1973.

Devices used to determine predominant frequency bands shall comply with CSA Standard Z.107.5-1975 entitled Octave, Half-Octave and Third Octave Band Filter Sets.

O.C. 885-2001, s. 139.

140. Measurement methods: For the purposes of this Division, except for the case provided for in section 133, the noise shall be measured in accordance with CSA Standard Z.107.2-1973 Methods for the Measurement of Sound Pressure Levels.

O.C. 885-2001, s. 140.

141. Measurement of noise: Noise emitted at a work station shall be measured at least once a year in any establishment that employs 50 workers or more and where such noise is likely to exceed the standards prescribed in sections 131 to 135.

Measurements shall also be taken within 30 days after a change in industrial processes or equipment or after the installation of devices for reducing the levels of noise emitted at a work station.

Measurements shall be entered in a register and kept for a period of at least 5 years.

O.C. 885-2001, s. 141.

DIVISION XVI

HAZARDOUS RADIATIONS

142. Infra-red radiation: All intense infra-red radiation sources shall be shielded by one of the following devices:

- (1) heat absorbent screens;
- (2) water screens;
- (3) any other devices to protect workers.

O.C. 885-2001, s. 142.

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 daily quantity of drinking water that an establishment shall put at the disposal of its workers is that prescribed in Schedule VIII.

O.C. 885-2001, s. 145.

146. Authorization: A person intending to establish, reconstruct, enlarge or alter a water supply intake designed to supply an establishment with drinking water shall submit the plans and specifications thereof to the Minister of Sustainable Development, Environment and Parks and obtain his authorization in accordance with section 32 of the Environment Quality Act (chapter Q-2).

The authorization provided for in the first paragraph is not required where the establishment receives its water supply from a municipal waterworks system or from a waterworks system operated by a holder of the permit prescribed in section 32.1 of that Act.

O.C. 885-2001, s. 146.

147. Analysis: In any establishment that is not supplied with water by a municipal waterworks system or a waterworks system operated by a holder of the permit prescribed in section 32.1 of the Environment Quality Act (chapter Q-2), the results of a bacteriological analysis of a sample of the water provided to the workers for consumption purposes shall be sent to the Minister of Sustainable Development, Environment and Parks once a month.

This section does not apply to bottled water.

O.C. 885-2001, s. 147.

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 m² 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 section 41 or 69 or in paragraph 3 of section 124 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.

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 Q-2, r. 11).

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, ladders, pinch grips or any other equipment designed for such purpose.

O.C. 885-2001, s. 167.

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

§ 1. — *Protectors and protective devices*

172. In this Division as well as in section 323, “danger zone” means any zone situated inside or around a machine and which poses a risk for the health, safety or physical well-being of workers.

In this Division as well as in sections 239 and 267, “protector” means the part of a machine used specifically to isolate a machine's danger zone by means of a material barrier, such as a housing, a cover, a screen, a door or a cabinet.

O.C. 885-2001, s. 172.

173. Applicable provisions: Subdivisions 1 to 3 apply, with the necessary modifications, to all types of machines, subject to the provisions of subdivisions 4 to 9.

O.C. 885-2001, s. 173.

174. Permanent protector: A permanent protector is one that can only be removed with the assistance of a tool or is set in place permanently, for instance, by being welded.

O.C. 885-2001, s. 174.

175. Interlocking protector: A protector equipped with an interlocking device shall have the following features:

- (1) it causes the stoppage of the machine or of the operation of its dangerous parts when it is moved;
- (2) it makes it impossible to start the machine or to operate its dangerous parts for as long as it is being moved;
- (3) it does not cause the machine or its dangerous parts to be restarted once it is restored to its place.

O.C. 885-2001, s. 175.

176. Interlocked protector: An interlocked protector equipped with an interlocking device shall have the following characteristics:

(1) it remains in place and is interlocked as long as the machine or its dangerous parts remain in operation;

(2) it makes it impossible to start the machine or to operate its dangerous parts for as long as it has not been restored to its place and reactivated;

(3) it does not cause the machine or its dangerous parts to be restarted once it is restored to its place and reactivated.

O.C. 885-2001, s. 176.

177. An automatic closing protector: An automatic closing protector is one that returns to its place automatically to isolate the worker completely from the danger zone, once the material that triggered its movement is removed from the machine.

O.C. 885-2001, s. 177.

178. Adjustable protector: An adjustable protector is one that shall be adjusted to the material in order to isolate the worker from the danger zone completely and at all times.

O.C. 885-2001, s. 178.

179. Sensor device: A sensor device is one that reacts by causing the elimination of risks associated with the danger zone, as soon as a worker approaches within a given distance of this zone.

O.C. 885-2001, s. 179.

180. Two-hand control: Any 2-hand control shall have the following characteristics:

(1) it operates in such a manner that the worker shall use both hands to start the machine;

(2) it is designed and located to prevent involuntary or accidental operations;

(3) it is kept at a safe distance from the danger zone.

O.C. 885-2001, s. 180.

181. Multiple two-hand control: If one of the machine's functions is started by more than one two-hand control, these controls shall be designed in such a manner that none of them can start the machine unless all the other controls are also activated and held in this same position.

O.C. 885-2001, s. 181.

182. Controlling the danger zone: Subject to section 183, a machine shall be designed and built so as to make its danger zone inaccessible, failing which it shall be equipped with at least one of the following protectors or protective devices:

(1) in the case where no one will have access to the machine's danger zone while it is in operation:

(a) a permanent protector;

(b) a protector fitted with an interlocking device;

(c) an interlocked protector fitted with an interlocking device;

(d) a sensor device;

(2) in the case where at least one person will have access to the machine's danger zone while it is in operation:

- (a) a protector fitted with an interlocking device;
- (b) an interlocked protector fitted with an interlocking device;
- (c) an automatic closing protector;
- (d) an adjustable protector;
- (e) a sensor device;
- (f) a two-hand control.

O.C. 885-2001, s. 182.

183. Equivalent safety precautions: Section 182 does not apply when it is foreseeable that the effects of installing a protector or a protective device on a machine will make the operations for which it was designed reasonably impractical, such as a snow blower, a railway switch or a medical appliance intended to act directly on a patient.

In this case, the employer shall take precautions that ensure the equivalent safety of workers, namely with respect to the organization of the work, worker training, the machine's operating conditions and operating modes, and individual protective means and equipment that take into account the absence of a protector or of a protective device.

O.C. 885-2001, s. 183.

184. Installation: Subject to section 189.1, before operating a machine, the protectors shall be installed or the protective devices shall be operational.

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

185. (Revoked).

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

186. (Revoked).

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

187. Characteristics of a protector: A protector or a protective device shall not:

- (1) cause additional risks for workers;
- (2) be in itself a source of danger, for instance due to the presence of cutting edges, irregularities or burrs.

O.C. 885-2001, s. 187.

188. Spare part: When a protector or a protective device is replaced, the spare protector or protective device shall offer safety features at least equivalent to those of the original part.

O.C. 885-2001, s. 188.

§ 1.1. — *Lockout and other energy control methods*

O.C. 1187-2015, s. 3.

188.1. 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;

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

“**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.

O.C. 1187-2015, s. 3.

188.2. 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 189.1;

(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.

O.C. 1187-2015, s. 3.

188.3. Lockout must be carried out by every person having access to the danger zone of a machine.

O.C. 1187-2015, s. 3.

188.4. 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.

O.C. 1187-2015, s. 3.

188.5. 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.

O.C. 1187-2015, s. 3.

188.6. 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.

O.C. 1187-2015, s. 3.

188.7. Where lockout is the method applied, the steps required to control energy for the purposes of paragraph 6 of section 188.6 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.

O.C. 1187-2015, s. 3.

188.8. 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.

O.C. 1187-2015, s. 3.

188.9. 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 subsection.

O.C. 1187-2015, s. 3.

188.10. 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. 1187-2015, s. 3.

188.11. 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 188.10.

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. 1187-2015, s. 3.

188.12. 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. 1187-2015, s. 3.

188.13. This subdivision applies, with the necessary modifications, to any work on an electrical installation.

O.C. 1187-2015, s. 3.

§ 2. — *Control devices or switches*

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

O.C. 885-2001, s. 189.

189.1. Where a person does setup work, apprenticeship work, a search for defects or cleaning work requiring that a protector be moved or removed or that a protection device be neutralized in the danger zone of a machine that must remain, in whole or in part, in operation, the machine must be equipped with a specific control mode whose engagement must cause all other control modes of the machine to become inoperative and allow

(1) the dangerous parts of the machine to be operated only by using a control device requiring continuous action or a two-hand control device, or by continuous action of a validation device; or

(2) the machine to be operated only in conditions where the moving parts do not involve any danger for the health, safety and physical well-being of persons having access to the danger zone, for instance, at reduced speed, under reduced tension, step-by-step or by means of a separate step control device.

O.C. 1187-2015, s. 4.

190. Start and stop switches: Each machine shall be equipped with a control device or switch making it possible to start and stop the machine under safe conditions.

O.C. 885-2001, s. 190.

191. 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 shall announce the starting up of the machine.

O.C. 885-2001, s. 191.

192. Emergency stop: Subject to section 270, any machine whose operation requires the presence of at least one worker shall be equipped with an emergency stopping device or switch.

This device or switch stops the machine, considering the machine's design, in the shortest possible time. 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.

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

O.C. 885-2001, s. 192.

193. Groups of machines: Any stopping device or switch for a machine belonging to a group of machines that are wired to operate in series, including an emergency shut-off switch, shall in addition be designed to stop serial upstream and downstream machines if their operations constitute a danger for worker safety.

O.C. 885-2001, s. 193.

§ 3. — *Pulleys and belts*

194. Prohibited use: No cracked pulleys or broken rim pulleys shall be used.

O.C. 885-2001, s. 194.

195. Safety precaution: The installing of belts or cables shall not be done while the pulleys are in motion.

O.C. 885-2001, s. 195.

196. Clutch mechanisms: When the clutch of a machine is engaged by means of pulleys, this clutch mechanism shall be equipped with a mechanism that prevents the belts from sliding from the idle pulley to the fast pulley.

O.C. 885-2001, s. 196.

§ 4. — *Grinding machines and abrasive materials*

197. Grinding machines: Grinding machines, with the exception of grinders, which are equipped with a 50 mm diameter grindstone or more, shall be provided with a guard compatible with the task being performed and offering the most efficient protection.

O.C. 885-2001, s. 197.

198. Mounting a flat grinding wheel: A flat grinding wheel that is non-permanently mounted on its spindle shall be mounted between 2 plates whose diameter is at least 1/3 the nominal diameter of the grinding wheel by inserting a buffer of blotter paper between the wheel and the plates.

O.C. 885-2001, s. 198.

199. Storage of grinding wheels: Grinding wheels shall be stored:

- (1) in compliance with the manufacturer's recommendations;
- (2) protected from impacts, in chests or drawers specially designed for such purpose;
- (3) in dry areas, protected from sudden temperature changes.

O.C. 885-2001, s. 199.

200. Installing and using grinding wheels: Before installing or using a grinding wheel, the following precautions shall be taken:

- (1) the grinding wheel shall not be cracked, split, chipped or unbalanced;
- (2) at no time during its use shall the manufacturer's rated rotational speed be exceeded.

O.C. 885-2001, s. 200; O.C. 1120-2006, s. 3.

§ 5. — *Grinders*

201. Protectors and protective devices: A grinder shall be equipped with the following protectors and protective devices:

- (1) a grinder casing and, if applicable, a wire brush casing;
- (2) an adjustable spark shield;

(3) an adjustable workpiece support or chuck;

(4) a transparent screen.

O.C. 885-2001, s. 201.

202. Housing: The grinding wheel housing shall be built to withstand impacts and the projection of fragments if the wheel ruptures.

O.C. 885-2001, s. 202.

203. Spark shield: The spark shield is designed to prevent sparks and grinding wheel fragments from being projected outside the housing.

The gap between the spark shield and the grinding wheel shall be adjusted as the wheel wears down and this gap shall not exceed 5 mm with a 1 mm margin of error.

O.C. 885-2001, s. 203.

204. Gap adjustment: The gap between a workpiece holder or adjustable chuck and the grinding wheel shall be adjusted as the grinding wheel wears down such that the gap does not exceed 3 mm.

O.C. 885-2001, s. 204.

205. Transparent screen: The purpose of the transparent screen is to prevent particles from being projected into the operator's face and eyes.

The screen shall be made of a shock-resistant transparent material.

O.C. 885-2001, s. 205.

206. Abrasive materials: Sections 198 to 200 apply to grinders.

O.C. 885-2001, s. 206.

§ 6. — *General purpose machines for wood working and saws*

207. Bandsaw: Bandsaw wheels shall be housed in a casing.

Moreover, the saw shall be equipped with a protector or protective device that prevents access to the band over its entire length, except on the side where sawing is carried out between the blade shield and the bench.

O.C. 885-2001, s. 207.

208. Circular saw: Circular saws shall be provided with protective hoods or protective devices.

O.C. 885-2001, s. 208.

209. Prohibition: The use of a saw blade that is not properly adjusted is prohibited.

O.C. 885-2001, s. 209.

210. Safety precautions: All circular saw blades shall be used solely for the purposes for which they were designed.

Moreover, the saw shall not be operated beyond the maximum speed specified by the blade manufacturer, nor shall the blade exceed the maximum diameter specified by the machine manufacturer.

O.C. 885-2001, s. 210.

211. Guide blocks and gages: Guide blocks and gages for pit saws and crosscut saws shall be available and in good condition.

O.C. 885-2001, s. 211.

212. Knife-type splitter: Hand-fed circular saws such as pit saws and crosscut saws shall be equipped with a knife-type splitter, which shall be chosen and installed according to trade practice.

O.C. 885-2001, s. 212.

213. Accessories: On wood working machines, accessories such as push sticks, jigs or mounting devices intended to keep workers' hands away from the danger zones shall be used whenever the work so permits.

O.C. 885-2001, s. 213.

214. Recoiling parts: Wood working machines likely to cause the projection of parts, such as circular rip-saws and planing machines, shall be equipped with a device to prevent the recoil of parts.

O.C. 885-2001, s. 214.

§ 7. — *Presses*

215. Applicable provisions: The provisions of this subdivision apply to all presses, including full-cycle punch presses and friction clutch presses.

O.C. 885-2001, s. 215.

216. Power shut-off mechanism: A press shall be equipped with a power shut-off mechanism, such as a switch or a general circuit breaker.

The purpose of this power shut-off mechanism is to cut all power to the punch press, including that of the auxiliary circuits. It shall be possible to lock off this mechanism in the off position.

O.C. 885-2001, s. 216.

217. Start-up: The starter of the punch press motor shall be protected against inadvertent or accidental starts.

In the event of a power failure, the starter shall return to the off position.

O.C. 885-2001, s. 217.

218. Auxiliary circuits: The auxiliary circuits of the punch press, such as those linked to two-hand control units and solenoid valves, shall only be powered by a transformer having a secondary conductor that is insulated, i.e. grounded.

This transformer's rated output voltage shall not exceed 120 V.

O.C. 885-2001, s. 218.

219. Protection of the pedal mechanism: The pedal of the punch press and its components shall be protected both on top and on the sides by a stationary guard to shield it from inadvertent or accidental movements.

When the punch press is in operation, this pedal shall only be accessible to the operator.

O.C. 885-2001, s. 219.

220. Purge valve: The pneumatic components of a punch press shall be equipped with an automatic purge valve which will close off the air supply and automatically purge the circuit.

A pressure gauge shall be installed on the punch press in full view of the worker to indicate that the line has been purged.

O.C. 885-2001, s. 220.

221. Pressure detector: When a pneumatic system is used to control the punch press clutch, a pressure detector shall be installed to prevent the operation of the clutch control when the pressure falls below the minimum operating pressure.

O.C. 885-2001, s. 221.

222. Anti-repetition device: When the punch press has a two-hand control unit, it shall be equipped with an anti-repetition device.

Such a punch press shall also be equipped in such a way as to prevent the simultaneous use of other types of controls to operate the machine.

O.C. 885-2001, s. 222.

§ 8. — *Full-cycle punch presses*

223. Single action mechanism: A full-cycle punch press shall be equipped with a single action mechanism which disconnects the controls of the trigger mechanism, including those of the pedal, at the end of each cycle.

O.C. 885-2001, s. 223.

224. Rod or guide for springs: The springs of the single action mechanism, those of the mechanism that controls the clutch and those of the rod linkage assembly of the clutch control shall be of the compression type, mounted on a rod or placed in a guide, to prevent the windings from becoming entangled in the event of breakage. The space between the windings shall be less than the diameter of the wire.

O.C. 885-2001, s. 224.

225. Prevention of early triggering: The punch press control unit components, such as the pedal or control lever, shall have a device that prevents early triggering.

O.C. 885-2001, s. 225.

§ 9. — *Friction clutch presses*

226. Safety precautions: A friction clutch press shall:

(1) have clutch-braking control devices that automatically stop the press by activating the clutch and brakes; this clutch action shall remain inoperative until activated;

(2) be equipped with lockable control devices for switching off-circuit and for single or automatic step advancing;

(3) require the use of a two-hand control device in step-by-step advancing mode, except if the danger zone is not accessible or is protected by a protector or protective device;

(4) never be used for production in step-by-step advance mode;

(5) be equipped with double or twin load breakers when the clutch is air-powered; any failure of a load breaker shall prevent the press from operating.

O.C. 885-2001, s. 226.

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.

O.C. 885-2001, s. 234.

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.

O.C. 885-2001, s. 235.

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.

O.C. 885-2001, s. 236.

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.

O.C. 885-2001, s. 237.

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.

O.C. 885-2001, s. 238.

239. Protectors and protective devices: Protectors or protective devices for portable power tools shall be left in place when such tools are being used.

O.C. 885-2001, s. 239.

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.

O.C. 885-2001, s. 240.

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.

O.C. 885-2001, s. 241.

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.

O.C. 885-2001, s. 242; O.C. 510-2008, s. 2.

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.

O.C. 885-2001, s. 243.

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 ladder, steps, grip handles or any other means.

O.C. 885-2001, s. 247.

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 signaller 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 that complies with sections 347 and 348.

O.C. 885-2001, s. 261; O.C. 1120-2006, s. 5.

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.

O.C. 1120-2006, s. 6.

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.

A safety harness shall be equipped with an energy absorber and a lifeline attached to an anchorage point specified by the manufacturer or any other anchorage point independent of the basket and offering a resistance to breakage of at least 18 kilonewtons per worker who is anchored thereto.

O.C. 885-2001, s. 264.

§ 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. Transmission devices: Belts, chains, gears, drive-shafts, drums, sheaves, chain pinions of conveyor installations shall be guarded, if these parts are located 2.1 m or less above the floor or the working platform.

O.C. 885-2001, s. 266.

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. Aerial conveyor: Subject to section 324, an aerial conveyor shall be equipped with a footbridge in compliance with section 31, when there is a danger of falling, and when workers must circulate on the conveyor.

O.C. 885-2001, s. 268.

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. Emergency stop: The emergency stop device of a conveyor to which workers have access comprises several control devices located at loading and unloading piers as well as at other points along the conveyor's itinerary. In addition, these devices have the following features:

- (1) they are easily visible;
- (2) one single action activates them;
- (3) they are clearly identified.

The resetting of the emergency stop device after it is used shall not by itself cause the start up of the machine, except if the conveyor is moving slowly and workers can have access to it safely.

O.C. 885-2001, s. 270.

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 ladder.

O.C. 885-2001, s. 273.

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 m² 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

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.

298. Qualified workers: Only those workers 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.

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 before work: Before any work or task is carried out in an enclosed area, the following information shall be available, in writing, on the work premises:

(1) information on the specific dangers associated with the enclosed area and that concern:

(a) the prevailing internal atmosphere, namely the concentration of oxygen, inflammable gases and vapours, combustible or explosive dusts as well as the categories of contaminants likely to be present in this enclosed area or nearby;

(b) the fact that the natural or mechanical ventilation is insufficient;

(c) the materials that are present there and that can cause the worker to sink, to be buried or to drown, such as sand, grain or a liquid;

(d) the interior configuration;

(e) energies such as electricity, moving mechanical parts, heat stress, noise and hydraulic energy;

(f) ignition sources such as open flames, lighting, welding and cutting, static electricity or sparks;

(g) any other special circumstances such as the presence of rodents or insects;

(2) the prevention measures that should be taken to protect the health and to ensure the safety and well-being of workers, and in particular those concerning:

(a) safe methods and techniques for carrying out the work;

(b) appropriate and necessary work equipment to perform the work;

(c) the personal or collective protective means and equipment that the worker shall use when performing his work;

(d) the rescue procedures and equipment stipulated in section 309.

The information referred to in subparagraph 1 of the first paragraph shall be collected by a qualified person.

The precautionary measures referred to in subparagraph 2 of the first paragraph shall be drafted by a qualified person and implemented.

O.C. 885-2001, s. 300.

301. Information provided to workers prior to performing work: Information referred to in subparagraphs 1 and 2 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.

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 19.5% and less than or equal to 23%;

(2) the concentration of inflammable gases or vapours shall be less than or equal to 10% 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 the respiratory protective equipment specified in section 45 and if the internal atmosphere of this enclosed area complies with subparagraph 2 of the first paragraph.

O.C. 885-2001, s. 302.

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 the respiratory protective equipment specified in section 45 and the training of the latter in compliance with paragraph 2.

O.C. 885-2001, s. 303.

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. Special measures: Unless special precautionary measures are taken by the employer, no worker may enter or be present in an enclosed area when a qualified person has detected the presence of a contaminant, other than those referred to under section 300 and whose concentration requires the taking of such measures.

These measures include training devised by a qualified person and dealing with methods and techniques that shall be employed by the worker to carry out his work safely in this enclosed area. They can also provide, where necessary, for the use of equipment that is appropriate for this type of work as well as the other personal and collective protective means and equipment that the worker must use.

O.C. 885-2001, s. 305.

306. Method and frequency of readings: 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.

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.

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. Supervision: When a worker is present in an enclosed area, another person posted and having the skills and information to supervise the worker shall remain in visual contact, hearing contact or contact by any other means with the worker to initiate, if necessary, the rescue procedures quickly.

The person responsible for the supervision shall remain outside the enclosed area.

O.C. 885-2001, s. 308.

309. Rescue procedure: A rescue procedure making it possible to rapidly assist any worker performing work in an enclosed area shall be established and tested.

Such a procedure shall be implemented as soon as any situation so requires.

This procedure shall provide for the necessary rescue equipment. It may also make provision for a team of rescuers, an evacuation plan, alarm and communications devices, personal protective equipment, safety harnesses, lifelines, a first aid kit with emergency equipment as well as recovery equipment.

O.C. 885-2001, s. 309.

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 materials: No person may enter an enclosed area used to store free flow materials, when filling or emptying is taking place and when precautions have not been taken to prevent an accidental resumption of the operations.

O.C. 885-2001, s. 311; O.C. 1120-2006, s. 8.

312. Safety harness: When it is essential that workers enter an enclosed area where free flow materials are stored, each worker entering such an area shall wear a safety harness.

The safety harness shall be attached to a lifeline that is as short as possible and that is firmly attached outside the enclosed area.

O.C. 885-2001, s. 312.

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*)

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).

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 2.

§ 1. — *General*

O.C. 425-2010, s. 3.

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 m²; 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.

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.

O.C. 1104-2015, s. 7.

§ 8. — *Supply system*

O.C. 425-2010, s. 3.

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.

O.C. 425-2010, s. 3; O.C. 1104-2015, s. 10.

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.

O.C. 425-2010, s. 3.

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 wasteway 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 1.1 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.

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 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 following safety measures shall be taken:

- (1) isolate the danger zone of a machine in operation or protect workers who are nearby;
- (2) mark off the areas where such work is being performed in order to protect anyone likely to be exposed to danger.

O.C. 885-2001, s. 323.

324. Work presenting a falling hazard: Maintenance, repair or de-jamming work that presents a falling hazard shall be performed with the assistance of scaffolds, work platforms, bridges, portable ladders, safety harnesses or other appropriate equipment.

O.C. 885-2001, s. 324.

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. Access to pits: Access to garage pits is restricted only to the people who work in them.

O.C. 885-2001, s. 335.

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 provided under this Division, as well as subparagraph c of subparagraph 2 of

the first paragraph of section 300 and section 312 and ensure that the worker, when performing his work, uses such means and equipment.

The employer shall also ensure that the workers have received requisite information on the use of such protective means and equipment.

O.C. 885-2001, s. 338.

339. Worker's obligations: The worker shall wear or use, as the case may be, the individual or collective protective means and equipment provided in this Division, as well as in subparagraph *c* of subparagraph 2 of the first paragraph of section 300 and section 312.

O.C. 885-2001, s. 339.

340. Safety precautions: In areas where there is a danger of contact with moving parts, workers shall comply with the following standards:

- (1) their clothing shall fit well and have no loose flaps;
- (2) necklaces, bracelets or rings shall not be worn, with the exception of medical alert bracelets;
- (3) anyone with long hair shall tuck it under a bonnet, a hat or a hairnet.

O.C. 885-2001, s. 340.

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 Z94.3-07 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.

O.C. 885-2001, s. 343; O.C. 392-2011, s. 4.

344. Protective footwear: The wearing of protective shoes in compliance with CAN/CSA Standard Z195-02 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.

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. Devices for protection from falls: The wearing of a safety harness is mandatory for all workers exposed to falls of over 3 m from their work stations, except if a worker is protected by some other device that ensures equivalent safety or by a safety net, or when he is only using some means of access or egress.

O.C. 885-2001, s. 346.

347. Full Body Harnesses: A safety harness shall comply with the CAN/CSA Z259.10-M90 standard Full Body Harnesses and be used with one of the following systems:

- (1) a shock absorber attached to a lifeline preventing a fall in excess of 1.2 m;
- (2) a harness retractor that includes a shock absorber or that is attached thereto.

The shock absorber shall comply with the CAN/CSA Z259.11-M92 standard Shock Absorbers for Personal Fall Arrest Systems.

The lifeline shall comply with the CAN/CSA Z259.1-95 standard Safety Belts and Lanyards.

The harness retractor shall comply with the CAN/CSA Z259.2-M1979 standard Fall-arresting Devices, Personal Lowering Devices and Life Lines.

O.C. 885-2001, s. 347.

348. Anchorage point: The anchorage point for a safety harness lifeline shall be attached in one of the following ways:

- (1) be anchored to some point with a tensile strength at break of at least 18 kN;

(2) be attached to a sliding sleeve in compliance with the CAN/CSA Z259.2-M1979 standard Fall-arresting Devices, Personal Lowering Devices and Life Lines;

(3) be attached to a horizontal lifeline and anchorage point system, designed by an engineer, as demonstrated by a plan or certification available on the premises where such work is performed.

O.C. 885-2001, s. 348.

349. Vertical lifeline: A lifeline shall:

(1) comply with the CAN/CSA Z259.2-M1979 standard Fall-arresting Devices, Personal Lowering Devices and Life Lines;

(2) be used by one person only;

(3) be less than 90 m in length;

(4) be attached to an individual anchorage point with a tensile strength at break of at least 18 kN;

(5) be protected so as not to come into contact with any sharp edges;

(6) be free of knots, splices, except the terminations, and defects.

For the purposes of subparagraph 6 of the first paragraph, “splices” means rope strands that are interwoven to make a loop at the termination of the rope.

O.C. 885-2001, s. 349; O.C. 510-2008, s. 4.

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 the CAN/CSA Z259.1-95 standard covering Safety Belts and Lanyards.

A safety belt may not be used as individual protective equipment to stop the fall of a worker.

O.C. 885-2001, s. 350.

351. Two-point suspension scaffold: When a worker uses a two-point suspension scaffold with four lifting cables, the lifeline anchorage point shall be attached in one of the following ways:

(1) by attaching it to a platform anchor with a tensile strength at break of at least 18 kN;

(2) by attaching it to a wire cable of at least 8 mm in diameter, attached at the ends and in the centre to the platform.

O.C. 885-2001, s. 351.

352. Safety snap and safety lock: When the lifeline ends with a locking safety snap, the snap shall be equipped with a self-locking safety catch.

O.C. 885-2001, s. 352.

353. Safety net: A safety net shall be used in the following circumstances:

(1) when the wearing of a safety harness can be harmful or be a source of danger to the worker;

(2) when the protection offered by the safety harness and personal floatation device is not sufficient because of the nature of the work.

O.C. 885-2001, s. 353.

354. Using a safety net: A safety net shall:

- (1) 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.

O.C. 885-2001, s. 354.

355. Floatation device: The wearing of a floatation device is mandatory for all workers who work over water, if the following conditions are met:

- (1) no other safety measure may provide efficient protection;
- (2) the depth of the water is adequate to allow for efficient usage.

O.C. 885-2001, s. 355.

356. Characteristics of a floatation device: A personal floatation device shall be adapted to the workplace situation and shall bear a stamp or label attesting to Transport Canada approval.

O.C. 885-2001, s. 356.

357. Safety equipment: In addition to personal floatation devices, the following safety equipment shall be put at the disposal of workers working over water:

- (1) a motorized boat in good working order, moored near the work site, and fitted with:
 - (a) a life buoy connected to a Manila hemp cord with a diameter of 10 mm and at least 15 m in length;
 - (b) a life drag;
 - (c) personal floatation devices in adequate number for the number of rescuers;
 - (d) paddles;
- (2) if there is a current, a cable running across the stretch of water with floaters attached thereto capable of supporting a person in the water;
- (3) an alarm system for triggering rescue operations.

A specific person shall be appointed for directing rescue operations.

O.C. 885-2001, s. 357.

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 and the other at 30 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).*

O.C. 885-2001, s. 394.

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.

(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.

(6) **mg/m³:** 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.

(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) **RP:** A substance which may not be recirculated in accordance with section 108.

(12) **S: SENSITIZER:** The designation “S” in the Designation and remarks column refers to a repeated exposure to a substance causing a sensitization, e.g. an organism reaction, in the form of an allergic response (immunologic) of the respiratory tree, the mucous, the conjunctivas or the skin.

(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.

(15) **Td:** Total 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 cm³.

Note 2b: Permissible recirculation concentration of asbestos respirable dust: 0.1 mg/m³.

Note 3: Where the use of these products is permitted.

Note 4: Permissible exposure values in number of respirable fibres per cm³.

Part 1

PERMISSIBLE EXPOSURE VALUES FOR AIRBORNE CONTAMINANTS

Substance	[#CAS]	TWAEV		STEV/Ceiling		Designation and remarks
		ppm	mg/m ³	ppm	mg/m ³	
Abate		<i>See</i> Temephos				
Acetaldehyde	[75-07-0]			C25	C45	C3,RP
Acetic acid	[64-19-7]	10	25	15	37	
Acetic anhydride	[108-24-7]	5	21			
Acetone	[67-64-1]	500	1190	1000	2380	
Acetone cyanohydrin (as CN)	[75-86-5]			C4,7	C5	Pc,RP
Acetonitrile	[75-05-8]	40	67	60	101	
Acetophenone	[98-86-2]	10	49			
Acetylene	[74-86-2]	Simple asphyxiant				
Acetylene dichloride		<i>See</i> 1,2-Dichloroethylene				
Acetylene tetrabromide		<i>See</i> 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			Pc,C2,EM
Acrylic acid	[79-10-7]	2	5.9			Pc
Acrylonitrile	[107-13-1]	2	4.3			Pc,C2,RP,EM
Actinolite		<i>See</i> Asbestos				
Adipic acid	[124-04-9]		5			
Adiponitrile	[111-69-3]	2	8,8			Pc
Aldrin	[309-00-2]		0.25			Pc
Allyl alcohol	[107-18-6]	2	4.8	4	9.5	Pc
Allyl chloride		<i>See</i> 3-Chloropropene				
Allyl glycidyl ether (AGE)	[106-92-3]	5	23	10	47	

Allyl propyl disulfide	[2179-59-1]	2	12	3	18	
Aluminum (as Al)	[7429-90-5]					
Alkyls			2			
Metal			10			
Pyrotechnical powders			5			
Soluble salts			2			
Welding fumes			5			
Aluminum oxide (as Al)	[1344-28-1]		10			<i>Td, note 1</i>
4-Aminodiphenyl	[92-67-1]	Without applicable permissible exposure value				<i>Pc,C1,RP,EM</i>
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			<i>C3,RP</i>
Ammonia	[7664-41-7]	25	17	35	24	
Ammonium chloride fume	[12125-02-9]		10		20	
Ammonium perfluorooctanoate	[3825-26-1]		0.1			<i>Pc</i>
Ammonium sulfamate	[7773-06-0]		10			
Amosite		See Asbestos				
Aniline	[62-53-3]	2	7,6			<i>Pc</i>
o-Anisidine	[90-04-0]	0.1	0.5			<i>Pc,C3</i>
p-Anisidine	[104-94-9]	0.1	0.5			<i>Pc</i>
Anthophyllite		See Asbestos				
Antimony [7440-36-0], metal and compounds (as Sb)			0.5			
Antimony trioxide (as Sb)	[1309-64-4]		0.5			<i>C3</i>
Antimony trioxide, production (as Sb)		Without applicable permissible exposure value				<i>C2,RP,EM</i>
ANTU (α -Naphthylthiourea)	[86-88-4]		0.3			
Argon	[7440-37-1]	Simple asphyxiant				

Arsenic, elemental [7440-38-2], and inorganic compounds (except Arsine), (as As)		0.1				
Arsenic trioxide, production	[1327-53-3]	Without applicable permissible exposure value				C2,RP,EM
Arsine	[7784-42-1]	0.05	0.16			
Asbestos (note 2a) (note 2b)						
Actinolite	[12172-67-7]	1 fibre/cm ³		5 fibres/cm ³		C1,EM
Amosite (note 3)	[12172-73-5]	0.2 fibre/cm ³		1 fibre/cm ³		C1,EM
Anthophyllite	[17068-78-9]	1 fibre/cm ³		5 fibres/cm ³		C1,EM
Chrysotile	[12001-29-5]	1 fibre/cm ³		5 fibres/cm ³		C1,EM
Crocidolite (note 3)	[12001-28-4]	0.2 fibre/cm ³		1 fibre/cm ³		C1,EM
Tremolite	[14567-73-8]	1 fibre/cm ³		5 fibres/cm ³		C1,EM
Asphalt (petroleum) fumes	[8052-42-4]		5			
Aspirin		See Acetylsalicylic acid				
Atrazine	[1912-24-9]		5			
Attapulgate		See Fibres-Natural Mineral Fibres				
Azinphos-methyl	[86-50-0]		0.2			Pc
Barium [7440-39-3], soluble compounds (as Ba)			0.5			
Barium sulfate	[7727-43-7]		10			Td, note 1
			5			Rd, note 1
Benomyl	[17804-35-2]	0.84	10			
Benz(a)anthracene	[56-55-3]	Without applicable permissible exposure value				C2,EM
Benzene	[71-43-2]	1	3	5	15.5	C1,RP,EM
Benzidine (production)	[92-87-5]	Without applicable permissible exposure value				Pc,C1,RP,EM
Benzo(a)pyrene	[50-32-8]		0.005			C2,RP,EM
Benzo(b)fluoranthene	[205-99-2]	Without applicable permissible exposure value				C2,EM
p-Benzoquinone	[106-51-4]	0.1	0.44			
Benzoyl peroxide	[94-36-0]		5			

Benzyl chloride	[100-44-7]	1	5.2			
Beryllium [7440-41-7], metal and compounds (as Be)			0.00015			CI,RP,EM,S
Biphenyl	[92-52-4]	0.2	1.3			
Bismuth telluride (as Bi ₂ Te ₃)						
Se-doped			5			
Undoped	[1304-82-1]		10			
Borax				See Sodium tetraborate, decahydrate		
Boron oxide	[1303-86-2]		10			
Boron tribromide	[10294-33-4]			C1	C10	RP
Boron trifluoride	[7637-07-2]			C1	C2,8	RP
Bromacil	[314-40-9]		10			
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	5.2			Pc
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	97			
n-Butyl acetate	[123-86-4]	150	713	200	950	

sec-Butyl acetate	[105-46-4]	200	950			
tert-Butyl acetate	[540-88-5]	200	950			
n-Butyl acrylate	[141-32-2]	2	10			
n-Butyl alcohol	[71-36-3]			C50	C152	Pc, RP
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 ₃)	[1189-85-1]				C0.1	Pc, RP
n-Butyl glycidyl ether (BGE)	[2426-08-6]	25	133			
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]		0.025			C2,EM
Calcium carbonate	[471-34-1]		10			Td
Calcium carbonate	[1317-65-3]		10			Td, note 1
Calcium chromate (as Cr)	[13765-19-0]		0.001			C2, RP, EM
Calcium cyanamide	[156-62-7]		0.5			
Calcium hydroxide	[1305-62-0]		5			
Calcium oxide	[1305-78-8]		2			
Calcium silicate (synthetic)	[1344-95-2]		10			Td, note 1
Calcium sulfate	[7778-18-9]		10 5			Td, note 1 Rd, note 1
Camphor (synthetic)	[76-22-2]	2	12	3	19	

Caprolactam	[105-60-2]					
Dust			1		3	
Vapour		5	23	10	46	
Captafol	[2425-06-1]		0.1			Pc
Captan	[133-06-2]		5			
Carbaryl	[63-25-2]		5			
Carbofuran	[1563-66-2]		0.1			
Carbon black	[1333-86-4]		3.5			
Carbon dioxide	[124-38-9]	5000	9000	30000	54000	
Carbon disulfide	[75-15-0]	4	12	12	36	Pc
Carbon monoxide	[630-08-0]	35	40	200	230	
Carbon tetrabromide	[558-13-4]	0.1	1.4	0.3	4.1	
Carbon tetrachloride	[56-23-5]	5	31	10	63	Pc,C2,EM
Carbon, fibres		<i>See</i> Fibres-Organic Synthetic Fibres				
Carbonyl chloride		<i>See</i> Phosgene				
Carbonyl fluoride	[353-50-4]	2	5.4	5	13	
Catechol	[120-80-9]	5	23			Pc
Cellosolve® acetate		<i>See</i> 2-Ethoxyethyl acetate				
Cellulose (paper fibres)	[9004-34-6]		10			Td, note 1
Ceramic (fibres)		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres				
Cesium hydroxide	[21351-79-1]		2			
Chlordane	[57-74-9]		0.5			Pc
Chlorinated camphene	[8001-35-2]		0.5		1	Pc,C3
Chlorinated diphenyl oxide	[55720-99-5]		0.5			
Chlorine	[7782-50-5]	0.5	1.5	1	2.9	
Chlorine dioxide	[10049-04-4]	0.1	0.28	0.3	0.83	
Chlorine trifluoride	[7790-91-2]			C0.1	C0.38	RP

2-Chloro-6-(trichloromethyl) pyridine		<i>See</i> Nitrapyrin				
Chloroacetaldehyde	[107-20-0]			C1	C3,2	RP
Chloroacetone	[78-95-5]			C1	C3,8	Pc,RP
α -Chloroacetophenone	[532-27-4]	0.05	0.32			
Chloroacetyl chloride	[79-04-9]	0.05	0.23	0.15	0.69	Pc
Chlorobenzene	[108-90-7]	50	230			
o-Chlorobenzylidene malononitrile	[2698-41-1]			C0.05	C0.39	Pc,RP
Chlorobromomethane	[74-97-5]	200	1060			
2-Chloro-1,3-butadiene		<i>See</i> β -Chloroprene				
Chlorodifluoromethane	[75-45-6]	1000	3540			
Chlorodiphenyl (42% chlorine)	[53469-21-9]		1			Pc,C2,EM
Chlorodiphenyl (54% chlorine)	[11097-69-1]		0.5			Pc,C2,EM
1-Chloro-2,3-epoxypropane		<i>See</i> Epichlorohydrin				
Chloroethane		<i>See</i> Ethyl chloride				
2-Chloroethanol		<i>See</i> Ethylene chlorohydrin				
bis (Chloroethyl) ether		<i>See</i> Dichloroethyl ether				
Chloroethylene		<i>See</i> Vinyl chloride (monomer)				
Chloroform	[67-66-3]	5	24.4			C2,RP,EM
Chloromethane		<i>See</i> 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		<i>See</i> 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]	10	36			Pc
3-Chloropropene	[107-05-1]	1	3	2	6	
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
Chromite ore processing (chromate) (as Cr)			0.05			C1,RP,EM
Chromium (metal)	[7440-47-3]		0.5			
Chromium III compounds (as Cr)			0.5			
Chromium VI, water insoluble inorganic compounds (as Cr)			0.01			C1,RP,EM,S
Chromium VI, water soluble inorganic compounds (as Cr)			0.05			C1,RP,EM,S
Chromyl chloride	[14977-61-8]	0.025	0.16			
Chrysene	[218-01-9]		Without applicable permissible exposure value			C2,RP,EM
Chrysotile			See Asbestos			
Clopidol	[2971-90-6]		10			
Coal dust (less than 5% crystalline silica)	[53570-85-7]		2			Rd
Coal dust (more than 5% crystalline silica)			0.1			Rd, of quartz
Coal tar pitch volatiles, as benzene solubles	[65996-93-2]		0.2			C1,RP,EM
Cobalt elemental, and inorganic compounds (as Co)	[7440-48-4]		0.02			C3, S
Cobalt hydrocarbonyl (as Co)	[16842-03-8]		0.1			
Cobalt tetracarbonyl (as Co)	[10210-68-1]		0.1			

Continuous filament fibres (fibrous glass)		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres		
Copper [7440-50-8], fume (as Cu)		0.2		
Copper [7440-50-8], dusts & mists (as Cu)		1		
Corundum	[1302-74-5]	10		<i>Td, note 1</i>
Cotton dust, cotton waste processing operation of waste recycling and garnetting.		1.0		
Cotton dust, in yarn manufacturing and cotton washing operations.		0.2		
Cotton dust, in textile mill waste house operations or in yarn manufacturing to dust from “lower-grade washed cotton”.		0.5		
Cotton dust, in textile slashing and weaving operations.		0.75		
Coyden®		<i>See</i> Clopidol		
Crag®		<i>See</i> Sesone		
Cresol (all isomers)	[1319-77-3]	5	22	<i>Pc</i>
Cristobalite		<i>See</i> Silica		
Crocidolite		<i>See</i> Asbestos		
Crotonaldehyde	[4170-30-3]	2	5.7	
Crufomate®	[299-86-5]		5	
Cumene	[98-82-8]	50	246	
Cyanamide	[420-04-2]		2	
Cyanides (as CN)				C10 C11 <i>Pc,RP</i>
Cyanogen	[460-19-5]	10	21	

Cyanogen chloride	[506-77-4]			C0.3	C0.75	RP
Cyclohexane	[110-82-7]	300	1030			
Cyclohexanol	[108-93-0]	50	206			Pc
Cyclohexanone	[108-94-1]	25	100			Pc
Cyclohexene	[110-83-8]	300	1010			
Cyclohexylamine	[108-91-8]	10	41			
Cyclonite	[121-82-4]		1.5			Pc
Cyclopentadiene	[542-92-7]	75	203			
Cyclopentane	[287-92-3]	600	1720			
Cyhexatin	[13121-70-5]		5			
2,4-D	[94-75-7]		10			C2,EM
DDT (Dichlorodiphenyltrichloroethane)	[50-29-3]		1			C3
Decaborane	[17702-41-9]	0.05	0.25	0.15	0.75	Pc
Demeton®	[8065-48-3]	0.01	0.11			Pc
Di-sec-octyl phthalate	[117-81-7]		5		10	C3
2,6-Di-tert-butyl-p-cresol	[128-37-0]				10	
Diacetone alcohol	[123-42-2]	50	238			
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			Pc
Diazomethane	[334-88-3]	0.2	0.34			
Diborane	[19287-45-7]	0.1	0.11			
Dibromodifluoromethane				See Difluorodibromomethane		

1,2-Dibromoethane	[106-93-4]	20	155					Pc,C2,RP,EM
Dibrom®		See Naled						
Dibutyl phenyl phosphate	[2528-36-1]	0.3	3.5					Pc
Dibutyl phosphate	[107-66-4]	1	8.6	2	17			
Dibutyl phthalate	[84-74-2]		5					
2-N-Dibutylaminoethanol	[102-81-8]	2	14					Pc
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	C0.39			RP
o-Dichlorobenzene	[95-50-1]			C50	C301			RP
p-Dichlorobenzene	[106-46-7]	20	120					C3
3,3'-Dichlorobenzidine	[91-94-1]	Without applicable permissible exposure value						Pc,C2,RP,EM
1,4-Dichloro-2-butene	[764-41-0]	0.005	0.025					Pc,C2,EM
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			C2,EM
Dichloroethyl ether	[111-44-4]	5	29	10	58			Pc
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]	75	347	110	508	
Dichloropropene (cis and trans isomers)	[542-75-6]	1	4.5			Pc,C3
2,2-Dichloropropionic acid	[75-99-0]	1	5.8			
1,2-Dichloro-1,1,2,2-tetrafluoroethane	[76-14-2]	1000	6990			
Dichlorvos	[62-73-7]	0.1	0.9			Pc
Dicrotophos	[141-66-2]		0.25			Pc
4,4'-Dicyclohexyl methane diisocyanate		<i>See Methylene bis (4-cyclohexylisocyanate)</i>				
Dicyclopentadiene	[77-73-6]	5	27			
Dicyclopentadienyl iron	[102-54-5]		10			
Dieldrin	[60-57-1]		0.25			Pc
Diethanolamine	[111-42-2]	3	13			Pc
Diethyl ether	[60-29-7]	400	1210	500	1520	
Diethyl ketone	[96-22-0]	200	705			
Diethyl phthalate	[84-66-2]		5			
Diethylamine	[109-89-7]	5	15	15	45	Pc
2-Diethylaminoethanol	[100-37-8]	10	48			Pc
Diethylene triamine	[111-40-0]	1	4.2			Pc
Di(2-ethylhexyl) phthalate		<i>See Di-sec-octyl phthalate</i>				
Difluorodibromomethane	[75-61-6]	100	858			
Diglycidyl ether (DGE)	[2238-07-5]	0.1	0.53			
Dihydroxybenzene		<i>See Hydroquinone</i>				
Diisobutyl ketone	[108-83-8]	25	145			
1,6-Diisocyanatohexane		<i>See Hexamethylene diisocyanate</i>				
Diisopropyl ether	[108-20-3]	250	1040	310	1300	
Diisopropylamine	[108-18-9]	5	21			Pc

Dimethoxymethane		<i>See</i> Methylal				
Dimethyl carbamoyl chloride	[79-44-7]	Without applicable permissible exposure value				<i>C2,RP,EM</i>
Dimethyl sulfate	[77-78-1]	0.1	0.52			<i>Pc,C2,RP,EM</i>
2,6-Dimethyl-4-heptanone		<i>See</i> Diisobutyl ketone				
N,N-Dimethylacetamide	[127-19-5]	10	36			<i>Pc</i>
Dimethylamine	[124-40-3]	5	9			
Dimethylaminobenzene		<i>See</i> Xylidine				
N,N-Dimethylaniline	[121-69-7]	5	25	10	50	<i>Pc</i>
Dimethylbenzene		<i>See</i> Xylene				
N,N-Dimethylformamide	[68-12-2]	10	30			<i>Pc</i>
1,1-Dimethylhydrazine	[57-14-7]	0.5	1.2			<i>Pc,C2,RP,EM</i>
Dimethylnitrosoamine		<i>See</i> N-Nitrosodimethylamine				
Dimethylphthalate	[131-11-3]		5			
Dinitolmide	[148-01-6]		5			
Dinitro-ortho-cresol	[534-52-1]		0.2			<i>Pc</i>
3,5-Dinitro-ortho-toluamide		<i>See</i> Dinitolmide				
Dinitrobenzene (all isomers) [528-29-0 ; 99-65-0 ; 100-25-4 ; 25154-54-4]		0.15	1			<i>Pc</i>
Dinitrotoluene	[25321-14-6]		0.2			<i>Pc,C3</i>
Dioxane	[123-91-1]	20	72			<i>Pc,C3</i>
Dioxathion	[78-34-2]		0.2			<i>Pc</i>
Diphenyl		<i>See</i> Biphenyl				
Diphenyl ether		<i>See</i> Phenyl ether				
Diphenylamine	[122-39-4]		10			
4,4'-Diphenylmethane diisocyanate (MDI)		<i>See</i> Methylene bis (4-phenyl isocyanate)				

Dipropylene glycol monomethyl ether	[34590-94-8]	100	606	150	909	<i>Pc</i>
Diquat	[231-36-7]		0.5 0.1			<i>Td, note 1</i> <i>Rd, note 1</i>
Disulfiram	[97-77-8]		2			
Disulfoton	[298-04-4]		0.1			
Disyston®			<i>See Disulfoton</i>			
Diuron	[330-54-1]		10			
Divinyl benzene	[1321-74-0]	10	53			
Dursban®			<i>See Chlorpyrifos</i>			
Dust, inert or nuisance particulates			<i>See Particulates Not Otherwise Classified (PNOC)</i>			
Dyfonate®			<i>See Fonofos</i>			
Emery	[12415-34-8]		10			<i>Td, note 1</i>
Endosulfan	[115-29-7]		0.1			<i>Pc</i>
Endrin	[72-20-8]		0.1			<i>Pc</i>
Enflurane	[13838-16-9]	75	566			
Enzymes, proteolytic			<i>See Subtilisins</i>			
Epichlorohydrin	[106-89-8]	2	7.6			<i>Pc, C2, PR, EM</i>
EPN	[2104-64-5]		0.1			<i>Pc</i>
2,3-Epoxy-1-propanol			<i>See Glycidol</i>			
1,2-Epoxypropane			<i>See Propylene oxide</i>			
Erionite			<i>See Fibres-Natural Mineral Fibres</i>			
Ethane	[74-84-0]		Simple asphyxiant			
Ethanethiol			<i>See Ethyl mercaptan</i>			
Ethanol			<i>See Ethyl alcohol</i>			
Ethanolamine			<i>See 2-Aminoethanol</i>			
Ethion	[563-12-2]		0.4			<i>Pc</i>

2-Ethoxyethanol (EGEE)	[110-80-5]	5	18			Pc
2-Ethoxyethyl acetate (EGEEA)	[111-15-9]	5	27			Pc
Ethyl acetate	[141-78-6]	400	1440			
Ethyl acrylate	[140-88-5]	5	20	15	61	C3,S
Ethyl alcohol	[64-17-5]	1000	1880			
Ethyl amyl ketone	[541-85-5]	25	131			
Ethyl benzene	[100-41-4]	100	434	125	543	
Ethyl bromide	[74-96-4]	50	223			Pc,C3
Ethyl butyl ketone	[106-35-4]	50	234			
Ethyl chloride	[75-00-3]	1000	2640			
Ethyl ether		<i>See</i> 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]	10	18			
Ethylene	[74-85-1]	Simple asphyxiant				
Ethylene bromide		<i>See</i> Vinyl bromide				
Ethylene chlorohydrin	[107-07-3]			C1	C3,3	Pc,RP
Ethylene dibromide		<i>See</i> 1,2-Dibromoethane				
Ethylene dichloride		<i>See</i> 1,2-Dichloroethane				
Ethylene glycol (vapour and mist)	[107-21-1]			C50	C127	RP
Ethylene glycol dinitrate	[628-96-6]			C0.2	C1.2	Pc,RP
Ethylene glycol monoethyl ether		<i>See</i> 2-Ethoxyethanol				
Ethylene glycol monoethyl ether acetate		<i>See</i> 2-Ethoxyethyl acetate				
Ethylene glycol monomethyl ether		<i>See</i> 2-Methoxyethanol				
Ethylene glycol monomethyl ether acetate		<i>See</i> 2-Methoxyethyl acetate				

Ethylene imine	[151-56-4]	0.5	0.88			<i>Pc</i>
Ethylene oxide	[75-21-8]	1	1.8			<i>C2,RP,EM</i>
Ethylenediamine	[107-15-3]	10	25			<i>Pc, S</i>
Ethylglycol acetate		<i>See 2-Ethoxyethyl acetate</i>				
Ethylidene chloride		<i>See 1,1-Dichloroethane</i>				
Ethylidene norbornene	[16219-75-3]			C5	C25	<i>RP,EM</i>
N-Ethylmorpholine	[100-74-3]	5	24			<i>Pc</i>
Fenamiphos	[22224-92-6]		0.1			<i>Pc</i>
Fensulfothion	[115-90-2]		0.1			
Fenthion	[55-38-9]		0.2			<i>Pc</i>
Ferbam	[14484-64-1]		10			
Ferrovandium (dust)	[12604-58-9]		1		3	
Fibres-artificial vitreous mineral fibres						
Fibrous glass, continuous filament			10			<i>Td, note 1</i>
Fibrous glass, microfibres (note 4)		1 fibre/cm ³				
Insulation wool fibres, glass wool (note 4)		1 fibre/cm ³				
Insulation wool fibres, rock wool (note 4)		1 fibre/cm ³				
Insulation wool fibres, slag wool (note 4)		2 fibres/cm ³				
Refractory fibres (ceramic or others) (note 4)		1 fibre/cm ³				<i>C3</i>
Fibres-Natural Mineral Fibres (note 4)						
Attapulgit	[12174-11-7]		1 fibre/cm ³			<i>C1,EM</i>
Erionite	[66733-21-9]		Prohibited use			<i>C1</i>
Talc			<i>See Talc (fibrous)</i>			
Wollastonite	[13983-17-0]		10			<i>Td, note 1</i>
			5			<i>Rd, note 1</i>
Fibres-Organic Synthetic Fibres						
Carbon and graphite fibres			10			<i>Td, note 1</i>
			5			<i>Rd, note 1</i>
Para-aramides fibres (Kevlar®, Twaron®)			1 fibre/cm ³			

Polyolefines fibres		10				<i>Td, note 1</i>
Fibrous glass dust		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres				
Fluorides (as F)		2.5				
Fluorine	[7782-41-4]	0.1	0.2			
Fluorotrichloromethane		<i>See</i> Trichlorofluoromethane				
Fonofos	[944-22-9]	0.1				<i>Pc</i>
Formaldehyde	[50-00-0]			C2	C3	<i>C2,EM,RP</i>
Formamide	[75-12-7]	10	18			<i>Pc</i>
Formic acid	[64-18-6]	5	9.4	10	19	
Formic aldehyde		<i>See</i> Formaldehyde				
Freon® 11		<i>See</i> Trichlorofluoromethane				
Freon® 112		<i>See</i> 1,1,1,2-Tetrachloro-1,2-difluoroethane				
Freon® 113		<i>See</i> 1,1,2-Trichloro-1,2,2-trifluoroethane				
Freon® 114		<i>See</i> 1,2-Dichloro-1,1,2,2-tetrafluoroethane				
Freon® 115		<i>See</i> Chloropentafluoroethane				
Freon® 12		<i>See</i> Dichlorodifluoromethane				
Freon® 12B2		<i>See</i> Difluorodibromomethane				
Freon® 21		<i>See</i> Dichlorofluoromethane				
Freon® 22		<i>See</i> Chlorodifluoromethane				
Furadan®		<i>See</i> Carbofuran				
Furfural	[98-01-1]	2	7,9			<i>Pc</i>
Furfuryl alcohol	[98-00-0]	10	40	15	60	<i>Pc</i>
Gasoline	[8006-61-9]	300	890	500	1480	<i>C3</i>
Germanium tetrahydride	[7782-65-2]	0.2	0.63			
Glass wool		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres				
Glass, fibrous or dust		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres				

Glutaraldehyde	[111-30-8]			C0.1	C0.41	RP,S
Glycerin (mist)	[56-81-5]		10			
Glycidol	[556-52-5]	25	76			
Glycol monoethyl ether		See 2-Ethoxyethanol				
Grain dust (oat, wheat, barley)			4			Td, note 1
Graphite (all forms except fibers)	[7782-42-5]		2			Rd, note 1
Graphite (fibres)		See Fibres-Organic Synthetic Fibres				
Guthion®		See Azinphos-methyl				
Gypsum	[13397-24-5]		10 5			Td, note 1 Rd, note 1
Hafnium	[7440-58-6]		0.5			
Halothane	[151-67-7]	50	404			
Helium	[7440-59-7]	Simple asphyxiant				
Heptachlor	[76-44-8]		0.05			Pc,C3
Heptachlor epoxide	[1024-57-3]		0.05			Pc,C3
n-Heptane	[142-82-5]	400	1640	500	2050	
2-Heptanone		See Methyl n-amyl ketone				
3-Heptanone		See Ethyl butyl ketone				
Hexachlorobenzene	[118-74-1]		0.025			Pc,C3
Hexachlorobutadiene	[87-68-3]	0.02	0.21			Pc,C2,RP,EM
Hexachlorocyclopentadiene	[77-47-4]	0.01	0.11			
Hexachloroethane	[67-72-1]	1	9.7			Pc,C3
Hexachloronaphthalene	[1335-87-1]		0.2			Pc
Hexafluoroacetone	[684-16-2]	0.1	0.68			Pc
Hexamethylphosphoramide	[680-31-9]	Without applicable permissible exposure value				Pc,C2,RP,EM
Hexamethylene diisocyanate	[822-06-0]	0.005	0.034			EM,S

n-Hexane	[110-54-3]	50	176			Pc
Hexane (other isomers)		500	1760	1000	3500	
2-Hexanone		<i>See Methyl n-butyl ketone</i>				
Hexone		<i>See Methyl isobutyl ketone</i>				
sec-Hexyl acetate	[108-84-9]	50	295			
Hexylene glycol	[107-41-5]			C25	C121	RP
Hydrazine	[302-01-2]	0.1	0.13			Pc,C2,RP,EM
Hydrogen	[1333-74-0]	Simple asphyxiant				
Hydrogen bromide	[10035-10-6]			C3	C9,9	RP
Hydrogen chloride	[7647-01-0]			C5	C7,5	RP
Hydrogen cyanide	[74-90-8]			C10	C11	Pc,RP
Hydrogen fluoride (as F)	[7664-39-3]			C3	C2.6	RP
Hydrogen peroxide	[7722-84-1]	1	1.4			
Hydrogen selenide (as Se)	[7783-07-5]	0.05	0.16			
Hydrogen sulfide	[7783-06-4]	10	14	15	21	
Hydrogenated terphenyls	[61788-32-7]	0.5	4,9			
Hydroquinone	[123-31-9]		2			
Hydroquinone monomethyl ether		<i>See 4-Methoxyphenol</i>				
4-Hydroxy-4methyl-2-pentanone		<i>See Diacetone alcohol</i>				
2-Hydroxypropyl acrylate	[999-61-1]	0.5	2.8			Pc
2,2'-Iminodiethanol		<i>See Diethanolamine</i>				
Indene	[95-13-6]	10	48			
Indium [7440-74-6] and compounds (as In)			0.1			
Insulation wool fibres		<i>See Fibres-Artificial Vitreous Mineral Fibres</i>				
Iodine	[7553-56-2]			C0.1	C1.0	RP

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	
Isobutyl acetate	[110-19-0]	150	713			
Isobutyl alcohol	[78-83-1]	50	152			
Isocyanate oligomers		Without applicable permissible exposure value				S
Isooctyl alcohol	[26952-21-6]	50	266			Pc
Isophorone	[78-59-1]			C5	C28	RP
Isophorone diisocyanate	[4098-71-9]	0.005	0.045			EM,S
Isopropoxyethanol	[109-59-1]	25	106			Pc
Isopropyl acetate	[108-21-4]	250	1040	310	1290	
Isopropyl alcohol	[67-63-0]	400	985	500	1230	
Isopropyl ether		See Diisopropyl ether				
Isopropyl glycidyl ether (IGE)	[4016-14-2]	50	238	75	356	
Isopropylamine	[75-31-0]	5	12	10	24	
N-Isopropylaniline	[768-52-5]	2	11			Pc
Isopropylbenzene		See Cumene				
Kaolin	[1332-58-7]		5			Rd, note 1
Ketene	[463-51-4]	0.5	0.86	1.5	2.6	
L.P.G. (Liquified petroleum gas)	[68476-85-7]	1000	1800			
Lead [7439-92-1], and inorganic compounds, (as Pb)			0.05			C3

Lead arsenate (as $Pb_3(AsO_4)_2$)	[3687-31-8]	0.15		
Lead chromate (as Cr)	[7758-97-6]	0.012		C2,RP,EM
Lead tetraethyl (as Pb)	[78-00-2]	0.05		Pc
Lead tetramethyl (as Pb)	[75-74-1]	0.05		Pc
Limestone	[1317-65-3]	10		Td, note 1
Lindane	[58-89-9]	0.5		Pc
Lithium hydride	[7580-67-8]	0.025		
Magnesite	[546-93-0]	10		Td, note 1
Magnesium oxide fume (as Mg)	[1309-48-4]	10		
Malathion	[121-75-5]	10		Pc
Maleic anhydride	[108-31-6]	0.25	1.0	S
Manganese Fume, dust and compounds (as Mn)	[7439-96-5]		0.2	Td
Manganese cyclopentadienyl tricarbonyl (as Mn)	[12079-65-1]		0.1	Pc
Manganese methyl cyclopentadienyl tricarbonyl (as Mn)	[12108-13-3]		0.2	Pc
Manganese tetroxide	[1317-35-7]		1	
Marble				<i>See Limestone</i>
Mequinol				<i>See 4-Methoxyphenol</i>
Mercury [7439-97-6], alkyl compounds (as Hg)		0.01		0.03 Pc
Mercury [7439-97-6], aryl compounds (as Hg)		0.1		Pc
Mercury [7439-97-6], inorganic compounds (as Hg)		0.025		Pc
Mercury [7439-97-6], mercury vapor (as Hg)		0.025		Pc

Mesityl oxide	[141-79-7]	10	40		
Methacrylic acid	[79-41-4]	20	70		
Methane	[74-82-8]	Simple asphyxiant			
Methanethiol		<i>See</i> Methyl mercaptan			
Methanol		<i>See</i> Methyl alcohol			
Methomyl	[16752-77-5]		2.5		
Methoxychlor	[72-43-5]		10		
2-Methoxyethanol (EGME)	[109-86-4]	5	16		Pc
2-Methoxyethyl acetate (EGMEA)	[110-49-6]	5	24		Pc
4-Methoxyphenol	[150-76-5]		5		
1-Methoxy-2-propanol		<i>See</i> 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	7		Pc,S
Methyl alcohol	[67-56-1]	200	262	250	328
Methyl amyl alcohol	[108-11-2]	25	104	40	167
Methyl n-amyl ketone	[110-43-0]	50	233		
Methyl bromide	[74-83-9]	5	19		Pc
Methyl tert-butyl ether	[1634-04-4]	40	144		
Methyl n-butyl ketone	[591-78-6]	5	20		Pc
Methyl cellosolve®		<i>See</i> 2-Methoxyethanol			
Methyl cellosolve® acetate		<i>See</i> 2-Methoxyethyl acetate			
Methyl chloride	[74-87-3]	50	103	100	207
Methyl chloroform	[71-55-6]	350	1910	450	2460

Methyl 2-cyanoacrylate	[137-05-3]	2	9,1	4	18	
Methyl demeton	[8022-00-2]		0.5			Pc
Methyl ethyl ketone (MEK)	[78-93-3]	50	150	100	300	
Methyl ethyl ketone peroxide	[1338-23-4]			C0.2	C1.5	RP
Methyl formate	[107-31-3]	100	246	150	368	
Methyl glycol		<i>See 2-Methoxyethanol</i>				
Methyl glycol acetate		<i>See 2-Methoxyethyl acetate</i>				
Methyl hydrazine	[60-34-4]			C0.2	C0.38	Pc,C2,RP,EM
Methyl iodide	[74-88-4]	2	12			Pc,C2,EM
Methyl isoamyl ketone	[110-12-3]	50	234			
Methyl isobutyl carbinol		<i>See Methyl amyl alcohol</i>				
Methyl isobutyl ketone	[108-10-1]	50	205	75	307	
Methyl isocyanate	[624-83-9]	0.02	0.047			Pc
Methyl isopropyl ketone	[563-80-4]	200	705			
Methyl mercaptan	[74-93-1]	0.5	0.98			
Methyl methacrylate (monomer)	[80-62-6]	50	205			S
Methyl parathion	[298-00-0]		0.2			Pc
Methyl propyl ketone	[107-87-9]	150	530			
Methyl silicate	[681-84-5]	1	6			
α -Methyl styrene	[98-83-9]	50	242	100	483	
Methylacrylonitrile	[126-98-7]	1	2.7			Pc
Methylal	[109-87-5]	1000	3110			
Methylamine	[74-89-5]	5	6,4			
N-Methylaniline	[100-61-8]	0.5	2.2			Pc
Methylcyclohexane	[108-87-2]	400	1610			
Methylcyclohexanol	[25639-42-3]	50	234			

o-Methylcyclohexanone	[583-60-8]	50	229	75	344	<i>Pc</i>
Methylene chloride	[75-09-2]	50	174			<i>C2,EM</i>
4,4'-Methylene bis (2-chloroaniline) (MOCA)	[101-14-4]	0.02	0.22			<i>Pc,C2,RP,EM</i>
Methylene bis (4-cylohexylisocyanate)	[5124-30-1]	0.005	0.054			<i>EM,S</i>
4,4'-Methylene dianiline	[101-77-9]	0.1	0.81			<i>Pc,C2,EM</i>
Methylene bis (4-phenyl isocyanate) (MDI)	[101-68-8]	0.005	0.051			<i>EM,S</i>
5-Methyl-3-heptanone			<i>See Ethyl amyl ketone</i>			
N-Methyl-2,4,6-Trinitrophenyl nitramine			<i>See Tetryl</i>			
Metribuzin	[21087-64-9]		5			
Mevinphos®			<i>See Phosdrin</i>			
Mica	[12001-26-2]		3			<i>Rd, note 1</i>
Microfibres (fibrous glass)			<i>See Fibres-Artificial Vitreous Mineral Fibres</i>			
Mineral oil (mist)			5		10	
Mineral wool fibres			<i>See Fibres-Artificial Vitreous Mineral Fibres</i>			
Molybdenum (as Mo)	[7439-98-7]					
Insoluble compounds			10			
Soluble compounds			5			
Monocrotophos	[6923-22-4]		0.25			<i>Pc</i>
Morpholine	[110-91-8]	20	71			<i>Pc</i>
Naled (Dibrom®)	[300-76-5]		3			<i>Pc</i>
Naphtha			<i>See VM&P Naphtha</i>			
Naphthalene	[91-20-3]	10	52	15	79	
β-Naphthylamine	[91-59-8]		Without applicable permissible exposure value			<i>CI,RP,EM</i>
α-Naphthylthiourea			<i>See ANTU</i>			

Nemacur®		<i>See Fenamiphos</i>			
Neon	[7440-01-9]	Simple asphyxiant			
Nialate®		<i>See Ethion</i>			
Nickel	[7440-02-0]				
Metal		1			
Insoluble compounds (as Ni)		1			
Soluble compounds (as Ni)		0.1			
Nickel carbonyl (as Ni)	[13463-39-3]	0.001	0.007		
Nickel sulfide roasting, fume and dust (as Ni)		1			<i>C1,RP,EM</i>
Nicotine	[54-11-5]	0.5			<i>Pc</i>
Nitrapyrin	[1929-82-4]	10		20	
Nitric acid	[7697-37-2]	2	5.2	4	10
Nitric oxide		<i>See Nitrogen monoxide</i>			
p-Nitroaniline	[100-01-6]	3			<i>Pc</i>
Nitrobenzene	[98-95-3]	1	5		<i>Pc</i>
p-Nitrochlorobenzene	[100-00-5]	0.1	0.64		<i>Pc</i>
4-Nitrodiphenyl	[92-93-3]	Without applicable permissible exposure value			<i>Pc,C1,RP,EM</i>
Nitroethane	[79-24-3]	100	307		
Nitrogen	[7727-37-9]	Simple asphyxiant			
Nitrogen dioxide	[10102-44-0]	3	5.6		
Nitrogen monoxide	[10102-43-9]	25	31		
Nitrogen trifluoride	[7783-54-2]	10	29		
Nitroglycerin (NG)	[55-63-0]			C0.2	C1,86 <i>Pc,RP</i>
Nitromethane	[75-52-5]	100	250		
1-Nitropropane	[108-03-2]	25	91		
2-Nitropropane	[79-46-9]	10	36		<i>C2,RP,EM</i>

N-Nitrosodimethylamine	[62-75-9]	Without applicable permissible exposure value				Pc,C2,RP,EM
Nitrotoluene (all isomers) [88-72-2 ; 99-08-1 ; 99-99-0 ; 1321-12-6]		2	11			Pc
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	Pc
Octane	[111-65-9]	300	1400	375	1750	
Oil mist, mineral		See Mineral oil (mist)				
Osmium tetroxide (as Os)	[20816-12-0]	0.0002	0.0016	0.0006	0.0047	
Oxalic acid	[144-62-7]		1		2	
Oxygen difluoride	[7783-41-7]			C0.05	C0.11	RP
Ozone	[10028-15-6]			C0.1	C0.2	RP
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]		0.1			Pc
Particulate polycyclic aromatic hydrocarbons (PPAH)		See Coal tar pitch volatiles				
Particulates Not Otherwise Classified (PNOC)			10			Td, note 1
Pentaborane	[19624-22-7]	0.005	0.013	0.015	0.039	
Pentachloronaphthalene	[1321-64-8]		0.5			Pc
Pentachloronitrobenzene	[82-68-8]		0.5			
Pentachlorophenol	[87-86-5]		0.5			Pc,C2,RP,EM

Pentaerythritol	[115-77-5]	10				
n-Pentane	[109-66-0]	120	350			
2-Pentanone		<i>See Methyl propyl ketone</i>				
3-Pentanone		<i>See Diethyl ketone</i>				
Pentyl acetates						
n-Amyl acetate	[628-63-7]	50	266	100	532	
sec-Amyl acetate	[626-38-0]	50	266	100	532	
tert-Amyl acetate	[625-16-1]	50	266	100	532	
Isoamyl acetate	[123-92-2]	50	266	100	532	
2-Methyl-1-butyl acetate	[624-41-9]	50	266	100	532	
3-Pentyl acetate	[620-11-1]	50	266	100	532	
Perchloroethylene	[127-18-4]	25	170	100	685	C3
Perchloromethyl mercaptan	[594-42-3]	0.1	0.76			
Perchloryl fluoride	[7616-94-6]	3	13	6	25	
Perfluorodimethylcetone		<i>See Hexafluoroacetone</i>				
Perfluoroisobutylene	[382-21-8]			C0.01	C0.082	RP
Perlite	[83969-76-0]		10			Td, note 1 Rd, note 1
			5			
Petroleum distillates		<i>See Gasoline, Stoddard solvent, VM&P Naphtha</i>				
Phenacyl chloride		<i>See α-Chloroacetophenone</i>				
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	0.61			Pc,S,C3
Phenyl mercaptan	[108-98-5]	0.5	2.3			
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		<i>See Styrene (monomer)</i>				

Phenylhydrazine	[100-63-0]	0.1	0.44			<i>Pc,C2,RP,EM</i>
N-Phenyl-β-naphthylamine	[135-88-6]	Without applicable permissible exposure value				<i>C2,RP,EM</i>
Phenylphosphine	[638-21-1]			C0.05	C0.23	<i>RP</i>
Phorate	[298-02-2]		0.05		0.2	<i>Pc</i>
Phosdrin	[7786-34-7]	0.01	0.092	0.03	0.27	<i>Pc</i>
Phosgene	[75-44-5]	0.1	0.40			
Phosphine	[7803-51-2]	0.3	0.42	1	1.4	
Phosphoric acid	[7664-38-2]		1		3	
Phosphorus (yellow)	[7723-14-0]		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]	1	6,1			<i>S</i>
m-Phthalodinitrile	[626-17-5]		5			
Picloram	[1918-02-1]		10			
Picric acid	[88-89-1]		0.1			
Pindone	[83-26-1]		0.1			
Piperazine dihydrochloride	[142-64-3]		5			
Plaster of Paris	[26499-65-0]		10 5			<i>Td, note 1</i> <i>Rd, note 1</i>
Platinum	[7440-06-4]					
Metal			1			<i>S</i>
Soluble salts (as Pt)			0.002			<i>S</i>
Polychlorobiphenyls		<i>See Chlorodiphenyl</i>				
Polyolefines fibres		<i>See Fibres-Organic Synthetic Fibres</i>				

Polytetrafluoroethylene decomposition products	[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]	10	5			<i>Td, note 1</i> <i>Rd, note 1</i>
Potassium hydroxide	[1310-58-3]				C2	<i>RP,EM</i>
Precipitated silica		See Silica - Amorphous, precipitated				
Propane	[74-98-6]	1000	1800			
Propane sultone	[1120-71-4]	Without applicable permissible exposure value				<i>C2,RP,EM</i>
Propanol		See n-Propyl alcohol				
Propargyl alcohol	[107-19-7]	1	2.3			<i>Pc</i>
β-Propiolactone	[57-57-8]	0.5	1.5			<i>C2,RP,EM</i>
Propionic acid	[79-09-4]	10	30			
Propoxur	[114-26-1]		0.5			
n-Propyl acetate	[109-60-4]	200	835	250	1040	
n-Propyl alcohol	[71-23-8]	200	492	250	614	<i>Pc</i>
n-Propyl nitrate	[627-13-4]	25	107	40	172	
Propylene	[115-07-1]	Simple asphyxiant				
Propylene dichloride		See 1,2-Dichloropropane				
Propylene glycol dinitrate	[6423-43-4]	0.05	0.34			<i>Pc</i>
Propylene glycol monomethyl ether	[107-98-2]	100	369	150	553	
Propylene imine	[75-55-8]	2	4,7			<i>Pc,C2,RP,EM</i>
Propylene oxide	[75-56-9]	20	48			<i>C2,RP,EM</i>
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		<i>See</i> Catechol		
Quartz		<i>See</i> Silica - Crystalline, Quartz		
Quinone		<i>See</i> p-Benzoquinone		
RDX		<i>See</i> Cyclonite		
Refractory fibres		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres		
Resorcinol	[108-46-3]	10	45	20 90
Rhodium	[7440-16-6]			
Metal and insoluble compounds (as Rh)			0.1	
Soluble compounds (as Rh)			0.001	
Rock wool		<i>See</i> Fibres-Artificial Vitreous Mineral Fibres		
Ronnel	[299-84-3]		10	
Rosin core solder pyrolysis products (as Formaldehyde)	[8050-09-7]		0.1	S
Rotenone	[83-79-4]		5	
Rouge			10	Td, note 1
Rubber solvent (Naphtha)	[8030-30-6]	400	1590	
Selenium [7782-49-2] and compounds (as Se)			0.2	
Selenium hexafluoride (as Se)	[7783-79-1]	0.05	0.16	
Sencor®		<i>See</i> Metribuzin		
N-Serve®		<i>See</i> Nitrapyrin		
Sesone	[136-78-7]		10	
Sevin®		<i>See</i> Carbaryl		
Silane		<i>See</i> Silicon tetrahydride		
Silica - Amorphous, Diatomaceous earth (uncalcined)	[61790-53-2]		6	Td, note 1
Silica - Amorphous, fumes	[69012-64-2]		2	Rd, note 1

Silica - Amorphous, fused	[60676-86-0]		0.1		<i>Rd, note 1</i>
Silica - Amorphous, gel	[63231-67-4] (112926-00-8)		6		<i>Rd, note 1</i>
Silica - Amorphous, precipitated	[1343-98-2]		6		<i>Td, note 1</i>
Silica - Crystalline, Cristobalite	[14464-46-1]		0.05		<i>Rd</i>
Silica - Crystalline, Quartz	[14808-60-7]		0.1		<i>Rd, C2, EM</i>
Silica - Crystalline, Tridymite	[15468-32-3]		0.05		<i>Rd</i>
Silica - Crystalline, Tripoli	[1317-95-9]		0.1		<i>Rd</i>
Silicon	[7440-21-3]		10		<i>Td, note 1</i>
Silicon carbide (non fibrous)	[409-21-2]		10		<i>Td, note 1</i>
Silicon tetrahydride	[7803-62-5]	5	6.6		
Silver Metal	[7440-22-4]		0.1		
Soluble compounds (as Ag)			0.01		
Slag wool		<i>See Fibres-Artificial Vitreous Mineral Fibres</i>			
Soapstone	[14378-12-2]		6 3		<i>Td, note 1</i> <i>Rd, note 1</i>
Sodium azide	[26628-22-8]			C0.11 C0.3	<i>RP</i>
Sodium bisulfite	[7631-90-5]		5		
Sodium 2,4-dichlorophenoxyethyl sulfate		<i>See Sesone</i>			
Sodium fluoroacetate	[62-74-8]		0.05	0.15	<i>Pc</i>
Sodium hydroxide	[1310-73-2]			C2	<i>RP</i>
Sodium metabisulfite	[7681-57-4]		5		
Sodium tetraborate, anhydre	[1330-43-4]		1		
Sodium tetraborate, decahydrate or borax	[1303-96-4]		5		
Sodium tetraborate, pentahydrate	[12045-88-4]		1		
Starch	[9005-25-8]		10		<i>Td, note 1</i>

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			C2,RP,EM
Strychnine	[57-24-9]		0.15			
Styrene (monomer)	[100-42-5]	50	213	100	426	Pc,C3
Subtilisins [1395-21-7 ; 9014-01-1] (Proteolytic enzymes as 100% pure crystalline enzyme)					C0.00006	RP
Succinaldehyde	[638-37-9]	1	4			Pc
Sucrose	[57-50-1]		10			
Sulfometuron methyl	[74222-97-2]		5			
Sulfotep	[3689-24-5]		0.2			Pc
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	RP
Sulfur pentafluoride	[5714-22-7]			C0.01	C0.1	RP
Sulfur tetrafluoride	[7783-60-0]			C0.1	C0.44	RP
Sulfuric acid	[7664-93-9]		1		3	
Sulfuryl fluoride	[2699-79-8]	5	21	10	42	
Sulprofos	[35400-43-2]		1			
Systox						<i>See Demeton®</i>
2,4,5-T	[93-76-5]		10			C2,RP,EM
Talc, fibrous (note 4)			1 fibre/cm ³			C1,EM
Talc, non fibrous	[14807-96-6]		3			Rd
Tantalum [7440-25-7], metal and oxide dusts (as Ta)			5			
TEDP						<i>See Sulfotep</i>

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			Pc
Terephthalic acid	[100-21-0]		10			
Terphenyls	[26140-60-3]			C0.53	C5	RP
1,1,2,2-Tetrabromoethane	[79-27-6]	1	14			
1,1,1,2-Tetrachloro-2,2-difluoroethane	[76-11-9]	500	4170			
1,1,2,2-Tetrachloro-1,2-difluoroethane	[76-12-0]	500	4170			
1,1,2,2-Tetrachloroethane	[79-34-5]	1	6,9			Pc
Tetrachloroethylene		<i>See Perchloroethylene</i>				
Tetrachloromethane		<i>See Carbon tetrachloride</i>				
Tetrachloronaphthalene	[1335-88-2]		2			
Tetraethyl lead		<i>See Lead tetraethyl</i>				
Tetraethyl pyrophosphate		<i>See TEPP</i>				
Tetrahydrofuran	[109-99-9]	100	300			
Tetramethyl lead		<i>See Lead tetramethyl</i>				
Tetramethyl succinonitrile	[3333-52-6]	0.5	2.8			Pc
Tetranitromethane	[509-14-8]	0.005	0.04			C2,EM
Tetrasodium pyrophosphate	[7722-88-5]		5			
Tetryl	[479-45-8]		1.5			
TGIC		<i>See Triglycidyl isocyanurate</i>				
Thallium, elemental [7440-28-0], and soluble compounds (as Tl)			0.1			Pc
Thimet®		<i>See Phorate</i>				
4,4'-Thiobis (6-tert-butyl-m-cresol)	[96-69-5]		10			

Thiodan®		See Endosulfan				
Thiodiphenylamine		See Phenothiazine				
Thioglycolic acid	[68-11-1]	1	3.8			Pc
Thionyl chloride	[7719-09-7]			C1	C4,9	RP
Thiram®	[137-26-8]		5			
Tin	[7440-31-5]					
Metal			2			
Organic compounds (as Sn)			0.1		0.2	Pc
Oxide and inorganic compounds, except SnH ₄ (as Sn)			2			
Titanium dioxide	[13463-67-7]		10			Td, note 1
o-Tolidine	[119-93-7]	Without applicable permissible exposure value				Pc,C2,RP,EM
Toluene	[108-88-3]	50	188			Pc
Toluene diisocyanate (TDI) (isomers mixture)	[26471-62-5]	0.005	0.036	0.02	0.14	EM,S
o-Toluidine	[95-53-4]	2	8.8			Pc,C2,RP,EM
m-Toluidine	[108-44-1]	2	8.8			Pc
p-Toluidine	[106-49-0]	2	8.8			Pc,C2,EM
Toxaphene		See Chlorinated camphene				
Tremolite		See Asbestos				
Tribromomethane		See Bromoform				
Tributyl phosphate	[126-73-8]	0.2	2.2			
Trichloroacetic acid	[76-03-9]	1	6.7			
1,2,4-Trichlorobenzene	[120-82-1]			C5	C37	RP
1,1,2-Trichloroethane	[79-00-5]	10	55			Pc
1,1,1-Trichloroethane		See Methyl chloroform				
Trichloroethylene	[79-01-6]	50	269	200	1070	
Trichlorofluoromethane	[75-69-4]			C1000	C5620	RP

Trichloromethane		<i>See Chloroform</i>				
Trichloronaphthalene	[1321-65-9]		5			Pc
Trichloronitromethane		<i>See Chloropicrin</i>				
2,4,5-Trichlorophenoxyacetic acid		<i>See 2,4,5-T</i>				
1,2,3-Trichloropropane	[96-18-4]	10	60			Pc
1,1,2-Trichloro-1,2,2-trifluoroethane	[76-13-1]	1000	7670	1250	9590	
Tri-o-cresyl phosphate	[78-30-8]		0.1			Pc
Tricyclohexyltin hydroxide		<i>See Cyhexatin</i>				
Tridymite		<i>See Silica - Crystalline</i>				
Triethanolamine	[102-71-6]		5			S
Triethylamine	[121-44-8]	5	20.5	15	61.5	Pc
Trifluorobromomethane		<i>See Bromotrifluoromethane</i>				
Triglycidyl isocyanurate (TGIC) (alpha-)	[59653-73-5]		0.05			
Triglycidyl isocyanurate (TGIC) (beta-)	[59653-74-6]		0.05			
Triglycidyl isocyanurate (TGIC) (mixed isomers)	[2451-62-9]		0.05			
Trimellitic anhydride	[552-30-7]				C0.04	S,RP
Trimethyl benzene	[25551-13-7]	25	123			
Trimethyl phosphite	[121-45-9]	2	10			
Trimethylamine	[75-50-3]	5	12	15	36	
2,4,6-Trinitrophenol		<i>See Picric acid</i>				
2,4,6-Trinitrophenylmethylnitramine		<i>See Tetryl</i>				
2,4,6-Trinitrotoluene (TNT)	[118-96-7]		0.5			Pc
Triphenyl amine	[603-34-9]		5			
Triphenyl phosphate	[115-86-6]		3			

Tripoli		<i>See Silica - Crystalline</i>				
Tungsten (as W)	[7440-33-7]					
Insoluble compounds			5		10	
Soluble compounds			1		3	
Turpentine and certain monoterpenes						
Turpentine	[8006-64-2]	20	112			S
Δ -3 Carene	[13466-78-9]	20	112			S
α -Pinene	[80-56-8]	20	112			S
β -Pinene	[127-91-3]	20	112			S
Uranium (natural)	[7440-61-1]					
Insoluble compounds (as U)			0.2		0.6	
Soluble compounds (as U)			0.05			
n-Valeraldehyde	[110-62-3]	50	176			
Vanadium pentoxide, fume and respirable dust (as V ₂ O ₅)	[1314-62-1]		0.05			
Vegetable oil mists (except castor, cashew and other similar irritant oils)	[68956-68-3]		10			
Vinyl acetate	[108-05-4]	10	35	15	53	C3
Vinyl benzene		<i>See Styrene (monomer)</i>				
Vinyl bromide	[593-60-2]	5	22			C2,EM
Vinyl chloride (monomer)	[75-01-04]	1	2.6			C1,RP,EM
Vinyl cyanide		<i>See Acrylonitrile</i>				
Vinyl cyclohexene dioxide	[106-87-6]	10	57			Pc,C2,RP,EM
Vinyl toluene	[25013-15-4]	50	242	100	483	
Vinylidene chloride		<i>See 1,1-Dichloroethylene</i>				
VM&P Naphtha	[8032-32-4]	300	1370			
Warfarin	[81-81-2]		0.1			
Welding fumes (not otherwise classified)			5			
Wollastonite		<i>See Fibres-Natural Mineral Fibres</i>				

Wood dust (western red cedar)		2.5				<i>Td, note 1</i>
Wood dust hard and soft, except red cedar		5				<i>Td, note 1</i>
Xylene (o-,m-,p- isomers) [1330-20-7 ; 95-47-6 ; 108-38-3 ; 106-42-3]	100	434	150	651		
m-Xylene- α , α' diamine [1477-55-0]					C0.1	<i>Pc,RP</i>
Xylidine (mixed isomers) [1300-73-8]	0.5	2.5				<i>Pc,C2,EM</i>
Yttrium [7440-65-5], metal and compounds (as Y)		1				
Zinc chloride, fume [7646-85-7]		1				
Zinc chromates [13530-65-9; 11103-86-9 37300-23-5] (as Cr)		0.01				<i>C1,RP,EM,S</i>
Zinc stearate [557-05-1]		10				
Zinc, oxide Dust Fume [1314-13-2]		10 5			10	<i>Td, note 1</i>
Zirconium [7440-67-7] and compounds (as Zr)		5			10	
Zoalene®						<i>See Dinitolmide</i>

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TWAEV	STEV/Ceiling and	Designation										
Substance	[#CAS]	ppm	mg/m3	ppm	mg/m3	remarks						
Abate	See Temephos											
Acetaldehyde	[75-07-0]			C25	C45	C3,RP						
Acetic acid	[64-19-7]	10	25	15	37							
Acetic anhydride	[108-24-7]		5	21								
Acetone	[67-64-1]	500	1190	1000	2380							
Acetone cyanohydrin (as CN)	[75-86-5]					C4,7	C5	Pc,RP				
Acetonitrile	[75-05-8]	40	67	60	101							
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			Pc,C2,EM						
Acrylic acid	[79-10-7]	2	5.9			Pc						
Acrylonitrile	[107-13-1]	2	4.3			Pc,C2,RP,EM						
Actinolite			See Asbestos									
Adipic acid	[124-04-9]		5									
Adiponitrile	[111-69-3]	2	8,8			Pc						
Aldrin	[309-00-2]	0.25				Pc						
Allyl alcohol	[107-18-6]	2	4.8	4	9.5	Pc						
Allyl chloride			See 3-Chloropropene									
Allyl glycidyl ether (AGE)	[106-92-3]			5	23	10	47					
Allyl propyl disulfide	[2179-59-1]			2	12	3	18					
Aluminum (as Al)	[7429-90-5]											
Alkyls	2											
Metal	10											
Pyrotechnical powders			5									
Soluble salts	2											
Welding fumes	5											
Aluminum oxide (as Al)	[1344-28-1]				10			Td, note 1				
4-Aminodiphenyl	[92-67-1]		Without applicable permissible									
Pc,C1,RP,EM												
	exposure value											
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				C3,RP						
Ammonia	[7664-41-7]	25	17	35	24							
Ammonium chloride fume	[12125-02-9]					10	20					
Ammonium perfluorooctanoate	[3825-26-1]				0.1			Pc				
Ammonium sulfamate	[7773-06-0]			10								
Amosite			See Asbestos									
Aniline	[62-53-3]	2	7,6			Pc						
o-Anisidine	[90-04-0]	0.1	0.5				Pc,C3					
p-Anisidine	[104-94-9]	0.1	0.5				Pc					
Anthophyllite			See Asbestos									
Antimony [7440-36-0], metal and compounds (as Sb)			0.5									
Antimony trioxide (as Sb)	[1309-64-4]				0.5			C3				
Antimony trioxide, production permissible (as Sb)									Without applicable			
	exposure value											

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ANTU (a-Naphthylthiourea)	[86-88-4]	0.3			
Argon	[7440-37-1]		Simple asphyxiant		
Arsenic, elemental	[7440-38-2],	0.1			
and inorganic compounds (except Arsine), (as As)					
Arsenic trioxide, production permissible	[1327-53-3]			Without applicable	
	C2,RP,EM				
	exposure value				
Arsine	[7784-42-1]	0.05	0.16		
Asbestos (note 2a) (note 2b)					
Actinolite	[12172-67-7]	1 fibre/cm3	5 fibres/cm3	C1,EM	
Amosite (note 3)	[12172-73-5]	0.2 fibre/cm3	1 fibre/cm3		
				C1,EM	
Anthophyllite	[17068-78-9]	1 fibre/cm3	5 fibres/cm3	C1,EM	
Chrysotile	[12001-29-5]	1 fibre/cm3	5 fibres/cm3	C1,EM	
Crocidolite (note 3)	[12001-28-4]	0.2 fibre/cm3	1 fibre/cm3		
				C1,EM	
Tremolite	[14567-73-8]	1 fibre/cm3	5 fibres/cm3	C1,EM	
Asphalt (petroleum) fumes	[8052-42-4]	5			
Aspirin	See Acetylsalicylic acid				
Atrazine	[1912-24-9]	5			
Attapulgit	See Fibres-Natural Mineral Fibres				
Azinphos-methyl	[86-50-0]	0.2	Pc		
Barium [7440-39-3], soluble compounds (as Ba)		0.5			
Barium sulfate	[7727-43-7]	10	Td, note 1		
	5		Rd, note 1		
Benomyl	[17804-35-2]	0.84	10		
Benz(a)anthracene	[56-55-3]		Without applicable permissible		
			C2,EM		
	exposure value				
Benzene	[71-43-2]	1	3	5	15.5
					C1,RP,EM
Benzidine (production) permissible	[92-87-5]				Without applicable
			Pc,C1,RP,EM		
	exposure value				
Benzo(a)pyrene	[50-32-8]	0.005			C2,RP,EM
Benzo(b)fluoranthene permissible	[205-99-2]				Without applicable
			C2,EM		
	exposure value				
p-Benzoquinone	[106-51-4]	0.1	0.44		
Benzoyl peroxide	[94-36-0]	5			
Benzyl chloride	[100-44-7]	1	5.2		
Beryllium [7440-41-7], metal and compounds (as Be)		0.00015			C1,RP,EM,S
Biphenyl	[92-52-4]	0.2	1.3		
Bismuth telluride (as Bi ₂ Te ₃) Se-doped	5				
Undoped	[1304-82-1]	10			
Borax	See Sodium tetraborate, decahydrate				
Boron oxide	[1303-86-2]	10			
Boron tribromide	[10294-33-4]			C1	C10 RP
Boron trifluoride	[7637-07-2]			C1	C2,8 RP
Bromacil	[314-40-9]	10			
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-	See Halothane				

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1,1,1-trifluoroethane						
Bromoethane	See Ethyl bromide					
Bromoethylene	See Vinyl bromide					
Bromoform	[75-25-2]	0.5	5.2			Pc
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	97			
n-Butyl acetate	[123-86-4]	150	713	200	950	
sec-Butyl acetate	[105-46-4]	200	950			
tert-Butyl acetate	[540-88-5]	200	950			
n-Butyl acrylate	[141-32-2]	2	10			
n-Butyl alcohol	[71-36-3]			C50	C152	Pc, RP
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 CrO3)	[1189-85-1]					C0.1 Pc, RP
n-Butyl glycidyl ether (BGE)	[2426-08-6]			25	133	
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	[7440-43-9]	0.025				C2.EM
elemental and compounds						
(as Cd)						
Calcium carbonate	[471-34-1]		10			Td
Calcium carbonate	[1317-65-3]		10			Td, note 1
Calcium chromate (as Cr)	[13765-19-0]			0.001		C2, RP, EM
Calcium cyanamide	[156-62-7]		0.5			
Calcium hydroxide	[1305-62-0]		5			
Calcium oxide	[1305-78-8]		2			
Calcium silicate (synthetic)	[1344-95-2]			10		Td, note 1
Calcium sulfate	[7778-18-9]		10			Td, note 1
	5					Rd, note 1
Camphor (synthetic)	[76-22-2]	2	12	3	19	
Caprolactam	[105-60-2]					
Dust	1	3				
Vapour	5	23	10	46		
Captafol	[2425-06-1]		0.1			Pc
Captan	[133-06-2]		5			
Carbaryl	[63-25-2]		5			
Carbofuran	[1563-66-2]		0.1			
Carbon black	[1333-86-4]		3.5			
Carbon dioxide	[124-38-9]	5000	9000	30000	54000	
Carbon disulfide	[75-15-0]	4	12	12	36	Pc
Carbon monoxide	[630-08-0]	35	40	200	230	
Carbon tetrabromide	[558-13-4]	0.1	1.4	0.3	4.1	
Carbon tetrachloride	[56-23-5]	5	31	10	63	Pc,C2.EM
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	23			Pc
Cellosolve® acetate	See 2-Ethoxyethyl acetate					

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Cellulose (paper fibres)	[9004-34-6]	10						Td, note 1	
Ceramic (fibres)	See Fibres-Artificial Vitreous Mineral Fibres								
Cesium hydroxide	[21351-79-1]	2							
Chlordane	[57-74-9]	0.5		Pc					
Chlorinated camphene	[8001-35-2]	0.5	1			Pc,C3			
Chlorinated diphenyl oxide	[55720-99-5]		0.5						
Chlorine	[7782-50-5]	0.5	1.5	1	2.9				
Chlorine dioxide	[10049-04-4]	0.1	0.28	0.3	0.83				
Chlorine trifluoride	[7790-91-2]		C0.1	C0.38		RP			
2-Chloro-6-(trichloromethyl) pyridine	See Nitrapyrin								
Chloroacetaldehyde	[107-20-0]		C1	C3,2		RP			
Chloroacetone	[78-95-5]		C1	C3,8		Pc,RP			
a-Chloroacetophenone	[532-27-4]	0.05	0.32						
Chloroacetyl chloride	[79-04-9]	0.05	0.23	0.15	0.69	Pc			
Chlorobenzene	[108-90-7]	50	230						
o-Chlorobenzylidene malononitrile	[2698-41-1]					C0.05	C0.39		
Pc,RP									
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		Pc,C2,EM			
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]	10	36			Pc			
3-Chloropropene	[107-05-1]	1	3	2	6				
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			
Chromite ore processing (chromate) (as Cr)				0.05			C1,RP,EM		
Chromium (metal)	[7440-47-3]	0.5							
Chromium III compounds (as Cr)		0.5							
Chromium VI, water insoluble inorganic compounds (as Cr)		0.01				C1,RP,EM,S			
Chromium VI, water soluble inorganic compounds (as Cr)		0.05				C1,RP,EM,S			
Chromyl chloride	[14977-61-8]	0.025	0.16						
Chrysene	[218-01-9]	Without applicable permissible exposure value						C2,RP,EM	
Chrysotile	See Asbestos								
Clopidol	[2971-90-6]	10							
Coal dust	[53570-85-7]	2				Rd			

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(less than 5% crystalline silica)						
Coal dust	0.1		Rd, of quartz			
(more than 5% crystalline silica)						
Coal tar pitch volatiles, as benzene solubles	[65996-93-2]	0.2			C1,RP,EM	
Cobalt elemental, and inorganic compounds (as Co)	[7440-48-4]	0.02	C3, S			
Cobalt hydrocarbonyl (as Co)	[16842-03-8]	0.1				
Cobalt tetracarboxyl (as Co)	[10210-68-1]	0.1				
Continious filament fibres Fibres (fibrous glass)			See Fibres-Artificial Vitreous Mineral			
Copper [7440-50-8], fume (as Cu)		0.2				
Copper [7440-50-8], dusts & mists (as Cu)		1				
Corundum [1302-74-5]	10		Td, note 1			
Cotton dust, cotton waste processing operation of waste recycling and garnetting.		1.0				
Cotton dust, in yarn manufacturing and cotton washing operations.		0.2				
Cotton dust, in textile mill waste house operations or in yarn manufacturing to dust from "lower-grade washed cotton".		0.5				
Cotton dust, in textile slashing and weaving operations.		0.75				
Coyden®	See Clopidol					
Crag®	See Sesone					
Cresol (all isomers)	[1319-77-3]	5	22		Pc	
Cristobalite	See Silica					
Crocidolite	See Asbestos					
Crotonaldehyde	[4170-30-3]	2	5.7			
Crufomate®	[299-86-5]	5				
Cumene	[98-82-8]	50	246			
Cyanamide	[420-04-2]	2				
Cyanides (as CN)		C10	C11		Pc,RP	
Cyanogen	[460-19-5]	10	21			
Cyanogen chloride	[506-77-4]			C0.3	C0.75	RP
Cyclohexane	[110-82-7]	300	1030			
Cyclohexanol	[108-93-0]	50	206		Pc	
Cyclohexanone	[108-94-1]	25	100		Pc	
Cyclohexene	[110-83-8]	300	1010			
Cyclohexylamine	[108-91-8]	10	41			
Cyclonite	[121-82-4]	1.5			Pc	
Cyclopentadiene	[542-92-7]	75	203			
Cyclopentane	[287-92-3]	600	1720			
Cyhexatin	[13121-70-5]	5				
2,4-D	[94-75-7]	10			C2,EM	
DDT (Dichlorodiphenyltrichloroethane)	[50-29-3]	1		C3		

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Decaborane	[17702-41-9]	0.05	0.25	0.15	0.75	Pc
Demeton®	[8065-48-3]	0.01	0.11			Pc
Di-sec-octyl phthalate	[117-81-7]			5	10	C3
2,6-Di-tert-butyl-p-cresol	[128-37-0]				10	
Diacetone alcohol	[123-42-2]	50	238			
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				Pc
Diazomethane	[334-88-3]	0.2	0.34			
Diborane	[19287-45-7]	0.1	0.11			
Dibromodifluoromethane						See Difluorodibromomethane
1,2-Dibromoethane	[106-93-4]	20	155			Pc,C2,RP,EM
Dibrom®						See Naled
Dibutyl phenyl phosphate	[2528-36-1]		0.3	3.5		Pc
Dibutyl phosphate	[107-66-4]	1	8.6	2	17	
Dibutyl phthalate	[84-74-2]		5			
2-N-Dibutylaminoethanol	[102-81-8]		2	14		Pc
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	C0.39	RP
o-Dichlorobenzene	[95-50-1]			C50	C301	RP
p-Dichlorobenzene	[106-46-7]	20	120			C3
3,3'-Dichlorobenzidine permissible	[91-94-1]					Without applicable exposure value
1,4-Dichloro-2-butene	[764-41-0]	0.005	0.025			Pc,C2,EM
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	C2,EM
Dichloroethyl ether	[111-44-4]	5	29	10	58	Pc
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]	75	347	110	508	
Dichloropropene (cis and trans isomers)	[542-75-6]	1	4.5			Pc,C3
2,2-Dichloropropionic acid	[75-99-0]		1	5.8		
1,2-Dichloro-1,1,2,2-tetrafluoroethane	[76-14-2]				1000	6990
Dichlorvos	[62-73-7]	0.1	0.9			Pc
Dicrotophos	[141-66-2]		0.25			Pc
4,4'-Dicyclohexyl methane cyclohexylisocyanate)						See Methylene bis (4-
Dicyclopentadiene	[77-73-6]	5	27			
Dicyclopentadienyl iron	[102-54-5]			10		
Dieldrin	[60-57-1]	0.25				Pc
Diethanolamine	[111-42-2]	3	13			Pc
Diethyl ether	[60-29-7]	400	1210	500	1520	
Diethyl ketone	[96-22-0]	200	705			
Diethyl phthalate	[84-66-2]		5			

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Diethylamine	[109-89-7]	5	15	15	45	Pc	
2-Diethylaminoethanol	[100-37-8]		10	48			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]	0.1	0.53				
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	36				Pc
Dimethylamine	[124-40-3]	5	9				
Dimethylaminobenzene	See Xylidine						
N,N-Dimethylaniline	[121-69-7]	5	25	10	50		Pc
Dimethylbenzene	See Xylene						
N,N-Dimethylformamide	[68-12-2]	10	30				Pc
1,1-Dimethylhydrazine	[57-14-7]	0.5	1.2				Pc,C2,RP,EM
Dimethylnitrosoamine	See N-Nitrosodimethylamine						
Dimethylphthalate	[131-11-3]	5					
Dinitolmide	[148-01-6]	5					
Dinitro-ortho-cresol	[534-52-1]		0.2				Pc
3,5-Dinitro-ortho-toluamide	See Dinitolmide						
Dinitrobenzene (all isomers)		0.15	1				Pc
[528-29-0 ; 99-65-0 ; 100-25-4 ; 25154-54-4]							
Dinitrotoluene	[25321-14-6]		0.2				Pc,C3
Dioxane	[123-91-1]	20	72				Pc,C3
Dioxathion	[78-34-2]	0.2					Pc
Diphenyl	See Biphenyl						
Diphenyl ether	See Phenyl ether						
Diphenylamine	[122-39-4]	10					
4,4'-Diphenylmethane	See Methylene bis (4-phenyl isocyanate)						
diisocyanate (MDI)							
Dipropylene glycol monomethyl ether	[34590-94-8]	100	606	150	909		Pc
Diquat	[231-36-7]	0.5					Td, note 1
		0.1					Rd, note 1
Disulfiram	[97-77-8]	2					
Disulfoton	[298-04-4]	0.1					
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						
Emery	[12415-34-8]	10					Td, note 1
Endosulfan	[115-29-7]	0.1					Pc
Endrin	[72-20-8]	0.1					Pc
Enflurane	[13838-16-9]	75	566				

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Enzymes, proteolytic	See Subtilisins							
Epichlorohydrin	[106-89-8]	2	7.6					Pc, C2, PR, EM
EPN	[2104-64-5]	0.1		Pc				
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				
Ethanethiol	See Ethyl mercaptan							
Ethanol	See Ethyl alcohol							
Ethanolamine	See 2-Aminoethanol							
Ethion	[563-12-2]	0.4		Pc				
2-Ethoxyethanol (EGEE)	[110-80-5]	5	18				Pc	
2-Ethoxyethyl acetate (EGEEA)	[111-15-9]	5	27					Pc
Ethyl acetate	[141-78-6]	400	1440					
Ethyl acrylate	[140-88-5]	5	20	15	61			C3, S
Ethyl alcohol	[64-17-5]	1000	1880					
Ethyl amyl ketone	[541-85-5]	25	131					
Ethyl benzene	[100-41-4]	100	434	125				543
Ethyl bromide	[74-96-4]	50	223					Pc, C3
Ethyl butyl ketone	[106-35-4]	50	234					
Ethyl chloride	[75-00-3]	1000	2640					
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]	10	18					
Ethylene	[74-85-1]			Simple asphyxiant				
Ethylene bromide	See Vinyl bromide							
Ethylene chlorohydrin	[107-07-3]				C1	C3, 3		Pc, RP
Ethylene dibromide	See 1,2-Dibromoethane							
Ethylene dichloride	See 1,2-Dichloroethane							
Ethylene glycol (vapour and mist)	[107-21-1]						C50	C127 RP
Ethylene glycol dinitrate	[628-96-6]					C0.2	C1.2	Pc, RP
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]	0.5	0.88					Pc
Ethylene oxide	[75-21-8]	1	1.8					C2, RP, EM
Ethylenediamine	[107-15-3]	10	25					Pc, S
Ethylglycol acetate	See 2-Ethoxyethyl acetate							
Ethylidene chloride	See 1,1-Dichloroethane							
Ethylidene norbornene	[16219-75-3]					C5	C25	RP, EM
N-Ethylmorpholine	[100-74-3]	5	24					Pc
Fenamiphos	[22224-92-6]	0.1						Pc
Fensulfothion	[115-90-2]	0.1						
Fenthion	[55-38-9]	0.2		Pc				
Ferbam	[14484-64-1]	10						
Ferrovanadium (dust)	[12604-58-9]			1			3	
Fibres-artificial vitreous mineral fibres								
Fibrous glass, continuous filament		10						Td, note 1
Fibrous glass, (note 4)							1	microfibres (note fibre/cm3)
Insulation wool fibres, glass wool (note 4)								1 fibre/cm3

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Insulation wool fibres, rock wool (note 4)	1 fibre/cm3					
Insulation wool fibres, slag wool (note 4)	2 fibres/cm3					
Refractory fibres (ceramic or others) (note 4)	1 fibre/cm3					C3
Fibres-Natural Mineral Fibres (note 4)						
Attapulгите [12174-11-7]	1 fibre/cm3					C1,EM
Erionite [66733-21-9]	Prohibited use					C1
Talc See Talc (fibrous)						
Wollastonite [13983-17-0]	10					Td, note 1
5						Rd, note 1
Fibres-Organic Synthetic Fibres						
Carbon and graphite fibres	10					Td, note 1
5						Rd, note 1
Para-aramides fibres (Kevlar®, Twaron®)	1 fibre/cm3					
Polyolefines fibres	10					Td, note 1
Fibrous glass dust	See Fibres-Artificial Vitreous Mineral Fibres					
Fluorides (as F)	2.5					
Fluorine [7782-41-4]	0.1	0.2				
Fluorotrichloromethane	See Trichlorofluoromethane					
Fonofos [944-22-9]	0.1					Pc
Formaldehyde [50-00-0]			C2	C3		C2,EM,RP
Formamide [75-12-7]	10	18				Pc
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]	2	7,9				Pc
Furfuryl alcohol [98-00-0]	10	40	15	60		Pc
Gasoline [8006-61-9]	300	890	500	1480		C3
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]			C0.1	C0.41		RP,S
Glycerin (mist) [56-81-5]	10					
Glycidol [556-52-5]	25	76				
Glycol monoethyl ether	See 2-Ethoxyethanol					
Grain dust (oat, wheat, barley)			4			Td, note 1
Graphite (all forms except fibers)	[7782-42-5]				2	Rd, note 1
Graphite (fibres)	See Fibres-Organic Synthetic Fibres					
Guthion®	See Azinphos-methyl					
Gypsum [13397-24-5]	10					Td, note 1
5						Rd, note 1
Hafnium [7440-58-6]	0.5					
Halothane [151-67-7]	50	404				

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Helium	[7440-59-7]							Simple asphyxiant
Heptachlor	[76-44-8]			0.05				Pc,C3
Heptachlor epoxide	[1024-57-3]			0.05				Pc,C3
n-Heptane	[142-82-5]	400	1640	500	2050			
2-Heptanone		See Methyl n-amyl ketone						
3-Heptanone		See Ethyl butyl ketone						
Hexachlorobenzene	[118-74-1]			0.025				Pc,C3
Hexachlorobutadiene	[87-68-3]			0.02	0.21			Pc,C2,RP,EM
Hexachlorocyclopentadiene	[77-47-4]			0.01	0.11			
Hexachloroethane	[67-72-1]	1	9.7					Pc,C3
Hexachloronaphthalene	[1335-87-1]			0.2				Pc
Hexafluoroacetone	[684-16-2]			0.1	0.68			Pc
Hexamethylphosphoramide	[680-31-9]							Without applicable
permissible exposure value								Pc,C2,RP,EM
Hexamethylene diisocyanate	[822-06-0]			0.005	0.034			EM,S
n-Hexane	[110-54-3]	50	176					Pc
Hexane (other isomers)		500	1760	1000	3500			
2-Hexanone		See Methyl n-butyl ketone						
Hexone		See Methyl isobutyl ketone						
sec-Hexyl acetate	[108-84-9]	50	295					
Hexylene glycol	[107-41-5]			C25	C121			RP
Hydrazine	[302-01-2]	0.1	0.13					Pc,C2,RP,EM
Hydrogen	[1333-74-0]							Simple asphyxiant
Hydrogen bromide	[10035-10-6]			C3	C9,9			RP
Hydrogen chloride	[7647-01-0]			C5	C7,5			RP
Hydrogen cyanide	[74-90-8]			C10	C11			Pc,RP
Hydrogen fluoride (as F)	[7664-39-3]				C3	C2.6		RP
Hydrogen peroxide	[7722-84-1]	1	1.4					
Hydrogen selenide (as Se)	[7783-07-5]			0.05	0.16			
Hydrogen sulfide	[7783-06-4]	10	14	15	21			
Hydrogenated terphenyls	[61788-32-7]			0.5	4,9			
Hydroquinone	[123-31-9]	2						
Hydroquinone monomethyl ether		See 4-Methoxyphenol						
4-Hydroxy-4methyl-2-pentanone		See Diacetone alcohol						
2-Hydroxypropyl acrylate	[999-61-1]			0.5	2.8			Pc
2,2'-Iminodiethanol		See Diethanolamine						
Indene	[95-13-6]	10	48					
Indium [7440-74-6] and compounds (as In)				0.1				
Insulation wool fibres		See Fibres-Artificial Vitreous Mineral Fibres						
Iodine	[7553-56-2]			C0.1	C1.0			RP
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			
Isobutyl acetate	[110-19-0]	150	713					
Isobutyl alcohol	[78-83-1]	50	152					
Isocyanate oligomers		Without applicable permissible exposure value						
Isooctyl alcohol	[26952-21-6]	50	266					Pc
Isophorone	[78-59-1]			C5	C28			RP
Isophorone diisocyanate	[4098-71-9]			0.005	0.045			EM,S
Isopropoxyethanol	[109-59-1]	25	106					Pc

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Isopropyl acetate	[108-21-4]	250	1040	310	1290		
Isopropyl alcohol	[67-63-0]	400	985	500	1230		
Isopropyl ether	See Diisopropyl ether						
Isopropyl glycidyl ether (IGE)	[4016-14-2]			50	238	75	356
Isopropylamine	[75-31-0]	5	12	10	24		
N-Isopropylaniline	[768-52-5]	2	11			Pc	
Isopropylbenzene	See Cumene						
Kaolin	[1332-58-7]	5					Rd, note 1
Ketene	[463-51-4]	0.5	0.86	1.5	2.6		
L.P.G. (Liquified petroleum gas)	[68476-85-7]					1000	1800
Lead [7439-92-1], and inorganic compounds, (as Pb)		0.05				C3	
Lead arsenate (as Pb ₃ (AsO ₄) ₂)	[3687-31-8]					0.15	
Lead chromate (as Cr)	[7758-97-6]			0.012			C2,RP,EM
Lead tetraethyl (as Pb)	[78-00-2]			0.05			Pc
Lead tetramethyl (as Pb)	[75-74-1]			0.05			Pc
Limestone	[1317-65-3]	10					Td, note 1
Lindane	[58-89-9]	0.5					Pc
Lithium hydride	[7580-67-8]		0.025				
Magnesite	[546-93-0]	10					Td, note 1
Magnesium oxide fume (as Mg)	[1309-48-4]				10		
Malathion	[121-75-5]	10					Pc
Maleic anhydride	[108-31-6]	0.25	1.0				S
Manganese	[7439-96-5]						
Fume, dust and compounds (as Mn)		0.2					Td
Manganese cyclopentadienyl tricarbonyl (as Mn)	[12079-65-1]				0.1		Pc
Manganese methyl cyclopentadienyl tricarbonyl (as Mn)	[12108-13-3]		0.2				Pc
Manganese tetroxide	[1317-35-7]		1				
Marble	See Limestone						
Mequinol	See 4-Methoxyphenol						
Mercury [7439-97-6], alkyl compounds (as Hg)		0.01		0.03			Pc
Mercury [7439-97-6], aryl compounds (as Hg)		0.1					Pc
Mercury [7439-97-6], inorganic compounds (as Hg)		0.025					Pc
Mercury [7439-97-6], mercury vapor (as Hg)		0.025					Pc
Mesityl oxide	[141-79-7]	10	40				
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]	5	16				Pc
2-Methoxyethyl acetate (EGMEA)	[110-49-6]	5	24				Pc
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

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Methyl acrylate	[96-33-3]	2	7				Pc,S
Methyl alcohol	[67-56-1]	200	262	250	328		Pc
Methyl amyl alcohol	[108-11-2]	25	104	40	167		Pc
Methyl n-amyl ketone	[110-43-0]	50	233				
Methyl bromide	[74-83-9]	5	19				Pc
Methyl tert-butyl ether	[1634-04-4]		40	144			
Methyl n-butyl ketone	[591-78-6]	5	20				Pc
Methyl cellosolve®	See 2-Methoxyethanol						
Methyl cellosolve® acetate	See 2-Methoxyethyl acetate						
Methyl chloride	[74-87-3]	50	103	100	207		Pc
Methyl chloroform	[71-55-6]	350	1910	450	2460		
Methyl 2-cyanoacrylate	[137-05-3]	2	9,1	4	18		
Methyl demeton	[8022-00-2]	0.5					Pc
Methyl ethyl ketone (MEK)	[78-93-3]	50	150	100	300		
Methyl ethyl ketone peroxide	[1338-23-4]					C0.2	C1.5 RP
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]			C0.2	C0.38		Pc,C2,RP,EM
Methyl iodide	[74-88-4]	2	12				Pc,C2,EM
Methyl isoamyl ketone	[110-12-3]	50	234				
Methyl isobutyl carbinol	See Methyl amyl alcohol						
Methyl isobutyl ketone	[108-10-1]	50	205	75	307		
Methyl isocyanate	[624-83-9]	0.02	0.047				Pc
Methyl isopropyl ketone	[563-80-4]	200	705				
Methyl mercaptan	[74-93-1]	0.5	0.98				
Methyl methacrylate (monomer)	[80-62-6]	50	205				S
Methyl parathion	[298-00-0]	0.2					Pc
Methyl propyl ketone	[107-87-9]	150	530				
Methyl silicate	[681-84-5]	1	6				
a-Methyl styrene	[98-83-9]	50	242	100	483		
Methylacrylonitrile	[126-98-7]	1	2.7				Pc
Methylal	[109-87-5]	1000	3110				
Methylamine	[74-89-5]	5	6,4				
N-Methylaniline	[100-61-8]	0.5	2.2				Pc
Methylcyclohexane	[108-87-2]	400	1610				
Methylcyclohexanol	[25639-42-3]	50	234				
o-Methylcyclohexanone	[583-60-8]	50	229	75	344		Pc
Methylene chloride	[75-09-2]	50	174				C2,EM
4,4'-Methylene bis (2-chloroaniline) (MOCA)	[101-14-4]	0.02	0.22				Pc,C2,RP,EM
Methylene bis (4-cyclohexylisocyanate)	[5124-30-1]	0.005	0.054				EM,S
4,4'-Methylene dianiline	[101-77-9]	0.1	0.81				Pc,C2,EM
Methylene bis (4-phenyl isocyanate) (MDI)	[101-68-8]	0.005	0.051				EM,S
5-Methyl-3-heptanone	See Ethyl amyl ketone						
N-Methyl-2,4,6-Trinitrophenyl nitramine	See Tetryl						
Metribuzin	[21087-64-9]	5					
Mevinphos®	See Phosdrin						
Mica	[12001-26-2]	3					Rd, note 1
Microfibres (fibrous glass)	See Fibres-Artificial Vitreous Mineral Fibres						
Mineral oil (mist)		5	10				
Mineral wool fibres	See Fibres-Artificial Vitreous Mineral Fibres						
Molybdenum (as Mo)	[7439-98-7]						
Insoluble compounds		10					

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Soluble compounds	5						
Monocrotophos [6923-22-4]		0.25				Pc	
Morpholine [110-91-8]	20	71				Pc	
Naled (Dibrom®) [300-76-5]		3				Pc	
Naphtha	See VM&P Naphtha						
Naphthalene [91-20-3]	10	52	15	79			
β-Naphthylamine [91-59-8]							Without applicable permissible
C1,RP,EM							
exposure value							
a-Naphthylthiourea	See ANTU						
Nemacur®	See Fenamiphos						
Neon [7440-01-9]							Simple asphyxiant
Nialate®	See Ethion						
Nickel [7440-02-0]							
Metal	1						
Insoluble compounds (as Ni)		1					
Soluble compounds (as Ni)		0.1					
Nickel carbonyl (as Ni) [13463-39-3]					0.001	0.007	
Nickel sulfide roasting, fume and dust (as Ni)		1					C1,RP,EM
Nicotine [54-11-5]	0.5					Pc	
Nitrapyrin [1929-82-4]	10		20				
Nitric acid [7697-37-2]	2	5.2	4	10			
Nitric oxide	See Nitrogen monoxide						
p-Nitroaniline [100-01-6]		3				Pc	
Nitrobenzene [98-95-3]	1	5				Pc	
p-Nitrochlorobenzene [100-00-5]		0.1	0.64				Pc
4-Nitrodiphenyl [92-93-3]							Without applicable permissible
Pc,C1,RP,EM							
exposure value							
Nitroethane [79-24-3]	100	307					
Nitrogen [7727-37-9]	Simple asphyxiant						
Nitrogen dioxide [10102-44-0]	3	5.6					
Nitrogen monoxide [10102-43-9]	25	31					
Nitrogen trifluoride [7783-54-2]	10	29					
Nitroglycerin (NG) [55-63-0]					C0.2	C1,86	Pc,RP
Nitromethane [75-52-5]	100	250					
1-Nitropropane [108-03-2]	25	91					
2-Nitropropane [79-46-9]	10	36					C2,RP,EM
N-Nitrosodimethylamine [62-75-9]							Without applicable permissible
Pc,C2,RP,EM							
exposure value							
Nitrotoluene (all isomers) [88-72-2 ; 99-08-1 ; 99-99-0 ; 1321-12-6]	2	11				Pc	
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			Pc
Octane [111-65-9]	300	1400	375	1750			
Oil mist, mineral	See Mineral oil (mist)						
Osmium tetroxide (as Os) [20816-12-0]			0.0002	0.0016	0.0006	0.0047	
Oxalic acid [144-62-7]	1	2					
Oxygen difluoride [7783-41-7]				C0.05	C0.11		RP
Ozone [10028-15-6]		C0.1	C0.2				
Para-aramides fibres	See Fibres-Organic Synthetic Fibres						

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Paraffin wax, fume	[8002-74-2]		2				
Paraquat, respirable particulates		[4685-14-7]			0.1		
Parathion	[56-38-2]	0.1		Pc			
Particulate polycyclic aromatic hydrocarbons (PPAH)			See Coal tar pitch volatiles				
Particulates Not Otherwise Classified (PNOC)			10			Td, note 1	
Pentaborane	[19624-22-7]	0.005	0.013	0.015	0.039		
Pentachloronaphthalene	[1321-64-8]		0.5			Pc	
Pentachloronitrobenzene	[82-68-8]		0.5				
Pentachlorophenol	[87-86-5]	0.5				Pc,C2,RP,EM	
Pentaerythritol	[115-77-5]	10					
n-Pentane	[109-66-0]	120	350				
2-Pentanone	See Methyl propyl ketone						
3-Pentanone	See Diethyl ketone						
Pentyl acetates							
n-Amyl acetate	[628-63-7]	50	266	100	532		
sec-Amyl acetate	[626-38-0]	50	266	100	532		
tert-Amyl acetate	[625-16-1]	50	266	100	532		
Isoamyl acetate	[123-92-2]	50	266	100	532		
2-Methyl-1-butyl acetate	[624-41-9]	50	266	100	532		532
3-Pentyl acetate	[620-11-1]	50	266	100	532		
Perchloroethylene	[127-18-4]	25	170	100	685	C3	
Perchloromethyl mercaptan	[594-42-3]		0.1	0.76			
Perchloryl fluoride	[7616-94-6]	3	13	6	25		
Perfluorodimethylcetone	See Hexafluoroacetone						
Perfluoroisobutylene	[382-21-8]			C0.01	C0.082	RP	
Perlite	[83969-76-0]	10				Td, note 1	
	5					Rd, note 1	
Petroleum distillates	See Gasoline, Stoddard solvent, VM&P Naphtha						
Phenacyl chloride	See a-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	0.61			Pc,S,C3
Phenyl mercaptan	[108-98-5]	0.5	2.3				
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-β-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]	0.3	0.42	1	1.4		
Phosphoric acid	[7664-38-2]		1	3			
Phosphorus (yellow)	[7723-14-0]		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]	1	6,1			S	
m-Phthalodinitrile	[626-17-5]		5				

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Picloram	[1918-02-1]	10				
Picric acid	[88-89-1]	0.1				
Pindone	[83-26-1]	0.1				
Piperazine dihydrochloride	[142-64-3]	5				
Plaster of Paris	[26499-65-0]	10				Td, note 1
	5					Rd, note 1
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	[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]	10				Td, note 1
	5					Rd, note 1
Potassium hydroxide	[1310-58-3]					C2 RP.EM
Precipitated silica	See Silica - Amorphous, precipitated					
Propane	[74-98-6]	1000	1800			
Propane sultone	[1120-71-4]					Without applicable permissible exposure value
C2,RP,EM						
Propanol	See n-Propyl alcohol					
Propargyl alcohol	[107-19-7]	1	2.3			Pc
β-Propiolactone	[57-57-8]	0.5	1.5			C2,RP,EM
Propionic acid	[79-09-4]	10	30			
Propoxur	[114-26-1]	0.5				
n-Propyl acetate	[109-60-4]	200	835	250	1040	
n-Propyl alcohol	[71-23-8]	200	492	250	614	Pc
n-Propyl nitrate	[627-13-4]	25	107	40	172	
Propylene	[115-07-1]					Simple asphyxiant
Propylene dichloride	See 1,2-Dichloropropane					
Propylene glycol dinitrate	[6423-43-4]	0.05		0.34		Pc
Propylene glycol monomethyl ether	[107-98-2]	100	369	150	553	
Propylene imine	[75-55-8]	2	4,7			Pc,C2,RP,EM
Propylene oxide	[75-56-9]	20	48			C2,RP,EM
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					
Resorcinol	[108-46-3]	10	45	20	90	
Rhodium	[7440-16-6]					
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				
Rosin core solder pyrolysis products (as Formaldehyde)	[8050-09-7]			0.1		S

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Rotenone	[83-79-4]	5				
Rouge	10		Td, note 1			
Rubber solvent (Naphtha)	[8030-30-6]	400	1590			
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 - Amorphous, Diatomaceous earth (uncalcined)	[61790-53-2]	6			Td, note 1	
Silica - Amorphous, fumes	[69012-64-2]	2			Rd, note 1	
Silica - Amorphous, fused	[60676-86-0]	0.1			Rd, note 1	
Silica - Amorphous, gel (112926-00-8)	[63231-67-4]	6			Rd, note 1	
Silica - Amorphous, precipitated	[1343-98-2]	6			Td, note 1	
Silica - Crystalline, Cristobalite	[14464-46-1]		0.05		Rd	
Silica - Crystalline, Quartz	[14808-60-7]	0.1			Rd, C2, EM	
Silica - Crystalline, Tridymite	[15468-32-3]		0.05		Rd	
Silica - Crystalline, Tripoli	[1317-95-9]	0.1			Rd	
Silicon	[7440-21-3]	10			Td, note 1	
Silicon carbide (non fibrous)	[409-21-2]		10		Td, note 1	
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					
Soapstone	[14378-12-2]	6			Td, note 1	
		3			Rd, note 1	
Sodium azide	[26628-22-8]		C0.11	C0.3	RP	
Sodium bisulfite	[7631-90-5]	5				
Sodium 2,4-dichlorophenoxyethyl sulfate				See Sesone		
Sodium fluoroacetate	[62-74-8]	0.05		0.15	Pc	
Sodium hydroxide	[1310-73-2]			C2	RP	
Sodium metabisulfite	[7681-57-4]	5				
Sodium tetraborate, anhydrous	[1330-43-4]			1		
Sodium tetraborate, decahydrate or borax	[1303-96-4]	5				
Sodium tetraborate, pentahydrate	[12045-88-4]				1	
Starch	[9005-25-8]	10			Td, note 1	
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		C2, RP, EM
Strychnine	[57-24-9]	0.15				
Styrene (monomer)	[100-42-5]	50	213	100	426	Pc, C3
Subtilisins [1395-21-7 ; 9014-01-1] (Proteolytic enzymes as 100% pure crystalline enzyme)				C0.00006	RP	
Succinaldehyde	[638-37-9]	1	4			Pc
Sucrose	[57-50-1]	10				
Sulfometuron methyl	[74222-97-2]		5			
Sulfotep	[3689-24-5]	0.2				Pc
Sulfur dioxide	[7446-09-5]	2	5.2	5	13	
Sulfur hexafluoride	[2551-62-4]		1000	5970		

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Sulfur monochloride	[10025-67-9]			C1	C5.5	RP		
Sulfur pentafluoride	[5714-22-7]			C0.01	C0.1	RP		
Sulfur tetrafluoride	[7783-60-0]			C0.1	C0.44	RP		
Sulfuric acid	[7664-93-9]	1	3					
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		C2,RP,EM				
Talc, fibrous (note 4)		1	fibre/cm3			C1,EM		
Talc, non fibrous	[14807-96-6]		3			Rd		
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			Pc		
Terephthalic acid	[100-21-0]		10					
Terphenyls	[26140-60-3]			C0.53	C5	RP		
1,1,2,2-Tetrabromoethane	[79-27-6]	1	14					
1,1,1,2-Tetrachloro-2,2-difluoroethane	[76-11-9]				500	4170		
1,1,2,2-Tetrachloro-1,2-difluoroethane	[76-12-0]				500	4170		
1,1,2,2-Tetrachloroethane	[79-34-5]	1	6,9			Pc		
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]	100	300					
Tetramethyl lead	See Lead tetramethyl							
Tetramethyl succinonitrile	[3333-52-6]			0.5	2.8		Pc	
Tetranitromethane	[509-14-8]	0.005	0.04			C2,EM		
Tetrasodium pyrophosphate	[7722-88-5]			5				
Tetryl	[479-45-8]	1.5						
TGIC	See Triglycidyl isocyanurate							
Thallium, elemental [7440-28-0], and soluble compounds (as Tl)				0.1		Pc		
Thimet®	See Phorate							
4,4'-Thiobis (6-tert-butyl-m-cresol)	[96-69-5]					10		
Thiodan®	See Endosulfan							
Thiodiphenylamine	See Phenothiazine							
Thioglycolic acid	[68-11-1]	1	3.8			Pc		
Thionyl chloride	[7719-09-7]			C1	C4,9	RP		
Thiram®	[137-26-8]	5						
Tin [7440-31-5] Metal			2					
Organic compounds (as Sn)		0.1		0.2		Pc		
Oxide and inorganic compounds, except SnH4 (as Sn)			2					
Titanium dioxide	[13463-67-7]		10			Td, note 1		
o-Tolidine	[119-93-7]	Without applicable permissible exposure value					Pc,C2,RP,EM	
Toluene	[108-88-3]	50	188			Pc		
Toluene diisocyanate (TDI) EM,S (isomers mixture)	[26471-62-5]			0.005	0.036	0.02	0.14	

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o-Toluidine	[95-53-4]	2	8.8			Pc, C2, RP, EM
m-Toluidine	[108-44-1]	2	8.8			Pc
p-Toluidine	[106-49-0]	2	8.8			Pc, C2, EM
Toxaphene	See Chlorinated camphene					
Tremolite	See Asbestos					
Tribromomethane	See Bromoform					
Tributyl phosphate	[126-73-8]		0.2	2.2		
Trichloroacetic acid	[76-03-9]	1	6.7			
1,2,4-Trichlorobenzene	[120-82-1]				C5	C37 RP
1,1,2-Trichloroethane	[79-00-5]	10	55			Pc
1,1,1-Trichloroethane	See Methyl chloroform					
Trichloroethylene	[79-01-6]	50	269	200		1070
Trichlorofluoromethane	[75-69-4]				C1000	C5620 RP
Trichloromethane	See Chloroform					
Trichloronaphthalene	[1321-65-9]		5			Pc
Trichloronitromethane	See Chloropicrin					
2,4,5-Trichlorophenoxyacetic acid	See 2,4,5-T					
1,2,3-Trichloropropane	[96-18-4]	10	60			Pc
1,1,2-Trichloro-1,2,2-trifluoroethane	[76-13-1]				1000	7670 1250
9590						
Tri-o-cresyl phosphate	[78-30-8]		0.1			Pc
Tricyclohexyltin hydroxide	See Cyhexatin					
Tridymite	See Silica - Crystalline					
Triethanolamine	[102-71-6]		5		S	
Triethylamine	[121-44-8]	5	20.5	15	61.5	Pc
Trifluorobromomethane	See Bromotrifluoromethane					
Triglycidyl isocyanurate (TGIC) (alpha-)	[59653-73-5]				0.05	
Triglycidyl isocyanurate (TGIC) (beta-)	[59653-74-6]				0.05	
Triglycidyl isocyanurate (TGIC) (mixed isomers)	[2451-62-9]				0.05	
Trimellitic anhydride	[552-30-7]				C0.04	S, RP
Trimethyl benzene	[25551-13-7]	25	123			
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]				0.5	Pc
Triphenyl amine	[603-34-9]		5			
Triphenyl phosphate	[115-86-6]		3			
Tripoli	See Silica - Crystalline					
Tungsten (as W)	[7440-33-7]					
Insoluble compounds		5	10			
Soluble compounds		1	3			
Turpentine and certain monoterpenes						
Turpentine	[8006-64-2]	20	112			S
D-3 Carene	[13466-78-9]	20	112			S
a-Pinene	[80-56-8]	20	112			S
b-Pinene	[127-91-3]	20	112			S
Uranium (natural)	[7440-61-1]					
Insoluble compounds (as U)			0.2		0.6	
Soluble compounds (as U)			0.05			
n-Valeraldehyde	[110-62-3]	50	176			
Vanadium pentoxide, fume and respirable dust (as V2O5)	[1314-62-1]				0.05	

OCCUPATIONAL HEALTH AND SAFETY

Vegetable oil mists (except castor, cashew and other similar irritant oils)	[68956-68-3]				10	
Vinyl acetate	[108-05-4]	10	35	15	53	C3
Vinyl benzene	See Styrene (monomer)					
Vinyl bromide	[593-60-2]	5	22			C2,EM
Vinyl chloride (monomer)	[75-01-04]		1	2.6		C1,RP,EM
Vinyl cyanide	See Acrylonitrile					
Vinyl cyclohexene dioxide	[106-87-6]		10	57		Pc,C2,RP,EM
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)			2.5			Td, note 1
Wood dust hard and soft, except red cedar		5				Td, note 1
Xylene (o-,m-,p- isomers) [1330-20-7 ; 95-47-6 ; 108-38-3 ; 106-42-3]		100	434	150	651	
m-Xylene-a, a'diamine	[1477-55-0]				C0.1	Pc,RP
Xylidine (mixed isomers)	[1300-73-8]		0.5	2.5		Pc,C2,EM
Yttrium [7440-65-5], metal and compounds (as Y)			1			
Zinc chloride, fume	[7646-85-7]		1			
Zinc chromates [13530-65-9; 11103-86-9 37300-23-5] (as Cr)		0.01				C1,RP,EM,S
Zinc stearate	[557-05-1]		10			
Zinc, oxide	[1314-13-2]					
Dust		10				Td, note 1
Fume		5	10			
Zirconium [7440-67-7] and compounds (as Zr)			5	10		
Zoalene®	See Dinitolmide					

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 Part 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/m³ or in ppm)

$$C_1T_1 + C_2t_2 + \dots + C_n t_n$$

$$t_1 + t_2 + \dots + t_n$$

Where:

C = measured concentration of a substance at a work location (expressed in mg/m³ or in ppm)

t = duration of exposure to the substance at the same work location (expressed in hours)

$1, 2, \dots, n$ = 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 Part 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:

$$R_m = \frac{C_1 + C_2 + \dots + C_n}{T_1 + T_2 + \dots + T_n}$$

Where:

R_m = sum of the fractions of the mixture

C = measured concentration of a substance at a work location (expressed in mg/m³ or in ppm)

T = depending on the case, the time-weighted average exposure value permitted under part 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

$1, 2, \dots, n$ = indication of substances in the mixture

If R_m 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
57-14-7 1,1-Dimethylhydrazine
57-24-9 Strychnine
57-50-1 Sucrose
57-57-8 β -Propiolactone
57-74-9 Chlordane
58-89-9 Lindane
60-29-7 Diethyl ether
60-34-4 Methyl hydrazine
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
- 75-31-0 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
- 75-99-0 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
78-83-1 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
79-24-3 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 (∞ Naphthylthiourea)
87-68-3 Hexachlorobutadiene
87-86-5 Pentachlorophenol
88-72-2 Nitrotoluene
88-89-1 Picric acid
89-72-5 o-sec-Butylphenol
90-04-0 o-Anisidine
91-20-3 Naphthalene
91-59-8 β -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
95-49-8 o-Chlorotoluene
95-50-1 o-Dichlorobenzene
95-53-4 o-Toluidine
95-54-5 ortho-Phenylenediamine
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
98-51-1 p-tert-Butyltoluene
98-82-8 Cumene
98-83-9 α 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
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
104-94-9 p-Anisidine
105-46-4 sec-Butyl acetate
105-60-2 Caprolactam
106-35-4 Ethyl butyl ketone
106-42-3 Xylene
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
108-10-1 Methyl isobutyl ketone
108-11-2 Methyl amyl alcohol
108-18-9 Diisopropylamine
108-20-3 Diisopropyl ether
108-21-4 Isopropyl acetate
108-24-7 Acetic anhydride
108-31-6 Maleic anhydride
108-38-3 Xylene
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
109-66-0 n-Pentane
109-73-9 n-Butylamine
109-79-5 Butyl mercaptan
109-86-4 2-Methoxyethanol (EGM
E)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
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
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)
123-31-9 Hydroquinone

123-42-2 Diacetone alcohol
123-51-3 Isoamyl alcohol
123-86-4 n-Butyl acetate
123-91-1 Dioxane
123-92-2 Isoamyl 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 β -Chloroprene
127-18-4 Perchloroethylene
127-19-5 N,N-Dimethylacetamide
127-91-3 β -Pinene
128-37-0 2,6-Di-tert-butyl-p-cresol
131-11-3 Dimethylphthalate
133-06-2 Captan
135-88-6 N-Phenyl- β -naphthylamine
136-78-7 Sesone
137-05-3 Methyl 2-cyanoacrylate
137-26-8 Thiram⁷
138-22-7 n-Butyl lactate
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 n-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 Diazinon⁷
334-88-3 Diazomethane
353-50-4 Carbonyl fluoride
382-21-8 Perfluoroisobutylene
409-21-2 Silicon carbide (non fibrous)
420-04-2 Cyanamide
460-19-5 Cyanogen

463-51-4 Ketene
471-34-1 Calcium carbonate
479-45-8 Tetryl
504-29-0 2-Aminopyridine
506-77-4 Cyanogen chloride
509-14-8 Tetranitromethane
528-29-0 Dinitrobenzene
532-27-4 α -Chloroacetophenone
534-52-1 Dinitro-ortho-cresol
540-59-0 1,2-Dichloroethylene
540-88-5 tert-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
557-05-1 Zinc stearate
558-13-4 Carbon tetrabromide
563-12-2 Ethion
563-80-4 Methyl isopropyl ketone
583-60-8 o-Methylcyclohexanone
591-78-6 Methyl n-butyl ketone
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 3-Pentyl acetate
624-41-9 2 Methy-11, 1-butyl acetate
624-83-9 Methyl isocyanate
625-16-1 tert-amyl acetate
626-17-5 m-Phthalodinitrile
626-38-0 sec-Amyl acetate
627-13-4 n-Propyl nitrate
628-63-7 n-Amyl acetate
628-96-6 Ethylene glycol dinitrate
630-08-0 Carbon monoxide
638-21-1 Phenylphosphine
638-37-9 Succinaldehyde
680-31-9 Hexamethyl phosphoramidate
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
944-22-9 Fonofos
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 Xylidine (mixed isomers)
1302-74-5 Corundum
1303-86-2 Boron oxide
1303-96-4 Sodium tetraborate, decahydrate
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
1327-53-3 Arsenic trioxide
1330-20-7 Xylene
1330-43-4 Sodium tetraborate, anhydrous
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
1344-28-1 Aluminum oxide

1344-95-2 Calcium silicate (synthetic)
1395-21-7 Subtilisin
1477-55-0 m-Xylene- α, α' -diamine
1563-66-2 Carbofuran
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
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)
5714-22-7 Sulfur pentafluoride
6423-43-4 Propylene glycol dinitrate
6923-22-4 Monocrotophos
7429-90-5 Aluminum
7439-92-1 Lead
7439-96-5 Manganese
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
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
7723-14-0 Phosphorus (yellow)
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

8022-00-2 Methyl demeton
8030-30-6 Rubber solvent (Naphtha)
8032-32-4 VM&P Naphtha
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
10035-10-6 Hydrogen bromide
10049-04-4 Chlorine dioxide
10102-43-9 Nitrogen monoxide
10102-44-0 Nitrogen dioxide
10210-68-1 Cobalt tetracarbonyl
10294-33-4 Boron tribromide
11097-69-1 Chlorodiphenyl (54% chlorine)
11103-86-9 Zinc chromate
12001-26-2 Mica
12001-28-4 Asbestos Crocidolite
12001-29-5 Asbestos Chrysotile
12045-88-4 Sodium tetraborate, pentahydrate
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

12415-34-8 Emery

12604-58-9 Ferrovanadium (dust)

13121-70-5 Cyhexatin

13397-24-5 Gypsum

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 chromate

13765-19-0 Calcium chromate

13838-16-9 Enflurane

13983-17-0 Fibres-Natural Mineral Fibres Wollastonite

14378-12-2 Soapstone

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

16219-75-3 Ethylidene 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
19624-22-7 Pentaborane
20816-12-0 Osmium tetroxide
21087-64-9 Metribuzin
21351-79-1 Cesium hydroxide
22224-92-6 Fenamiphos
25013-15-4 Vinyl toluene
25154-54-4 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)
26499-65-0 Plaster of Paris
26628-22-8 Sodium azide
26952-21-6 Isooctyl alcohol
34590-94-8 Dipropylene glycol monomethyl ether
35400-43-2 Sulprofos
37300-23-5 Zinc chromate
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 Silica - Crystalline, fused
61788-32-7 Hydrogenated terphenyls
61790-53-2 Silica - Amorphous, Diatomaceous earth
(uncalcined)
63231-67-4 Silica - Amorphous, gel
65996-93-2 Coal tar pitch volatiles, as benzene solubles
65997-15-1 Portland cement
66733-21-9 Fibres-Natural Mineral Fibres Erionite
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
83969-76-0 Perlite
112926-00-8 Silica - Amorphous, gel

O.C. 885-2001, Sch. I; O.C. 1120-2006, s. 11 and 12; O.C. 915-2011, s. 2 and 3; O.C. 1079-2012, s. 1.

SCHEDULE II

LIST OF DANGEROUS SUBSTANCES BY CATEGORY

Categories of dangerous substances				
Dangerous dangerously substances reactive	inflammables and combustibles	oxidants	toxic	corrosives
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

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Anhydrides	x		
Antimony pentasulphide	x		
Arsenic compounds			x
Bags and sacks having contained nitrates, sugar or oily materials	x		
Benzoates	x		
Bitumen	x		
Blasting powders			x
Bone oil	x		
Bromates		x	
Bromides (organic)	x		x
Bromine		x	
Camphor			x
Carbon black (lampblack)	x		
Castor oil	x		
China wood oil (tung oil)	x		
Chlorates		x	

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Chlorinated hydrocarbons x

Chlorine x

Chloroethane x

Chorites x

Coal tar x

Coconut oil, refined x

Cod liver oil x

Corn oil (Maize oil) x

Cottonseed oil x

Cresols x

Cyanides x x

Cyanogen compounds x

Ethers x x

Feeds, various x

Fibres, vegetable (jute, kapok, sisal, etc) x

Fish scraps x

Fluorides, inorganic x

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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		

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Lubricating oil x

Matches, strike-
anywhere x

Menhaden oil x

Mercury compounds x

Metal powders
(finely divided) x

Methyl cyanaformate 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

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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

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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	x
Sodium perchlorate		x
Soya bean oil	x	
Sperm oil	x	
Sugar beet (dry)	x	
Sulfides	x	
Tallow	x	

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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>
Food and beverages	
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

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Breweries (Beer breweries)	2
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Wine manufacturing	2
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Tobacco products

Leaf-tobacco processing	2
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Tobacco products manufacturing	2
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Rubber

Rubber footwear manufacturing	3
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Tire and tube manufacturing	3
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Other rubber industries	3
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Leather

Tanneries	3
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Shoe factories	2
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Textiles

Cotton yarn and cloth mills	2
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Wool yarn mills	2
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Wool cloth mills	2
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Synthetic textile mills	2
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Fiber preparation mills	5
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Thread mills	5
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Cordage and twine industry	5
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Carpet, mat and rug industry	2
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Textile dyeing and finishing	3
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Linoleum and coated fabrics industry	4
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Garages

Garage for maintenance and repair	4
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Garage for parking and storage - with permanent employees	3
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- without permanent employees	2
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Wood

Shingle plants	2
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Sawmills	2
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Veneer and plywood mills	2
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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

Household furniture industry	2
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Paper and related products

OCCUPATIONAL HEALTH AND SAFETY

Pulp and paper mills	2
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Manufacturing of asphalt roofing paper	3
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Paper box and bag manufacturing	2
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Metal products

Metal fabricating industries	4
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Miscellaneous machinery manufacturing	2
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Electrical appliance manufacturing	2
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Cell and battery manufacturing	4
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Non-metallic products

Cement industry	3
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Lime industry	3
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Gypsum products manufacturing	3
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Concrete products manufacturing	2
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Reinforced concrete industry	2
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Clay products manufacturing (domestic clay)	2
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Refractory products manufacturing	4
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Stone products manufacturing	4
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Asbestos products manufacturing	6
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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
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Plastics and synthetic resins industry	3
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Pharmaceuticals and medical products industry	2
---	---

Paints and varnish industry	4
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Maintenance products manufacturing	3
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Industrial chemical products manufacturing	2
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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/ft² by using the following formula:

$$\frac{\text{ft}^3/\text{min.}}{\text{ft}^2} = \text{Air change/hour} \times [12\text{ft} + \text{height of work level in feet (ref. main floor)}]$$

$$\frac{\text{ft}^2}{60 \text{ min./hour}}$$

or to m³/h/m² by using the following formula:

$$\frac{\text{m}^3/\text{h}}{\text{m}^2} = \text{Air change/hour} \times [3.6\text{m} + \text{height of work level in metres (ref. main floor)}]$$

$$\text{m}^2$$

Table 2

RATE OF AIR CHANGE PER HOUR FOR CERTAIN CLASSES OF ESTABLISHMENT

<i>Classification of establishment</i>	<i>Total ventilation area</i>		<i>Fresh air</i>	<i>Relative pressure</i>
	<i>Unrefrigerated spaces (l./s./pers.)</i>	<i>Refrigerated spaces (l./s./pers.)</i>	<i>Refrigerated or unrefrigerated spaces (l./s./pers.)</i>	
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 are 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 m² for laundries and offices and one person per 5 m² 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 m³/h prescribed per vehicle

K = ventilation constant, namely 8 500 m³/h per propane or diesel-powered vehicle, 13,500 m³/h per gas-powered vehicle

P = power of the engine in kilowatts

V = volume of space available in m³ 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 m³, the formula does not apply and the minimum air supply is 8,500 m³/h per propane or diesel-powered vehicle and 13,500 m³/h per gas-powered vehicle.

O.C. 885-2001, Sch. III.

SCHEDULE IV

(s. 117)

STANDARDS OF TEMPERATURE IN ESTABLISHMENTS

Nature of work performed temperature	Minimum 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

(s. 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:

$$WBGT = 0.7 WB + 0.2 GT + 0.1 DB$$

(b) indoors or outdoors with no solar load:

$$WBGT = 0.7 WB + 0.3 GT$$

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))

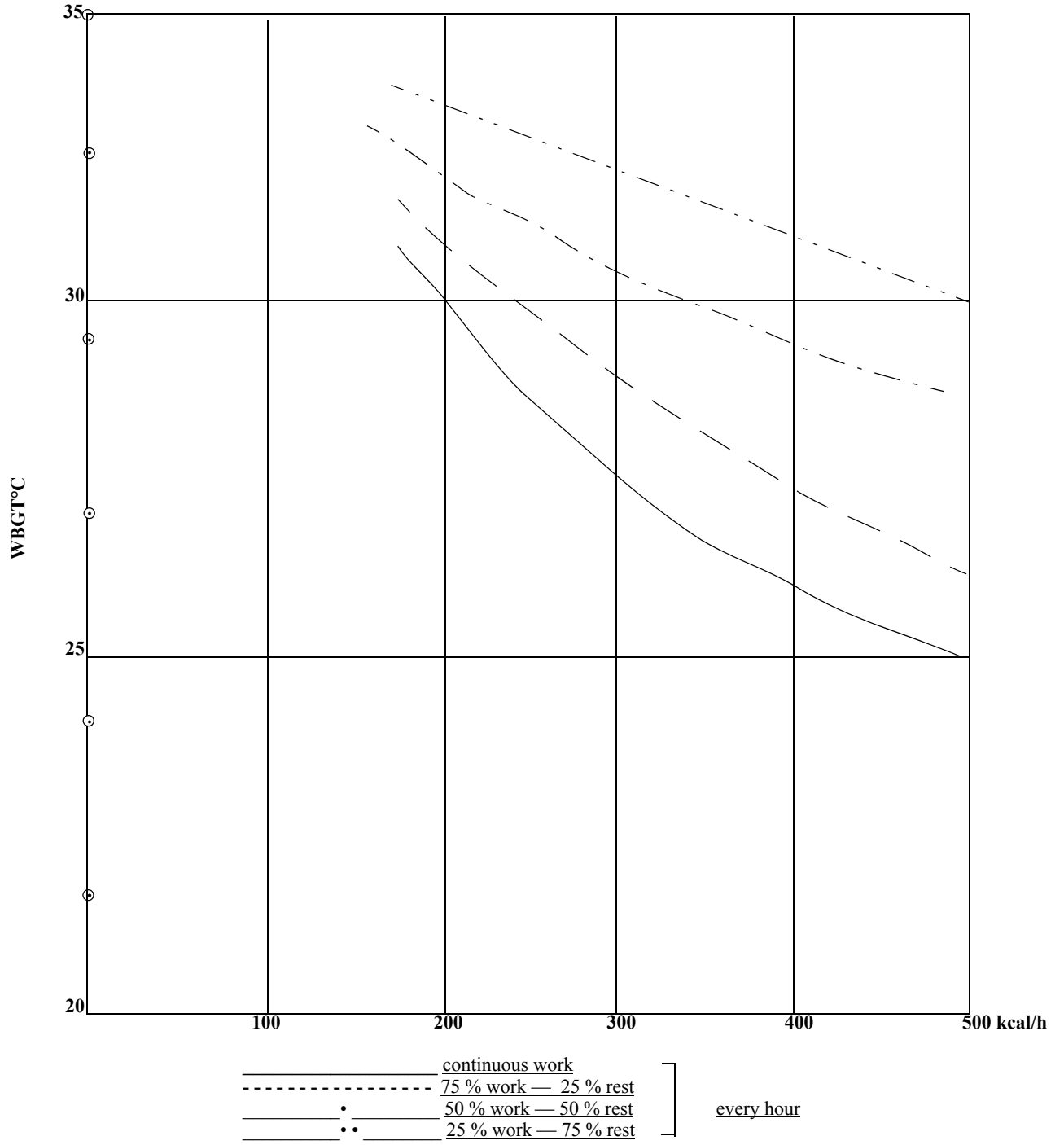
Alternate Regimen work/rest	Work load		
	light work	moderate work	
Continuous work	30.0	26.7	25.0
Work 75%, rest 25% (every hour)	30.6	28.0	25.9
Work 50%, rest 50% (every hour)	31.4	29.4	27.9

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Work 25%, rest 75% (every hour)	32.2	31.1	30.0
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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 -50 °C and +50 °C, with an accuracy of ± 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: ± 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.

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

OCCUPATIONAL HEALTH AND SAFETY

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.....	filing metal, planing 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
<hr/>	
	300 kcal/h
C. Basal metabolism	60 kcal/h
<hr/>	
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. Ind. 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:

$$(M_1) \times (t_1) + (M_2) \times (t_2) + \dots (M_n) \times (t_n)$$

$$M_{\text{moyen}} = \frac{M_1(t_1) + M_2(t_2) + \dots + M_n(t_n)}{(t_1) + (t_2) + \dots + (t_n)}$$

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.

SCHEDULE VI*(s. 125)*ILLUMINATION LEVELS IN ESTABLISHMENTS

Nature of work illumination	Examples of corresponding task	Minimum level in Lux
Storage, reserve 50	Warehouses, stockrooms, supervision	
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

MEASURING METHOD OF PREDOMINANT FREQUENCY BANDS (in corrected dBA)

(a) Using the analysis of each octave band from 31.5 Hz to 16 KHz, determine if one of the bands corresponds to the notion of predominant frequency band

(b) add 5 dB to the measured level of each band corresponding to the notion of predominant frequency band;

(c) modify the resulting sound spectrum as follows:

— at the level of 31.5 Hz, deduct 39.4 dB

— at the level of 63 Hz, deduct 26.2 dB

— at the level of 125 Hz, deduct 16.1 dB

— at the level of 250 Hz, deduct 8.6 dB

— at the level of 500 Hz, deduct 3.2 dB

— at the level of 1,000 Hz, no modification

— at the level of 2,000 Hz, add 1.2 dB

— at the level of 4,000 Hz, add 1.0 dB

— at the level of 8,000 Hz, deduct 1.1 dB

— at the level of 16,000 Hz, deduct 6.6 dB;

(d) then add the levels of each octave of the then modified spectrum by following the method for adding decibels;

(e) the result thus obtained is expressed in corrected dBA.

O.C. 885-2001, Sch. VII.

SCHEDULE VIII

(s. 145)

DAILY QUANTITY OF DRINKING WATER REQUIRED BY WORKERS

Destination	Characteristics	Daily quantity by worker in litres
Offices		55
Camps	Permanent	190
	Temporary	95
Schools		55
Factory	Without shower	55
	With shower	130
Plant or factory	Without shower	55
	With shower	130

O.C. 885-2001, Sch. VIII.

SCHEDULE IX

(s. 161)

SANITARY FACILITIES

Occupancy Notes	W.C.		Urinals	Lavatories		Tubs or Other showers fixtures
	men	women		men	women	
Arenas Players	1/30	players	1/30	1/30	players	1/10
Spectators	1/600	3/600	2/600	2/600	2/600	1/10
	men	women	men	men	women	players
Brasseries	1/40	1/90	See (a)	1/80	1/80	
	Customers	Customers		Customers	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 tub
101 to 200 persons	2	2		1	1	
201 to 400 persons	3	3	See (e)	2	2	
401 to 750 persons	add 1/600	add 1/600		3	3	
	persons	persons				
751 or more				add 1/1000	add 1/1000	
				persons	persons	
Employees: See (d)						

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Medical clinics	1/floor	1/floor		1/floor	1/floor	
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Bars (holding a liquor permit)

Customers:	1/25 men	1/30 women	See (e)	1/50 men	1/60 women	
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Employees:
See (d)

Dormitories, boarding houses for children

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	one tub per 50 persons; a sink service tub per 100 persons
151 persons or more	add 1/10 men	add 1/8 women	add 1/50 men	add 1/12 men	add 1/12 women	add 1/20 persons	

Schools

Primary	1/40 boys	1/35 girls	1/30 boys	1/50 boys	1/50 girls	See (g) 1/5 pupils	one service tub 1/floor
Other	1/75 boys	1/75 girls	1/30 boys	1/50 boys	1/50 girls	1/5 pupils	1/floor

Teachers:
See (d)

Office buildings
(See h)

1 to 15 employees of each gender	1	1		1	1		One service sink or tub per floor
16 to 35 employees of each gender	2	2	See (e)	2	2		
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	5	5		4	4		

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each gender 111-125 employees of each gender 126 and + 75 employees of each gender	6	6		4	4	
	add	add		add	add	
	1/50 men	1/50 women		1/60 men	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	
Hospitals (hospital centres)						At least one service sink per floor
1) Private room		1		1	1	sink per floor
2) Communal room 1/8	1/8 patients			1/8 patients	1/20	for the patients first 50
3) Waiting patients room		1				
Employees: See (d)						and an additional one per each 50 additional patients or signifi- cant fraction of 50
Hotel-Motel	See (j)			See (k)		
1) Private room	1/room			1/room	1/room	
2) Room with common bathroom 1 to 4 rooms/floor						
5 to 8 rooms/floor		1/floor		1/floor	1/floor	
9 rooms or more/floor	1/floor add	1/floor add		1/floor add	1/floor add	1/gender add

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	1/8 rooms	1/8 rooms		1/8 rooms	1/8 rooms	1/8 rooms
Professional care institutes, personal care institutes, beauty salon, hairstylist, barber	1	1		1 1/care unit	1	1 shower See (l)
Apartments 1 to 7 units apartment	1/apartment			1/apartment		1 tub 1 sink per per
8 units or more	1/apartment			1/apartment		apartment 1 tub 1 sink per per apartment See (m) See (n)
Stores a) Retail (See o) b) Department Stores, Shopping Centres 1) Customers 2) Employees: See (d) (q)	1		See (e)	1	1/300 men 1/300 women	See (p) See (p)
Rooming house (tourist, furnished, boarding, homes.)	See (j)			See (k)		See (r)
	1/10 rooms	1/10 rooms		1/10 rooms	1/10 rooms	2/10 rooms
Pools 1) Indoors 2) Outdoors 3) Spectators	1/60 men 1/120 men 1/600 men	1/40 women 1/80 women 3/600 women	1/60 men 1/120 men 2/600 men	1/100 men 2/600 men	1/100 women 1/300 women 2/600 women	See (s) 1/40 swimmers 1/80 1 Foot swimmers Bath
Jails, prisons						

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- 1) Inmates:
 See (c)
 2) Employees:
 See (d)
-

Restaurants					
1 to 25	1	See (t)		1	See (t)
Customers					
26 to 50	1 see (t)	1 see (t)		1 see (t)	1 see (t)
Customers					
51 to 100	1	2		1	1
Customers					
101 to 150	1	1		1	2
Customers					
151 to 200	2	3	See (e)		
Customers					
201 to 300	3	3		3	3
Customers					
301 or more	add	add		add	add
	1/50	1/50		1/50	1/50
	men	women		men	women
Employees:					
See (d) and (u)					

Reception rooms, meeting halls... (holding a liquor permit)			See (a)		
Customers	1/30 men	1/30 women		1/60 men	1/60 women
					A tub or a service sink
Funeral Homes	1	1		1	1
					A service sink and a floor drain in the embalming room
Service stations, gas bars (See v)	1	1		1	1

Any other establishment (plants, See (w)

warehouses,
workshops,
laundries,
foundries,
etc.)

See (h)				1	1
1 to 10 employees of each gender	1	1		add	add
11 to 25 employees of each gender	2	2	1	1/10 men	1/10 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	add	1/15 women
101 or more of each gender	add	add	add	add	add
	1/50 men	1/50 women	1/90 men	1/15 men	

- (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 1 to measure hypothermia and hyperthermia
- 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

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. (6 June 2015).

UPDATES

- O.C. 885-2001, 2001 G.O. 2, 3888
- O.C. 1120-2006, 2006 G.O. 2, 4047
- O.C. 119-2008, 2008 G.O. 2, 682
- O.C. 510-2008, 2008 G.O. 2, 2053
- O.C. 425-2010, 2010 G.O. 2, 1313

O.C. 392-2011, 2011 G.O. 2, 974
O.C. 915-2011, 2011 G.O. 2, 2618
O.C. 1079-2012, 2012 G.O. 2, 3236
O.C. 476-2013, 2013 G.O. 2, 1255
O.C. 499-2013, 2013 G.O. 2, 1280
O.C. 252-2014, 2014 G.O. 2, 728
O.C. 428-2015, 2015 G.O. 2, 1001
S.Q. 2015, c. 13, ss. 17 to 22
O.C. 1005-2015, 2015 G.O. 2, 3023
O.C. 1104-2015, 2015 G.O. 2, 3370
S.Q. 2015, c. 15, s. 237
O.C. 1187-2015, 2015 G.O. 2, 3480

