



PRINCE EDWARD ISLAND
ÎLE-DU-PRINCE-ÉDOUARD

OCCUPATIONAL HEALTH AND SAFETY ACT GENERAL REGULATIONS

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For more information concerning the history of these regulations, please see the *Table of Regulations* on the Prince Edward Island Government web site (www.princeedwardisland.ca).

If you find any errors or omissions in this consolidation, please contact:

Legislative Counsel Office
Tel: (902) 368-4292
Email: legislation@gov.pe.ca



OCCUPATIONAL HEALTH AND SAFETY ACT

Chapter O-1.01

GENERAL REGULATIONS

Pursuant to section 46 of the *Occupational Health and Safety Act* R.S.P.E.I. 1988, Cap. O-1.01, Council made the following regulations:

PART 1 — DEFINITIONS AND APPLICATION

1.1 Definitions in Act apply

All definitions presently in the *Occupational Health and Safety Act* R.S.P.E.I. 1988, Cap. O-1.01 apply in these regulations. (EC180/87; 43/06)

1.2 Employer to ensure compliance

Unless otherwise indicated the employer shall ensure compliance with these regulations. (EC180/87)

1.3 Measurement

The values given in International Metric (SI) units are to be considered the standard. The values in parenthesis are for information only. (EC180/87; 147/20)

1.4 Definitions

In these regulations

- (a) “**ACGIH**” means the American Conference of Governmental Industrial Hygienists;
- (b) “**Act**” means the *Occupational Health and Safety Act* R.S.P.E.I. 1988, Cap. O-1.01;
- (c) “**ANSI**” means American National Standard Institute;
- (d) “**approved**” means any recognized standard or level which is acceptable to the Director;
- (e) “**CSA**” means the Canadian Standards Association (CSA Group);
- (f) “**competent person**” means a person who
 - (i) is qualified because of that person’s knowledge, training and experience to do the assigned work in a manner that will ensure the health and safety of persons in the workplace, and

- (ii) is knowledgeable about the provisions of the Act and the regulations that apply to the assigned work, and about potential or actual danger to health or safety associated with the assigned work;
- (g) “ISEA” means the International Safety Equipment Association. *(EC180/87; 43/06; 147/20; 126/21)*

1.5 Inspection of codes and standards

A copy of all indices, standards, codes, Acts and regulations referred to in these regulations is available for inspection at the office of the Workers Compensation Board, Occupational Health and Safety Division. *(EC180/87; 639/93; 504/96; 126/21)*

1.6 Waiver

The Director may waive the application of these regulations to a particular workplace if the Director is satisfied that acceptable safety standards will be observed at that workplace. *(EC180/87; 147/20)*

1.7 Application of Regulations

- (1) These regulations do not apply to a workplace that is an agricultural operation conducted on farmland.

Application of Act

- (2) Revoked by EC632/04.

Definitions

- (3) In this section,
 - (a) “**agricultural operation**” includes the production activity conducted, or service provided, by a bona fide farmer in relation to
 - (i) berry farming,
 - (ii) Christmas tree culture,
 - (iii) dairy farming,
 - (iv) egg farming,
 - (v) grain and oilseed production,
 - (vi) orchards,
 - (vii) poultry farming,
 - (viii) a riding academy or the boarding or breeding of horses,
 - (ix) seed production,
 - (x) sod or turf production,
 - (xi) vegetable farming,
 - (xii) wool, hide, feather or fur production, and
 - (xiii) the raising of crops or animals for human or animal consumption,but does not include
 - (xiv) the production of agricultural byproducts or of manufactured derivatives from agricultural raw material,
 - (xv) the breeding or raising of pets other than horses, or
 - (xvi) aquaculture;

- (b) “**bona fide farmer**” means
- (i) an individual who owns a farm and
 - (A) is actively engaged in farming, and
 - (B) earns at least 25 per cent of the individual’s gross annual income from farming,
 - (ii) a corporation who owns a farm and
 - (A) is registered in the province,
 - (B) is actively engaged in farming, and
 - (C) earns at least 25 per cent of the corporation’s gross annual income from farming, or
 - (iii) a partnership that owns a farm and
 - (A) is registered in the province,
 - (B) is actively engaged in farming, and
 - (C) earns at least 25 per cent of the partnership’s gross annual income from farming;
- (c) “**farmland**” means land used for an agricultural operation.

Revocation

- (4) Revoked by EC632/04. (EC632/04)

1.8 Self-employed person

A duty or requirement that is imposed on an employer or a worker under these regulations applies to a self-employed person, with such modifications as the circumstances require. (EC632/04)

PART 2 — TOILET AND WASHING FACILITIES

2.1 Application

An officer may waive the requirements of this Part where work is carried on outdoors away from inhabited areas by small groups of workers and the place of work is constantly changing. (EC180/87; 126/21)

2.2 Toilet facilities

Every employer shall at each workplace provide proper toilet facilities which shall be maintained and kept clean and shall have adequate provision for privacy, heat, light and ventilation. (EC180/87)

2.3 Maintenance

Every employer shall ensure that toilet facilities are maintained in proper working order at all times. (EC180/87)

2.4 Privacy

Where fewer than 10 persons are employed, the employer shall provide washroom and toilet facilities in a room having a proper door with a locking device on the inside. (EC180/87; 216/21)

2.5 Separate facilities

Where 10 or more persons are employed, the employer shall provide separate washrooms and toilet facilities for each sex with a locking device on the inside. (EC180/87; 126/21)

2.6 Requirements

(1) In every place of employment where running water is available, the employer shall provide

(a) toilet facilities in accordance with the following table:

No. of Persons	Facilities
1 to 9	1
10 to 24	2
25 to 49	3
50 to 74	4
75 to 100	5
Over 100	(1 for each additional 30 persons)

(b) a supply of toilet tissue for each toilet at all times and washable covered receptacles for waste;

(c) adequate and suitable facilities for personal washing including a supply of clean hot and cold running water, soap, towels or other suitable means of washing and drying.

Idem

(2) Where more than two toilets are required for male workers the employer may substitute urinals for up to 2/3 of the required number of toilets.

Shower facilities

(3) Where there is a high risk of contamination of workers by the presence of hazardous substances, infectious or offensive materials that are part of the regular work processes at a workplace, an employer shall, where reasonably practicable, supply and maintain adequate changing and showering facilities.

Requirements

(4) Where changing and shower facilities referred to in subsection (3) are provided, an employer shall

(a) provide separate shower rooms for male and female workers except where there are fewer than six persons employed at a workplace;

(b) ensure that where there are fewer than six persons employed at a workplace a shower room with a door that has a locking device on the inside is provided;

(c) ensure that the floors of shower rooms have a non-slip surface; and

(d) ensure that at every workplace the water supply, used for washing and showering,

(i) can be manually adjusted to within a range of 35°C and 45°C, and

(ii) is not heated by the injection of steam. (EC180/87; 126/21)

2.7 Chemical toilets

In workplaces where running water is not available the employer shall provide privies, chemical toilets, or other types of toilets and facilities for handwashing to the satisfaction of an officer. (EC180/87)

2.8 Requirements

Every employer shall ensure that all chemical toilets or privies are

- (a) provided from the start of the project;
- (b) constructed so that any user is sheltered from view and protected from weather and flying objects;
- (c) adequately heated in cold weather;
- (d) provided with adequate supplies of disinfectant;
- (e) maintained in a clean and sanitary condition. *(EC180/87)*

2.9 Emergency eyewash and shower equipment

An employer shall ensure that

- (a) appropriate emergency washing facilities are provided in a work area where a worker's eyes or skin may be exposed to harmful or corrosive materials or other materials which may burn or irritate the worker's eyes or skin;
- (b) only a potable water supply is used in a plumbed emergency eyewash facility and that only potable water or an isotonic saline flushing solution is used in a potable (non-plumbed) eyewash unit;
- (c) access to emergency eyewash and shower facilities is not blocked by material or equipment;
- (d) the selection of emergency washing facilities is based upon an assessment of risks present in the workplace; and
- (e) where the assessment of risks referred to in clause (d) determines that an emergency shower or eyewash fountain is required, the shower or fountain, as the case may be, is installed, tested, and maintained in accordance with the ANSI Standard Z358.1-14, American National Standard for Emergency Eyewash and Shower Equipment. *(EC126/21)*

PART 3 — DRINKING WATER**3.1 Drinking water**

At every workplace the employer shall provide an adequate supply of water suitable for drinking that is readily accessible for workers, and when necessary for identification clearly marked "Drinking Water". *(EC180/87; 126/21)*

3.2 Containers

The employer shall ensure that where drinking water is not taken directly from a water pipe it is contained in a clean covered container equipped with a drain faucet. *(EC180/87)*

3.3 Cups

The employer shall provide a supply of individual drinking cups except where the water is delivered in an upward jet from which workers may conveniently drink. *(EC180/87;126/21)*

PART 4 — LUNCH ROOMS OR EATING AREAS

4.1 Lunch and rest room

In every workplace the employer shall provide a clean lunch and rest room that

- (a) does not have a door opening directly into a toilet facility;
- (b) is separate from any place where there is the possibility of food being contaminated by a dangerous substance;
- (c) is not used for any purpose that is incompatible with its use as a lunch room;
- (d) is adequately provided with
 - (i) light, heat and ventilation,
 - (ii) hand cleansing and drying facilities in close proximity,
 - (iii) sufficient tables and seating facilities for the use of workers,
 - (iv) suitable covered receptacles for the disposal of food; and
- (e) is kept in a sanitary condition. (EC180/87; 126/21)

4.2 Exclusions

Exclusions to this regulation may be made by the officer. (EC180/87)

4.3 Conveyance of food

No worker shall convey food or drink into a room where any process that may contaminate the food and drink is being carried out. (EC180/87; 126/21)

PART 5 — HOUSEKEEPING - GENERAL PROVISIONS

5.1 General safety requirements

In every workplace the employer shall ensure that

- (a) all personal service rooms such as locker rooms, lunch rooms, canteens, wash rooms and rest rooms shall
 - (i) be kept free of insects or vermin of any kind,
 - (ii) be maintained in a bright, clean and sanitary condition at all times, and
 - (iii) be adequately ventilated;
- (b) surfaces of walls and ceilings, including windows and skylights, shall be kept clean and in a good state of repair;
- (c) the floor space of any building or work area shall not be so crowded with machinery, products or materials as to constitute a hazard to workers;
- (d) sufficient space shall be provided around individual machines or process units to allow for normal operation, adjustments and repairs;
- (e) protruding nails in boards, walls, lumber or scrap materials shall be removed so as not to constitute a hazard;
- (f) floors shall be even and free from anything which may create a stumbling hazard;
- (g) floors shall be kept dry and in a non-slippery condition except in areas where floors remain wet because of the work process;
- (h) where a worker is required to work on a wet floor, suitable foot wear shall be worn;

- (i) every precaution shall be taken to prevent gasoline, oil or grease being spilled on floors; if gasoline, oil or grease is spilled on floors so as to constitute a slipping or fire hazard, the area affected shall be cleaned up immediately;
- (j) combustible materials such as shavings, waste, oily rags, etc., shall not be allowed to accumulate on floors, benches or in places where they would constitute a fire hazard;
- (k) flammable rubbish, weeds and grass shall not be allowed to accumulate in yards around buildings or around flammable material storage;
- (l) waste chemicals such as heat producing (oxidizing) compounds shall be disposed of in safe areas;
- (m) suitable receptacles of substantial construction which shall not leak shall be provided for the disposal of rubbish;
- (n) waste material and debris shall be removed daily, or more often if necessary, from the building or structure to a suitable disposal area to prevent a hazardous condition;
- (o) waste material and debris shall
 - (i) not be permitted to fall freely from one level to another, and
 - (ii) be lowered by chute, or in a suitable container;
- (p) work areas shall be cleaned as often as necessary considering the nature of work carried on;
- (q) where cleaning must be done during working hours i.e. sweeping, every effort shall be made to prevent dust;
- (r) scrap materials, parts, etc., shall be properly disposed of when a job is completed;
- (s) every scaffold, runway, stairway, passageway and ramp shall
 - (i) be kept clear of obstructions at all times,
 - (ii) be kept clear of ice, snow or other slippery materials, and
 - (iii) when necessary to ensure firm footing, be sprinkled with sand or other suitable abrasive material;
- (t) small tools and gear shall, at the end of each work shift, be collected and stored in a suitable place;
- (u) passageways shall be sufficiently wide and shall not be blocked by the piling of material, but shall be kept clear of obstruction at all times. *(EC180/87; 126/21)*

5.2 Care of tools

No persons shall place any tool or other object where it may endanger other workers. *(EC180/87; 126/21)*

5.3 Changing room

The employer shall provide a changing room if the nature of the work by a worker makes it necessary for the worker to change from street clothes for safety or health reasons. *(EC180/87; 126/21)*

PART 6 — ILLUMINATION

6.1 Lighting

Every employer shall provide, while workers are present, lighting sufficient and suitable for work to be done in every workplace. *(EC180/87; 126/21)*

6.2 Illumination of work areas

All work areas shall be illuminated with a minimum lighting intensity, measured in lux at a point 762 mm (30 in.) above the floor, as follows:

GENERAL LIGHTING

- (a) Seldom Used Areas 100 lux
..... (10 f.c.)
(When repair or maintenance work is to be done in such areas, temporary supplementary lighting will be necessary.)
- (b) Frequently Used Areas 300 lux
..... (30 f.c.)
(When repair or maintenance work is to be done in such areas, temporary supplementary lighting will be necessary.)
- (c) Continuously Used Areas 500 lux
..... (50 f.c.)
(These may include hallways, aisles, areas around moving machinery, etc.)
- (d) Offices 650 lux - 750 lux
..... (65 f.c. - 75 f.c.)
- (e) For specific areas other than as mentioned above an officer shall determine the required illumination.

EMERGENCY LIGHTING

Emergency lighting shall be provided in places of employment normally used during periods of darkness. Such emergency lighting shall provide a minimum level of 10 lux (1 f.c.) at all means of egress from the place of employment. *(EC180/87)*

6.3 Emergency lighting

The employer shall ensure that in an area of a building where a failure of the regular lighting system would create conditions which might endanger the safety of any person in the building, emergency lighting is provided which

- (a) turns on automatically when the regular lighting fails;
- (b) is independent of the regular lighting source;
- (c) provides adequate lighting for evacuation of the area; and
- (d) is tested at least once every three months to ensure the system will function in an emergency, but not less frequently than recommended by the manufacturer. *(EC180/87)*

PART 7 — TEMPORARY HEAT

7.1 Storage of fuel

The employer shall ensure that liquid fuel or gas for a temporary heating device in excess of one day's supply shall

- (a) be stored in safe conditions;
- (b) not be stored in a building or structure unless in a fire resistant room constructed for the purpose;
- (c) not be stored adjacent to a means of egress. *(EC180/87)*

7.2 Safety requirement

The employer shall ensure that a fuel fired heating device, including a temporary furnace

- (a) shall be placed on the ground or on a non-combustible floor, but it may be placed upon a wooden floor if it is separated therefrom by 76 mm (3 in.) of non-combustible material covered by sheet metal and extending 600 mm (23.6 in.) beyond all sides of the device;
- (b) shall be so located, protected and used that it will not ignite
 - (i) tarpaulins or similar temporary enclosures, or
 - (ii) wood or other combustible materials;
- (c) shall be provided with a securely supported short metal pipe to discharge the products of combustion outdoors where necessary;
- (d) shall, where specified by the manufacturer, be vented to the outside atmosphere to remove harmful or noxious fumes;
- (e) shall be used only where there is adequate general ventilation while workers are in the building or structure. *(EC180/87; 126/21)*

7.3 Portable heaters

The employer shall ensure that portable heaters are not

- (a) used in a confined space;
- (b) located in or adjacent to a means of egress. *(EC180/87)*

7.4 Fire extinguishers

An approved fire extinguisher of adequate size shall be readily available at the location of every temporary heating device. *(EC180/87)*

7.5 Steam piping

Temporary steam piping shall be

- (a) securely supported; and
- (b) insulated or protected by screens or guards where workers are likely to accidentally come into contact with the piping. *(EC180/87; 126/21)*

PART 8 — NOISE

8.1. Definitions

(1) In this Part,

- (a) “**noise exposure limit**” means a noise exposure limit established under section 8.3;
- (b) “**practicable**” means that which is reasonably capable of being done.

Terminology and measurements

- (2) Noise terminology and measurements used or described in this Part have the same meaning that they have in
- (a) CSA Standard Z107.56-18, Measurement of Noise Exposure; and
 - (b) ANSI Standard S1.25-1991, Specification for Personal Noise Dosimeters. *(EC180/87; 652/07; 126/21)*

8.2 Use of practicable means to reduce noise

An employer shall ensure that practicable means are used to reduce the noise to which workers are exposed in areas at the workplace where workers may be present. *(EC180/87; 652/07)*

8.3 Noise exposure limits

An employer shall ensure that a worker’s noise exposure does not exceed any of the following noise exposure limits:

Exposure level (dBA)	Exposure duration
80	24 hours
82	16 hours
85	8 hours
88	4 hours
91	2 hours
94	1 hour
97	30 minutes
100	15 minutes
103	7.50 minutes
106	3.75 minutes
109	1.88 minutes
112	0.94 minutes
115 and greater	0

(EC180/87; 652/07)

8.4 Measurement of noise level

- (1) Unless otherwise provided in this Part, where
- (a) a worker of an employer is exposed to noise at the workplace of the employer in excess of any noise exposure limit; or
 - (b) an employer or worker of an employer has reason to believe that a worker of the employer may be exposed to noise at the workplace of the employer in excess of any noise exposure limit,

the employer shall cause the noise exposure of a worker at the workplace to be measured without delay.

Repetition of noise exposure measurement

- (2) Where, in accordance with subsection (1), an employer causes a noise exposure measurement to be made at a workplace of the employer, the employer shall cause the measurement to be repeated without delay after a change in equipment or process affects the exposure level, or the exposure duration, at the workplace.

Procedure

- (3) Where, in accordance with subsection (1) or (2), an employer causes a noise exposure measurement to be made at a workplace of the employer, the employer shall ensure that
- (a) the noise exposure measurement is performed in accordance with CSA Standard Z107.56-18, Measurement of Noise Exposure; and
 - (b) the noise dosimeters and sound level meters used in the noise exposure measurement meet the requirements of ANSI Standard S1.25-1991, Specification for Personal Noise Dosimeters.

Duty to inform workers of results

- (4) The employer shall as soon as possible after a noise exposure measurement is conducted at a workplace of the employer inform affected workers of
- (a) the results of the noise exposure measurement; and
 - (b) the significance of the results in terms of their risk of hearing loss at the workplace.
(*EC180/87; 652/07; 126/21*)

8.5. Exception

Notwithstanding anything to the contrary in section 8.4, an employer is not required to measure the noise exposure of a worker of the employer at the workplace of the employer, if the employer can reasonably determine, without a noise exposure measurement, that the worker is exposed to noise at the workplace in excess of any noise exposure limit. (*EC652/07*)

8.6 Engineered noise control

Where a worker of an employer is exposed to noise in the workplace in excess of any noise exposure limit, the employer shall

- (a) investigate options for engineered noise control; and
- (b) if practicable, implement one or more of those options to reduce noise exposure of workers to or below the noise exposure limit. (*EC652/07*)

8.7 Reduction of noise exposure, signs

- (1) If it is not practicable for an employer to reduce the noise exposure of a worker of the employer at the workplace to or below any noise exposure limit, the employer shall
- (a) reduce the noise exposure of the worker to the lowest level practicable;
 - (b) establish a noise control and hearing conservation program that complies with the requirements of section 8.8;
 - (c) post warning signs in the noise hazard areas;
 - (d) give to affected workers hearing protection that meets the requirements of CSA Standard Z94.2-14, Hearing Protection Devices - Performance, Selection, Care, and Use, provide training to the affected workers in the use and care of the hearing protection and maintain the hearing protection so that it continues to meet those requirements; and
 - (e) ensure that hearing protection required by clause (d), is worn properly by workers of the employer in noise hazard areas.

Hearing protection

- (2) Every worker in a posted noise hazard area shall wear hearing protection. *(EC652/07; 126/21)*

8.8 Program - requirement

A noise control and hearing conservation program required under subsection 8.7(1) shall include provisions on

- (a) noise measurement;
- (b) education and training;
- (c) engineered noise control;
- (d) hearing protection;
- (e) posting of noise hazard areas;
- (f) hearing tests; and
- (g) annual program review. *(EC652/07)*

8.9 Hearing test

- (1) An employer shall ensure that workers of the employer who are exposed to noise in the workplace that exceeds a noise exposure limit are given
- (a) an initial hearing test without delay after employment starts, but not later than 6 months after the start of employment; and
 - (b) a hearing test at least once every 12 months after the initial test if the worker continues to be employed with the employer.

Who must administer hearing tests

- (2) An employer shall ensure that hearing tests required under subsection (1) shall be administered by
- (a) an audiologist; or
 - (b) a person who is certified to conduct audiometric testing.

Cost responsibility

- (3) The employer shall be responsible for paying for hearing tests administered under this section. *(EC652/07)*

8.10 Records

The employer shall keep records of

- (a) the initial and annual hearing test results for each worker, which shall
 - (i) be kept as long as the worker is employed by the employer, and
 - (ii) be kept confidential and not released to anyone without the written permission of the worker, or as otherwise required by law;
- (b) the education and training provided to workers; and
- (c) the results of noise exposure measurements taken under section 8.4. (EC652/07)

PART 9 — FIRST AID**9.1 Definitions**

(1) In this Part,

- (a) **“Advanced Level First Aid Certificate”** means a certificate issued by an approved organization or person for the successful completion of a first aid course that consists of
 - (i) an awareness and knowledge component,
 - (ii) a practical skills component that includes at least 35 hours of practical skills training, and
 - (iii) an assessment component that evaluates the knowledge skills and practical skills of a workplace first aider;
- (b) **“approved organization or person”** means an organization or person approved to provide first aid courses and training under subsection (2);
- (c) **“Basic Level First Aid Certificate”** means a certificate issued by an approved organization or person for the successful completion of a first aid course that consists of
 - (i) an awareness and knowledge component,
 - (ii) a practical skills component that includes at least 3.5 hours of practical skills training, and
 - (iii) an assessment component that evaluates the knowledge skills and practical skills of a workplace first aider;
- (c.1) **“Emergency Medical Services”** means a network of services coordinated to provide aid and medical assistance, from primary response to definitive care, involving personnel trained in the rescue, stabilization, transportation, and treatment of persons experiencing traumatic or medical emergencies;
- (d) **“first aid certificate”** means a Basic Level First Aid Certificate, an Intermediate Level First Aid Certificate, and an Advanced Level First Aid Certificate;
- (e) **“first aid kit”** means a container containing the supplies required by this Part;
- (f) revoked by EC126/21;
- (g) **“first aid room”** means a room at a workplace that is used exclusively for the purpose of administering first aid;
- (h) **“hospital”** means a hospital as defined in the *Hospitals Act* R.S.P.E.I. 1988, Cap. H-10.1;

- (h.1) “**Intermediate Level First Aid Certificate**” means a certificate issued by an approved organization or person for the successful completion of a first aid course that consists of
 - (i) an awareness and knowledge component,
 - (ii) a practical skills component that includes at least 7 hours of practical skills training, and
 - (iii) an assessment component that evaluates the knowledge skills and practical skills of a workplace first aider;
- (i) “**low risk work**” means work of an administrative, professional or clerical nature that does not require substantial physical exertion or exposure to work processes, substances or other conditions that are potentially hazardous;
- (j) “**nursing home**” means a nursing home as defined in the *Community Care Facilities and Nursing Homes Act* R.S.P.E.I. 1988, Cap. C-13;
- (j.01) “**practical skills component**” means a hands-on learning experience in a supervised setting aimed at the preparation, training and assessment of a learner;
- (j.1) “**risk**” means a combination of the likelihood of the occurrence of harm and the severity of that harm;
- (k) revoked by (EC600/24);
- (l) “**working alone**” means the worker is the only worker of the employer at that workplace and the worker is working in circumstances where assistance is not readily available to the worker in the event of injury, illness or an emergency;
- (m) “**workplace first aider**” means a designated worker who holds a valid first aid certificate that meets the requirements set out in CSA Standard Z1210-17, “First Aid Training for the Workplace - Curriculum and Quality Management for Training Agencies”;
- (n) “**workplace first aid risk assessment**” means a process used to determine the risk level in a workplace as it relates to the provision of workplace first aid services, first aid kits and supplies.

Approved organization or person

- (2) For the purposes of this Part, an organization or person is approved to provide first aid training if the organization or person provides the training in accordance with the requirements set out in CSA Standard Z1210-17, “First Aid Training for the Workplace - Curriculum and Quality Management for Training Agencies”.

First aid training standard

- (3) An organization or person approved under subsection (2) shall provide first aid training to workers in accordance with the requirements set out in CSA Standard Z1210-17, “First Aid Training for the Workplace - Curriculum and Quality Management for Training Agencies”.
(EC180/87; 49/12; 126/21; 600/24)

9.2 Application

This Part does not apply to

- (a) a hospital;
- (b) a nursing home; or
- (c) a worker’s private residence that is equipped with a home office where the worker conducts low risk work for an employer. (EC180/87; 49/12; 600/24)

9.3 Employer responsibilities

- (1) An employer shall, at the employer's own expense, provide and maintain at each of the employer's workplaces the first aid supplies and services that are required to be so provided and maintained by this Part.

Accessibility of workplace first aid supplies and services

- (1.1) Workplace first aid supplies and services shall be readily available and accessible during working hours.

Employer to assess risk

- (2) An employer shall assess the risks that workers are likely to encounter at the workplace and ensure that there are adequate first aid supplies and services at the workplace.

Workplace first aid risk assessment

- (3) The workplace first aid risk assessment shall be conducted by a competent person at the workplace in consultation with the occupational health and safety committee, safety representative, or workers, as applicable.

Components of workplace first aid risk assessment

- (4) The workplace first aid risk assessment shall include
 - (a) the identification of hazards that could result in a work-related injury or illness;
 - (b) an assessment of the type, potential severity, likelihood, and resulting risk of injuries and illnesses which could occur in the workplace taking into consideration
 - (i) the characteristics of the workplace,
 - (ii) the number of workers at the workplace per shift,
 - (iii) industry sector trends,
 - (iv) the organization's history of workplace first aid incidents,
 - (v) the proximity of trained workplace first aiders to provide first aid,
 - (vi) accessibility to emergency medical services,
 - (vii) work patterns, such as shift work, workers on shared sites, multi-occupied sites, and planned and unplanned leave of workplace first aiders,
 - (viii) modes of transportation for transporting injured or ill persons to a medical facility, and
 - (ix) any special needs including, but not limited to, workers with disabilities or known medical conditions; and
 - (c) the identification of the appropriate first aid supplies and services to respond to the types of injury or illness that could occur in the workplace.

Review of workplace first aid risk assessment

- (5) An employer shall, at least annually and more frequently if required by a change in work conditions, review the workplace first aid risk assessment in consultation with the occupational health and safety committee, safety representative, or workers, as applicable.

Additional first aid supplies or services

- (6) Where an officer determines that the workplace first aid risk assessment conducted under this Part is not adequate given the particular risks associated within a workplace, the officer may specify additional first aid supplies or services to be provided by the employer.

Multiple levels of risk – higher risk level

- (7) Where multiple levels of risk exist simultaneously at a single workplace, the employer shall ensure a higher level of risk is used when determining the appropriate workplace first aid kit and level of training required by the workplace first aider. *(EC180/87; 49/12; 126/21; 600/24)*

9.4 Worker responsibilities

A worker at a workplace shall use the first aid supplies and services provided at the workplace as needed by the worker and without undue delay. *(EC180/87; 49/12)*

9.5 First aiders

- (1) An employer shall
- (a) designate one or more workers to act as workplace first aiders at each workplace of the employer;
 - (b) maintain a record of the name of each worker who is designated as a workplace first aider; and
 - (c) ensure that the level of first aid training for the workplace first aider is consistent with the workplace first aid risk assessment required and conducted under this Part.

Posting of information

- (2) An employer shall post, at a conspicuous place at each workplace of the employer, a sign that states the names and phone numbers of the workplace first aiders.

Idem

- (3) Where the posting of a sign at a workplace of an employer is not practicable, the employer shall ensure that each worker at the workplace is informed of the names and phone numbers of the workplace first aiders. *(EC180/87; 49/12; 126/21; 600/24)*

9.6 First aid training

An employer shall ensure, before making a designation under subsection 9.5(1), that each worker who the employer designates to act as a workplace first aider holds a valid first aid certificate at the Basic Level, Intermediate Level or Advanced Level as required by this Part. *(EC180/87; 49/12; 126/21; 600/24)*

9.7 Workplace first aider training competencies

Where a workplace first aid risk assessment has been conducted under this Part, an employer shall determine the level of risk that workers may encounter at the workplace in accordance with the following:

- (a) where the level of risk is considered low, the employer shall ensure there is a designated workplace first aider who holds a valid Basic Level First Aid Certificate at the workplace at all times;
- (b) where the level of risk is considered moderate, the employer shall ensure there is a designated workplace first aider who holds a valid Intermediate Level First Aid Certificate at the workplace at all times;
- (c) where the level of risk is considered high, the employer shall ensure there is a designated workplace first aider who holds a valid Advanced Level First Aid Certificate at the workplace at all times. *(EC180/87; 49/12; 126/21; 600/24)*

9.8 Vehicles and boats

A vehicle or boat used by or under the control of the employer for transporting workers to and from a workplace shall be equipped with a Type 3: Intermediate First Aid Kit, the size of which shall be determined based on the legal seating capacity of the vehicle or boat in question, pursuant to the requirements set out in CSA Standard Z1220-17, First Aid Kits for the Workplace. (EC180/87; 49/12; 126/21; 600/24)

9.9 Report of injury

A worker who sustains an injury at a workplace shall report the injury to the employer or supervisor of the worker as soon as practicable after the injury. (EC180/87; 49/12)

9.10 Record of treatment

- (1) Where a workplace first aider administers first aid to a worker who has sustained an injury at a workplace, the workplace first aider shall, as soon as practicable afterwards,
 - (a) prepare a written record that sets out
 - (i) the name of the injured worker,
 - (ii) the date and time of the injury,
 - (iii) a description of the injury,
 - (iv) the first aid treatment administered,
 - (v) a description of the incident causing the injury,
 - (vi) the date and time when first aid was administered,
 - (vii) the name of the workplace first aider, and
 - (viii) the name of the person to whom the worker reported the injury under section 9.9; and
 - (b) provide the written record to the employer of the injured worker.

Retention of written record

- (2) Where an employer is provided with a written record under subsection (1), the employer shall retain the record for a period of three years after the date of the injury referred to in the record. (EC180/87; 49/12; 126/21; 600/24)

9.11 Employer shall determine classification of first aid kits

- (1) The employer shall determine the classification of the first aid kit and any additional supplies required, pursuant to the findings of the first aid risk assessment conducted under this Part.

Higher risk level

- (2) Revoked by (EC600/24).

Minimum requirements

- (3) The minimum requirements for the contents of workplace first aid kits and the type, number and size of workplace first aid kits shall meet the requirements set out in CSA Standard Z1220-17, First Aid Kits for the Workplace.

Classification of workplace first aid kits

- (4) Workplace first aid kits shall be classified as follows:
 - (a) Type 1: Personal First Aid Kit;

- (b) Type 2: Basic First Aid Kit, further classified as
 - (i) small,
 - (ii) medium, and
 - (iii) large;
- (c) Type 3: Intermediate First Aid Kit, further classified as
 - (i) small,
 - (ii) medium, and
 - (iii) large.

First aid kits combinations

- (5) To ensure first aid kits are readily accessible to all workers and that the particular configurations of workplaces can be accommodated, first aid kits of different sizes (small, medium and large) may be used in various combinations in accordance with workplace first aid kits classifications, pursuant to subsection (4).

Proportionate distribution

- (6) For workplaces with more than 100 workers, first aid kits shall be proportionately distributed in the workplace.

Increase in minimum requirements

- (7) An employer may increase the minimum requirements in respect of the contents of workplace first aid kits in the workplace to account for any specific workplace hazards or risks or to address other site-specific conditions. *(EC180/87; 49/12; 126/21; 600/24)*

9.12 First aid supplies, requirements

An employer shall ensure that all supplies required to be kept by the employer at the workplace under this Part are

- (a) kept clean and dry; and
- (b) checked regularly for expiry and replaced on or before their expiry. *(EC180/87; 49/12)*

9.13 Posting of information

- (1) An employer shall post, at a conspicuous place at the workplace, a sign that indicates the location of first aid kits kept at the workplace.

Idem

- (2) Where the posting of a sign at a workplace is not practicable, the employer shall ensure that each worker at the workplace is informed of the location of first aid kits kept there. *(EC180/87; 49/12)*

9.14 First aid room

- (1) Where
 - (a) either
 - (i) the only work conducted at a workplace is work other than low risk work, or
 - (ii) both low risk work and work other than low risk work are conducted at a workplace; and

- (b) there are more than 100 workers regularly employed on any one shift at the workplace,

the employer shall provide a first aid room at the workplace.

Idem

- (2) An employer who is required under subsection (1) to provide a first aid room at a workplace shall ensure that the first aid room
- (a) has adequate lighting, ventilation and heating, including emergency lighting in accordance with section 6.3;
 - (b) is kept clean and in a sanitary condition;
 - (c) is an adequate size to accommodate a stretcher;
 - (d) has posted emergency telephone numbers;
 - (e) is used only for the purpose of administering first aid;
 - (f) is accessible by the workers at all times during their shift; and
 - (g) is equipped with
 - (i) a telephone or other means of communication between the first aid room and the emergency medical services that will be transporting the worker, if applicable,
 - (ii) instructions on how and where to access a workplace first aider,
 - (iii) a permanently installed sink with hot and cold running water,
 - (iv) a bed or cot with a moisture-protected mattress and two pillows,
 - (v) a treatment chair with arm rests,
 - (vi) a flashlight,
 - (vii) a wash basin made from stainless steel or polypropylene,
 - (viii) a nail brush,
 - (ix) a package of paper towels,
 - (x) hand soap,
 - (xi) a package of disposable paper cups,
 - (xii) a kidney basin made of stainless steel or polypropylene, and
 - (xiii) a large Type 3: Intermediate First Aid Kit, that meets the requirements set out in the CSA Standard specified in subsection 9.11(3). (*EC49/12; 126/21; 600/24*)

9.15 Transitional – Basic Level First Aid Certificate

- (1) A workplace first aider who, immediately before the date this section comes into force, holds a valid Emergency First Aid Certificate is deemed, on and after the date this section comes into force, to hold a valid Basic Level First Aid Certificate, subject to any expiry date specified on the certificate.

Transitional – Intermediate Level First Aid Certificate

- (2) A workplace first aider who, immediately before the date this section comes into force, holds a valid Standard First Aid Certificate is deemed, on and after the date this section comes into force, to hold a valid Intermediate Level First Aid Certificate, subject to any expiry date specified on the certificate.

Transitional – Advanced Level First Aid Certificate

- (3) A workplace first aider who, immediately before the date this section comes into force, holds a valid Advanced First Aid Certificate is deemed, on and after the date this section comes into force, to hold a valid Advanced Level First Aid Certificate, subject to any expiry date specified on the certificate. *(EC126/21; 600/24)*

PART 10 — NON-IONIZING RADIATION

10.1 Laser radiation

The employer shall ensure that a laser or laser device is installed, operated, labelled and maintained in accordance with ANSI Standard Z136.1-2014, American National Standard For Safe Use of Lasers. *(EC180/87; 126/21)*

10.2 Infra-red radiation

- (1) The employer shall ensure that all sources of intense infra-red radiation are shielded as near the source as possible by heat absorbing screens, water screens, or other suitable devices.

Protective equipment

- (2) The employer shall ensure that workers are provided with and all workers shall wear properly fitting goggles, face shields, or other adequate eye protection when entering an area where they may be subjected to heat rays liable to injure or irritate the eyes. *(EC180/87; 126/21)*

10.3 Ultra-violet radiation

The employer shall ensure that workers are protected from dangerous emissions of ultra-violet radiation by remaining at a safe distance from the source or by the employer

- (a) placing protective cabinets or screens around the sources of emission; or
- (b) placing a screen of ultra-violet absorbing glass or other material between the workers and the source of radiation. *(EC180/87; 126/21)*

10.4 Microwave and radio frequency radiation

- (1) In case of continuous or modulated microwave and radio frequency radiation in the frequency range 10 MHz - 300 GHz, the employer shall ensure that whole or partial body exposures (with the exception of exposures to the extremities) shall not exceed the following limits:

- (a) in the frequency range 10 MHz - 1 GHz a maximum permitted average power density of 1 mW/cm², when averaged over a one-hour period;
- (b) in the frequency range 1 GHz - 300 GHz a maximum permitted average power density of 5 mW/cm², when averaged over a one hour period; and
- (c) in the frequency range 10 MHz - 300 GHz, a maximum permitted average power density of 25 mW/cm², when averaged over a one-minute period.

Power density

- (2) The employer shall ensure that for exposure of extremities to continuous or modulated microwave radiation in the frequency range 10 MHz - 300 GHz, the average power density does not exceed 10 mW/cm³, when averaged over a one-hour period. *(EC180/87)*

10.5 Signs

The employer shall ensure that controlled areas which allow only restricted occupancy are clearly designated using adequate warning signs, and maximum occupancy periods are posted. (EC180/87)

PART 11 — VENTILATION**11.1 Adequate ventilation**

The employer shall ensure that the workplace is adequately ventilated by either natural or mechanical means such that the atmosphere does not endanger the health and safety of workers under normal working conditions. (EC180/87; 126/21)

11.2 Control systems

Where practical, contaminants shall be controlled at the source by means of hoods, ducts or such other means as may be necessary. (EC180/87)

11.3 Threshold limit values

Where the air of working areas is contaminated by vapours, fumes, gases, mists or other impurities which constitute a hazard to the health or safety of workers, suitable means of ventilation shall be provided by the employer to reduce contamination in the atmosphere at or below the threshold limit values specified by the American Conference of Governmental Industrial Hygienists (ACGIH) in the 2019 edition of the publication “Threshold Limit Values and Biological Exposure Indices”, as amended from time to time. (EC180/87; 147/20; 126/21)

11.4 Maintenance

The employer shall ensure that all parts of ventilation systems are maintained, cleaned and that ventilation openings are always free of any obstruction or source of contamination. (EC180/87)

11.5 Drawings, etc.

The employer shall, upon request, submit drawings and specifications of the ventilation system or any modification of the ventilation system to an officer. (EC180/87)

11.6 Air space requirement

The employer shall ensure that every workplace contains at least 8.5 m³ (300 ft³) of air space for each worker. (When calculating the cubic meter (foot) requirement, height above 3.1 m (10 ft.) is excluded.) (EC180/87; 126/21)

11.7 Means of ventilation

The employer shall ensure that every workplace shall be adequately ventilated by either

- (a) natural ventilation provided by windows, shutters or louvres which can be opened, having a combined area equal to at least five per cent of the floor area; or

- (b) mechanical ventilation, where the minimum amount of outside air introduced into any room is at least 0.45 m³/min. (15 c.f.m.) per person. (EC180/87)

11.8 Discharge

The employer shall ensure that the discharge of air from any exhaust system is in such a manner so as to prevent the return of contaminants to any workplace. (EC180/87)

11.9 Humidity

The employer shall ensure that the relative humidity in an office environment shall be a minimum of 30%. (EC180/87)

11.10 Temperature

The employer shall ensure that, subject to section 11.11, the temperature of an enclosed workplace corresponds with the following chart:

NATURE OF WORK PERFORMED	MINIMUM TEMPERATURE REQUIRED
Light work performed while sitting: any mental work, precision work, reading or writing	20EC
Light physical work performed while sitting: electric machine sewing and work with small machine tools	19EC
Light work performed while standing: machine tool work	17EC
Moderate work performed while standing: assembly and trimming	16EC
Heavy work performed while standing: drilling and manual work with heavy tools	12EC

(EC180/87)

11.11 Exceptions

The minimum temperature required by section 11.10 does not apply at a workplace

- (a) that is normally unheated;
- (b) where the necessity of opening doors makes the heating of the area to the temperature specified in section 11.10 impractical;
- (c) where perishable goods requiring lower temperatures are processed or stored;
- (d) where radiant heating is such that a worker working in the area has the degree of comfort that would result were the area heated to the same temperature specified in section 11.10;
- (e) where the process or activity is such that the temperature specified in section 11.10 could cause discomfort. (EC180/87; 126/21)

PART 12 — EXCAVATIONS, TRENCHES AND CONSTRUCTION

12.1 Location of utility lines

- (1) The employer shall ensure that before beginning an excavation or trench, the location of possible underground utility lines and piping is determined.

Safety precautions

- (2) The employer shall ensure that when working within 609 mm (2 ft.) of underground utility lines and piping
 - (a) adequate safety precautions are taken;
 - (b) utility lines have been de-energized and grounded; and
 - (c) the authority operating the utility has been notified of the operation.

Operating procedure

- (3) The employer shall ensure that an adequate operating procedure is used when workers are working within 609 mm (2 ft.) of any underground utility line or piping.

Support of poles

- (4) The employer shall ensure that utility poles, posts or similar structures are supported or removed when they are within 3 048 mm (10 ft.) of an excavation or trench more than 1 219 mm (4 ft.) deep. *(EC180/87; 126/21)*

12.2 Shoring

- (1) The employer shall ensure that the walls of an excavation or trench are supported by adequate shoring and bracing or caging except when an excavation or trench
 - (a) is less than 1 219 mm (4 ft.) deep;
 - (b) is cut in solid rock;
 - (c) is sloped to within 1 219 mm (4 ft.) of the bottom of the excavation or trench with a slope at the angle of repose that does not exceed 305 mm (1 ft.) of vertical rise to each 305 mm (1 ft.) of horizontal run; or
 - (d) is such that workers are not required to enter.

Idem

- (2) If necessary to provide protection to workers working in a trench the employer shall ensure that additional shoring and bracing is added to support the increased pressure due to the location of mobile equipment at the edge of an excavation or trench.

Certification

- (3) The employer shall ensure that shoring and bracing for excavations or trenches is certified as adequate by a professional engineer and the proof of certification is made available to an officer on request. *(EC180/87; 126/21)*

12.3 Safety requirements before entry

The employer shall ensure that workers are not allowed to enter an excavation or trench 1 219 mm (4 ft.) or more in depth, and workers shall not enter unless

- (a) the requirements of section 12.2 are complied with;

- (b) CSA approved safety headwear and footwear are provided and worn by the workers, as specified in sections 45.5 or 45.15, as the case may be;
- (c) ladders, extending at least 914 mm (3 ft.) above the excavation or trench are installed and located no more than 15 240 mm (50 ft.) from where workers are working or other safe means of access and egress are provided;
- (d) the sides and crests have been scaled down to prevent loose material from falling into the excavation or trench. *(EC180/87; 126/21)*

12.4 Removal, etc. of shoring

- (1) The employer shall ensure that a worker does not install or remove shoring from a position inside a trench.

Idem

- (2) A worker shall not install or remove shoring from a position inside a trench. *(EC180/87; 126/21)*

12.5 Excavated material

- (1) The employer shall ensure that excavated material is kept at least 609 mm (2 ft.) away from the edge of excavations or trenches.

Idem

- (2) The employer shall ensure that where piled rock or other granular material creates a hazard above an excavation or trench more than 1 828 mm (6 ft.) deep in rock
 - (a) the pile is located back from the face of the excavation or trench a distance equal to at least the height of the pile; or
 - (b) a fence is erected at a minimum distance of 914 mm (3 ft.) from the face of the excavation or trench, consisting of material adequate to support the pile. *(EC180/87)*

12.6 Water

- (1) The employer shall ensure that every excavation and trench is kept reasonably free of water.

Hazardous gases, etc.

- (2) The employer shall ensure that hazardous liquids or gases and explosives are not stored in excavations or trenches.

Idem, ventilation

- (3) When hazardous liquids or gases or internal combustion engines are used in or near excavations or trenches, or where hazardous liquid or gases may enter or be present in an excavation or trench, the employer shall ensure that adequate ventilation precautions are taken to prevent the accumulation of hazardous gases in the excavation or trench. *(EC180/87)*

12.7 Lowering materials

The employer shall ensure that no operator lowers material into an excavation or trench and no operator shall lower material into an excavation or trench unless

- (a) the operator has unrestricted visibility; or
- (b) a signaller is used to direct the movement of the material. *(EC180/87)*

12.8 Observation requirement

When work is carried on in an excavation or trench the employer shall ensure that a worker is working on surface where he can observe the workers working in the excavation or trench. (EC180/87; 126/21)

12.9 Standing under loads

Workers in an excavation or trench shall not stand under any load or in the area where a load may land. (EC180/87; 126/21)

12.10 Wall supports

The employer shall ensure that the walls and crests of an excavation or trench, when cut in solid rock and are not stable, are supported by rock bolts, wire mesh or shoring or other equivalent method. (EC180/87)

12.11 Warning lights and barricades

- (1) The employer shall ensure that an excavation or trench is adequately illuminated, has adequate warning lights conspicuously displayed, and has a barricade at all times while workers are working in the excavation or trench.

Idem

- (2) Where an excavation or trench is made, the employer shall ensure that
 - (a) adequate barricades are erected; and
 - (b) at night, adequate warning lights are used. (EC180/87; 126/21)

12.12 Illumination of materials

- (1) When materials piled along the sides of any excavation or trench interfere with the flow of traffic, the employer shall ensure that the material is adequately illuminated by warning lights.

Signs

- (2) When construction work is being carried out which interferes with the flow of traffic, the employer shall ensure that adequate warning signs are posted in both directions not less than 225 m (738 ft.) from the worksite, and at any intersection between the warning signs.

Signallers

- (3) When construction work is being carried out in areas where worker safety is endangered by vehicle traffic, the employer shall provide trained signallers to control the flow of traffic.

Reflectorized vests

- (4) The employer shall provide and all signallers shall wear a reflectorized vest or jacket when controlling the flow of traffic.

Reflectorized paddles

- (5) The employer shall provide and all signallers shall use reflectorized paddles to control the flow of traffic. (EC180/87; 126/21)

12.13 Night lighting

Where work is done at night, the excavation or trench shall be properly lighted. (EC180/87)

12.14 Power shovels

- (1) Power shovels shall be located with care.

Shoring

- (2) Where a power shovel is placed on the bank of an excavation or trench, shoring and bracing shall be used to prevent a cave-in.

Mats

- (3) Mats or heavy planking shall be used to distribute the load on soft ground. (EC180/87)

12.15 Adjacent buildings

No person shall dig an excavation that is likely to endanger a worker by affecting the stability of an adjacent building or structure. (EC180/87)

PART 13 — CONFINED SPACE

13.1 Defined, “confined space”

In this Part, “**confined space**” means an enclosed or partially enclosed space

- (a) not designed or intended for human occupancy;
- (b) with restricted access or exit; and
- (c) that is or may become hazardous to a person entering it because of its design, construction, location, atmosphere or the materials or substances in it or other conditions,

and includes any bin, tank, tanker, tunnel, silo, sewer, vault, chamber, pipeline, pit, vessel, vat and flue. (EC180/87; 652/07)

13.2 Conditions for entry of confined space

The employer shall ensure that a worker enters a confined space only where

- (a) there is a safe method of access and egress from all parts of the confined space;
- (b) mechanical equipment in the confined space is
 - (i) disconnected from its power source, and
 - (ii) locked out;
- (c) prior to entry
 - (i) piping containing hazardous substances or substances under pressure or so located as to allow hazardous substances to enter such space is disconnected, blanked or blinded off, or
 - (ii) where it is impossible to employ blanks or blinds, as in welded piping systems, written work procedures are developed in consultation with (the Division, committee, or representative) and implemented to ensure equivalent protection to all workers exposed to the hazard but the closing of a valve on any line is not an acceptable substitute for blanking or blinding;

- (d) the confined space is tested and evaluated by a competent person, properly equipped with personal protective equipment, who
 - (i) used an approved calibrated instrument that has been functionally tested,
 - (ii) records the results of each test in a permanent record which is available to an officer,
 - (iii) certifies in writing in a permanent record that the confined space is free from hazard, and
 - (iv) specifies the procedures to be followed to ensure that the space remains free of hazard;
- (e) ground fault circuit interrupters are used for electrical equipment taken into wet or solidly grounded confined spaces unless battery operated or safety low voltage equipment is used; and
- (f) training in emergency procedures is provided for workers assigned to a confined space entry job including the worker stationed outside the confined space. (EC180/87; 126/21)

13.3 Hazardous confined space, conditions for entry

The employer shall ensure that a confined space in which there exists or is likely to exist

- (a) a hazardous accumulation of gas, vapour, dust, mist, smoke or fumes; or
 - (b) an oxygen content of less than 19.5% or more than 23% at atmospheric pressure
- is entered only when
- (c) the requirements of section 13.2 and clause 13.5(a) are complied with;
 - (d) the space is purged and ventilated to provide a safe atmosphere; and
 - (e) provisions for continuous or periodic monitoring have been established to ensure that the hazardous condition does not recur;
 - (f) another worker is stationed outside the confined space;
 - (g) the worker entering the space is using such other equipment as is necessary to ensure his safety;
 - (h) suitable arrangements have been made to remove the worker from the confined space should it be required;
 - (i) a person adequately trained in cardiopulmonary resuscitation is conveniently available;
 - (j) the worker entering is using a CSA approved respirator, as specified in section 45.18;
 - (k) the worker entering the space is wearing an approved safety harness with attached life line that will permit that worker to be removed from the space; if more than one worker is working in the space, steps have been taken to ensure that the life lines do not become entangled;
 - (l) another worker is stationed outside the confined space and in addition, equipment and persons are available to ensure immediate removal of workers within the space;
 - (m) all safety equipment to be used in the confined space has been inspected by a competent person and is in good working order. (EC180/87; 126/21; 600/24)

13.4 Confined space containing flammable vapours

- (1) Subject to subsection (2), where the gas or vapour in a confined space is or is likely to be explosive or flammable, the employer shall ensure that a confined space is entered only where
- (a) the concentration of the gas or vapour in a confined space does not or is not likely to exceed 50% of the lower explosive limit of the gas or vapour; and
 - (b) the only work to be performed is that of cleaning or inspecting and of such a nature that it does not create any sources of ignition.

Cold work

- (2) Cold work may be performed in a confined space which contains or is likely to contain an explosive or flammable gas or vapour where the concentration does not and is not likely to exceed 10% of the lower explosive limit of the gas or vapour. *(EC180/87)*

13.5 Sentinels

The employer shall ensure that when a worker enters a confined space, another worker

- (a) remains in attendance outside the space at all times whenever the space is occupied and visually checks or is in constant voice communication with the worker in the confined space;
- (b) is capable of raising an alarm in order to summon additional assistance;
- (c) does not enter the space unless relieved by another worker;
- (d) ensures that appropriate equipment is stationed outside the space to enable quick and safe entry to the space, should such an entry be required; and
- (e) is knowledgeable in the correct use of the emergency retrieval system procedures. *(EC180/87; 126/21)*

13.6 Signs

The employer shall ensure that warning signs and barricades are installed to protect workers in a confined space where a hazard from any form of traffic exists. *(EC180/87; 126/21)*

13.7 Prohibition

A worker shall not enter a confined space unless the requirements of this Part have been complied with. *(EC180/87; 126/21)*

PART 14 — BINS AND HOPPERS

14.1 Safety belts

Revoked by EC126/21. *(EC180/87; 126/21)*

14.2 Safety harness with life line

Workers shall be provided with and shall wear approved safety harnesses with a lifeline attached and properly anchored when entering bins, hoppers, chambers or vessels where there is a danger of being trapped or buried by the movement of material, or where there is a danger of falling into pits, shafts or moving machinery. *(EC180/87; 126/21)*

14.3 Walks and platforms

The employer shall ensure that wherever possible suitable walks or working platforms with standard handrails shall be installed for the protection of workers in or on such bins and these bins shall be provided with adequate exits and with practical safety devices which best fit the different types of bins. *(EC180/87; 126/21)*

14.4 Sentinel

- (1) Where a worker is required to work in a bin, hopper, chamber or vessel where there is a danger of being overcome by contaminated air or lack of oxygen or where there is a danger of being buried by movement of material, another worker shall be stationed in a position where he or she can readily effect the rescue of the worker exposed to the hazardous condition.

Standard

- (2) The employer shall ensure that ropes for lifelines meet the requirements specified in subsection 3(2) of the Fall Protection Regulations (EC633/04) made under the Act.

Lifelines

- (3) Lifelines shall be connected for use by a worker to ensure there will be the least practicable amount of slack line in order to limit the free fall of the worker.

Prohibition

- (4) No more than one worker shall be attached to one lifeline. *(EC180/87; 147/20; 126/21)*

14.5 Exclusion

Revoked by EC126/21. *(EC180/87; 126/21)*

PART 15 — ACCESS TO WORKPLACES**15.1 Safe access**

The employer shall ensure that all places where work is performed shall have safe means of access and egress from each floor appropriate to the conditions of the work area and

- (a) emergency exits shall be designed and marked to provide quick and unimpeded exit;
- (b) doors shall not open directly on to stairways, but shall open to floors or landings having a width in excess of the swing of the doors;
- (c) transparent glass panels which could be mistaken for doorways shall be clearly identified. *(EC180/87)*

15.2 Access to construction site

On construction sites the employer shall ensure that means of access to every excavation, floor, platform and fixed scaffold where work is being performed above or below ground level shall

- (a) be provided by a stair, runway, ramp, scaffold or ladder; and
- (b) be maintained in place and in safe condition at all times. *(EC180/87)*

15.3 Overhead protection

The employer shall ensure that adequate overhead protection shall be provided on a work site at every means of access to and egress from a building or other structure where there is danger of material falling on a worker. (EC180/87; 126/21)

16.1 Flooring

Sections 16.1 to 16.9 revoked by EC632/04. (EC180/87;632/04)

17.1 Openings

Sections 17.1 to 17.5 revoked by EC632/04. (EC180/87;632/04)

PART 18 — BRACING AND SUPPORTS DURING CONSTRUCTION

18.1 Bracing and supports

The employer shall ensure that sufficient bracing and supports, either permanent or temporary, shall be provided to ensure that a structure, or any part thereof, will safely support all loads to which it may be subjected at all stages of progress on the project. (EC180/87)

PART 19 — FORMWORK

19.1 Formwork

- (1) Every employer shall ensure that
 - (a) every structure and every part of a structure for the purpose of forming concrete shall be designed, constructed, supported and braced to safely withstand all loads likely to be applied to it before, during and after the placing of concrete;
 - (b) where shores are used, the bracing required by clause (a) shall include sufficient diagonal bracing in the vertical and horizontal planes to prevent lateral movement of the formwork and buckling of the shores;
 - (c) where shoring is more than one tier in height, the junction of each tier shall be braced to prevent any lateral movement.

Footings

- (2) The employer shall ensure that footings for shores shall be sound, rigid and capable of carrying the maximum load without excessive settlement or deformation. (EC180/87)

PART 20 — FENCING AND BARRICADES

20.1 Sidewalk covering

- (1) Subject to subsection (2), where a building or other structure being constructed, altered, repaired or demolished is located within 2 130 mm (84 in.) of a sidewalk or other public way used by pedestrians, work shall not commence on the project until a covered way has been constructed over the sidewalk or public way.

Exception

- (2) Subsection (1) does not apply to a one-storey project where a substantially constructed fence or boarding not less than 1 800 mm (72 in.) high is constructed, and, in the written opinion of an officer adequately safeguards the persons using the sidewalk or public way. *(EC180/87)*

20.2 Covered way

A covered way shall

- (a) have a clear height of not less than 2 440 mm (96 in.);
- (b) have a clear width of not less than 1 500 mm (60 in.);
- (c) be designed and constructed to support safely all loads that may be reasonably expected to be applied to it, but in no case less than 245 kg per m² (50 lbs. per sq. ft.) on the roof;
- (d) have a weather-tight roof sloped toward the project;
- (e) be totally enclosed on the project side so that there is a reasonably smooth surface on the sidewalk side of that enclosure; and
- (f) have a railing 1 067 mm (42 in.) in height on the street side. *(EC180/87)*

20.3 Fences

Where a building or other structure being constructed, altered, repaired or demolished is located 2 130 mm (84 in.) or more from a sidewalk or other public way used by pedestrians, a substantially constructed fence or boarding not less than 1 800 mm (72 in.) high shall be constructed if, in the written opinion of an officer, the persons using the sidewalk or other public way might be endangered. *(EC180/87)*

PART 21 — PLATFORMS, RUNWAYS AND RAMPS

21.1 Ramp, runway, etc.

The employer shall ensure that a runway, ramp or platform other than a scaffold platform shall be designed, constructed and maintained to safely support all loads that may reasonably be expected to apply to it. *(EC180/87)*

21.2 Requirements

A runway or ramp shall be

- (a) 480 mm (19 in.) or more in width;
- (b) securely fastened at both ends; and
- (c) adequately held in place at intermediate supports by bolts, spikes or cleats. *(EC180/87)*

21.3 Ramp

A ramp shall have

- (a) a slope not exceeding 300 mm (12 in.) of vertical rise to each 900 mm (36 in.) of horizontal run;
- (b) cross cleats, and if the slope exceeds 300 mm (12 in.) of vertical rise to each 2 400 mm (96 in.) of horizontal run, and the cleats shall be

- (i) spaced at regular intervals not exceeding 450 mm (18 in.), and
- (ii) of equivalent strength and have equivalent resistance to slipping as 25 mm (1 in.) x 50 mm (2 in.) dressed boards securely nailed to the ramp. *(EC180/87)*

21.4 Guardrail

A runway, ramp or platform other than a scaffold platform shall have a guardrail on the open side or sides. *(EC180/87)*

PART 22 — STAIRS

22.1 Egress stairs

The employer shall ensure that when any work on a building has progressed to a height of more than 7 315 mm above ground level, the means of egress shall be by permanent or temporary stairs that shall

- (a) be provided for the entire height from the ground to the uppermost working level; and
- (b) be continued as the height of the project is increased. *(EC180/87; 600/24)*

22.2 Temporary stairs

The employer shall ensure that temporary stairs shall

- (a) be maintained in a safe condition until the permanent stairs have been installed;
- (b) be not less than 900 mm wide. *(EC180/87; 600/24)*

22.3 Skeleton steel stairs

The employer shall ensure that skeleton steel stairs shall have temporary wood treads

- (a) of suitable planking extending the full width of the stairs and landings; and
- (b) securely fastened in place. *(EC180/87)*

22.4 Permanent stairs

The employer shall ensure that permanent stairs shall be installed as soon as working conditions permit. *(EC180/87)*

22.5 Requirements

The employer shall ensure stairs and landings shall be designed and constructed to safely support a live load of 4.8 kPa with a safety factor of 4 and shall

- (a) have a vertical distance between landings not exceeding 3.7 m and intermediate landings shall have a dimension of not less than 1100 mm measured in the direction of the run;
- (b) have a handrail or guardrail securely fastened and supported in place on the open side or sides of each flight and at each landing. *(EC180/87; 600/24)*

22.6 Obligations of employer regarding stairs

The employer shall ensure that

- (a) stairs and platforms made of perforated material shall not contain openings larger than 11 mm;
- (b) stairs, except service stairs which may be used for access to oiling platforms, machinery, etc., should be not less than 900 mm;
- (c) the pitch of stairways except service stairways should be between 30 degrees and 35 degrees from horizontal and shall in no case be less than 20 degrees or more than 50 degrees;
- (d) where the pitch would be less than 20 degrees a ramp shall be used and where the pitch is greater than 50 degrees a fixed ladder shall be used;
- (e) head room with a vertical clearance of 2050 mm from the top of the tread on a line with the face of the riser, shall be provided at all points in the stairwell;
- (f) except for service stairs, the treads exclusive of nosings or projections shall be not less than 280 mm in depth and the risers shall not be more than 180 mm or less than 125 mm in height;
- (g) the width of the treads and the height of the risers shall be constant in any flight and all stairways having three or more risers shall be equipped with stair railings on any open side;
- (h) the top and the bottom treads of any flight shall be clearly distinguishable;
- (i) enclosed stairways less than 1100 mm wide shall be equipped with at least one handrail, preferably on the right side descending and two handrails on curved stairways;
- (j) stairways 1100 mm or more in width shall be equipped with one stair railing on each open side and one handrail on each enclosed side;
- (k) revoked by EC600/24;
- (l) revoked by EC600/24;
- (m) the height of stair railings from the upper surface of the top rail to the surface of the tread in line with the face of the riser at the forward edge of the tread, shall not be less than 865 mm and not more than 1070 mm;
- (n) wooden handrails shall be at least 50 mm x 50 mm in size and of smooth finish;
- (o) metal handrails shall be at least 38 mm in diameter;
- (p) handrails mounted directly on walls or partitions shall be fixed by means of brackets attached to the lower side of the rails so as not to interfere with the continuity of the rails;
- (q) brackets shall be spaced not more than 1.2 m apart, measured on the horizontal plane, and shall provide a clearance of at least 50 mm between the rails and the walls or any obstruction on the walls;
- (r) handrail structure shall be capable of withstanding a load of 0.9 kN applied in any direction at any point of the rail;
- (s) the clear width of service stairs shall be at least 914 mm;
- (t) the pitch of service stairs shall not be more than 50 degrees and the width of the treads shall not be less than 152 mm;
- (u) stairways shall be adequately illuminated and lights shall be located so that they do not cause glare;
- (v) a non-slip nosing or strip shall be used on all stair treads on which there is danger of slipping due to the material of the tread;
- (w) a non-slip nosing or strip shall be installed within a distance of 31 mm from the front edge of the tread and shall be at least 30 mm wide;

- (x) treads and landings of exterior exit stairs more than 10 m high shall be designed to be free of ice and snow accumulation. *(EC180/87; 600/24)*

PART 23 — LADDERS

23.1 Use of ladders

- (1) The employer shall provide a ladder where workers must work in an elevated or sub-level area not provided with other safe and recognizable means of access or egress.

Defective ladder

- (2) The employer shall ensure that a ladder is removed from service when it has loose, broken or missing rungs, split side rails or other hazardous defects.

General obligations of employer

- (3) The employer shall ensure that
 - (a) all portable ladders shall be equipped with non-slip bases;
 - (b) portable metal or wire truss ladders shall not be used in the vicinity of electrical circuits or apparatus when the hazard of electrical exposure is present;
 - (c) benches, boxes, tables or other makeshift substitutes shall not be used as ladders. *(EC180/87; 126/21)*

23.2 Specifications

The user of a ladder shall ensure that

- (a) the base of an inclined portable ladder shall not be more than one-fourth the length of the ladder out from the vertical line of contact at the top unless the top is securely fastened;
- (b) side rails of ladders when in use shall have secure footing and the top rest shall be rigid and have ample strength to support the applied load;
- (c) where possible the top of the ladder shall be securely fastened to prevent movement;
- (d) the side rails of a portable ladder shall extend at least 914 mm (3 ft.) above a landing;
- (e) side rails have a uniform clear width between them not less than 305 mm (12 in.) for ladders 3 048 mm (10 ft.) in length and under, and increasing 6 mm (in.) in width for each additional 300 mm (1 ft.) in length. *(EC180/87)*

23.3 General obligations

The user of a ladder shall

- (a) inspect a ladder before use;
- (b) report any unsafe condition of the ladder to the employer;
- (c) not work from the top three rungs of a single or extension ladder;
- (d) not lash or splice ladders together;
- (e) not place a ladder in front of or against a door unless the door is blocked in the open position, locked or guarded;
- (f) use both hands and face the ladder when ascending or descending;
- (g) when standing on a ladder, keep the centre of his body between the side rails. *(EC180/87)*

23.4 Wooden ladders

The employer shall ensure that a wooden ladder

- (a) is made of good quality, straight grained lumber;
- (b) is not painted other than by being preserved with transparent protective coating;
- (c) if made on a construction site shall have side rails 50 mm x 100 mm (2 in. x 4 in.) lumber;
- (d) has rungs
 - (i) free of knots,
 - (ii) designed to carry safely a load 200 kg (450 lbs.) on the center of the rung,
 - (iii) uniformly spaced not exceeding a spacing of 300 mm (12 in.),
 - (iv) if flat, shall be at least 25 mm (1 in.) by 64 mm (2 1/2 in.) and shall be secured by at least three screws or wire nails to each side,
 - (v) if flat, shall be notched into the side rails at least 13 mm (1/2 in.) on the lower side, or with fillers installed between the rungs;
- (e) has round rungs shall be at least 31 mm (1 1/4 in.) diameter with tenons 6 mm (1/4 in.) less diameter fitting through side rails, secured with a screw or wire nail through tenon at mid-length;
- (f) has side rails
 - (i) dressed on all sides with sharp edges taken off and free from splinters,
 - (ii) the minimum size of which for single wooden ladders shall be as follows:

Length of Ladder (feet)	Thickness	Depth
Up to and including 20	29 mm (1 1/8 in.)	64 mm (2 1/2 in.)
Over 20 and up to and including 22	31 mm (1 1/4 in.)	70 mm (2 3/4 in.)
Over 22 and up to and including 30	31 mm (1 1/4 in.)	76 mm (3 in.)

(EC180/87)

23.5 Step ladders

- (1) The employer shall ensure that
 - (a) step ladders shall not be over 6 096 (20 ft.) in length;
 - (b) step ladders shall be constructed so that when in the open position of the front section shall have a minimum slope of 89 mm (3 1/2 in.) and the back section a minimum slope of 50 mm (2 in.) in each 305 mm (12 in.) length of side rail;
 - (c) when in position all treads of step ladders shall be level;
 - (d) the minimum inside width between side rails at the top step of step ladders shall not be less than 305 mm (12 in.) and the side rails shall have an additional spread of 25 mm (1 in.) for each 305 mm (12 in.) of length of step ladder;
 - (e) step ladders shall be equipped with metal braces to hold legs securely in position;

- (f) back legs of all step ladders shall be at least 44 mm (1 3/4 in.) wide and of the same thickness as the side rails;
- (g) cross rails and braces of step ladders shall be not less than 13 mm (1/2 in.) thick and shall be securely fastened;
- (h) step ladders 3 048 mm (10 ft.) and less in height shall have a bottom cross rail and diagonal braces;
- (i) step ladders over 3 048 mm (10 ft.) in height shall have bottom and intermediate cross rails and two sets of diagonal braces;
- (j) cross rails shall not be less than 100 mm (4 in.) wide and diagonal braces shall not be less than 50 mm (2 in.) wide;
- (k) step ladders shall be reinforced at each step by a metal tie rod or a metal brace;
- (l) metal parts of step ladders shall be of malleable iron, wrought iron or steel;
- (m) the material shelf and the top step on a step ladder are clearly marked to indicate that they are not steps.

Side rails

- (2) Side rails of step ladders shall have the following solid cross section or equivalent strength cross section:

Length of side rail (feet)	Minimum thickness	Minimum width
Up to and including 10	19 mm (3/4 in.)	70 mm (2 3/4 in.)
Over 10 and up to and including 12	19 mm (3/4 in.)	76 mm (3 in.)
Over 12 and up to and including 16	19 mm (3/4 in.)	82 mm (3 1/4 in.)
Over 16 and up to and including 20	25 mm (1 in.)	82 mm (3 1/4 in.)

Note: These thicknesses provide for a gain of not over inch in depth. Where gains of a greater depth are required, greater thickness must be used. (EC180/87)

23.6 Fixed or permanent ladders

The employer shall ensure that fixed or permanent ladders shall have parallel sides of either wood or metal and shall be permanently and securely fastened in such manner that the ladder

- (a) is securely held in place at the top and bottom and at such intermediate points as are required to prevent sway;
- (b) has a continuous clearance space of at least 165 mm (6 1/2 in.) back of rungs;
- (c) has rungs omitted above the landing and has rails or other secure hand holds which extend at least 1 067 mm (42 in.) above the landing. (EC180/87)

23.7 Fixed ladders

- (1) The employer shall ensure that a fixed ladder more than 6 096 mm (20 ft.) in length is provided with
 - (a) a safety rail secured to the ladder; or
 - (b) cage guards with offset platforms at intervals not greater than 9 144 mm (30 ft.); or
 - (c) adequate fall arresting equipment.
- (2) The employer shall ensure that workers working on fixed ladders more than 6 096 mm (20 ft.) in length shall wear adequate fall arresting equipment.
- (3) Workers working on fixed ladders more than 6 096 mm (20 ft.) in length shall wear adequate fall arresting equipment.
- (4) Where a safety rail is used, the employer shall provide an approved safety belt designed to be attached to the rail and all workers shall wear the safety belt and attach it to the rail. *(EC180/87; 126/21)*

23.8 Extension ladders

- (1) The employer shall ensure that
 - (a) extension ladders, except when approved by the Division shall have no more than three sections and shall not exceed 18 288 mm (60 ft.) in length when fully extended;
 - (b) extension ladders have locks which securely hold the sections of the ladder in an extended position;
 - (c) the minimum overlap of sections of extension ladders when extended for use shall be

Up to 11582 mm (38ft.) extended.....	914 mm (3 ft.) overlap
Up to 13411 mm (44 ft.) extended.....	1219 mm (4 ft.) overlap
Up to 15240 mm (50 ft.) extended.....	1524 mm (5 ft.) overlap
Up to 15240 mm (50 ft.) extended.....	1829 mm (6 ft.) overlap

Ladder jacks

- (2) Ladder jacks shall not be used on extension ladders.

Scaffold

- (3) Extension ladders shall not be used as part of a scaffold. *(EC180/87; 600/24)*

23.9 Construction sites

In a building or structure under construction

- (a) the maximum ascent by ladder or ladders shall be 9 144 mm (30 ft.);
- (b) two separate lines of ladders or double ladders shall be provided if the ascent exceeds 6 096 mm (20 ft.) to a working place for more than three persons; and
- (c) one ladder shall be designated for ascent and one for descent. *(EC180/87)*

23.10 Single section ladders

A single section ladder shall not exceed 9 144 mm (30 ft.). *(EC180/87)*

24.1 Sections 24.1 to 24.34 revoked by EC43/06. (EC180/87; 43/06)

PART 25 — FIRE PROTECTION

25.1 Multipurpose extinguisher

At least one approved 4.5 kg (10 lb.) ABC multipurpose fire extinguisher shall be provided

- (a) in every workshop;
- (b) in every storage building for combustible materials;
- (c) in places where welding or flame cutting operations are carried on and for a reasonable time after their conclusion; and
- (d) on each storey having a floor space of 464.5 m² (5000 sq. ft.) or less in an enclosed building being constructed or altered, and an additional fire extinguisher for each additional 464.5 m² (5000 sq. ft.) of floor space in the storey or any fraction thereof. (EC180/87)

25.2 Chemical extinguisher

One or more dry chemical extinguishers with a capacity of 2.2 kg (5 lb.) ABC multipurpose or equally effective extinguisher shall be provided

- (a) where flammable liquids are stored or handled;
- (b) where oil or gas-fired heating equipment is used; and
- (c) where a tar or asphalt kettle is used. (EC180/87)

25.3 Freezing precautions

Where fire extinguishing equipment might freeze, use of a suitable non-freezing solution or other effective precautions shall be taken to prevent freezing. (EC180/87)

25.4 Requirements

Fire extinguishers shall be

- (a) protected from mechanical injury;
- (b) located for easy access at suitably marked stations; and
- (c) maintained in good operating condition. (EC180/87)

25.5 Permanent standpipe

Where a permanent standpipe is to be installed in a building, it shall

- (a) be installed progressively, so far as is practicable, as the building construction proceeds;
- (b) be provided with a valve at each hose outlet;
- (c) be provided at each hose outlet with a nozzle of not less than 38 mm (1 1/2in.) diameter installed in all storeys in such locations that each portion of the building is protected by means of a hose not over 22 870 mm (900 in.) in length; and
- (d) have a suitable connection for the municipal fire department located on the street side, not more than 900 mm (36 in.) and not less than 300 mm (12 in.) above grade. (EC180/87)

25.6 Starting fires

No person shall use gasoline or highly volatile material for starting fires. *(EC180/87)*

25.7 Other requirements

This Part is in addition to, and not in substitution for the Fire Prevention Act R.S.P.E.I. 1988, Cap. F-11 requirements in force in the province. *(EC180/87; 126/21)*

PART 26 — EXPLOSIVES

26.1 Obligations of employer

Unless otherwise specified the employer shall ensure compliance with the regulations in this Part and compliance with sections 77 and 78 of the Criminal Code of Canada relating to the legal duties of persons in possession or control of explosive substances. *(EC180/87)*

26.2 Procedures

Where work is being carried out and explosives are to be used

- (a) a competent person shall be appointed to be in charge of and personally present at all blasting operations, and that person shall enforce his orders and directions and shall supervise the fixing of all charges and other blasting operations;
- (b) the names of all persons designated to handle, transport, prepare or use dynamite or other high explosives shall be posted in the field office and on or in the magazines;
- (c) no person inexperienced in handling dynamite or other high explosives, shall handle, transport, prepare or use dynamite or other high explosives unless the inexperienced person works under the personal supervision of a competent person;
- (d) no holes shall be drilled within 3 050 mm (10 ft.) of a hole containing explosives or blasting agents, or within 7 620 mm (25 ft.) of a hole being loaded with explosives or blasting agents;
- (e) blasting mats shall be used where necessary to protect persons, structures and other property on or adjacent to the workplace from flying rocks and other objects due to blasting operations. *(EC180/87)*

26.3 Firing circuit

Every firing circuit in connection with blasting operations shall be broken in a suitable manner at a safe distance from the blasting area. *(EC180/87)*

26.4 Dynamite outside magazine

No greater quantity of dynamite or other high explosive than is required for immediate use on a part of the project shall be outside the magazine. *(EC180/87)*

26.5 Conveyance

Explosives in excess of 22.7 kg (50 lbs.) shall not be conveyed in any vehicle which is carrying as merchandise any articles liable to cause or communicate fire or explosion. *(EC180/87)*

26.6 Vehicles for transport

Vehicles used to transport explosives shall be in good working order and shall be equipped with a tight wooden floor, or a floor covered with leather, tarpaulin or other suitable material. The body of the vehicle shall be closed in or be provided with sides and ends sufficiently high to prevent the explosives from falling off, or, if an open bodied vehicle is used, the explosives shall be tightly covered with a fire resistant tarpaulin. (EC180/87)

26.7 *Idem*

All metal in vehicles liable to come in contact with explosive packages shall be covered with wood, tarpaulin or other suitable material. (EC180/87)

26.8 Worker precautions, etc.

Workers engaged in the loading, unloading or conveying of explosives shall ensure that all precautions are taken to prevent accidents by fire or explosion. (EC180/87; 126/21)

26.9 Unauthorized persons

Unauthorized persons shall not have access to explosives. (EC180/87)

26.10 Vehicle servicing

Vehicles to be used for the transportation of explosives shall be fully serviced with supplies of fuel, oil and air before being loaded with explosives. (EC180/87)

26.11 Fire extinguisher

Any vehicle carrying explosives shall be equipped with a fire extinguisher of adequate size to deal effectively with gasoline or oil fires. (EC180/87)

26.12 Vehicles to be marked “Explosives”

Any vehicle carrying explosives shall conspicuously display a red flag at least 15 485 mm² (24 sq. in.) and shall display signs front, rear and both sides, bearing the word “Explosives” in letters not less than 152 mm (6 in.) high painted in luminous paint on a contrasting background. (EC180/87)

26.13 Prohibited vehicles

Explosives shall not be conveyed in trailers nor in semi-trailers which are not equipped with air or vacuum power brakes. (EC180/87)

26.14 Railroad crossings

Vehicles conveying explosives shall come to a full stop before crossing any railroad track or main highway and shall not cross until it is known that the way is clear. (EC180/87)

26.15 Gasoline refuelling

The gasoline tank of a vehicle shall not be filled while explosives are on the vehicle, except in case of emergency, and then only with the engine stopped and the vehicle parked in an area of least danger to public safety. (EC180/87)

26.16 Unattended vehicles

Vehicles containing explosives shall not be left unattended. *(EC180/87)*

26.17 Storage receptacles

An approved receptacle may be used to store a maximum amount of 4.5 kg (10 lbs.) of blasting cartridges or 200 detonators. Blasting cartridges and detonators must be stored in separate receptacles at least 3 050 mm (10 ft.) apart. *(EC180/87)*

26.18 Location

An approved receptacle shall be located in a place acceptable to the officer. It shall be kept away from inflammable goods, and shall be easily accessible in case of fire. *(EC180/87)*

26.19 Construction

An approved receptacle shall be substantially constructed of wood, copper or other suitable material and provided with a closely fitted lid secured by a lock and hinges, or otherwise closed and secured to prevent unauthorized persons having access thereto. A receptacle shall be kept locked except when required to be opened for necessary purpose. It shall be used exclusively for the storing of explosives and covered or lined to prevent exposure to any iron, steel or any other hard or gritty material. The interior of the receptacle shall be kept scrupulously clean. The receptacle shall have the word “Explosives” conspicuously painted thereon in red letters on a black background. *(EC180/87)*

26.20 Separate store

A maximum of 22.7 kg (50 lb.) of blasting explosives or a maximum of 22,000 detonators may be kept for use in a separate store. *(EC180/87)*

26.21 Location

A separate store shall be apart from any dwelling house and at a safe distance from any street, highway, public thoroughfare or public place. *(EC180/87)*

26.22 Construction

Such a store shall be of substantial construction using 50 mm (2 in.) or equivalent material and shall be made fire resistant. *(EC180/87)*

26.23 Protection

The store shall be provided with a substantial outwardly opening door or cover which shall be kept locked except when issuing or receiving explosives or other necessary purpose. *(EC180/87)*

26.24 Ventilation, etc.

The store shall be adequately ventilated and the interior and all fittings therein shall be so constructed, covered or lined as to prevent exposure of any iron or steel or of any hard or gritty surface, or the entry, detaching or accumulating of any grit, iron, steel or similar substance. *(EC180/87)*

26.25 Interior

The interior of the store shall be kept scrupulously clean. (EC180/87)

26.26 Water

Where explosives that are liable to be affected by water are stored, precautions shall be taken to exclude water from the store. (EC180/87)

26.27 Safety

No fires, lights, matches, oiled waste, iron, steel, grit or any article liable to spontaneous ignition or likely to cause explosion or fire shall be taken into or permitted to be at any time in the store or within 7.5 m (25 ft.) of a place where explosives are being handled, transported or used. (EC180/87)

26.28 Tools

All tools or implements kept or used in a store where explosives are present, or used in openings securing, or removing packages containing explosives, shall be made only of copper, bronze, brass, gun metal, wood or other safe and suitable material. (EC180/87)

26.29 Store marked “Explosives”

The store shall have the word “Explosives” clearly displayed on it in large letters on a contrasting background. (EC180/87)

26.30 Compliance with *Explosive Act*

Quantities of blasting explosives in excess of 22.7 kg (50 lbs.) or detonators in excess of 2000 shall be stored in accordance with the *Explosives Act* (Canada). (EC180/87)

26.31 Handling

Explosives and detonators shall be kept and handled separately until the last practicable moment necessary for bringing them together. (EC180/87)

26.32 Containers

Explosive containers shall be handled with care. (EC180/87)

26.33 Opening

Explosive containers shall be opened within a storage area. (EC180/87)

26.34 Smoking

Workers shall not smoke while handling explosives. (EC180/87; 126/21)

26.35 Capping of fuses

Fuses shall not be capped or cartridges primed in any place where explosives are stored. Fuses shall be cut off square for insertion in the cap and shall be capped only by means of a crimping tool. (EC180/87)

26.36 Thawing

Explosives shall not be thawed near an open fire or a boiler, nor by direct contact with steam or hot water. (EC180/87)

26.37 Inspection

After blasts have been fired, a thorough examination shall be made to ascertain that no unexploded charges remain in holes. (EC180/87)

26.38 Prohibition of drilling

No drilling shall be done in any hole that has been charged or blasted. (EC180/87)

26.39 Idem

Holes shall not be drilled within 600 mm (24 in.) of holes in which a misfire has occurred. (EC180/87)

26.40 Drill holes

Drill holes, whether sunk by hand or machine drill, shall be of sufficient size to admit the free insertion to the bottom of the hole of a stick or cartridge of the explosive without ramming, pounding or undue pressure. (EC180/87)

26.41 Springing holes

When springing holes, ample time shall be left for the hole to cool between springing shots, and also between the last springing shot and the loading of the main charge. (EC180/87)

26.42 Priming cartridges

Priming cartridges shall not be slit or roughly tamped, and the wrapping shall not be removed from the primer cartridge. (EC180/87)

26.43 Damaged fuses

Damaged fuses shall not be used. (EC180/87)

26.44 Handling

Fuses shall be handled with care so as to avoid pinching or bending sharply. (EC180/87)

26.45 Safety fuses

Safety fuses shall be stored for several hours at room temperature before handling in cold weather. (EC180/87)

26.46 Tamping

Tamping rods of wood or other approved material shall be used, and all holes shall be carefully tamped with stemming materials by using pressure rather than strokes. (EC180/87)

26.47 Fuses prohibited

Fuses shorter than 900 mm (36 in.) shall not be used in any blasting operation. *(EC180/87)*

26.48 Electric detonators

All electrical detonators shall be tested with an approved galvanometer and the ends of the detonator wires short circuited by twisting them together until ready to be connected to the fuse line. The whole circuit shall be similarly tested before connecting detonator wires to leading wires. Workers shall move to shelter or to a safe distance before final connection to lead wires is made. *(EC180/87; 126/21)*

26.49 Blasting machines

Blasting machines shall be regularly inspected and kept in good condition. *(EC180/87)*

26.50 Rated capacity

Rated capacities of blasting machines shall not be exceeded unless in accordance with the manufacturer's recommendations. *(EC180/87)*

26.51 Firing charge from power lines

When firing of a charge is done from power lines, a safety switch shall be provided, so constructed that the door may be closed and locked only in the "off" position. The box shall be kept locked and the switch made inaccessible to anyone but the worker responsible for firing the charge. *(EC180/87; 126/21)*

26.52 Warning procedure

A worker in charge of firing explosive charges shall, before firing a charge, give ample warning to all persons in the vicinity, and shall satisfy himself that all persons have reached a place of safety. *(EC180/87; 126/21)*

26.53 Fuse lighting

A worker lighting fuses in a blasting operation shall be accompanied by another worker if possible. *(EC180/87; 126/21)*

26.54 Firing

No more than 12 holes shall be fired in any round of shots by one worker, using safety fuses, unless ignited by means of igniter cord or an approved equivalent. *(EC180/87; 126/21)*

26.55 Loading holes

In blasting operations, holes shall not be loaded unless it is the intention to prime and fire them all in a single blasting operation. *(EC180/87)*

26.56 Loaded charge withdrawal

No part of any loaded charge shall be tampered with or withdrawn. *(EC180/87)*

26.57 Entry to area

A worker in charge of firing explosives by electricity shall not enter or allow any other person to enter any place where charges have been fired until he has disconnected the firing cable from the power source or has pulled out and locked the safety switch. (EC180/87; 126/21)

26.58 Inspection and clearance

A worker in charge of firing explosive charges shall make a thorough inspection of the site after a charge has been fired and give clearance before other workers are allowed to return to work. (EC180/87; 126/21)

26.59 Loose rocks

Loose rocks shall be scaled off sides of excavations after blasting operations in order to eliminate the hazard of falling rocks before work is resumed. (EC180/87)

26.60 Methods of destroying

Waste or deteriorated explosives of any sort shall be destroyed by detonating, burning or other approved method. (EC180/87)

26.61 Misfiring

In cases where a charge misfires or is suspected of having misfired, workers shall not be allowed to return to the place where the blasting is being carried out for a period of thirty minutes from the time of lighting of the last fuse, or a period of time in minutes equal to twice the number of metres in the longest fuse used, whichever is longer. (EC180/87; 126/21)

26.62 *Idem*

Holes in which a charge has misfired shall be marked by the insertion of a wooden marker or some other conspicuous marker. Attempts shall not be made to remove unexploded charges. (EC180/87)

26.63 Reblasting

Misfired charges shall be reblasted. (EC180/87)

26.64 Radio transmitters

Operating radio transmitters shall not be allowed within 45 750 mm (150 ft.) of electric blasting operations. Signs shall be posted to that effect. (EC180/87)

26.65 Director to be informed

Prior to commencement of any blasting operation the employer shall be required to inform the Director. (EC180/87)

PART 27 — DEMOLITION

27.1 Compliance

Unless otherwise specified the employer shall ensure compliance with the regulations in this Part. *(EC180/87)*

27.2 Pre-demolition structure safety

Where a structure to be demolished has suffered previous damage likely to endanger the safety of a worker by its accidental collapse

- (a) the structure shall be temporarily braced or shored; or
- (b) other measures shall be taken to the satisfaction of the officer to prevent injury to any person until the structure is safely demolished. *(EC180/87; 126/21)*

27.3 Pre-demolition procedure

No person shall commence or continue to demolish a building or structure until

- (a) he has taken steps to prevent injury to any person in or near the project or the adjoining property; and
- (b) existing gas, water, steam, electrical and other services to the project have been disconnected and capped. *(EC180/87)*

27.4 Glass removal

Glass shall be removed from windows and other locations in the project before demolition commences. *(EC180/87)*

27.5 Debris piling

No person shall stock or pile any material or debris in the project so as to endanger the safety of workers. *(EC180/87; 126/21)*

27.6 Hoisting equipment

Adequate supports, braces or shoring shall be provided for the support of a derrick or other hoisting equipment. *(EC180/87)*

27.7 Scaffolding

Scaffolding shall be made self supporting and be independent of that portion of the project being demolished. *(EC180/87)*

27.8 Egress, overhead protection

Every means of egress shall be protected from falling material during demolition operations. *(EC180/87)*

27.9 Demolition procedure

- (1) Subject to subsection (2), demolition shall proceed systematically from the highest to the lowest part in the project.

Idem

- (2) In steel skeleton-type buildings, the steel frame may be left in place during demolition of the masonry if the masonry and any loose material is removed from the steel frame in the order provided in subsection (1).

Idem

- (3) The work above each tier or floor shall be completed before the safety of its supports is impaired by demolition operations. *(EC180/87)*

27.10 Worker entry

No worker shall enter or shall be permitted to enter any area where his safety might be endangered by materials or debris falling from the demolition operations. *(EC180/87; 126/21)*

27.11 Trusses and girders

- (1) No person shall disconnect a truss, girder or other member until it has been relieved of all load except its own weight and given temporary support or lashed ready for lowering.

Idem

- (2) A derrick or other adequate equipment shall be provided for the lowering of a truss, girder or beam. *(EC180/87)*

27.12 Masonry

- (1) Masonry walls shall be removed in reasonably level courses in any one storey.

Idem

- (2) Masonry walls shall not be loosened or permitted to fall in such masses as to endanger the structural stability of a floor or other support of the project. *(EC180/87)*

27.13 Safety measures

No worker shall stand on top of a wall, pier or chimney to remove material therefrom, unless safe flooring or adequate scaffolding or staging is provided on all sides and within 3 660 mm (12 ft.) of his place of working. *(EC180/87; 126/21)*

27.14 Debris removal to ground

- (1) Rubbish and debris shall be lowered to the ground level in suitable containers or chutes.

Chutes

- (2) Objects larger than rubbish or debris shall be lowered by cranes, hoists or other mechanical means. *(EC180/87)*

27.15 Chutes

A chute shall

- (a) be well constructed and securely fastened;
- (b) if at more than 45 degrees to the horizontal, be enclosed on the four sides;
- (c) have a prominent sign warning of the danger at the outlet from the chute. *(EC180/87)*

27.16 Chute entrance requirements

The entrance to a chute shall

- (a) have a 100 mm (4 in.) or larger curb or cleat where the entrance is at or below the floor level;
- (b) not be more than 1 200 mm (48 in.) high;
- (c) be kept closed when not in use; and
- (d) have a prominent sign warning of danger at the entrance. *(EC180/87)*

27.17 Basement or excavation

Following demolition of a structure, any basement or similar excavation shall

- (a) be fenced or barricaded; or
- (b) if construction is not to proceed forthwith, be backfilled to grade level. *(EC180/87)*

27.18 Application by section

- (1) This section applies to demolition by
 - (a) a heavy weight suspended by cable from a crane or other hoist machine;
 - (b) a power shovel, bulldozer or other vehicle; or
 - (c) any other powered mechanical device.

Structure height

- (2) The structure, or portion to be demolished shall not be more than 24 400 mm (80 ft.) high.

Demolition zone requirements

- (3) The person in charge of demolition shall ensure that no person, except his workers, enters a demolition zone
 - (a) having its centre at the point of demolition; and
 - (b) having a horizontal radius equal to 1 1/2 times the height of the structure, or portion of structure being demolished.

Persons present

- (4) The person in charge of demolition shall ensure that no worker except a worker directly engaged on the mechanical demolition shall
 - (a) enter or be within the demolition zone, while the structure is being mechanically demolished;
 - (b) enter or be on the structure to be mechanically demolished at any other time.

Mechanical device control location

- (5) The control of a mechanical device for demolishing a structure shall be operated from a safe location which shall be as remote as is practicable from the demolition operation.

Swinging weight

- (6) Where a swinging weight is used for demolition, the supporting cable shall be of such length or so restrained that the weight will not swing against any structure other than the structure being demolished. *(EC180/87; 126/21)*

PART 28 - EXPLOSIVE - ACTUATED TOOLS

28.1 Minimum safety requirements

The employer shall ensure that a powder-actuated fastening system, consisting of the tool, power loads and fasteners, meets the minimum safety requirements of ANSI Standard A10.3-2020, Safety Requirements for Powder-Actuated Fastening Systems. (EC180/87; 126/21)

PART 29 — HAND TOOLS AND PORTABLE POWER TOOLS

29.1 Definitions

In this Part

- (a) “**hand tool**” means hand held equipment which is dependent on the energy of the worker for its direct effect and which does not have any hydraulic, pneumatic, electrical or chemical energy source for its operation;
- (b) “**owner**” for the purpose of this Part, means a person who has purchased, rented or otherwise obtained a tool and has brought the tool to a place of employment for use at that place of employment;
- (c) “**portable power operated hand tools**” means those powered by a hydraulic, pneumatic, electrical or chemical energy source and which are used by holding with one or both hands;
- (d) “**tool**” means a hand tool, a portable power operated hand tool and a power-actuated hand tool;
- (e) “**user**” means any person who uses a tool at a place of employment. (EC180/87)

29.2 Responsibilities of owner for tools

The owner of a tool shall ensure that the tool

- (a) is of good quality material appropriate for the intended use;
- (b) is inspected before being used and repaired or replaced if necessary;
- (c) is maintained in safe working condition;
- (d) is equipped with adequate devices to ensure a secure hand grip;
- (e) has smooth handles without splinters or sharp edges, firmly attached to the tools so as to prevent them from becoming loose;
- (f) is of a non-sparking type where there is risk of an explosive atmosphere;
- (g) has a proper storage place or facility to store or guard the tool when not in use at the place of employment. (EC180/87)

29.3 Responsibilities of employer

The employer shall ensure that

- (a) workers are competent in the safe handling and use of tools;
- (b) workers shall be properly instructed and trained in the safe use of the hand tools they use;
- (c) workers are instructed to use tools only for the specific purpose for which they are designed;

- (d) workers wear and use protective clothing and equipment as required by these regulations;
- (e) procedures are implemented for safely supplying tools and materials to workers located in hazardous places;
- (f) hammers, sledges, cold chisels, cutters, pinchers and other similar shock tools are made of carefully selected steel, hard enough to withstand repeated blows without extensive mushrooming but not so hard as to chip or break;
- (g) files are provided with substantial metal ferruled handles or other suitable holders and shall not be used without them;
- (h) lifting jacks shall be of such construction that the load will remain supported in any position and cannot be lowered inadvertently;
- (i) when lifting objects with jacks, the jacks shall be set on solid footing, properly centered for the lift and so placed that they can be operated without obstruction; and
- (j) after objects have been raised to the desired height by means of jacks, substantial blocking shall be placed under the object before work is started on the object or before the worker gets under the object. *(EC180/87; 126/21)*

29.4 Handling

The user shall use and handle tools in a safe manner. *(EC180/87)*

29.5 Responsibilities of user

Without limiting the generality of the duties under section 29.4 every user shall

- (a) inspect tools before use;
- (b) not use defective tools;
- (c) report the existence of defective tools to the employer;
- (d) maintain tools in safe working condition;
- (e) use tools only for the specific purposes for which they were designed;
- (f) place tools in safe suitable containers when not in use;
- (g) ensure that tools are not left lying on floors, passageways, stairways or in other places where persons work or are likely to work or pass, or on elevations from which they may fall on persons below;
- (h) ensure that sharp edged or sharp pointed tools are provided with protection for the edges or points when not in use;
- (i) carry tools in a way that does not interfere with their using both hands on the ladder or while climbing a structure or on any hazardous work requiring the use of both hands;
- (j) pass tools from one person to another in a safe manner;
- (k) hold with a holding tool or other suitable device all chisels, drills, etc., which are held by one worker and struck by another; and the worker holding the tool shall place himself where he will be in the least danger of being hit by the hammer if it should glance off the tool or if the handle should break;
- (l) keep all axes sharp and not use an axe as a mallet or wedge;
- (m) clear away interfering objects before swinging an axe;
- (n) lay crowbars or pinchbars flat in safe places when not in use and not leaning against a flat surface;

- (o) keep points or edges of crowbars or pinchbars in good condition to minimize slipping hazards;
- (p) keep corrugations on the jaws of pipe wrenches sharp;
- (q) use proper size wrenches and spanners when tightening or loosening nuts and bolts;
- (r) discard or remove from service till repaired any wrenches with spread, battered or cracked jaws, cracked or broken handles or other defects;
- (s) not carry edged or pointed tools such as screwdrivers, chisels, etc., in pocket;
- (t) not use pipe or other extensions on wrenches or spanners unless the tools are designed for use in this manner;
- (u) not chop towards their feet or legs with an axe. *(EC180/87; 126/21)*

29.6 Responsibilities of employer, power tools

The employer shall ensure that

- (a) portable power tools shall be inspected at regular intervals and any defective tools shall be removed from service until repaired;
- (b) power tools shall be cleaned with a non-flammable non-toxic solvent;
- (c) all electrically powered tools shall be properly grounded or of the double insulated type;
- (d) electric cords used on power tools shall be inspected periodically and repaired or replaced where necessary;
- (e) electric cords and air lines used on power tools shall be suspended over aisles or work areas, where possible, to eliminate stumbling or tripping hazards;
- (f) drill steel used for pneumatic hammers shall be sharpened and tempered in accordance with manufacturer's specifications. *(EC180/87)*

29.7 Responsibilities of worker, power tools

The worker shall

- (a) wear eye protection when using power tools;
- (b) wear dust type respirators while buffing, grinding or sanding material which produces harmful dusts;
- (c) disconnect the source of power from power tools before changing accessories;
- (d) keep all guards on power tools in place while the tool is in use;
- (e) protect flexible shafts of flexible tools against denting and kinking which may damage the inner core;
- (f) when starting the motor of a flexible shaft tool, hold the tool end firmly to prevent whipping. *(EC180/87; 126/21)*

29.8 Prohibited activities

The worker shall not

- (a) wear gloves, ties, loose clothing or jewellery while using revolving power tools such as drills, saws and grinders;
- (b) disconnect air lines from air operated tools and use the lines for cleaning clothing;
- (c) point a pneumatic hammer at anyone or stand directly in front of a person handling a pneumatic hammer. *(EC180/87; 126/21)*

PART 30 — MECHANICAL SAFETY

30.1 Definitions

In this regulation

- (a) “**safeguard**” means a guard shield, guardrail, fence, gate, barrier, wire mesh or other protective enclosure, safety net, handrail or other similar equipment designed to protect the safety of workers, but does not include personal protective equipment;
- (b) “**push block**” means a block of wood long enough to protect workers from the danger area and provided with a handle similar to that of a hand plane and having a shoulder at the rear;
- (c) “**push stick**” means a narrow strip of wood or other soft material with a notch cut into one end. (*EC180/87; 126/21*)

30.2 Guarding moving parts

The employer shall ensure that all moving parts of machinery, equipment and tools shall be effectively safeguarded unless

- (a) they are so constructed or located as to prevent a person or object from coming in contact with them; or
- (b) the guarding would unreasonably interfere with the operation of the machinery, equipment or tool. (*EC180/87*)

30.3 General provisions respecting machinery

- (1) The employer shall ensure that machinery is erected, installed, assembled, started, operated, used, handled, stored, stopped, serviced, tested, adjusted, maintained, repaired and dismantled in accordance with the manufacturer’s specifications.

Specifications

- (2) The employer shall ensure that the manufacturer’s rated capacity or other limitations on the operation of the machinery or any part of it, as set out in the manufacturer’s specifications or in any relevant specifications certified by an engineer are not exceeded and are clearly marked on the machinery in a location clearly visible to the operator.

Idem

- (3) An operator of machinery shall not exceed the limitations described in subsection (2).

Inspection

- (4) The employer shall ensure that machinery is regularly inspected for defects and machinery which could cause injury to workers is removed from service until repaired. (*EC180/87; 126/21*)

30.4 Starting machinery

- (1) The employer shall ensure that operational controls on machinery are
 - (a) located and protected in such a manner as to prevent unintentional activation;
 - (b) suitably identified so as to indicate the nature of each control mechanism.

Pedals

- (2) Where a pedal is used to operate a clutch or belt shifter, the employer shall ensure that it is so guarded that it cannot be struck accidentally so as to activate the machine.

Pulleys

- (3) The employer shall ensure that each pair of active and idler pulleys is equipped with a permanent belt shifter provided with a mechanical means of preventing the belt from creeping from the idler to the active pulley.

Alarm system

- (4) The employer shall ensure that
- (a) where moving machine parts may endanger workers when the machine is started and there is not a clear view of the machine or parts from the control panel or operator's station, an alarm system is installed; and
 - (b) the alarm system gives an effective warning before start up of the machine so that workers are made aware of the imminent start-up.

Starting

- (5) Before starting machinery, a worker shall ensure that neither he nor any other worker is endangered by its starting.

Operation

- (6) While operating machinery, a worker shall ensure that neither he nor any other worker is endangered by its operation. (*EC180/87; 126/21*)

30.5 Stopping machinery

- (1) The employer shall ensure that the operator of any machine has unimpeded access in the immediate area of the workers work area to the means of stopping that machine.

Idem

- (2) The employer shall ensure that every power driven machine not driven by an individual motor or prime mover is equipped with a clutch, idler pulley or other means of quickly disengaging the power sources. (*EC180/87; 126/21*)

30.6 Lock-out

- (1) The employer shall ensure that in addition to the normal control start and stop switch, all electrically driven machinery and equipment has installed in the power supply circuit a disconnecting means which is
- (a) of a lockable type;
 - (b) in a location familiar to all; and
 - (c) properly identified.

Idem

- (2) The employer shall provide a safety lock and key for use on disconnecting means described in subsection (1) to all machinery and equipment operators and all maintenance personnel.

Training

- (3) The employer shall ensure that a worker has been adequately trained in lockout procedures for the particular situation.

Shut-down

- (4) The employer shall ensure that machinery is not lubricated, cleaned, serviced or repaired while in motion unless a means is available which does not expose the worker to risk of injury. *(EC180/87; 126/21)*

30.7 Servicing

- (1) Where machinery or equipment is shut down for cleaning, maintenance or repairs, the employer shall ensure that no worker carries out work on the machinery or equipment until that worker has
- (a) locked out the source of energy using the safety lock and key that the employer must provide under section 30.6; and
 - (b) put the machine in a zero energy state by ensuring that all
 - (i) power sources,
 - (ii) pressurized fluids and air,
 - (iii) potential mechanical energy,
 - (iv) accumulators and air surge tanks,
 - (v) kinetic energy of machine members,
 - (vi) loose or freely movable machine members, and
 - (vii) material or workpieces supported, retained or controlled by the machine which can move or cause movement, are
 - (A) locked out,
 - (B) vented to the atmosphere,
 - (C) reduced to atmospheric pressure, or
 - (D) otherwise acted upon to render the machinery incapable of spontaneous or unexpected action;
 - (c) put on the control device of the machinery a tag which does not conduct electricity and which contains
 - (i) words directing persons not to start or operate the machinery,
 - (ii) the worker's printed name and signature, and
 - (iii) the date when the tag was put on the machinery.

Idem

- (2) No worker shall carry out work on machinery or equipment shut down for cleaning, maintenance or repairs until he has complied with subsection (1) and has double checked to ensure that the machinery is inoperative.

Removal of lock-out device

- (3) No person shall remove a lock-out device or tag except
- (a) the worker who installed it; or
 - (b) in an emergency or where attempts made to contact the worker indicate he is not available, a competent worker designated by the employer, who has first ensured that no person will be endangered by the removal.

Activation

- (4) On completion of servicing or repairs, the worker shall, before the operation of the machine is resumed, ensure that putting the machinery in motion will not endanger any person. (EC180/87; 126/21)

30.8 Contact with machinery

- (1) The employer shall ensure that sufficient space is provided around individual machines or process units in order to ensure the safety of workers while operations, adjustments or repairs are being carried out.

Clothing

- (2) Where a worker or the worker's clothing might come into contact with moving parts of machinery, the worker shall
- (a) wear close fitting clothing;
 - (b) confine head or facial hair; and
 - (c) avoid wearing dangling neckwear, jewellery, rings or similar items. *

* The wearing of medic-alert bracelets is permitted when such bracelets are used with transparent rubber bands that fit snugly over the bracelets. (EC180/87; 126/21)

30.9 Safeguards

- (1) Subject to this section, an employer shall provide effective safeguards where a worker may come into contact with moving belts, rollers, gears, drive-shafts, keyways, pulleys, sprockets, chains, ropes, spindles, drums, counterweights, flywheels or couplings on machinery, pinchpoints and cutting edges.

Idem

- (2) Subsection (1) does not apply to machinery that is equipped with an effective device which stops the machinery automatically when a worker comes into contact with the parts of it mentioned in subsection (1) or prevents a worker from coming in contact with parts mentioned in subsection (1).

Screening workers

- (3) Where there is a possibility of machine failure that may result in an injury to a worker from flying objects, the employer shall install safeguards strong enough to contain or deflect the broken parts or particles of the machinery and flying particles of any product.

Alteration

- (4) The employer and worker shall not alter the design where machines are designed with guards that interlock with the machinery control so as to prevent operation of the machine unless the guard is in its proper place.

Alternative protection

- (5) Where it has been determined that an effective safeguard cannot be provided, the employer shall ensure that an alternative mechanism, system or change in work procedure, approved by an officer, is put into place to protect workers from being exposed to the hazards associated with the lack of the safeguard. (EC180/87; 126/21)

30.10 Removing and rendering ineffective safeguards

- (1) A person shall not remove or render ineffective a safeguard, other than a removable guardrail or gate, that is required by these regulations unless the removal or rendering ineffective is necessary to enable the effecting of maintenance or adjustments.

Idem

- (2) Where a person has removed or rendered ineffective a safeguard, he shall ensure that
- (a) the safeguard is replaced before he leaves the unguarded area; and
 - (b) the safeguard will function properly.

Lock-out

- (3) Where a safeguard for machinery has been removed or rendered ineffective and the machinery cannot be directly controlled by the worker, the worker who removes or renders ineffective the safeguard shall lock-out and tag the machine according to section 30.7.
(EC180/87; 126/20)

30.11 Abrasive and grinding wheels

- (1) An employer shall ensure that
- (a) the maximum number of revolutions per minute of an abrasive wheel or disc, as recommended for safe use in the manufacturer's specifications, is identified on the wheel or disc; and
 - (b) the maximum revolutions per minute of a grinder output shaft is identified on the grinder.

Rests

- (2) An employer and worker shall ensure that a tool rest is installed on a fixed grinder in a manner compatible with the work process.

Speed

- (3) A worker shall not
- (a) operate abrasive and grinding wheels at a speed in excess of that specified by the manufacturer;
 - (b) do grinding on the side of an abrasive wheel unless the wheel has been designed for that purpose; or
 - (c) adjust a tool rest while the grinder is in motion.

Hoods

- (4) The employer shall ensure that abrasive and grinding wheels are fitted with protective hoods of sufficient strength to contain fragments or ruptured wheels.

Checks

- (5) The employer shall ensure that abrasive or grinding wheels are checked for flaws before installation.

Mounting

- (6) The employer shall ensure that abrasive wheels are mounted in accordance with manufacturer's specifications.

Test

- (7) Before applying any work, the worker shall run abrasive and grinding wheels at full operating speed in accordance with grinder and wheel manufacturer's specifications. (EC180/87; 126/21)

30.12 Cutting or shaping machinery

Where there is or may be a danger of injury to a worker's hands, the employer shall provide and the worker shall use a push stick or push block for feeding materials into cutting or shaping machinery. (EC180/87; 126/21)

30.13 Saws

- (1) The employer shall ensure that stands for lead sawyers on sawmills are protected by shields not less than 1.2 m (4 ft.) in height and constructed of iron or steel not less than 6 mm (1/4 in.) thick, wooden planks not less than 5 cm (2 in.) thick or other material of equal strength.

Band saws

- (2) The employer shall ensure that wheels on band saws and the return portion of the blades between the upper and lower wheels are enclosed with guards of sheet metal not less than 1 mm (.04 in) in thickness or other material of equal strength.

Circular saws

- (3) The employer shall ensure that circular saws are provided with hood guards which cover as much as possible of the exposed part of the saw at least to the depth of the teeth. (EC180/87)

30.14 Tumblers

The employer shall ensure that the access doors in the guards or enclosures to tumbler drums are, if there is a potential hazard to workers, fitted with interlocks which will

- (a) prevent the access doors from opening while the drums are rotating; or
- (b) disconnect the power from the driving machinery causing the tumblers to stop, if the doors are opened. (EC180/87; 126/21)

30.15 Agitators

When the top of an open agitator, beater or paddle tank is less than 100 cm (40 in.) above the floor, walkway or work area, the employer shall ensure that guardrails are installed on all exposed sides. (EC180/87)

30.16 Conveyers

- (1) The employer shall ensure that a conveyer is so constructed and installed that
- (a) sufficient clearance is provided between the material transported and fixed or moving object;
 - (b) hazardous shearing points between moving and stationary parts are avoided;
 - (c) no conveyer can feed onto a stopped conveyer.

Emergency stop devices

- (2) The employer shall ensure that a power driven conveyer to which a worker has access is provided with emergency stop devices at
- (a) loading and unloading stations;

- (b) drive and take up sections; and
- (c) other convenient places along the run of the conveyer. (*EC180/87; 126/21*)

30.17 Walkways

- (1) The employer shall ensure that an elevated conveyer, where worker access is necessary, is provided with a walkway along its entire length which is not less than 450 mm (18 in.) wide and is equipped with guardrails.

Idem

- (2) Where a worker must cross over a conveyer, the employer shall ensure that adequate crossing facilities are provided. (*EC180/87; 126/21*)

30.18 Guards

- (1) Where there is danger of injury to a worker from material falling from a conveyer, the employer shall ensure that sheet metal or screen guards are installed under a conveyer which is not entirely enclosed.

Belt conveyer

- (2) The employer shall ensure that a belt conveyer is provided with adequate guards extending 1 060 mm (40 in.) from the pulleys and along the sides of the conveyer where there is danger of injury to a worker.

Screw conveyers

- (3) The employer shall ensure that a screw conveyer is placed in metal troughs fitted with secured covers of not less than 3.2 mm (in.) thick metal plates in removable sections or other equivalent protection.

Idem

- (4) The employer shall ensure that when a screw conveyer is fed from the floor level, adequate safeguards are provided around the opening. (*EC180/87; 126/21*)

30.19 Prohibitions

- (1) Unless the conveyer is stopped and locked out, a worker shall not stand on the supporting frames of an open conveyer while loading, unloading or when clearing blockages.

Idem

- (2) A worker shall remove heavy or bulky articles by hand from a moving conveyer at designated stations only. (*EC180/87; 126/21*)

PART 31 — REPAIRS TO MACHINERY

31.1 Inspection and repair

The employer shall ensure that all power-operated machinery shall

- (a) be carefully inspected as far as is practicable each day before being operated;
 - (b) not be used while repair or maintenance work is being done on the machine;
 - (c) not have its steam, air or hydraulic lines repaired while subjected to internal pressure;
- and

- (d) be adequately blocked while repair or maintenance work is being done under the machinery. *(EC180/87)*

31.2 Tire and rim

Heavy duty tire and rim assemblies shall be maintained in such a manner that all fastenings are correctly positioned. *(EC180/87)*

31.3 Electric

Electric machinery shall have the source of power disconnected and locked during repair or maintenance. *(EC180/87)*

31.4 Tires, inflation

Tires which have been removed from trucks or heavy construction equipment shall not be inflated on lock ring type rims without using some restraining device to contain flying parts should a blowout occur. *(EC180/87)*

PART 32 — PILE DRIVING EQUIPMENT

32.1 Pile driving equipment

The employer shall ensure that

- (a) on steam or air-operated hammers of pile-drivers, the hoses shall be secured to prevent reaction hazardous to workers in case of a break of the hose or connections by placement of suitable safety straps across all couplings;
- (b) decks and working areas around the pile-driver shall be provided with a guardrail and kept clear of ropes, tools and other materials;
- (c) where piling is being hoisted in the leads, workers not engaged in the operation shall remain at a safe distance;
- (d) pile-driver operators shall be responsible for ensuring that the suspended hammer is securely chocked when not in use and that on pile-drivers with swinging or suspended leads, the hammer shall not be raised until necessary;
- (e) pile-heads shall be cut square, and shall be cleaned of debris, bark and slivers before being driven but only when the hammer is securely chocked;
- (f) the exhaust of steam engines shall be arranged to discharge at a point where it will not interfere with the view of the engineer or work or injure workers nearby;
- (g) hoisting-engines shall be covered with a suitable roof or shelter to eliminate hazards to the operator from falling objects and as a protection from the weather. *(EC180/87; 126/21)*

PART 33 — POWERED MOBILE EQUIPMENT

33.1 powered mobile equipment, defined

In this Part, “powered mobile equipment” means self-propelled machinery designed to carry, push, pull, dig, compact, lift, stack, tier or move materials or to provide a working platform for workers and includes trucks. *(EC180/87; 126/21)*

33.2 Responsibilities of employer

The employer shall ensure that powered mobile equipment:

- (a) is maintained in a safe operating condition and that the operation, inspection, repair and maintenance of the equipment, and any necessary modifications to the equipment, are carried out in accordance with the manufacturer's instructions or, in the absence of those instructions, as approved by a professional engineer;
- (b) is used exclusively for the purposes for which the equipment is designed and equipped;
- (c) is operated only by competent persons. *(EC180/87; 126/21)*

33.3 Responsibilities of operators

Every operator of powered mobile equipment shall:

- (a) inspect the powered mobile equipment before the start of operation of each shift to ensure the equipment is in safe operating condition;
- (b) ensure that passengers do not ride on any part of the equipment not designed to carry passengers;
- (c) not set equipment in motion until all air and hydraulic pressures are fully built up to the specified operating pressures;
- (d) when leaving equipment unattended,
 - (i) park it on level ground,
 - (ii) set the brake,
 - (iii) lower the blades and bucket or safely block them,
 - (iv) disengage the master clutch,
 - (v) stop the engine,
 - (vi) remove the key; and
 - (vii) where necessary, adequately chock the wheels to prevent inadvertent movement;
- (e) follow a safe refuelling procedure;
- (f) not store containers of gasoline, diesel oil or other substances that may constitute a hazard in the cab;
- (g) not carry on or in the equipment, loose articles or equipment that might create a hazard;
- (h) ensure the load is adequately secured. *(EC180/87; 126/21)*

33.4 Protective structures

The employer shall ensure that agricultural, construction, earthmoving, forestry, and industrial machines are equipped with protective structures that meet the CSA Standard B352.0-16 Rollover Protective Structures (ROPS), Falling Object Protective Structures (FOPS), Operator Protective Structures (OPS), and Tip-Over Protective Structures (TOPS) for Mobile Machinery - General Canadian requirements. *(EC180/87; 126/21)*

33.5 Modifications or repairs

- (1) The employer shall ensure that all modifications or repairs to existing Rollover Protective Structures (ROPS)
 - (a) meet the requirements of this Part; and

- (b) are certified by the modification design agency, the installing agency or a professional engineer, as the case may be.

Certification information

- (2) The employer shall ensure that certification information is made available to an officer, on request. *(EC180/87; 126/21)*

33.6 Restraint equipment

- (1) Protective Structures (ROPS) is equipped with seat belts for the operator and passengers which comply with or exceed the recommended practices of the Society of Automotive Engineers.

Restraining devices

- (2) Where the nature or type of work renders the wearing of seat belts impracticable, the employer shall ensure that powered mobile equipment is equipped with shoulder belts, bars, gates, screens or other restraining devices designed to prevent the operator and passengers from being thrown outside the rollover protective structures.

Use of restraint equipment

- (3) Every operator of and passenger on powered mobile equipment shall use the seat belts and restraining devices provided while the equipment is in motion. *(EC180/87; 126/21)*

33.7 Equipment requirements

The employer shall ensure that powered mobile equipment:

- (a) has an adequate and fully operative braking system;
- (b) has a manually operated audible warning device;
- (c) has an adequate rear view mirror or other means of ensuring that the equipment can be safely backed up;
- (d) has an audible automatic back-up alarm;
- (e) has adequate headlights and backing lights when used after dark or in dimly lit areas;
- (f) has gears and moving parts that are adequately guarded;
- (g) has controls which cannot be operated from outside the cab unless the controls are designed to be operated from outside the cab;
- (h) has air and hydraulic lines, hoses and components maintained in safe operating condition;
- (i) has wire ropes, drums and sheaves that are inspected daily;
- (j) is lubricated only when the machine is at rest or as the manufacturer has expressly directed;
- (k) has safe and easy access to the operator's station by means of a ladder or steps and a handrail. *(EC180/87; 126/21)*

33.8 Signals

- (1) The employer shall designate a worker to give signals to an operator who is operating powered mobile equipment when the operator's vision is obstructed and the operator shall use the equipment only on mutually agreed signals between the operator and the designated worker.

Safe to proceed on signal

- (2) The designated worker referred to in subsection (1) shall ensure that it is safe to proceed with a movement before the worker signals the operator for the movement to proceed. *(EC180/87; 126/21)*

33.9 Pedestrian traffic

- (1) Where practicable, designated walkways shall be used to separate pedestrian traffic from areas of operation of powered mobile equipment.

Safe work procedures

- (2) Where it is impracticable to provide designated walkways for pedestrian traffic, the employer shall ensure that safe work procedures are used to minimize the possibility of a collision in hazardous work areas, including
- (a) use of a traffic control system;
 - (b) enforcement of speed limits for powered mobile equipment;
 - (c) a requirement for the pedestrian and the operator of the powered mobile equipment to acknowledge each other's presence before the pedestrian proceeds through a hazardous work area; or
 - (d) other effective means. *(EC180/87; 126/21)*

33.10 Dust

Where work is carried out in an area where dust may create a hazard to the health of workers, the employer shall take adequate measures to minimize the release of dust to protect workers from the risk of damage to their health.

33.11 Load handling attachments

Buckets, forks, booms, hoists and other load handling attachments shall only be installed on powered mobile equipment as specified by the equipment manufacturer or where certified by a professional engineer for use on the equipment.

33.12 Raised equipment

The employer shall ensure that

- (a) powered mobile equipment which is raised from the ground by means of jacks or hoists is adequately blocked; and
- (b) mats or heavy planking are used to distribute the load on soft ground.

33.13 Idem

The employer shall ensure that any person or worker does not work under or go under the raised parts of any powered mobile equipment unless the raised parts of the equipment are adequately blocked. *(EC180/87; 126/21)*

33.14 Repair work

Where repair or maintenance work is carried out at the point of articulation on front end loaders or similar powered mobile equipment, the employer shall ensure that lock bars are used to prevent movement of either end of the loader or similar equipment. *(EC180/87; 126/21)*

33.15 Precautions on slope, bank

Where powered mobile equipment is used on a slope or bank which may give way, the employer shall ensure that adequate precautions are taken to stabilize the slope or bank, as the case may be, and to distribute the load of the equipment. *(EC180/87; 126/21)*

33.16 Use of gears

The operator of powered mobile equipment shall keep the equipment in gear when going downhill. *(EC180/87; 126/21)*

33.17 Tire pressure

- (1) When initially inflating a tire, a worker shall ensure that the tire pressure does not exceed the manufacturer's rated capacity.

Tire inflation

- (2) A worker shall initially inflate a tire mounted on a split-rim or locking ring wheel only after the wheel assembly has been placed in a tire cage or has been otherwise restrained to contain flying parts in the event of split-rim or locking ring failure or tire rupture.

Connector

- (3) The employer shall ensure that a clamp-on type connector is used to inflate split-rim and locking ring wheels.

Idem

- (4) Where a clamp-on type connector is used to inflate a tire,
 - (a) the employer shall ensure that the worker uses an in-line pressure gauge and positive pressure control and inflates the tire from a safe position out of the immediate danger area; and
 - (b) the worker shall inflate the tire from the safe position. *(EC180/87; 126/21)*

33.18 Truck seats

- (1) The employer shall ensure that a truck used for the transportation of workers has seats and is enclosed on all sides.

Trucks in motion

- (2) No person shall get on or off trucks, or be permitted to get on or off trucks, which are in motion. *(EC180/87; 126/21)*

33.19 Loading

A worker shall not remain in or on the cab of powered mobile equipment while the equipment is being loaded by a crane or power shovel. *(EC180/87; 126/21)*

PART 34 — HOISTING APPARATUS

34.1 hoisting apparatus, defined

In this Part, “**hoisting apparatus**” includes an automotive lift, a mobile crane, a tower crane, an electric overhead travelling crane, a winch, a block and other similar apparatus but does not include an elevator or a dumbwaiter. (*EC180/87; 43/06*)

34.2 Construction

- (1) The employer shall ensure that hoisting apparatus is constructed of sufficient strength and equipped with suitable ropes, chains, slings, hooks and other fittings so as to adequately ensure the safety of persons.

Standards

- (2) The employer shall ensure that hoisting apparatus provided by an employer for the use of a worker is designed, installed, erected, examined, inspected, operated and maintained in accordance with the applicable provisions of the following standards:
- (a) CSA Standards:
 - (i) B167-16, Overhead Cranes, Gentry Cranes, Monorails, Hoists, and Jib Cranes,
 - (ii) C22.2 No.33-19, Electrical Safety Requirements for Cranes and Hoists,
 - (iii) Z150-20, Safety Code on Mobile Cranes,
 - (iv) Z248-17, Code for Tower Cranes,
 - (v) Z150.3-17, Safety Code on Articulating Boom Cranes;
 - (b) ANSI/ALI ALOIM Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance.
- (3) The Minister may
- (a) establish classifications for operators of hoisting apparatus and define the scope of work and duties that may be performed by persons in each class;
 - (b) establish a Board of Examiners to examine candidates for the various classifications;
 - (c) issue certificates of qualification to operators of hoisting apparatus who have passed an examination, who are holders of an equivalent certification from another jurisdiction, or who are otherwise judged by the Board of Examiners to be competent; and
 - (d) determine fees that are to be paid for examinations and certificates of qualification. (*EC180/87; 339/93; 43/06; 126/21*)

34.3 Carrying capacity

- (1) The employer shall obtain from the manufacturer, or if unobtainable from the manufacturer from an engineer, a statement of the safe load carrying capacity of hoisting apparatus.

Posting

- (2) The employer shall ensure that the safe load carrying capacity obtained under subsection (1) is posted legibly on hoisting apparatus where the operator is able to see it when he is in his operating position.

Load

- (3) The employer shall ensure that the operator of hoisting apparatus has sufficient information to enable the operator to determine the load that the hoisting apparatus is capable of hoisting safely under any operating condition.

Revisions

- (4) When the boom, counterweight or another principal part of hoisting apparatus is modified, extended, altered or repaired so as to affect the load carrying capacity, the employer shall obtain a statement of revised safe load carrying capacity from an engineer. *(EC180/87)*

34.4 Excess load

- (1) The employer shall ensure that hoisting apparatus is not subjected to a load in excess of its safe load carrying capacity.

Idem

- (2) The operator shall not subject hoisting apparatus to a load in excess of its safe load carrying capacity. *(EC180/87)*

34.5 Maintenance

- (1) The employer shall ensure that hoisting apparatus is maintained in good condition.

Inspection

- (2) The employer shall designate a competent person to thoroughly inspect and test hoisting apparatus including safety devices
 - (a) before it is first put into use;
 - (b) once a month;
 - (c) after any happening involving the hoisting apparatus which could have damaged some part of the apparatus.

Record

- (3) The employer shall ensure that a log book recording inspections and repairs is maintained and made available to an officer on request. *(EC180/87)*

34.6 Responsibilities of employer

- (1) The employer shall ensure that the operator of hoisting apparatus follows the procedures prescribed in subsection (3).

Barriers

- (2) The employer shall ensure that when mobile cranes are working in an area where the swing clearance of an obstruction is less than 600 mm (2 ft.), adequate barriers are installed to prevent workers from entering the area.

Responsibilities of operator

- (3) The operator of hoisting apparatus shall
 - (a) visually inspect the hoisting apparatus before use to verify that it is in safe working order;
 - (b) move a load only on a signal from a signaller designated under section 34.7 unless he has an unobstructed view of the load at all times during the operation;

- (c) raise a load vertically or, if necessary to raise a load obliquely, take precautions to avoid endangering workers;
- (d) avoid carrying a load over workers;
- (e) not leave a suspended load unattended.

Tag lines

- (4) The employer shall ensure that a tag line or guide rope is used to control loads which may swing while being moved. *(EC180/87; 126/21)*

34.7 Signals

- (1) The employer shall ensure that the operator of a hoisting apparatus moves a load only on a signal from a signaller designated under this section.

Responsibilities of signaller

- (2) The signaller designated under subsection (1) shall
 - (a) be identifiable;
 - (b) govern the movements of a load by a well understood distinctive code of signals or an effective communication system;
 - (c) obtain the assistance of another competent signaller if part of the view of the load is obstructed from both the signaller and the operator;
 - (d) ensure that all ropes, chains, slings or other attachments are properly applied to the load and secured to the hooks of the hoisting apparatus and that the area is clear before signalling to move the load. *(EC180/87)*

34.8 Riding on load

- (1) No person shall ride on loads being moved by hoisting apparatus.

Suspended loads

- (2) No person shall stand or move under any suspended load.

Riding on apparatus

- (3) The employer shall not permit workers to ride on the block, hook or weight suspended from a hoisting apparatus.

Idem

- (4) Workers shall not ride on a block, hook or weight suspended from a hoisting apparatus. *(EC180/87; 126/21)*

34.9 Mobile cranes

The employer shall ensure that a mobile crane

- (a) has a cab, screen, canopy guard or other adequate protection for the operator where he may be exposed to the hazard of falling material;
- (b) is equipped with brakes capable of effectively braking a weight of not less than 1 1/2 times the maximum safe working load;
- (c) has safety devices and limit switches installed and used as specified by the manufacturer;
- (d) has, on apparatus equipped with a boom, a boom angle indicator. *(EC180/87)*

34.10 Stabilizers

The employer shall ensure that

- (a) rubber tired mobile cranes are equipped with stabilizers;
- (b) when equipment with stabilizers is in use, the stabilizers are fully extended on pads of sufficient size to prevent movement. *(EC180/87)*

34.11 Change of location

When a crane is moving from one location to another under its own power, the employer shall

- (a) ensure that precautions are taken to prevent the boom from swinging; and
- (b) designate a signaller to guide the movement of the crane. *(EC180/87)*

34.12 Use of building materials

The employer shall ensure that building materials shall not be used as counterweights for any hoisting apparatus. *(EC180/87)*

PART 35 — HOISTS

35.1 “workers’ hoist”, defined

In this Part “workers’ hoist” means a hoist for raising or lowering workers or materials in a stationary hoistway. *(EC180/87; 126/21)*

35.2 Prohibition

The employer shall ensure that workers and materials shall not be transported on the same hoist at the same time. *(EC180/87; 126/21)*

35.3 Standards

CSA Standard Z185-M87, Safety Code for Personnel Hoists is adopted and constituted as the regulations that shall be referred to by the Director and officers in carrying out their duties under these regulations. *(EC180/87; 126/21)*

35.4 “material hoist”, defined

In this Part “material hoist” means a hoist for raising or lowering materials only, with a load carrying unit within fixed guides and includes a concrete hopper that is guided by its own hoisting ropes. *(EC180/87)*

35.5 Standards

CSA Standard Z256-M87, Safety Code for Material Hoists and subsequent amendments is adopted and constituted as the regulations that shall be referred to by the Director and officers in carrying out their duties under these regulations. *(EC180/87; 126/21)*

PART 36 — ELECTRICITY

36.1 “competent”, defined

- (1) In this Part “**competent**” in relation to a person means,
- (a) when applied to electrical installations, as defined under the *Electrical Inspection Act* R.S.P.E.I. 1988, Cap. E-3 and regulations, a person who is the holder of a subsisting license as issued under the *Electrical Inspection Act*;
 - (b) when applied to electrical utility linework, a person who is the holder of a subsisting Certificate of Qualification or a Certificate of Proficiency as issued by the Department for the construction or utility lineman trades;
 - (c) when applied to communications and any other types of work covered by this Part, a person who demonstrates to the Division that he is qualified by knowledge, training and experience to perform an assigned task safely.

“de-energized”, defined

- (2) “**de-energized**” in the electrical sense means isolated and grounded. (*EC180/87*)

36.2 Worker qualifications

The employer shall ensure that a worker shall not work on any energized electrical conductor or equipment unless he is

- (a) competent; or
- (b) an indentured apprentice under the direct supervision of a competent person. (*EC180/87; 126/21*)

36.3 Communication workers

The employer shall ensure that when communication workers are required to work on energized electrical utility conductors or equipment, such workers shall be competent as specified in section 36.1. (*EC180/87; 126/21*)

36.4 Application of Electrical Inspection Act

- (1) The employer shall ensure that the installation, use and maintenance of any electrical wiring or equipment including temporary wiring, complies with the *Electrical Inspection Act* and the regulations made thereunder.

Standards

- (2) The employer shall ensure that all newly installed electrical utility and communication lines and equipment are installed in conformance with CSA Standard C22.3 No.1-15, Overhead Systems, and CSA Standard C22.3 No.7-20, Underground Systems. (*EC180/87; 126/21*)

36.5 Protective devices

- (1) The employer shall ensure that workers do not work on energized electrical conductors or equipment unless adequate protective devices specified for protection against the voltage involved are used.

Protective gloves

- (2) When working on energized electrical conductors or equipment operating at a potential greater than 120 v nominal up to and including 5,000 v phase to phase, the employer shall provide and the worker shall use rubber gloves having a minimum rating of 10,000 v, shields and other necessary safety equipment.

Idem

- (3) When working on energized electrical conductors or equipment in excess of 5,000 v, and not exceeding 15,000 v phase to phase, the employer shall provide and the worker shall wear rubber gloves having a minimum rating of 20,000 v or use adequate hot line tools.

Testing

- (4) Rubber gloves shall be tested at least twice a year and replaced as required.

When gloves to be worn

- (5) Rubber gloves shall be worn at all times while working on energized circuits in accordance with section 36.6 or while within the primary zone on any poles or structure carrying over 120 v phase to ground to 25000 phase to phase circuits.

primary zone, defined

- (6) In subsection (5), “primary zone” means the distance measured from a high voltage (120 v phase to ground and 25000 phase to phase) source to a suitable distance of clearance measured down or away from the pole or structure to the top of the worker’s head, which in all cases shall be 1 200 mm (4 ft.) measured to the nearest live point and all insulator porcelain is to be considered energized. (EC180/87; 126/21)

36.6 Work on energized equipment

- (1) The employer shall ensure that no worker shall work on any energized electrical conductor or equipment operating at more than 3,000 v, unless procedures satisfactory to the Director are used, and the workers are provided with and trained in the use of special tools which are approved for use by an authority acceptable to the Director.

Workers present

- (2) No work shall be done on an energized electrical line or equipment which is at a voltage more than 600 v unless two or more workers are present while the work is being performed.

Application of subsection (2)

- (3) Subsection (2) does not apply to the fusing of transformers where the transformer fuses are accessible without passing or reaching past electrical wires or appliances carrying more than 240 v; nor to work done with special tools that are designed for the purpose, and which are used by workers who have been trained in the use of those tools.

Tunnels

- (4) In tunnels and manholes, no work shall be done, or permitted to be done, on an energized electrical line or equipment having a voltage of more than 240 unless there are at least two competent workers present.

Guards

- (5) No work shall be done in or around any place or structure in proximity to energized electrical wires or equipment which are normally isolated by position or elevation, unless such

electrical lines or equipment are provided with guards which will effectively prevent contact by any worker or by any equipment being used or handled.

Idem

- (6) Guards shall meet the specifications of an authority acceptable to the Director.

Notices

- (7) Notices reading “Danger-High Voltage” shall be placed in prominent positions in proximity to electrical equipment operating at over 600 v that may be accessible to workers. *(EC180/87; 126/21)*

36.7 De-energizing procedures

The employer shall ensure that before a worker is permitted to work on electrical conductors or equipment that must be de-energized, the worker in charge of the work shall open, lock and tag any switching device which supplies electrical energy to the conductors or equipment being handled. *(EC180/87; 126/21)*

36.8 Idem

The employer shall ensure that before a worker is permitted to work on electrical utility lines or equipment that must be de-energized, the worker in charge of the work shall ensure that such are properly de-energized. *(EC180/87; 126/21)*

36.9 Re-energizing procedures

After work has been completed on de-energized electrical conductors, utility lines or equipment, the worker in charge of the work shall

- (a) determine that all workers are clear of work areas; and
- (b) authorize the energizing of the electrical conductors, utility lines or equipment. *(EC180/87; 126/21)*

36.10 Protective guards and equipment

The employer shall ensure that workers shall not work in or around any place or structure in proximity to energized electrical conductors or equipment unless

- (a) adequate protective guards are provided; or
- (b) the workers are wearing adequate protective equipment. *(EC180/87; 126/21)*

36.11 Communication requirements

The employer shall ensure that a worker shall not work on any energized electrical conductor or equipment having a potential in excess of 600 v in a manhole or tunnel unless he has continual communications with another competent worker. *(EC180/87; 126/21)*

36.12 Manhole requirements

The employer shall ensure that manholes containing energized electrical conductors or equipment shall be provided with approved insulated mats or platforms to protect workers while at work, except those manholes containing only telephone, telegraph, signal wires or cables. *(EC180/87; 126/21)*

36.13 Water hazards

The employer shall ensure that tunnels or manholes containing energized conductors or equipment shall be kept free from water, sewage or other drainage when it is necessary for workers to enter. *(EC180/87; 126/21)*

36.14 Access to switching device

The employer shall ensure that means of access to all electrical switching devices shall be kept clear of obstructions. *(EC180/87)*

36.15 Overhead protection

When workers work on poles or structures where other persons may pass below, an adequate barricade shall be installed. *(EC180/87; 126/21)*

36.16 Poles between conductors

The employer shall ensure that when setting or removing poles, light standards or any similar object between energized electrical conductors exceeding 600 v, the conductors shall

- (a) be covered with adequate protective devices; or
- (b) be protected by an approved guard installed on the pole before being lifted. *(EC180/87)*

36.17 Protective measures

The employer shall ensure that workers required to perform such work as described in section 36.16 shall, and workers required to perform the work as described in section 36.16 shall

- (a) wear adequate rubber gloves;
- (b) use cant hooks or other approved controlling devices; and
- (c) not get on or off the lifting machine until the pole is in a secured position. *(EC180/87; 126/21)*

36.18 Lifting machines

The employer shall ensure that lifting machines or devices used for setting or removing poles, light standards or any similar objects between or within 3 100 mm (10 ft.) of energized electrical conductors shall

- (a) be grounded; and
- (b) if applicable, have their outriggers extended. *(EC180/87)*

36.19 Idem

The employer shall ensure when the type of work outlined in section 36.18 is being carried out, a minimum of two competent workers shall be present at all times during the operation. *(EC180/87; 126/21)*

36.20 Distances from energized conductors

The employer shall ensure that, subject to sections 36.16 and 36.22, and except for electrical utilities, a worker shall not carry out any work which is liable to bring any person or

apparatus, machine, machine component, material or property within a distance of energized electrical conductors closer than as specified in the following table:

Nominal Phase to Phase Voltage of Live Power Line	Minimum Distance
Up to 750 volts	900 mm (3 ft.)
751 - 100,000 volts	3 600 mm (12 ft.)
100,001 - 250,000 volts	5 200 mm (17 ft.)
250,001 - 345,000 volts	6 100 mm (20 ft.)

(EC180/87; 126/21)

36.21 Instructions from utility

A worker shall not commence the work outlined in section 36.20 where the voltage is in excess of 345,000 v until the employer has received instructions on proper procedures from the electrical utility owning or operating the conductors. (EC180/87; 126/21)

36.22 Safety precautions

Before an employer commences work which is liable to bring any person, apparatus, machine, component, material or property closer to overhead electrical conductors than the distance stipulated in section 36.20 he shall, before proceeding, contact the electrical utility owning or operating the conductors and shall ensure that

- (a) the conductors are properly de-energized; or
- (b) the energized electrical conductors or equipment are adequately insulated or guarded.

(EC180/87)

36.23 *Idem*

The employer shall ensure that when structural repairs, extensions, paint work or any other similar type of work is to be undertaken near energized electrical conductors or equipment, the employer in charge of the work shall ensure that

- (a) the conductors are properly de-energized; or
- (b) the energized electrical conductors or equipment are adequately insulated or guarded.

(EC180/87)

36.24 Metal ladders

The employer shall ensure that metal ladders and ladders having reinforcing wire or other conducting material shall not be used near energized electrical conductors or equipment.

(EC180/87)

36.25 Hand tools

Hand tools, such as pliers, screw drivers, fuse pullers, etc., for use in connection with electrical work, shall be adequately insulated and be of an approved type. (EC180/87)

36.26 Temporary wiring

The employer shall ensure that all temporary wiring shall be carried out in accordance with the *Electrical Inspection Act* and the regulations made thereunder. (EC180/87)

36.27 Portable electrical conductors

The employer shall ensure that where portable electric conductors are used, a sufficient number of fixed outlets shall be installed at points where they are safely accessible. *(EC180/87)*

36.28 Rubber covered cord

The employer shall ensure that rubber covered cord shall be used for portable electrical tools, extension lamps, etc., which may be subjected to hard usage. Single strand wire shall not be used for temporary wiring. *(EC180/87)*

36.29 Grounding of equipment

The employer shall ensure that armouring and sheathing of electric cables, metal conduits and their fittings, metallic safeguards and other non-current carrying metal parts of electrical equipment shall be effectively grounded. *(EC180/87)*

36.30 Grounding conductors

The employer shall ensure that grounding conductors shall be of low resistance and of sufficient capacity to safely carry the heaviest flow of current which may result from a breakdown of the insulation of the equipment to be protected. *(EC180/87)*

36.31 *Idem*

The employer shall ensure that grounding conductors shall be mechanically protected at places where they are likely to be damaged. *(EC180/87)*

36.32 Prevention of accidental contact

The employer shall ensure where it is impossible or impracticable to enclose electrical circuits or current-carrying parts of electrical equipment operating at 50 v AC or more to ground, accidental contact by persons or objects shall be prevented by installing the circuits or equipment in rooms or enclosures which are accessible to authorized persons only or on balconies, galleries or platforms so elevated and arranged as to exclude unauthorized persons. *(EC180/87)*

36.33 Pole safety and stability

- (1) Before workers start to climb or support themselves on any pole or structure, or before any work is done which will affect the stability of the pole or structure
 - (a) the pole or structure shall be tested for soundness;
 - (b) when any doubt as to soundness exists, the pole or structure shall be effectively guyed or otherwise supported before any wires or cable are changed.

Guys

- (2) Guys or supports shall be left in place until workers are clear of the pole.

Pike-poles

- (3) Pike-poles alone shall not be considered adequate support. *(EC180/87; 126/21)*

36.34 Obstructions

Mail boxes, signs, clotheslines or other hazards shall not be allowed on or in close proximity to poles upon which workers are required to work. *(EC180/87; 126/21)*

36.35 Access to switches

The employer shall ensure that means of access to switches and meters shall be clear of obstructions at all times. *(EC180/87)*

36.36 Marking

The employer shall ensure that all electrical distribution switches and controls shall be clearly marked to indicate the machinery or equipment which they serve. *(EC180/87)*

36.37 De-energizing responsibility

The employer shall ensure that before workers are required or permitted to work on any part of an electrical power system which, for reasons of safety, must be handled in a de-energized condition, the worker in charge shall ensure that the part of the system being worked on is de-energized and grounded, and that the controls are tagged and locked to prevent the system from being re-energized. *(EC180/87; 126/21)*

36.38 Procedure

When the control devices are not under the direct control of the workers, they shall receive assurance from the worker in charge of the control device that the work may safely proceed and the assurance shall be recorded by the worker giving the assurance. *(EC180/87; 126/21)*

36.39 *Idem*

Before commencing the work on the de-energized part of the system, the worker shall, by short-circuiting and grounding or other effective means, ensure that the part or section is de-energized and that all workers are protected against re-energization. *(EC180/87; 126/21)*

36.40 Live electrical conductor

- (1) The employer shall take every practicable step to prevent danger to persons on the work site from any live electrical conductor or apparatus that might be a source of danger.

Tool grounding

- (2) No person shall use any electric tool unless it is effectively grounded or is of the double insulated type. *(EC180/87)*

36.41 Service switch and electrical panel

The employer shall ensure that a main service switch and secondary electrical panel shall be

- (a) securely mounted on substantial supports;
- (b) kept clear of any obstruction for 1 000 mm (3.2 ft.) to the front; and
- (c) within easy reach of and readily accessible to authorized persons. *(EC180/87)*

36.42 Service switch lock

The employer shall ensure that a service switch shall have a suitable device for locking it in the open position. *(EC180/87)*

36.43 Lighting

The employer shall ensure that all areas in which workers are employed and the means of access thereto shall be adequately lighted. *(EC180/87; 126/21)*

36.44 Crane operation near power line

The employer shall ensure that no person shall operate a crane or similar lifting device closer than the length of the boom of the crane to a power line for electricity unless he has a competent signal man stationed within his view to warn him of danger from the power line. *(EC180/87)*

PART 37 — WELDING

37.1 Ventilation

Where welding or cutting or soldering operations emit harmful fumes and gases, the employer shall ensure that ventilation is provided which will remove the fumes at the source required to maintain the airborne contaminants at or below the permissible levels as outlined in Part 11 of these regulations. *(EC180/87)*

37.2 Explosion precautions

The employer shall ensure that a welding and cutting operation is prohibited in an area containing combustible materials, or in the close proximity of explosive or flammable dusts, gases or vapours, unless adequate precautions are taken to prevent fires or explosions. *(EC180/87)*

37.3 Tables

The employer shall provide tables, jigs or work benches made of non-flammable material when needed for support during welding and cutting operations. *(EC180/87)*

37.4 Slag and sparks

Overhead welding and cutting operations shall be carried out in such a manner as to prevent slag and sparks from falling on persons or combustible materials located below a work area. *(EC180/87)*

37.5 Blankets

Fire retardant blankets shall be placed over open gratings to contain slag and sparks produced by welding and cutting operations. *(EC180/87)*

37.6 Screens

In places where welding and cutting operations are normally carried out and where persons other than the welders are working or passing, suitable stationary or portable screens at least 1 800 mm (6 ft.) high shall be used. *(EC180/87)*

37.7 Walls and screens

Walls and screens of both permanent and temporary enclosures for welding and cutting operations shall be painted with black or dark grey flat paint to absorb the harmful bright rays and prevent reflection. *(EC180/87)*

37.8 Fire extinguishing equipment

The employer shall ensure that adequate fire extinguishing equipment in good working order is readily available where any welding, soldering or flame-cutting or heating operations or any other process which uses heat application are performed. *(EC180/87)*

37.9 Safety clothing

The employer shall ensure that all workers engaged in welding or cutting operations wear, and all workers shall wear

- (a) adequate fire retardant work clothing;
- (b) fire retardant gauntlet type gloves and arm protection;
- (c) an apron of fire retardant or other adequate material;
- (d) adequate eye and face protection against harmful radiation, or particles of molten metal, or while chipping and grinding welds; and
- (e) safety boots which meet the requirements of section 45.15. *(EC180/87; 126/21)*

37.10 Respirators

Approved respirator equipment shall be worn if tests of air samples indicate it is necessary. *(EC180/87)*

37.11 Inspection of torches

- (1) The employer and worker shall ensure that welding and cutting torches, their fittings and regulators are inspected before use.

Repairs

- (2) Where inspection reveals faults in the equipment mentioned in subsection (1), the employer shall ensure that the equipment is repaired or replaced with approved fittings in accordance with the manufacturer's specifications by a competent person.

Leaks

- (3) The employer and worker shall ensure that the supply of gas is cut off to any part of the welding or cutting operation when a leak develops and that work is not resumed until the leak is repaired. *(EC180/87; 126/21)*

37.12 Enclosed containers

- (1) The employer and worker shall ensure that a welding or cutting operation is not undertaken on a totally enclosed container.

Dangerous containers

- (2) The employer and worker shall ensure that a welding or cutting operation is not done on a container or pipe that has contained an explosive or flammable substance or gas. *(EC180/87; 126/21)*

37.13 Certification

Where a container or pipe held an explosive or flammable substance or gas or if the previous contents are unknown, the employer shall ensure that welding, soldering or cutting operations or any other process which uses heat application are only undertaken when the employer is able to certify in writing that the container or pipe is free from combustible gases or vapours. *(EC180/87)*

37.14 Cleansing

When the employer is unable so to certify in writing to the officer, welding or cutting operations on any container or pipe that has held explosive or flammable substances shall only be undertaken after the container has been thoroughly cleansed by steam or other effective means; found, by air tests, to be completely free from combustible gases or vapours; or the air in the container has been replaced by inert gas. *(EC180/87)*

37.15 Procedure

In order to drain, clean and ventilate the container or pipe, the employer shall ensure that

- (a) inlet pipes are disconnected and blocked off or moved out of alignment, or the inlet valves are locked in the closed position;
- (b) where residual liquid remains, it is removed by workers located outside the container or pipe;
- (c) where steam is available all openings, except the vent pipe and steam inlet, are closed and the steam is blown into the tank for a period of time suitable for the conditions and the nature of the liquid, with the lids and manhole plates open during the last one-fifth time of the steaming period;
- (d) where steam is not available, the container or pipe is kept filled with running water for a period of at least 24 hours;
- (e) after cleaning, the container or pipe is thoroughly ventilated with forced or induced draft air, for a minimum period of two hours;
- (f) the air in the container or pipe is replaced by a non-flammable gas other than exhaust from an internal combustion engine;
- (g) after ventilation, a competent person shall examine the interior of the container or pipe to see that it is free from residue and take air samples to ascertain that hazardous vapours have been removed;
- (h) where the foregoing tests indicate the presence of hazardous vapours, the steaming or flooding and ventilating operations are repeated. *(EC180/87; 126/21)*

37.16 Handling torches

- (1) The worker shall ensure that a welding or cutting torch is not laid down until the gases have been completely shut off.

Idem

- (2) The worker shall ensure that a welding or cutting torch is not hung from a regulator or other equipment so as to come in contact with a gas cylinder. (EC180/87; 126/21)

37.17 Handling cylinders

The employer shall ensure that cylinders for compressed, liquefied and dissolved gases, their fittings and attachments are used in accordance with the *Fire Prevention Act*. (EC180/87)

37.18 Storage

The employer shall ensure that cylinders containing flammable compressed gas are not stored in areas where welding or cutting operations are carried out, or in areas containing oxygen cylinders, unless they are separated by a fire resistant partition having a fire-resistance rating of at least two hours. (EC180/87)

37.19 Compressed gas cylinders

- (1) The employer shall ensure that compressed gas cylinders
 - (a) are kept in an upright position and secured against falling during storage, transportation and use;
 - (b) are not dropped or subjected to impact.

Trucks

- (2) Trucks used for transporting acetylene and oxygen cylinders shall have specially designed restraints for that purpose.

Caps

- (3) Protective caps on acetylene and oxygen cylinder valves shall be screwed on firmly when the cylinders are being moved or not in use.

Storage

- (4) Where portable acetylene and oxygen supply equipment is used, the cylinders shall be kept at a safe distance from all operations which produce flames, sparks or molten metal or result in excessive heating of the cylinder.

Hoses

- (5) Hose lines for conveying acetylene or oxygen from supply piping or cylinders to burners shall be different threads and shall be plainly marked to avoid interchanging the hose. (EC180/87)

37.20 Heating cylinders, prohibited

The person emptying cylinders charged with liquefied gas shall not hasten the process by directly heating the cylinders. (EC180/87)

37.21 Empty cylinders

- (1) The employer shall ensure that empty compressed gas cylinders
- (a) are stored in an area designed for such use; and
 - (b) are removed from any building or structure being constructed, or renovated or demolished.

Storage

- (2) The employer shall ensure that cylinders containing flammable gas are not stored in a building or structure that is being constructed, or renovated or demolished. *(EC180/87)*

37.22 Securing in upright position

Acetylene and oxygen cylinders when in an upright position shall be held by straps, collars or chains to prevent them from falling over, and such cylinders shall not be dropped or subjected to heavy blows. *(EC180/87)*

37.23 Removal

Devices for holding cylinders shall be such that cylinders can be rapidly removed in case of fire. *(EC180/87)*

37.24 Reverse flow check valves

All welding and cutting burners shall be equipped with reverse flow check valves installed as close as possible to the regulators. *(EC180/87)*

38.1 Standards

Revoked by EC126/21. *(EC180/87; 126/21)*

39.1 Rescue equipment

Sections 39.1 to 39.5 revoked by EC632/04. *(EC180/87;632/04)*

PART 40 - TANKS AND VESSELS**40.1 Open tank safety**

When workers are employed around open tanks containing harmful substances the employer shall ensure that the sides of such tanks shall extend at least 900 mm (3 ft.) above the working platform or a standard handrail shall be provided. *(EC180/87; 126/21)*

40.2 Prohibitions

The employer shall ensure that no burning, welding or other hot work shall be done on any vessel that has contained a highly combustible substance until such vessel has been thoroughly cleaned and suitable tests made to indicate that the vessel is in a condition that the work may be safely performed. *(EC180/87)*

40.3 Toxic fumes, precautions

No worker shall enter any tank, vessel or chamber that may contain toxic fumes or gases until it has been ascertained that the air contained therein is sufficiently pure. In doubtful cases, approved air-supply respirators and lifelines shall be stationed at the entrance to assist those who may become distressed. *(EC180/87; 126/21)*

40.4 Electrical illumination and flashlights

The employer shall ensure that

- (a) no worker shall use electric illumination inside any tank or vessel unless such illumination is protected by an explosive proof guard;
- (b) workers working in locations where flammable liquids or vapours are present shall use explosion proof flashlights. *(EC180/87; 126/21)*

40.5 Tank supports

- (1) The supports of all elevated tanks shall be accessible for the purpose of inspection.

Tank covers

- (2) Every tank over 1 200 mm (4 ft.) deep containing liquids shall have a fixed permanent cover, and with manholes close to the bottom and need have outside ladders only. *(EC180/87)*

40.6 Walkways

Walkways over open tanks containing harmful substances or over tanks 1 400 mm (4.6 ft.) in depth shall be at least 1 510 mm (5 ft.) wide and equipped with standard handrails. *(EC180/87)*

40.7 Closed containers

Closed containers of a type acceptable to the officer shall be used for gasoline, coal-oil, acids and similar fluids and shall be plainly marked to indicate the character of the contents. *(EC180/87)*

40.8 Cleaning barrels, etc.

Barrels and similar vessels that have contained oil, gasoline or other petroleum products shall be thoroughly flushed out, first with steam and then with water, immediately prior to making any repairs or alterations requiring heat or flame. *(EC180/87)*

40.9 Internal cleaning procedure

When repairs are to be carried out inside tanks or vessels, the employer shall ensure that all connecting piping shall be securely blocked by either closing the valves and locking them in the closed position or disconnecting the pipe lines and blanking them off by means of blind flanges. *(EC180/87)*

40.10 Mixing apparatus shut off

When repairs are to be carried out in a tank or vessel in which stirring or mixing apparatus or machinery is installed, the employer shall ensure that before workers are permitted to enter the tank or vessel the stirring or mixing apparatus shall be reliably disconnected from its

source of power and locked or blocked so that no movement can occur that would endanger the workers. (EC180/87; 126/21)

40.11 Cleaning procedure, tanks used for hazardous liquids

The employer shall ensure that tanks used for the storage of hazardous liquids shall be prepared for repairs as follows:

- (a) the tank shall be drained as completely as possible;
- (b) all inlet pipes shall be disconnected and blanked off or moved out of alignment, or the inlet valves shall be locked in the closed position;
- (c) residual liquid and sludge shall be removed by workers stationed outside the tank and operating through manholes or hatches with water from a hose line equipped with a curved nozzle for washing all parts of the tank thoroughly and if necessary with long handled spears;
- (d) where steam is available all openings except the vent pipe and a steam inlet shall be closed and live steam blown into the tank for a period of time suitable for the conditions and the nature of the liquid, with the lids or manhole plates opened during the last one-fifth of steaming period;
- (e) where steam is not available the tank shall be kept filled with flowing water for a period of at least 24 hours;
- (f) after steaming or flooding, the tank shall be thoroughly ventilated by means of air under forced or induced draft for a period of at least two hours;
- (g) after ventilation, a competent person or persons shall examine the interior of the tank to see that it is free from residue and shall take and test air samples from the tank to ascertain that all hazardous vapours have been removed;
- (h) where these tests indicate the presence of hazardous vapours or fumes, the steaming or flooding and ventilating operations shall be repeated. (EC180/87; 126/21)

PART 41 — FOREST OPERATIONS

41.1 Definitions

In this Part

- (a) revoked by EC126/21;
- (b) “**bucking**” means a logging operation which consists of cutting trees and logs into shorter length;
- (c) “**chain saw**” means a saw powered by a gasoline or electric motor or by other means and which has its cutting elements on an endless chain;
- (d) revoked by EC126/21;
- (e) “**darkness**” means the period of time beginning one-half hour after sunset and ending one-half hour before sunrise;
- (f) “**felling**” means a logging operation which consists of cutting a tree from its stump;
- (g) “**forwarding**” means a logging operation which consists of transporting logs from a felling area to a landing site with the logs completely raised from the ground;
- (h) “**haul road**” means a road used in the transportation of any forest products, excluding those roads under the jurisdiction of the *Highway Traffic Act* R.S.P.E.I. 1988, Cap. H-5;

- (i) revoked by EC126/21;
- (j) “**log**” includes a trunk of a felled tree, piece of pulpwood, pit prop, pole, post, tie or any similar forest product;
- (k) “**lodged tree**” means a tree that has not fallen to the ground after being
 - (i) partly or wholly separated from its stump, or
 - (ii) displaced from its natural position;
- (l) “**logging area**” means a worksite used for a logging operation;
- (m) “**logging**” or “**logging operation**” means the act of cutting or harvesting trees including the transportation of logs and site preparation for tree planting and seeding;
- (n) “**mobile equipment**” means self-propelled equipment used in a logging operation, including, but not limited to, an industrial tractor, skidder, dozer, loader, motor grader or prime mover;
- (o) “**obstruction**” means any materials or object that may interfere with the safe movement of a log;
- (p) revoked by EC126/21;
- (q) revoked by EC126/21;
- (r) revoked by EC126/21;
- (s) “**skidding**” means a logging operation which consists of transporting logs from the felling area to a landing site whereby at least one end of the log remains on the ground;
- (t) “**stakes**” means metal or wood posts used to support logs and prevent the lateral movement of the logs;
- (u) “**vehicle**” means a device in, upon or by which a person or thing is, or may be, transported or drawn upon a highway including a truck, semi-trailer and mobile equipment. (EC180/87; 126/21)

41.2 Instruction in operational safety

The employer shall ensure, prior to the commencement of work that

- (a) each worker is instructed in proper and safe procedures and is made aware of the potential hazards of all job functions the worker is to perform;
- (b) a worker receives
 - (i) a copy of these regulations,
 - (ii) a copy of any Code of Practice related to this Part that is approved by the Director in accordance with the Act, and
 - (iii) upon request, a copy of the Act;
- (c) each worker is instructed in the proper use, care and limitations of protective clothing and equipment; and
- (d) each worker is instructed as to the location of first aid supplies and procedures for obtaining medical attention. (EC180/87; 126/21)

41.3 Entry to logging area

No person, unless authorized by the employer or acting as a representative of the workers or an authorized agent of the federal, provincial or municipal government, shall enter or remain in a logging area at any time work is being performed. (EC180/87; 126/21)

41.4 General obligations of employer

The employer shall

- (a) provide an adequate system of communication, such as mobile radio, telephone or transportation systems at all logging areas to ensure the immediate summoning of medical assistance where required;
- (b) provide an adequate means of checking the well-being of any worker whose duties may not allow him to secure assistance in case of injury or other emergency;
- (c) provide a minimum of 20 lux (2 ft. candles) of illumination where any logging operation is performed during darkness;
- (d) maintain logging trails clear of obstructions, and keep icy pathways within a logging camp sanded or salted;
- (e) ensure that a worker performing felling or bucking procedures is within sight or voice communication distance of at least one other worker;
- (f) provide wire cable that is suitable for hauling logs which shall conform to the requirements set out in the CSA Standards for wire cable;
- (g) inspect, at regular intervals, wire ropes, slings and fittings used in a logging operation and replace or repair these when found to be defective;
- (h) provide current “safety data sheets” to workers employed in chemical application;
- (i) provide an approved respirator to all workers mentioned in clause (h). (*EC180/87; 126/21*)

41.5 Prohibited activities

No worker shall

- (a) climb upon or work under a lodged tree or suspended log;
- (b) place or leave any equipment or device in a manner that might endanger his safety or that of any other person;
- (c) use gasoline or other flammable liquids to kindle fires;
- (d) smoke within 9 m (30 ft.) of gasoline or other flammable material storage area. (*EC180/87; 126/21*)

41.6 Protective equipment

A worker shall

- (a) at all times while on a logging worksite, wear approved safety headwear and approved safety footwear;
- (b) if likely to be exposed to eye injury due to flying particles or other harmful substance, wear safety screens or safety eyewear; and
- (c) wear other protective clothing, such as safety pants and safety gloves or mitts, and approved hearing protection appropriate to the type of work to be performed. (*EC180/87; 126/21*)

41.7 Mandatory use of protective equipment

An employer shall require a worker to wear or use protective clothing and equipment to provide protection from any hazard to which the worker is likely to be exposed. (*EC180/87; 126/21*)

41.8 Chain saw operation

When operating a chain saw, the employer shall ensure that the worker wears and the worker shall wear approved hearing protection, safety eyewear, safety pants, a hard hat and safety boots. *(EC180/87; 126/21)*

41.9 Idem

(1) The employer shall ensure that no worker operates a chain saw unless it is in safe working order.

Idem

(2) No worker shall operate a chain saw unless it is approved and is equipped with a safety chain, chain brake, anti-vibration mounts, throttle-control lock out, chain catcher and rear hand guard. *(EC180/87; 126/21)*

41.10 Maintenance

Where a chain saw is to be refuelled or maintenance work is to be performed on a chain saw, a worker shall stop the chain saw motor prior to refuelling it or performing maintenance work on it. *(EC180/87; 126/21)*

41.11 Fuel storage

The employer shall ensure that a worker shall store and distribute fuel for a chain saw from an approved safety container. *(EC180/87; 126/21)*

41.12 Starting saw

No worker shall start a chain saw unless it is at least 3 m (10 ft.) from the fuel container required under section 41.11. *(EC180/87; 126/21)*

41.13 Fire extinguisher

When operating a chain saw during the fire season, a worker shall have a fire extinguisher readily available and in proper working condition. *(EC180/87; 126/21)*

41.14 Pressure dressing

Each chain saw operator shall carry an approved pressure dressing and bandage when operating a chain saw. *(EC180/87)*

41.15 Chain saw maintenance

A worker shall maintain a chain saw in a manner so that the chain will not move when the chain saw motor is idling. *(EC180/87; 126/21)*

41.16 Stopping saw when carrying

A worker shall stop a chain saw motor where the chain saw is to be carried a distance longer than usual between trees to be felled. *(EC180/87; 126/21)*

41.17 Holding saw

When operating a chain saw, a worker shall hold the chain saw firmly in both hands. (EC180/87; 126/21)

41.18 Starting saw

No worker shall start a chain saw while it is resting against any part of his body. (EC180/87; 126/21)

41.19 Tools

The owner of hand tools, including files, shall equip the tools with proper handles and maintain the tools in good condition. (EC180/87)

41.20 Idem

No worker shall use hand tools with loose, broken or defective handles. (EC180/87; 126/21)

41.21 Safety gloves

A worker shall wear safety gloves or mitts while sharpening a chain saw. (EC180/87; 126/21)

41.22 Area safety

No worker shall enter a logging area where another worker is felling trees, unless the other worker has told the former that it is safe to do so. (EC180/87; 126/21)

41.23 Idem

Subject to section 41.22, a worker felling a tree shall maintain a distance of not less than twice the height of the tree being felled between himself and the nearest worker. (EC180/87; 126/21)

41.24 Exception

Where two workers are required to fell a tree, the second may, under the supervision of the worker felling the tree, work within the distance described in section 41.23. (EC180/87; 126/21)

41.25 Felling procedure

A worker shall

- (a) before felling or bucking a tree, cut and clean away any obstructions and ensure that the travel of the saw is clear;
- (b) before felling a tree ensure that, where practicable, any chicots in the vicinity of the tree have been felled or pushed safely to the ground;
- (c) before felling a tree, ensure that he is able to stand clear of the tree during its fall; and
- (d) ensure there is an unobstructed escape route;
- (e) ensure that any tree cut or partially cut, standing on the stump, or hung up in adjacent trees is pushed or lowered safely to the ground, before the next tree is felled. (EC180/87; 126/21)

41.26 Notches

A worker shall make a proper notch in each tree being felled, and without limiting the generality of the foregoing, shall

- (a) ensure that the notch is complete and cleaned out; and
- (b) where necessary to facilitate felling, ensure that proper wedging tools are readily available and used. *(EC180/87; 126/21)*

41.27 Obstructions

The employer shall maintain every landing site clear of all chicots and any other hazardous obstructions. *(EC180/87)*

41.28 Vehicle operation

The workers shall operate skidding and forwarding vehicles at a cautious speed and in a manner that will minimize the hazard of an upset of the equipment. *(EC180/87; 126/21)*

41.29 *Idem*

An operator of a skidding and forwarding vehicle shall perform skidding and forwarding operations only where all workers are further from the vehicle than one length of the longest log in the load. *(EC180/87; 126/21)*

41.30 *Idem*

When skidding or forwarding a log, no worker shall raise the log to a height that might endanger the driver of a vehicle moving the log, or that may cause a vehicle to up-end or overturn. *(EC180/87; 126/21)*

41.31 Riding

No worker shall ride on a log being skidded. *(EC180/87; 126/21)*

41.32 Handling wire cable

The worker shall wear puncture-resistant safety mitts or gloves when handling wire cable. *(EC180/87; 126/21)*

41.33 Cables

The worker shall maintain a safe distance from a cable that is being tightened or that is under tension. *(EC180/87; 126/21)*

41.34 Dumping area

An employer shall provide a landing, log dump or loading area with adequate working space that is clear of obstructions. *(EC180/87)*

41.35 Sight lines

No worker shall engage in the loading or unloading of logs unless he has an unobstructed view of the landing and of the vehicle being loaded or unloaded. *(EC180/87; 126/21)*

41.36 Loading

Where logs are being loaded or unloaded, a worker shall stand clear of the load, and on the same side of the load as the loader or unloader. *(EC180/87; 126/21)*

41.37 Position of worker

No worker shall be in or under the path of travel of any log or material that is being loaded or unloaded. *(EC180/87; 126/21)*

41.38 Vacation of cab

No worker shall remain in the cab of a vehicle which is not equipped with FOPS while it is being loaded or unloaded by a method in which a boom or part of the load is liable to pass over the cab, or the material load exceeds the height of the cab of the vehicle. *(EC180/87; 126/21)*

41.39 Signalman, location

Where a signalman is used in the loading or unloading of logs, the signalman shall stand at one end of the logs well in the clear and shall remain visible to the loader or yarder operator. *(EC180/87)*

41.40 Release of cable

Where a binder cable is manually released and a worker may be exposed to falling logs, the employer shall make available provisions to restrain, by mechanical means, the load of a vehicle used for transporting logs. *(EC180/87; 126/21)*

41.41 Log piles

A worker shall maintain a log pile in a secure and stable condition. *(EC180/87; 126/21)*

41.42 Load capacity

An employer shall establish the safe load capacity for a logging vehicle used to carry logs and a worker shall load the vehicle in a manner not to exceed the safe load capacity. *(EC180/87; 126/21)*

41.43 Haul road

An employer shall construct and maintain a haul road so as to provide for the safe movement of persons and vehicles. *(EC180/87)*

41.44 Ice road precautions

Notwithstanding section 41.43, where a haul road is constructed on ice, over water, an employer shall

- (a) make a daily inspection of the road to ensure that the road is adequate in strength to carry any load designated to ride thereon;
- (b) place signs at suitable locations along the route indicating the minimum allowable distance to be maintained between vehicles and the maximum allowable speed; and

- (c) instruct a worker driving a vehicle on an ice road over water with respect to the hazards involved, precautions to be taken and rescue techniques required in case of an ice break-through. *(EC180/87; 126/21)*

41.45 Bridges

The employer shall

- (a) design and construct each bridge on a haul road to safely support any load that may pass over the structure;
- (b) install curbs on each bridge on a haul road of a height not less than 150 mm (6 in.); or
- (c) ensure that each bridge on a haul road is inspected and maintained on a regular basis to ensure the structural integrity of the bridge. *(EC180/87)*

41.46 Speed

A worker shall operate a vehicle on a haul road at a speed in which the vehicle can be brought to a complete stop within a distance of one-half of the length of the worker's unobstructed view of the haul road. *(EC180/87; 126/21)*

41.47 Loading

A worker responsible for loading a logging vehicle shall

- (a) not load the vehicle to a point where the logs are completely above the level of the stakes;
- (b) use steel binders to secure each tier or logs; and
- (c) secure the load in a manner so as to prevent the dislodging or falling of the load or any part thereof during transit. *(EC180/87; 126/21)*

41.48 Guards

A worker shall equip a vehicle or machine used for logging with adequate guards to safely protect the worker operating the vehicle or machine from flying cables, hooks or other objects. *(EC180/87; 126/21)*

41.49 Brakes

A driver of a vehicle used in logging shall ensure that the brakes of the logging vehicle are operable before moving the vehicle. *(EC180/87)*

41.50 Bulkheads

The owner of a vehicle used to haul logs shall equip the vehicle with a bulkhead that is installed immediately behind the cab which shall be

- (a) a minimum of 8 cm (3.2 in.) wider than the cab; and
- (b) designed in such a manner to provide protection to the occupants of the cab from a shifting load. *(EC180/87)*

41.51 Passengers

Except in the case of an emergency, the driver of a vehicle used for hauling logs shall not allow more than one passenger to occupy the cab of the vehicle and only if seating is provided for that purpose. *(EC180/87)*

41.52 No riding on load

No worker shall ride on the load of a vehicle used for hauling logs. *(EC180/87; 126/21)*

41.53 Securing binder cables

A driver of a vehicle used for hauling logs shall

- (a) securely fasten a binder cable used to secure loads on the vehicle to the passenger side or the rear of the vehicle upon completion of loading; and
- (b) store all binder cables, when not in use, in a safe and secure manner. *(EC180/87)*

41.54 Trailer deck clearance

A driver of a vehicle used for handling logs shall clear the decks of trailers of all loose debris prior to leaving an off-loading area. *(EC180/87)*

41.55 Stakes

An employer shall provide stakes which support loads on logging vehicles that are

- (a) made of high-strength structural steel or wood;
- (b) pinned securely to the retaining pockets at all times;
- (c) of an adequate size, strength and condition to safely support the load;
- (d) where logs 1 219 mm (4 ft.) and 2 438 mm (8 ft.) are piled crossways on a truck body, not less than four stakes shall be used on each end of the body. *(EC180/87)*

41.56 Transporting workers

An employer shall allow a worker to drive a vehicle used to transport workers only if that worker is the holder of a valid and subsisting license authorizing the worker to operate the vehicle in Prince Edward Island. *(EC180/87; 126/21)*

41.57 Safety requirements re transportation

An employer shall ensure, where workers are being transported in a vehicle, that no tools, flammable liquids or other potentially harmful equipment or substances shall be transported

- (a) in the enclosed part of the vehicle in which workers are being transported; or
- (b) on the vehicle, except where firmly secured in racks installed outside the enclosed part of the vehicle in which the workers are being transported. *(EC180/87; 126/21)*

41.58 Qualified operators only

The employer shall ensure that only a qualified worker, as authorized by the owner of the vehicle or the employer, shall start or operate a vehicle used in a logging operation. *(EC180/87; 126/21)*

41.59 Riding

A worker shall not ride on a vehicle used in logging except in the seat provided for that purpose. *(EC180/87; 126/21)*

41.60 Inspection

The owner of the vehicle used in logging shall

- (a) locate the controls and attachments in a manner so that the operator of the vehicle has an unobstructed view of the work he is performing; and
- (b) maintain and regularly inspect the vehicle for defects before each work shift and keep a record of the inspections. *(EC180/87)*

41.61 Maintenance

Where a dump box, bulldozer blade or any other mechanically operated attachment to a vehicle is elevated for repairs or maintenance, a worker shall

- (a) securely block the blade or other attachment to prevent movement; and
- (b) when no repair or maintenance is being undertaken, lower the blade or other attachment to a safe rest position. *(EC180/87; 126/21)*

41.62 Canopy

The owner of mobile equipment used in a logging operation shall equip the vehicle with a steel canopy adequate to protect the operator from falling or flying objects and from an upset of the equipment. *(EC180/87)*

41.63 Skidding equipment

The owner of skidding equipment shall provide the equipment with sufficient protection at the rear of the cab to prevent injury to a worker from cable “snapback”. *(EC180/87; 126/21)*

41.64 Screens

An employer shall equip all logging machinery with screens or other protective devices to guard all exposed winches, power take-offs and other moving parts. *(EC180/87)*

41.65 General safety precautions

The operator of a logging vehicle shall ensure that

- (a) workers are safely in the clear before initiating or continuing the motion of the equipment; and
- (b) the vehicle is operated only from the position or seat intended for that purpose. *(EC180/87; 126/21)*

41.66 Choker cables

All choker cables, twitching chains or dogs shall be released and pulled away from a log or tree on the swing bed or sawing bed before slashing, bucking or measuring is undertaken. *(EC180/87)*

41.67 Choker men

Choker men or workers handling wire cables shall wear mitts or gloves of leather or nylon safety gloves. *(EC180/87; 126/21)*

PART 42 — EXTREMES OF TEMPERATURE

42.1 Standards

Permissible heat and cold exposure shall conform to Threshold Limit Values (TLVs) as laid down by the American Conference of Governmental Industrial Hygienists (ACGIH). *(EC180/87)*

PART 43 — HANDLING & STORAGE OF MATERIALS

MATERIALS

43.1 Temporary storage structure

The employer shall ensure that a temporary storage structure shall

- (a) be designed and constructed to withstand safely the loads imposed by the material to be stored; and
- (b) not be loaded in excess of safe loading. *(EC180/87)*

43.2 Loading limits

The employer shall ensure that building materials or equipment shall not be placed or stored on a permanent or temporary structure so as to exceed the safe loadings of the structure or any part thereof. *(EC180/87)*

43.3 Storage prohibitions

The employer shall ensure that no building material shall be stored, stacked or piled within 1 800 mm (72 in.) of

- (a) a floor or roof opening;
- (b) the open edge of a floor or roof; or
- (c) an excavation. *(EC180/87)*

43.4 Piling of materials

- (1) The employer shall ensure that material shall be so piled that the piles will not interfere with
 - (a) the adequate distribution of natural or artificial light;
 - (b) the proper operation of machines or other equipment;
 - (c) the unobstructed use of passageways or traffic lanes.

Foundations

- (2) Material piles shall be placed on firm foundations not liable to settle and shall be subject to weight control, as required by the Division, so as not to overload the floors.

Walls

- (3) Material shall not be piled against partitions or walls of buildings when it is known that the partition or wall is not of sufficient strength to withstand the pressure.

Height

- (4) Material shall not be piled to a height which would render the pile unstable.

Bagged material

- (5) When piling heavy bagged material
- (a) the mouths of the bags shall be placed inwards;
 - (b) bags shall be cross-tied; and
 - (c) a step back of one bag shall be made at the first 1 500 mm (5 ft.) level and at each additional 900 mm (3 ft.) of height. *(EC180/87)*

43.5 Masonry units

The employer shall ensure that masonry units shall be stacked

- (a) on level wooden planks, a platform or other level base;
- (b) in tiers throughout a pile;
- (c) so that a vertical face of a pile is not over 1 800 mm (72 in.) in height;
- (d) when the pile exceeds 1 800 mm (72 in.) in height, by progressively stepping the pile back from the vertical face;
- (e) when the pile exceeds 1 800 mm (72 in.), with wood strips between tiers to prevent toppling; and
- (f) with header units in the pile where necessary to provide stability. *(EC180/87)*

43.6 Steel and pipe

Reinforcing steel and pipe shall be stacked in substantially supported and broad racks or frames, unless other provision is made to prevent their movement sideways. *(EC180/87)*

43.7 Other materials

The employer shall ensure that other materials to be used on the project shall be stored in an orderly manner and so as not to endanger the safety of workers. *(EC180/87; 126/21)*

43.8 Handling materials

The employer shall ensure that

- (a) where practicable, mechanical appliances shall be provided and used for lightening and carrying materials and articles;
- (b) workers assigned to handle material shall be instructed how to lift and carry material on an individual basis, the overriding factor being the physical condition of each worker including sex and age when relevant;
- (c) where heavy objects are lifted or carried by two or more workers, the raising and lowering of the loads shall be governed by well understood signals in order to ensure unity of action;
- (d) where heavy objects, such as loaded drums or tanks, are handled on inclines in either direction

- (i) ropes or other tackle shall be used to control their motion, in addition to the necessary chocks or wedges, and
- (ii) workers shall be prohibited from standing between the skids on the downhill side;
- (e) where heavy objects are moved by means of rollers, bars or sledges shall be used instead of hands or feet for changing the direction of the rollers while in motion;
- (f) workers handling objects with sharp edges, fins, slivers, splinters or similar dangerous projecting parts, or handling hot, caustic or corrosive material, shall be provided with and shall use suitable protective clothing and equipment;
- (g) unless specific instructions are given to the contrary, loaded boxes and crates shall be piled on the sides having largest area;
- (h) the piles shall be effectively cross-tied by suitable means;
- (i) loaded cartons shall not be piled to such a height as to cause collapse of the lower cartons in the pile and shall be protected against moisture;
- (j) lumber stored in yards shall be piled on supports above the grounds, the horizontal or slightly inclined layers separated by tie pieces, the ends of which will not project into walkways;
- (k) pipe and bar stock shall, where practicable, be piled on stable storage racks so located that the withdrawal of the material does not create a hazard;
- (l) where empty barrels or drums, large pipe, rolls of paper or other cylindrical objects are piled on their sides, the piles shall be symmetrical and stable; and every unit in the bottom row shall be carefully wedged;
- (m) where storage racks are not provided for pipe and bar stock, the stock shall be piled on layers resting on wood strips with stock blocks fixed on the ends or on metal bars with unturned end;
- (n) where loaded barrels, drums or keys are piled on their ends, the piles should be low and two planks should be laid side by side on top of each row before another row is started;
- (o) equipment or objects, such as foundry flasks, forging dies, foundry castings and the like, shall be piled in a stable, orderly way on level and substantial foundation and arranged in order of size and type. *(EC180/87; 126/21)*

HAZARDOUS LIQUIDS

43.9 Hazardous liquid storage

The employer shall ensure that tanks used for storing non-flammable hazardous liquids shall meet the following requirements:

- (a) labelled to identify the contents and indicate the nature of the hazard involved in handling it as well as instructions for handling of the hazardous liquid;
- (b) located above ground or floor level;
- (c) so supported that leakage from any part of the tank will be noticeable;
- (d) surrounded with pits, catch basins or depressions of sufficient size to hold the entire contents of the largest tank in the event of rupture;
- (e) covered with protective paint to prevent corrosion from moisture or fumes; and
- (f) provided with stairways or permanent ladders and platforms where necessary, for convenient and safe access to all parts of the tanks with standard safe railings on both

stairways and platforms and preferably with floors or platforms constructed of grating. *(EC180/87)*

43.10 Low temperature protection

Where necessary, above ground tanks used for storing non-flammable hazardous liquids shall be suitably protected against low temperatures. *(EC180/87)*

43.11 Tanks

Tanks used for storing non-flammable hazardous liquids shall not be placed above passageways. *(EC180/87)*

43.12 Pits

Where tanks used for storing non-flammable hazardous liquids are installed in pits below ground level the pits shall be made of concrete or masonry, with sufficient space between the walls and the tanks to permit the passage of a person at any point; and the tanks shall be mounted 381 mm to 457 mm (15 in. to 18 in.) above the bottom of the well. *(EC180/87)*

43.13 Control valves

All control valves for sunken tanks used for storing non-flammable hazardous liquids shall be so situated or of such design that they can be turned without any person entering the pit; and provided with locking devices operated from outside the pit. *(EC180/87)*

43.14 Tank location requirements

Tanks used for storing non-flammable hazardous liquids shall be placed on foundations that will resist action by the contents of the tank and provided with overflow pipes discharging into a safe place. *(EC180/87)*

43.15 Caustic liquid tanks

Tanks used for storing corrosive or caustic liquids shall be provided with a permanently open vent pipe, not less than 50 mm (2 in.) in diameter, at the highest point in the tank and a drain connection at the lowest point in the tank discharging into a safe place. *(EC180/87)*

43.16 Connections

Tanks used for storing corrosive or caustic liquids shall have the filling connection at the top and the discharge pipe 152 mm (6 in.) above the bottom. *(EC180/87; 600/24)*

43.17 Storerooms for flammable liquids

Where barrels or drums containing flammable liquids are stored in special storerooms inside factories or in small isolated storehouses, the storeroom or house shall be of fire-resistant construction and the floor of the storeroom or house shall slope to a drain pipe leading outside to a catch basin which shall not be connected to a sewer. *(EC180/87)*

43.18 Waterproof floors

The floor of the storeroom or house shall be waterproof, with the waterproofing extended up the side walls for not less than 76 mm (3 in.) and the barrels or drums shall be placed in cement platforms, concrete blocks, brick and metal racks. (EC180/87)

43.19 Acid drums

Drums containing acids shall be stored in cool places with the bung up; they should be carefully opened sufficiently to relieve any internal pressure, and subsequently sealed again, with the operation repeated each time the drum has been moved or once a week if stored for a period of time. (EC180/87)

43.20 Empty barrels

Empty barrels or drums which have contained flammable liquids shall be stored for *re-use* with the bungs or outlet plugs in place in order to confine all flammable vapours. (EC180/87)

43.21 Cleaning

Empty barrels or drums which have contained acids or other non-flammable liquids, if to be *re-used*, shall be promptly cleaned and stored apart from other containers. (EC180/87)

43.22 *Idem*

Barrels or drums which have contained hazardous non-flammable liquids, if to be *re-used*, shall be promptly cleaned and stored apart from other containers. (EC180/87)

43.23 Steaming

Barrels or drums used for flammable liquids shall be steamed before being crushed or broken up. (EC180/87)

43.24 Cleaning procedure

Drums and barrels used for hazardous liquids, and intended for further use, shall be closely inspected for leaks and other defects, and if to be used for a different liquid shall be thoroughly cleansed with an appropriate neutralizing solution, steam or boiling water, and drained, dried and reinspected, with the operations repeated until the inside is entirely clean. (EC180/87)

43.25 Carboys

- (1) Carboys containing acids, which when in contact with living tissue will cause severe damage of such tissue by chemical action or in case of leakage will materially damage or destroy other material by chemical action or are liable to cause fire when in contact with organic matter, shall be encased singly in baskets or in boxes cushioned with non-combustible packing.

Storage

- (2) Such carboys shall be stored in separate storerooms or buildings with concrete floors having an anti-acid protection or with brick floors properly drained to catch basins. (EC180/87)

43.26 *Idem*

Such carboys shall not be subjected to dampness, extreme heat or sudden changes in temperature. *(EC180/87)*

43.27 Transportation

Special handling equipment, such as two-wheeled carboy trucks, shall be provided for transporting such carboys containing acids to and from storage. *(EC180/87)*

43.28 Emptying

Adequate equipment shall be provided and used for emptying of such carboys. *(EC180/87)*

43.29 Storage

Empty acid carboys shall be stored apart from filled carboys. *(EC180/87)*

43.30 Inspection

Carboys together with their baskets or boxes shall be examined as to their condition before they are filled. *(EC180/87)*

43.31 Emergency washing facilities

Where caustic or acids are stored, handled or used in such a manner as to create a danger of spillage, emergency deluge showers and eyewash fountains as required in subsection 2.6(3) shall be provided. *(EC180/87)*

DRY BULK STORAGE

43.32 Storage bins

The employer shall ensure that dry bulk materials are in bins which will permit removal from the bottom. Open top hopper bins containing bulk material which is discharged at the bottom either by hand or by mechanical means should be covered with gratings which will allow the use of pokers to break up bridging of the stored material, but which will prevent workers from falling into the bins. *(EC180/87; 126/21)*

43.33 Lifebelts

Where it is necessary for workers to enter bins used for storing dry bulk material, each worker shall be provided with, and shall use, an approved safety belt attached to an approved lifeline that is as short as practicable and securely fastened to a fixed object; and another worker shall be stationed outside during the entire operation to render such assistance as is needed. *(EC180/87; 126/21)*

43.34 Entry precautions

Workers shall not be permitted to enter bins used for storing dry bulk material until all supply of materials to the bin has been discontinued and precautions have been taken against accidental renewal. *(EC180/87; 126/21)*

43.35 Access

Bins used for storing dry bulk material shall be provided, on the outside, with stairways or permanent ladders and platforms where necessary for easy and safe access to all parts. Standard railings shall be used on stairways and platforms. (EC180/87)

43.36 Construction

Bins used for storing highly combustible dry materials shall be of fire-resistant construction and provided with lids and an adequate ventilation system. (EC180/87)

43.37 Piling

Where dry bulk material is piled and removed manually undermining of piles shall not be permitted. (EC180/87)

PART 44 — STORAGE BATTERY ROOMS**44.1 Charging batteries**

- (1) The employer shall ensure that storage batteries that discharge flammable gases are kept electrically charged only in rooms or areas designed for that purpose.

Requirements re storage

- (2) The employer shall ensure that the room or area required by subsection (1)
- (a) is adequately ventilated to prevent the accumulation of flammable gases;
 - (b) is free from all sources of ignition;
 - (c) is marked at the entrance with a notice prohibiting smoking or open flames;
 - (d) has a floor of non-sparking material and with adequate drainage;
 - (e) when storage batteries are mounted in trays or on a rack, has level trays or a level rack constructed or covered with non-sparking material and of sufficient strength to carry the weight of the battery;
 - (f) has an adequate supply of fresh water for flushing and neutralizing spilled or splashed electrolyte;
 - (g) has wiring which complies with CSA Standard C22.1-18, Canadian Electrical Code, Part 1 (24th Edition), Safety Standard for Electrical Installation, for the method of wiring in storage battery rooms;
 - (h) if equipment is used for hoisting or handling batteries, has equipment of adequate capacity;
 - (i) is not used for general storage.

Idem

- (3) The employer shall ensure that
- (a) storage batteries are kept clean and free from dust;
 - (b) vent openings in batteries are kept clear to prevent pressure build up in the battery during storage;
 - (c) a storage battery is adequately secured;
 - (d) smoking shall not be allowed in battery storage rooms;
 - (e) floors in storage battery rooms or areas are washed promptly when spillage occurs;

- (f) when a storage battery is of no further use, it is disposed of in a manner which prevents spillage of electrolyte.

Personnel

- (4) The employer shall ensure that only competent persons are permitted to change or charge batteries. *(EC180/87; 126/21)*

44.2 Safety equipment

The employer shall provide and shall instruct the worker to wear acid resistant gloves, aprons, goggles or face shields and straps for carrying car or truck batteries when handling storage batteries or electrolyte. *(EC180/87; 126/21)*

44.3 Idem

The worker shall wear acid resistant gloves, aprons, and goggles or face shields and use appropriate carrying straps when handling storage batteries or electrolyte. *(EC180/87; 126/21)*

44.4 Procedures

The worker shall

- (a) when diluting concentrated sulphuric acid, add the acid to the distilled water and never the water to the acid;
- (b) keep the charging rate of storage batteries at a rate which will prevent too rapid generation of hydrogen in the battery. *(EC180/87; 126/21)*

PART 45 - PERSONAL PROTECTIVE EQUIPMENT

45.01 Definitions

In this Part,

- (a) **“lifejacket”** means a device that
- (i) provides a specified buoyancy that will turn the wearer face-up on entry to water and keep the wearer in that position, and
 - (ii) is approved by Transport Canada, or an agency permitted by Transport Canada to approve lifejackets, and bears a mark or label indicating that approval;
- (b) **“personal flotation device”** means a device that
- (i) provides a specified buoyancy that will support a conscious person in an upright or backward-leaning position in water, and
 - (ii) is approved by Transport Canada, or an agency permitted by Transport Canada to approve personal flotation devices, and bears a mark or label indicating that approval;
- (c) **“personal protective equipment”** means equipment worn or used by a person for the protection of that person from health or safety hazards that may exist at a workplace. *(EC126/21; 600/24)*

45.1 Wearing apparel

The employer shall ensure that the personal wearing apparel of a worker shall be of a type and condition that will not expose the worker to any unnecessary and avoidable hazards. *(EC180/87; 126/21)*

45.2 Maintenance

The employer shall ensure that personal protective equipment is maintained in good condition. *(EC180/87)*

45.3 Instruction

Every employer shall ensure that every worker who is required to use personal protective equipment shall be given pre-job instruction by the employer to understand its use, its limitations, and its maintenance requirements, as far as these relate to its correct use by the worker. *(EC180/87; 126/21)*

45.4 Testing

A worker wearing or using personal protective equipment shall test the equipment before each use and shall not wear or use any equipment the worker has reason to believe is defective. *(EC180/87; 126/21; 600/24)*

LIFEJACKET - PERSONAL FLOTATION DEVICE

45.4.1 Flotation device, when required

- (1) An employer shall ensure that a worker who is employed under conditions that involve a risk of drowning is provided with and wears at all times a lifejacket or personal flotation device that is
- (a) suitable to the conditions in the workplace; and
 - (b) of the correct size and appropriate for the weight of the worker who will wear it.

Exception

- (2) Subsection (1) does not apply if
- (a) other sufficient safety measures are in place to protect a worker from falling into water, including but not limited to a guardrail or safety net installed and used in accordance with the relevant requirements of Part 2 of the Fall Protection Regulations (EC633/04) made under the Act;
 - (b) the worker is a lifeguard on duty; or
 - (c) the worker is performing occupational diving tasks. *(EC126/21)*

45.4.2 Maintenance

Where inflatable lifejackets or personal flotation devices are used, the employer shall ensure that

- (a) the lifejackets and devices are inspected and maintained in accordance with the manufacturer's instructions and recommendations; and
- (b) records of all inspections and maintenance are maintained for the life of the lifejacket or device. *(EC126/21)*

HEAD PROTECTION

45.5 Standard head protection

The employer shall ensure that a worker on a worksite or at any other place of employment who is exposed to a hazard, which could injure the head, wears head protection appropriate to the hazard and which meets the requirements of CSA Standard Z94.1-15, Industrial Protective Headwear - Performance, Selection, Care and Use. (EC180/87; 126/21)

45.6 Chin straps

Chin straps or other effective means of ensuring retention of safety headgear shall be fitted and worn when workers are exposed to high winds or other conditions which might cause the loss of the headgear. (EC180/87; 126/21)

EYE AND FACE PROTECTION

45.7 Standard eye protection

The employer shall ensure that a worker exposed to a hazard which could irritate or injure the eyes or face wears protection appropriate to the hazard and which meets the standards and specifications of CSA Standard Z94.3-15, Eye and Face Protectors, or a standard offering equivalent protection. (EC180/87; 126/21)

45.8 Obligation of employer

The employer shall ensure that a worker who has 20/200 vision in either eye, or is blind in either eye, wears eye protection as required by section 45.7. (EC180/87; 126/21)

45.9 Contact lenses

When a worker intends to wear contact lenses at his place of employment, he shall immediately notify the employer. (EC180/87; 126/21)

45.10 *Idem*

The employer shall ensure that no worker shall wear contact lenses where

- (a) gases, vapours or other materials are present which when absorbed by contact lenses may harm the eyes; or
- (b) dusts or other materials are present which may harm the eyes or cause distraction which may expose the worker to other injury. (EC180/87; 126/21)

45.11 *Idem*

A worker shall not wear contact lenses while welding. (EC180/87; 126/21)

45.12 Approved

Revoked by EC652/07. (EC180/87; 652/07)

HAND PROTECTION

45.13 Hands

The employer shall ensure that all persons handling materials likely to puncture, abrade or irritate hands or arms, shall wear personal protective equipment to prevent such injuries, except when the use of this equipment introduces equal or greater hazards. (EC180/87)

ACIDS, CAUSTICS AND HOT MATERIALS PROTECTION

45.14 Handling acids, etc.

The employer shall ensure that workers handling or using acids, caustics, steam, abrasives, hot fluid jets, or similar harmful substances, shall use suitable personal protective equipment, or other means shall be adopted that will provide protection against these hazards. (EC180/87; 126/21)

FOOT PROTECTION

45.15 Footwear

The employer shall ensure that a worker on a worksite or at any place of employment who is exposed to a hazard which could injure the foot wears footwear which meets the standards and specifications of CSA Standard Z195-14, Protective Footwear, or a standard offering equivalent protection. (EC180/87; 126/21)

45.16 Defective footwear

- (1) Footwear that has deteriorated to a point where it does not provide the required protection shall not be used.

Idem

- (2) When mobile equipment is fitted with foot operated controls the operator shall not wear footwear deemed by the officer to be unsafe.

Exception

- (3) Section 45.15 does not apply when footguards or other devices affording equivalent protection are worn. (EC180/87)

RESPIRATORY PROTECTION

45.17 Hazardous air

- (1) Every employer shall ensure that when workers are or may be exposed to an oxygen deficient atmosphere or harmful concentrations of air contaminants, mechanical means of engineering design shall be utilized to prevent or to eliminate such hazardous conditions of exposure.

Respiratory equipment

- (2) Every employer shall ensure that where the prevention or elimination of such hazardous conditions is not reasonably practicable, or where the exposure results from temporary or

emergency conditions only, every worker exposed shall wear approved protective respiratory equipment. *(EC180/87; 126/21)*

45.18 Selection, use, care of respirators

- (1) The employer shall ensure that the selection, use and care of respirators meet the applicable standards and specifications set out and referred to in the CSA Standard Z94.4-18, "Selection, Use, and Care of Respirators".

Idem

- (2) The employer shall ensure that where air is provided for the purpose of any respiratory protective equipment, the air meets the applicable standards and specifications set out and referred to in CSA Standard Z180.1-19, Compressed Breathing Air and Systems.

Respirator performance

- (3) The employer shall ensure the selected respiratory protective equipment for filtering particulate matter meets the applicable standards and specifications set out in CSA Standard Z94.4.1:21, "Performance of Filtering Respirators," or a standard offering equivalent protection. *(EC180/87; 147/20; 126/21; 600/24)*

45.19 Shaving

Every employer shall ensure that workers required to use a respirator shall be clean shaven where the respirator seals with the face. *(EC180/87; 126/41)*

45.20 Signs

- (1) Every employer shall ensure that access routes to work areas where workers may be exposed to oxygen deficient atmosphere or harmful concentrations of air contaminants shall be posted with signs and specifying

- (a) the required personal protective equipment; and
- (b) the areas and hazards involved.

Rescue team

- (2) The employer shall ensure
 - (a) that sufficient workers who are trained in rescue procedures are immediately available whenever workers are working in areas where an oxygen deficient atmosphere or harmful concentrations of air contaminants exist or are likely to develop; and
 - (b) that the rescue workers have immediate access to appropriate respirators or other aids necessary to effect a rescue.

Air supply

- (3) The employer shall ensure that where a worker is wearing an approved air-line or approved air-hose type respirator in an atmosphere immediately harmful to the worker
 - (a) the air supply source shall be attended by another worker who shall be equipped to effect rescue or render assistance if the worker is rendered unconscious or otherwise incapacitated; and
 - (b) the worker shall be provided with and carry an auxiliary supply of compressed respirable air of sufficient capacity to enable the worker to escape from the area in an emergency or until rescue is effected. *(EC180/87; 126/21; 600/24)*

45.21 Safety equipment

Revoked by EC632/04. (EC180/87;632/04)

45.22 Fall protection system

Sections 45.22 and 45.23 revoked by EC632/04. (EC180/87;632/04)

PART 46 — CHAINS, SLINGS AND WIRE ROPE

46.1 Specifications

The employer shall ensure that chains, slings and wire ropes meet the following specifications:

- (a) hoisting and sling chains shall be made of wrought iron or steel;
- (b) the rings, hooks, shackles and end links for hoisting and sling chains shall be made of wrought iron or steel;
- (c) the factor of safety for new hoisting or sling chains shall be at least five;
- (d) hoisting or sling chains shall be withdrawn from service if the chains have become unsafe through overloading, or through faulty or improper annealing; or if the chains have stretched more than 5 per cent of their original length; or if the interlink wear exceeds one-fourth the thickness of the original link;
- (e) all hoisting or sling chains shall have the safe working load marked on the bull rings or hooks or on special links near the ends of the chain;
- (f) chains shall be free of kinks, knots and twists when used for hoisting loads;
- (g) splicing of hoisting or sling chains by wiring links together, by inserting bolts between links, or by passing one link through another and inserting a bolt or nail to hold it, shall be prohibited;
- (h) hoisting chains shall be wound only on drums, shafts or sheaves that are provided with grooves of such size and shape as to allow the chains to work smoothly without twisting. (EC180/87)

46.2 Wire rope

Wire rope for hoisting, lowering or hauling loads shall be of proper construction and size for the operation. (EC180/87)

46.3 Safety factor

The factor of safety for wire rope shall be at least six. (EC180/87)

46.4 Loads

Eye splices, sockets and rope anchorages subjected to a direct tensile load shall be capable of withstanding a load of at least six times the maximum permissible working load. (EC180/87)

46.5 Thimbles

Eye splices and loops for the attachment of hooks, rings and other parts to wire ropes shall be provided with suitable thimbles. (EC180/87)

46.6 Replacement of wire rope

Wire rope shall be removed from service whenever its strength is affected by broken wires to the following extent:

- (1) 6 by 7 wire rope; 12% on a length of 508 mm (20 in)
- (2) 6 by 19 wire rope; 20% on a length of 508 mm (20 in)
- (3) 6 by 37 wire rope; 25% on a length of 508 mm (20 in)
- (4) 6 by 61 wire rope; 25% on a length of 508 mm (20 in) *(EC180/87)*

46.7 Marking

The size, material and the maximum safe working load shall be marked on all wire ropes by means of metal tags or in another suitable way. *(EC180/87)*

46.8 Kinks

Wire ropes used for hoisting, lowering or hauling loads shall be free from kinks and knots. *(EC180/87)*

46.9 Ends

Ends of wire rope shall be seized to prevent the strands from becoming loose. *(EC180/87)*

46.10 Fastenings

Fastenings of wire ropes shall be carefully examined at regular intervals, and clips or clamps tightened if they show signs of loosening. *(EC180/87)*

46.11 Dangerous conditions

When there is the least sign of a dangerous condition at sockets or other fastenings of wire ropes, a section of the rope from 914 mm to 3 048 mm (3 ft. to 10 ft.) above the fastening shall be cut off and the rope refastened. *(EC180/87)*

46.12 Splices

A thimble or loop splice made in any wire rope shall have at least three tucks with a whole strand of rope and two tucks with one half the wires cut out of each strand. *(EC180/87)*

46.13 Lubricants

Wire ropes shall be treated at regular intervals with suitable lubricants. *(EC180/87)*

46.14 Fibre rope

Fibre rope for hoisting, lowering or hauling loads shall be of high grade hemp or other rope of equal quality, capable of withstanding a load of at least 5 171.04 kg per cm² (11,400 lbs. per sq.in.). *(EC180/87)*

46.15 Safety factor

Fibre rope shall have a factor of safety of ten. *(EC180/87)*

46.16 Tags

All fibre ropes used for hoisting shall bear a metal tag on which is stamped a number referring to an inventory giving

- (a) name of supplier;
- (b) date of placing in service;
- (c) maximum permissible load. *(EC180/87)*

46.17 Ends

Fibre rope shall be seized on the ends to prevent fraying. *(EC180/87)*

46.18 Splices

Eye splices on fibre rope shall be made around suitable thimbles. *(EC180/87)*

PART 47 - WORK IN COMPRESSED AIR ENVIRONMENT

47.1 Standard

The employer shall ensure that work in a compressed air environment is conducted in accordance with CSA Standard Z275.3-09, Occupational Safety Code for Work in Compressed Air Environments. *(EC180/87; 126/21)*

PART 48 - UNDERWATER DIVING OPERATIONS

48.1 Underwater diving operations

The employer shall ensure that all underwater diving operations meet the CSA Standard Z275.2-20, "Occupational Safety Code for Diving Operations". *(EC180/87)*

PART 49 - ASBESTOS

49.1 Definitions

(1) In this Part,

- (a) "asbestos" means any of the following asbestiform silicates:
 - (i) actinolite,
 - (ii) anthophyllite,
 - (iii) chrysotile,
 - (iv) crocidolite,
 - (v) amosite, or
 - (vi) tremolite;
- (b) "asbestos-containing material" means
 - (i) material, other than vermiculite insulation, that contains 1 per cent or more asbestos by dry weight, and

- (ii) vermiculite insulation;
- (c) “**asbestos contractor**” means the holder of a valid asbestos contractor’s certificate;
- (d) “**asbestos contractor’s certificate**” means a valid asbestos contractor’s certificate granted or deemed to have been granted under section 49.9;
- (e) “**asbestos warning sign**” means a sign posted at the boundaries of an asbestos work area that states
 - (i) that an asbestos hazard is present,
 - (ii) that a cancer and lung disease hazard is present,
 - (iii) that the enclosure is restricted to authorized personnel only, and
 - (iv) that respiratory protection and protective clothing must be worn in the enclosure;
- (f) “asbestos work” means the handling of asbestos or asbestos-containing material, and includes
 - (i) the removal of asbestos or asbestos-containing material,
 - (ii) the encapsulation or repair of asbestos or asbestos-containing material, or
 - (iii) the enclosure of asbestos or asbestos-containing material for the purpose of creating a physical barrier to potential fibre release;
- (g) “**asbestos work area**” means the area in which asbestos work is being prepared for or carried on by an asbestos contractor and the contractor’s workers, and includes any enclosure established by the asbestos contractor or the workers;
- (h) “**exposure to asbestos**” means the exposure of a worker to airborne respirable asbestos fibres originating from asbestos or asbestos-containing material;
- (i) “**friable asbestos-containing material**” means asbestos-containing material that when dry can be crumbled, pulverized or powdered by hand pressure and includes asbestos-containing material that is in a crumbled, pulverized or powdered state;
- (j) “**HEPA filter**” means a high efficiency particulate aerosol filter that has an efficiency of at least 99.97% in containing an aerosol of 0.3 of a micrometre in diameter;
- (k) “Threshold Limit Values” means the threshold limit values for asbestos exposure specified by the ACGIH in its publication “Threshold Limit Values and Biological Exposure Indices” adopted under subsection 49.3(3).

Type I Removal Operations

- (2) In this Part, “Type I Removal Operations” means removal operations that present a minimal risk of releasing asbestos fibres into the air, such as the removal of asbestos-containing material that is non-friable, work that can be done without damaging the asbestos-containing material, including the use of non-powered handheld tools as long as water is used to control fibre release, and
 - (a) removal of asbestos-containing material ceiling tiles where the total area to be disturbed is less than 1 square meter without damage;
 - (b) removal of non-friable asbestos-containing material without damage;
 - (c) removal of vinyl asbestos floor tile, asbestos cement products, and millboard where water is used to control fibre release; and
 - (d) removal of less than one square meter of drywall where joint-filling compounds with asbestos-containing material were used.

Type II Removal Operations

- (3) In this Part, “Type II Removal Operations” means removal operations that present a medium risk of asbestos exposure to workers, such as the removal or minor disturbance of friable asbestos-containing material with a surface area of less than 0.09 of a square meter or 1 square foot during the repair, alteration, maintenance or demolition of all or part of a building, or any machinery or equipment, or where the minor removal or disturbance exceeds the scope of a Type I Removal, including
- (a) using a mechanical or electrically powered tool, fitted with a HEPA filter dust collector, to cut, shape or grind non-friable manufactured products containing asbestos;
 - (b) removing all or part of a false ceiling to gain access to a work area where friable asbestos-containing material is, or is likely to be, lying on the surface of the false ceiling;
 - (c) removing, encapsulating, enclosing or disturbing a surface area of less than 0.09 of a square meter or 1 square foot of friable asbestos-containing material during the repair, alteration, maintenance, demolition or dismantling of a building, structure, machine, tool or equipment, or parts of any of them;
 - (d) performing glove bag operations;
 - (e) dry removal of non-friable asbestos-containing material where the material may be cut, broken, or otherwise damaged during removal; and
 - (f) removing a surface area of up to 9.3 square meters or 100 square feet of contiguous ceiling tile containing asbestos or sheet vinyl flooring having an asbestos backing.

Type III Removal Operations

- (4) In this Part, “Type III Removal Operations” means removal operations during the repair, alteration, maintenance or demolition of all or part of any building, machinery or equipment that present the highest risk of asbestos exposure to workers, including
- (a) spraying of an encapsulant over friable asbestos using a low-pressure sprayer;
 - (b) using a power tool not having a dust collection device equipped with a HEPA filter to cut, grind or abrade asbestos-containing material;
 - (c) any indoor operation involving the removal or stripping of friable asbestos-containing material; and
 - (d) repairing, altering or demolishing a boiler, furnace or similar device or any part of it that is made in part of asbestos-containing material. (EC147/20)

APPLICATION**49.2 Application**

This Part applies to every workplace where asbestos is present. (EC147/20)

PROHIBITIONS**49.3 Asbestos in workplace**

- (1) No person shall, in a workplace,
- (a) use; or
 - (b) apply or install, or cause to be applied or installed,

any asbestos-containing material.

Effective containment required

- (2) No person shall remediate, disturb or actively work with asbestos-containing material without the use of an appropriate type of containment to reduce contamination in the atmosphere to or below the threshold limit values.

Adoption of standard

- (3) The 2019 edition of the “Threshold Limit Values and Biological Exposure Indices” published by the ACGIH, as amended from time to time, is adopted and in force with respect to the threshold limit values for exposure to asbestos. *(EC147/20)*

ASBESTOS IN THE WORKPLACE

49.4 Sampling of asbestos-containing material

- (1) An employer or owner of a workplace shall ensure that a competent person
- (a) collects representative samples of any materials in the workplace that the employer or the competent person suspects contain asbestos; and
 - (b) determines whether each of the samples is asbestos-containing material.

Protective measures

- (2) When collecting samples of materials in accordance with clause (1)(a), the competent person shall
- (a) wear a negative pressure half face piece respirator;
 - (b) take all reasonable measures to ensure asbestos fibres are not released during the sampling collection process; and
 - (c) ensure all bulk samples are submitted to an accredited lab for analysis in accordance with industry standards acceptable to the Director.

Treatment of material

- (3) If an employer or a competent person suspects that a material contains asbestos, the material shall be treated as asbestos-containing material unless the competent person determines that it is not asbestos-containing material. *(EC147/20)*

INVENTORY

49.5 Inventory

- (1) An employer or owner of a workplace shall
- (a) ensure that a competent person prepares an inventory of asbestos-containing material in the workplace;
 - (b) ensure that the inventory is updated each time asbestos-containing material is repaired or removed from the workplace;
 - (c) keep the inventory at the workplace; and
 - (d) at least annually, ensure that the condition of all asbestos-containing material in the workplace is inspected by a competent person.

Contents of inventory

- (2) The inventory prepared under subsection (1) shall
- (a) identify the location of the asbestos-containing material in the workplace;
 - (b) specify the location of any asbestos-containing material that may release asbestos fibres into the atmosphere due to damage or poor repair;
 - (c) include the date the inventory was prepared and the subsequent dates of review as required in clause (1)(d);
 - (d) include the name of the competent person completing the inventory; and
 - (e) provide a general description of the asbestos-containing material, including the type of asbestos and the percentage of the sample that is comprised of asbestos. *(EC147/20)*

MANAGEMENT PLAN**49.6 Management plan**

An employer or owner of a workplace shall ensure that an asbestos management plan is

- (a) developed to
 - (i) prevent asbestos-containing material identified in the inventory under section 49.5 from becoming airborne in the workplace, and
 - (ii) protect the health and safety of workers if asbestos-containing material becomes airborne in the workplace;
- (b) implemented and communicated to the workers so as to ensure that they are made aware of the asbestos management plan and of its contents; and
- (c) reviewed at least annually, or more frequently if required by a change in work conditions, and in consultation with the joint health and safety committee, if any, or health and safety representative, if any. *(EC147/20)*

EXPOSURE TO ASBESTOS**49.7 Monitoring exposure levels**

- (1) Where it is necessary for the protection of workers, an employer or owner of a workplace shall monitor the concentration of airborne asbestos in the workplace and shall monitor the exposure of workers to asbestos by a recognized method approved by the Director.

Records

- (2) An employer or owner of a workplace shall
- (a) establish and maintain records of the monitoring of the workplace and of the exposure of workers to asbestos-containing material; and
 - (b) ensure the records are kept for a period of not less than 40 years.

Access

- (3) The employer or owner of a workplace shall provide copies of the records required to be established and kept under subsection (2) to the employer's workers and to their safety committee or safety representative as soon as practicable.

Training

- (4) An employer or owner of a workplace shall ensure that

- (a) any worker who handles, disturbs or removes asbestos-containing material in the course of the worker's work activities has successfully completed an asbestos abatement course that includes a review of the provisions of these regulations that apply to asbestos-containing material and that is acceptable to the Director; and
- (b) any worker who transports or handles sealed containers of asbestos-containing material for disposal has successfully completed an asbestos awareness course acceptable to the Director. (EC147/20)

EXPOSURE LIMITS

49.8 Exposure limits

- (1) An employer, owner and contractor shall take all necessary measures and implement all necessary procedures, by means of engineering controls, work practices and hygiene practices and facilities required by this Part, to ensure that the exposure of a worker to asbestos-containing material in a workplace is reduced to the lowest practical level and, in any case, does not exceed the threshold limit values.

Laboratory accreditation

- (2) The analysis of asbestos samples shall be performed by a laboratory that is accredited by the Canadian Association for Laboratory Accreditation (CALA) or the American Industrial Hygiene Association (AIHA) Asbestos Analysts Registry (AAR) in accordance with the National Institute of Occupational Safety and Health (NIOSH) Manual of Analytical Methods.

Air test methods

- (3) All air tests conducted to confirm asbestos fibres in ambient air in the workplace shall follow the National Institute of Occupational Safety and Health (NIOSH) test methods.

Daily air sampling

- (4) Projects with a Type III Removal Operations enclosure shall be subject to daily air sampling of the ambient air outside the enclosure to determine the exposure of any worker to asbestos.

Final clearance air sample

- (5) For projects conducted as Type II and Type III Removal Operations, following the final clean-up requirements, and prior to the removal of an enclosure, a visual inspection of the work area inside the enclosure shall be carried out by a competent person and confirmed with a final clearance air sample. (EC147/20)

ASBESTOS CONTRACTOR'S CERTIFICATE

49.9 Asbestos contractor's certificate

- (1) No person shall undertake asbestos work unless the person is the holder of a valid asbestos contractor's certificate.

Contractor's certificate application

- (2) A person may apply for an asbestos contractor's certificate by submitting to the Director an application in the form required by the Director containing the information and other requirements specified in subsection (3).

Requirements

- (3) An applicant for an asbestos contractor's certificate shall provide for the purposes of the application referred to in subsection (2)
- (a) a copy of the applicant's current asbestos work procedure manual that
 - (i) is to be used in the asbestos work the applicant proposes to carry out under the authority of the certificate,
 - (ii) includes a copy of the applicant's Respiratory Protection Program, as required by the CSA Standard Z94.4-18, "Selection, Use, and Care of Respirators", and
 - (iii) is satisfactory to the Director;
 - (b) proof satisfactory to the Director that any workers the applicant intends to engage to carry out the asbestos work have successfully completed a course in asbestos abatement acceptable to the Director;
 - (c) confirmation that the applicant has or has access to the equipment necessary to perform the asbestos work in accordance with the contractor's procedure manual referred to in clause (a) and this Part;
 - (d) proof satisfactory to the Director that the applicant has at least one competent person to supervise the asbestos work to be undertaken by the applicant;
 - (e) confirmation that the applicant has implemented a worker medical surveillance program that meets the requirements set out in section 49.25; and
 - (f) confirmation that the applicant has established and will maintain the records required by section 49.26.

Issuance of certificate

- (4) The Director may grant an asbestos contractor's certificate to an applicant where the Director is satisfied that
- (a) the applicant has submitted an application in accordance with subsection (2); and
 - (b) the applicant has met the requirements of subsection (3).

Terms and conditions

- (5) A certificate issued under subsection (4) shall be subject to any terms and conditions in respect of the type of asbestos work that may be undertaken by the certificate holder that the Director considers appropriate.

Expiry

- (6) Subject to subsections (7) and (8), a certificate expires on the earlier of
- (a) five years from the date of issue; or
 - (b) the sale of the business for which it was issued.

Inactivity

- (7) A certificate in respect of which no notification has been provided under section 49.10 for a period of three years expires at the end of the three-year period.

Transitional

- (8) A certificate that was issued under this Part as it read immediately prior to the coming into force of this subsection and that was valid and in force on the coming into force of this subsection is deemed to be a certificate under this section according to its terms for a period of two years.

Transfer prohibited

- (9) No person shall transfer a certificate to any other person or business. (EC147/20)

COMMENCING WORK

49.10 Requirements before commencing work

- (1) Before commencing any asbestos work, an asbestos contractor shall provide written notification respecting the asbestos work to the Director, in the form required by the Director and containing the information specified in subsection (2).

Notice contents

- (2) The written notification referred to in subsection (1) shall be provided to the Director at least three business days prior to the planned asbestos work, shall be signed by the asbestos contractor or a competent person who is authorized to represent the asbestos contractor, and shall include
- (a) a description of the asbestos work to be performed that shows that it is adequately covered by specific procedures in the asbestos work procedure manual submitted under clause 49.9(3)(a) or, if the manual does not contain the necessary procedures, the new procedures developed by the asbestos contractor to accommodate the particular needs of the asbestos work;
 - (b) the names of the workers who will perform the asbestos work and confirmation that those workers have successfully completed a course in asbestos abatement acceptable to the Director;
 - (c) confirmation of the name of the competent person who will be supervising the asbestos work and proof satisfactory to the Director that the person is competent to supervise the asbestos work;
 - (d) confirmation that the workers named in clause (b) have participated in a medical surveillance program acceptable to the Director.

Review and issuance of permit

- (3) On receipt of the notification required under subsection (1), an officer shall review the notification and may, if satisfied with the information provided, issue a permit to the asbestos contractor to undertake the asbestos work.

Compliance

- (4) The asbestos contractor shall carry out the asbestos work in accordance with the information provided in the notification. (EC147/20)

49.11 Suspension or cancellation

- (1) The Director may suspend or cancel an asbestos contractor's certificate for any contravention by the asbestos contractor or by the workers of the asbestos contractor of any provision of the Act, these regulations or any other regulations made under the Act.

Terms of suspension

- (2) A suspension under this section may be for a specified period of time and subject to any conditions that the Director considers appropriate.

Cancellation of approval

- (3) Where an asbestos contractor's certificate is suspended or cancelled by the Director under subsection (1), any approval for asbestos work that has not been commenced, or that has been commenced but not completed, is also cancelled. (EC147/20)

49.12 Product analysis

- (1) Prior to the submission of the written notification and commencement of any asbestos work, the asbestos contractor shall ascertain the type and content of asbestos or asbestos-containing material present in the asbestos work area by
- (a) referring to the inventory described in the asbestos management plan prepared according to section 49.6; or
 - (b) by having a competent person obtain a sample or samples to submit to an accredited laboratory for the determination of its asbestos type and content, if any.

Sampling procedure

- (2) Where an asbestos contractor is required to obtain a sample under subsection (1) for the determination of its asbestos content, the asbestos contractor shall take all reasonable measures to ensure respirable asbestos fibres are not released during the sampling process. (EC147/20)

PROTECTIVE CLOTHING**49.13 Protective clothing**

- (1) Where a worker's personal clothing may become contaminated with asbestos-containing material, the asbestos contractor shall provide and pay for appropriate protective clothing that meets the requirements of this section.

Requirements

- (2) The asbestos contractor shall ensure that all workers within an asbestos work area
- (a) wear protective clothing referred to in subsection (1) that
 - (i) is made of material resistant to penetration by asbestos fibres, and
 - (ii) covers the head and fits snugly at the neck, wrists, ankles and elsewhere as necessary to protect against the risk of exposure to asbestos fibres; and
 - (b) use footwear that is impermeable to asbestos fibres.

Prohibition

- (3) A worker who is engaged in asbestos work for which the worker is provided with protective clothing in accordance with this section shall not wear or remove the protective clothing from inside to outside of the asbestos work area. (EC147/20)

RESPIRATORS**49.14 Respiratory protection**

- (1) An asbestos contractor shall provide, and ensure that workers use, within an asbestos work area, respirators which are appropriate for the level of risk of the anticipated exposure to asbestos fibres.

Respirator standard

- (2) An asbestos contractor shall ensure that the respirators provided to workers are selected, used, cleaned, stored, maintained, inspected and tested in accordance with the relevant provisions of CSA Standard Z94.4-18, "Selection, Use, and Care of Respirators". (EC147/20)

ASBESTOS WORK AREA

49.15 Asbestos work area, boundaries

- (1) An asbestos contractor shall, prior to the commencement of asbestos work, ensure that
- (a) the boundaries of the asbestos work area are identified and marked by barricades, fences or similar means;
 - (b) asbestos warning signs are posted at the boundaries of the asbestos work area which meet the requirements of clause 49.1(1)(e);
 - (c) the permit issued under subsection 49.10(3) is posted;
 - (d) the immediate work area is cleared of objects, materials and equipment other than those required to do the work; and
 - (e) the windows, doorways and all other openings are adequately secured to prevent the release of asbestos fibres into other work areas.

Prohibition

- (2) No person shall eat, drink or smoke in an asbestos work area. (EC147/20)

ENCAPSULATION

49.16 Sealants

- (1) Subject to subsection (3), no person shall apply a liquid sealant to encapsulate friable asbestos-containing material in a workplace if, in the opinion of an officer,
- (a) the friable asbestos-containing material has visibly deteriorated; or
 - (b) the friable asbestos-containing material's strength and its adhesion to its underlying materials and surfaces are insufficient to support both the weight of the asbestos-containing material and the sealant.

Use of encapsulant

- (2) An asbestos contractor may use an encapsulant to prevent the release of asbestos-containing material into the ambient air of the workplace where
- (a) the use of encapsulation as a means of dealing with asbestos-containing material is not prohibited pursuant to subsection (1); and
 - (b) in the opinion of an officer, the persons who ordinarily occupy the workplace can do so safely if the asbestos-containing material that is allowed to remain in place is encapsulated.

Orders

- (3) Where, in the opinion of an officer, there is a potential risk that asbestos fibres may be released into the ambient air due to the condition or friable nature of the asbestos-containing material, the officer may order the employer
- (a) to seal the asbestos-containing material with an encapsulant, either penetrating or bridging; or

- (b) to remove the asbestos-containing material. (EC147/20)

ENCLOSURES

49.17 General

- (1) An asbestos contractor shall take every reasonable precaution to prevent the release of asbestos fibres into the ambient air of the workplace, and for that purpose may use an enclosure constructed in accordance with the approved asbestos work procedure manual submitted to the Director under clause 49.9(3)(a).

Enclosure

- (2) An enclosure purposely built for asbestos work shall effectively contain the asbestos fibres that may be released during a Type I, Type II, or Type III Removal Operations.

Variance

- (3) An asbestos contractor may apply to the Director not less than five days prior to the commencement of work for approval of a variance from the enclosure requirements specified in the approved asbestos work procedure manual referred to in subsection (1) by submitting a proposal that
- (a) specifies the changes in procedures, equipment or materials to be used during the asbestos work; and
 - (b) demonstrates to the satisfaction of the Director that the variance will result in an enclosure that meets the requirements of subsection (2).

Responsibility

- (4) An asbestos contractor shall ensure asbestos work is conducted in a manner that does not create a risk to the health or safety of any person.

Prohibition

- (5) An asbestos contractor shall not dismantle the enclosure of an asbestos work area unless the final clearance air sample required under subsection 49.8(5) is within the threshold limit values. (EC147/20)

49.18 Enclosure entry

- (1) Where asbestos work is in progress, an employer shall ensure that only workers who have successfully completed the training courses referred to in subsection 49.7(4) are permitted to enter the enclosure.

Prior to entry

- (2) Prior to entering a full enclosure where asbestos work is taking place, a worker shall
- (a) remove all street clothing and leave the clothing in the clean area of the asbestos work area;
 - (b) put on clean disposable protective clothing; and
 - (c) wear a respirator as required in subsection 49.14(1). (EC147/20)

49.19 Worker exit decontamination procedure

After a worker completes asbestos work in a contaminated work area, or when the worker leaves the contaminated work area for any reason, the worker shall

- (a) remove all loose asbestos fibres from protective clothing with the vacuum system while still in the contaminated work area room of the full enclosure;
- (b) enter the worker transfer room of the full enclosure and remove all protective clothing except the respirator, and place the clothing in the waste container provided for that purpose;
- (c) enter the shower room of the enclosure and thoroughly shower before removing the respirator;
- (d) adequately clean the respirator while in the shower; and
- (e) enter the worker change room to dry and dress in street clothing. (EC147/20)

VENTILATION

49.20 General

- (1) An asbestos contractor shall ensure that each enclosure is equipped with a ventilation system for the purpose of asbestos work that is sufficient to ensure that the enclosure is under adequate negative pressure to prevent the release of respirable asbestos fibres into the air outside the enclosure.

Equipment

- (2) If exhaust ventilation equipment is used to contain asbestos fibres, an asbestos contractor shall ensure that the equipment is
 - (a) of a type designed and solely used for asbestos abatement procedures;
 - (b) equipped with a HEPA filter;
 - (c) maintained in good working condition and inspected regularly in accordance with the manufacturer's specifications; and
 - (d) certified by a competent person not less than once a year as being able to function safely and effectively.

Air exchange

- (3) An asbestos contractor shall ensure that the capacity of the ventilation system used in an enclosure is such that the air exchange rate is a minimum of 4 air changes per hour, and the differential pressure is at least 5 Pascals (-0.02 inches) of water. (EC147/20)

VACUUM CLEANER REQUIREMENTS

49.21 Vacuum cleaner

An asbestos contractor shall provide a vacuum system with HEPA filtration within the unit and HEPA filtration fitted to the exhaust of the unit for use when performing all types of asbestos removal where an enclosure is present. (EC147/20)

ASBESTOS WASTE HANDLING

49.22 Mode of removal

- (1) An asbestos contractor shall ensure that water-saturated asbestos-containing material is removed in small sections and immediately placed in waste containers that are labelled as containing asbestos and that each waste container is sealed when filled.

Drop sheets

- (2) An asbestos contractor shall ensure that drop sheets are wetted and placed in the sealed containers as part of the asbestos waste handling method specified in subsection (1).

Prohibition

- (3) Drop sheets referred to in subsection (2) shall not be reused.

Cleaning containers

- (4) An asbestos contractor shall ensure that the exterior surfaces of waste containers are adequately cleaned in the asbestos waste transfer room of the enclosure.

Waste handling

- (5) An asbestos contractor shall ensure that waste containers are placed in uncontaminated containers in an area outside the asbestos waste transfer room of the enclosure.

Waste transport

- (6) An asbestos contractor shall ensure that asbestos waste is transported as soon as practicable to a waste disposal facility that meets the requirements of the Waste Resource Management Regulations under the *Environmental Protection Act* R.S.P.E.I. 1988, Cap. E-9.

Asbestos awareness course

- (7) An asbestos contractor shall ensure that a worker who transports asbestos waste has successfully completed an asbestos awareness course referred to in clause 49.7(4)(b).

Handling of disposal site

- (8) The worker referred to in subsection (7) shall ensure that the asbestos waste is handled in a manner that will not create a hazard to the health or safety of workers or other individuals at the waste disposal facility site. (EC147/20)

49.23 Demolition

An employer shall ensure that materials with the potential of releasing asbestos fibres into the atmosphere are removed before proceeding with

- (a) the demolition of a building or structure; and
(b) the demolition of all or part of any machinery, equipment, aircraft, vehicle or vessel.

49.24 Emergency response

An asbestos contractor shall develop emergency response procedures to be used in the event of serious injury and other emergencies in an asbestos work area. (EC147/20)

MEDICAL SURVEILLANCE PROGRAM**49.25 Program**

- (1) An asbestos contractor shall implement a medical surveillance program for all workers who are or will be exposed to airborne fibres of asbestos at or above the threshold limit values.

Employer responsibilities

- (2) The asbestos contractor shall ensure that all medical examinations and procedures are performed by or under the supervision of a health care provider, and shall be provided without cost to the worker.

Pre-placement medical exam

- (3) Before an asbestos abatement worker commences work, the worker shall undergo the following components of a pre-placement examination:
- (a) a physical examination, with emphasis on the respiratory system;
 - (b) a screening chest radiograph;
 - (c) a lung function test, including
 - (i) Forced Expiratory Volume (FEV1),
 - (ii) Forced Vital Capacity (FVC);
 - (d) an occupational exposure history.

Periodic follow-up examinations

- (4) A periodic medical examination shall include
- (a) an annual lung function test that meets the requirements of clause (3)(c);
 - (b) an annual occupational exposure history; and
 - (c) a screening chest radiograph every five years or every two years if the worker had exposure to airborne fibres of asbestos for more than 20 years. (EC147/20)

RECORDS

49.26 Worker record

- (1) An asbestos contractor shall establish and maintain an accurate and complete record for each worker, containing
- (a) the reports from examinations performed which assess the worker's potential exposures, ability to use a respirator, and any specified limitations of use;
 - (b) a detailed work history containing dates and length of jobs performed including types of job and material handled; and
 - (c) the worker's training records.

Retention of records

- (2) An asbestos contractor shall ensure that all worker records required under subsection (1) shall be maintained for a period of not less than 40 years. (EC596/90; 147/20)

PART 50 — TRAFFIC CONTROL

50.1 Definitions

In this Part

- (a) “**signaller**” means a person engaged in controlling traffic movements through workplaces;
- (b) “**roadway**” means that portion of a highway improved, designed or ordinarily used for vehicular travel, exclusive of the shoulder unless the shoulder is paved;

- (c) “**traffic control**” includes patrol vehicles, traffic lights, signs, barricades, cones, detours, signallers, or other techniques and devices made necessary by the prevailing circumstances. (EC225/91)

50.2 Employer responsibilities

The employer shall ensure

- (a) that effective means of traffic control are provided whenever the unregulated movement of vehicular traffic constitutes a hazard to workers;
- (b) that control devices are put into operation prior to the commencement of operations and shall be removed when the need for such protection has terminated. (EC225/91; 126/21)

50.3 *Idem*

The employer shall ensure signallers are employed

- (a) when construction work is being carried out in areas where worker safety is endangered by vehicle traffic;
- (b) where the roadway is normally a two-way operation and traffic is restricted to one-way traffic movement;
- (c) where any activity or obstruction exists on the shoulder or a portion of the roadway, which does not allow for the following clearances:
- (i) 3 m per traffic lane for speeds up to 50 km/hr.,
- (ii) 3.5 m per traffic lane for speeds over 50 km/hr. (EC225/91; 126/21)

50.4 Qualifications

The employer shall ensure that signallers

- (a) are competent persons over the age of sixteen years who have been trained in, and have demonstrated an adequate knowledge of traffic control and signalling procedures;
- (b) have such training as the Director may require;
- (c) have a thorough knowledge of the regulations contained in this Part;
- (d) are in good physical and mental condition;
- (e) have adequate eyesight and hearing to carry out their duties;
- (f) hold a certificate of training and shall produce proof of training at the request of an officer. (EC225/91)

50.5 Use of worker as signaller

The use of a worker as a signaller if the worker does not possess the qualifications specified in Section 50.4 shall be deemed to constitute failure to use a signaller. (EC225/91; 126/21)

50.6 Equipment

The employer shall ensure that a signaller is equipped with such protective health and safety equipment and clothing as is required to ensure the health and safety of the signaller at the signaller’s workplace, including any required safety footwear, hard hat, safety vest, eye protection and rain wear. (EC225/91)

50.7 Use of equipment

The signaller shall wear such protective health and safety equipment and clothing as is required to ensure the health and safety of the signaller at the signaller’s workplace. (EC225/91)

50.8 Head set receivers

(3) The employer shall ensure that signallers do not use head set receivers or other devices which may impair sight or hearing while signalling.

Idem

(4) A signaller shall not use head set receivers or other devices which may impair sight or hearing while signalling. (EC225/91)

50.9 Sign

The employer shall provide signallers with a signaller’s sign, octagonal in shape and mounted on a 1.7 m handle. (EC225/91)

50.10 Reflectors

The employer shall ensure that, when signalling operations are required during the hours of darkness or conditions of poor visibility, all safety devices shall be reflectorized. (EC225/91)

50.11 Flashlight

The employer shall, during the hours of darkness provide the signaller with a flashlight fitted with a red signalling baton. (EC225/91)

50.12 Visibility

The employer shall ensure that a signaller is located in a position providing adequate visibility and reaction time for the motorist. The distances are as set out in the following table:

Maximum Speed - km/hr	Sight Distance - (m)
90	180
80	150
70	120
60	90
50	70
40 or less	50

(EC225/91)

50.13 Distance

The employer shall ensure that a signaller stands far enough from the work areas. The required distances are as set out in the following table:

Maximum Speed - km/hr	Distance from Work Area - (m)
90	110
80	80
70	60
60	40
50	30
40 or less	20

(EC225/91)

50.14 Radio contact

The employer shall ensure when the end of a one-lane section of roadway is not visible from the other end, the signaller shall maintain contact by means of radio or additional signallers. (EC225/91)

50.15 Approved modes of signalling

The following are the approved modes of signalling:

- (a) to stop traffic - The signaller shall stand facing traffic. The right arm shall be extended horizontally away from the body and the signaller's sign shall be held perpendicular to the roadway in a stationary position, with the "STOP" side of the sign facing approaching drivers. The left hand shall be held with the palm up, in a stationary position and facing approaching drivers;
- (b) to slow traffic - The signaller shall stand facing traffic. The right arm shall be extended horizontally away from the body and the signaller's sign shall be held perpendicular to the roadway in a stationary position, with the "MAXIMUM 40" or "SLOW" side of the sign facing approaching drivers. The left arm shall be held stationary at the signaller's side;
- (c) to release traffic - The signaller shall stand parallel to the traffic movement. The right arm shall be extended horizontally away from the body and the signaller's sign shall be held perpendicular to the roadway in a stationary position, with the "MAXIMUM 40" or "SLOW" side of the sign facing approaching drivers. A forward motion shall be made with the left arm. (EC225/91)

50.16 Continuous duty

The employer shall ensure that signallers do not depart from their point of duty until relieved. (EC225/91)

50.17 Signs posted

The employer shall ensure that "Signaller Ahead" signs shall be posted in advance of each signaller's station. Such signs shall be removed promptly when the signalling operation terminates. (EC225/91)

50.18 Compliance

- (1) The employer shall ensure that all regulations in this Part are complied with.

Idem

- (2) A signaller shall comply with all regulations in this Part. (EC225/91)

50.19 Authority

These regulations and the Traffic Control Procedures for Roadwork Manual and any subsequent amendments as published by the P.E.I. Department of Transportation and Public Works shall govern all road, street construction and maintenance work. (EC225/91)

PART 51 — GENERAL

51.1 Accident reports

The Workers' Compensation Board shall forward a copy of all accident reports to the Director. *(EC180/87)*

51.2 Report of explosions

A written report of all accidental explosions, whether or not anyone is injured, shall be forwarded to the Director. *(EC180/87)*

51.3 Application

Revoked by EC632/04. *(EC180/87;632/04)*

PART 52 — VIOLENCE IN THE WORKPLACE

52.1 "violence", defined

In this Part, "violence" means the threatened, attempted or actual exercise of any physical force by a person other than a worker that can cause, or that causes, injury to a worker, and includes any threatening statement or behaviour that gives a worker reasonable cause to believe that he or she is at risk of injury. *(EC43/06)*

52.2 Risk assessment of workplace

- (1) An employer shall conduct a risk assessment of the workplace to determine whether or not a risk of injury to workers from violence arising out of their employment may be present.

Idem

- (2) A risk assessment under subsection (1) shall include a consideration of
- (a) previous experience of violence in that workplace;
 - (b) occupational experience of violence in similar workplaces; and
 - (c) the location and circumstances in which the work will take place. *(EC43/06)*

52.3 Risk identified

If a risk of injury to a worker from violence in a workplace is identified by an assessment under section 52.2, the employer shall establish procedures, policies and work environment arrangements

- (a) to either
 - (i) eliminate the risk of violence to workers in that workplace, or
 - (ii) if elimination of the risk is not possible, minimize the risk of violence to workers in that workplace; and
- (b) to provide for reporting, investigating and documenting incidents of violence in that workplace. *(EC43/06)*

52.4 Inform workers of risk

- (1) An employer shall inform workers who may be exposed to the risk of violence in the workplace of the nature and extent of the risk.

Information re history of violent behaviour

- (2) Unless otherwise prohibited by law, the duty to inform workers under subsection (1) includes a duty to provide information related to the risk of violence from persons who have a history of violent behaviour and who may be encountered by a worker in the course of his or her work.

Instruction in recognition, procedures, response

- (3) An employer shall instruct workers who may be exposed to the risk of violence in
- (a) the means of recognition of the potential for violence;
 - (b) the procedures, policies and work environment arrangements developed under section 52.3; and
 - (c) the appropriate response to incidents of violence in the workplace, including how to obtain assistance. *(EC43/06)*

52.5 Consult physician

An employer shall ensure that a worker who reports an injury or adverse symptom resulting from workplace violence is advised to consult a physician of the worker's choice for treatment or a referral. *(EC43/06)*

PART 53 — WORKING ALONE**53.1 “working alone”, defined**

In this Part, “working alone” means a worker working at a workplace who is the only worker of the employer at that workplace, in circumstances where assistance is not readily available to the worker in the event of injury, ill health or emergency. *(EC43/06)*

53.2 Procedure where worker is working alone

- (1) Where a worker is working alone, the employer shall develop and implement written procedures to ensure, as far as is reasonably practicable, the health and safety of the worker from risks arising out of, or in connection with, the work assigned.

Information to be included

- (2) Written procedures developed under subsection (1) shall include the following information:
- (a) the name, address, location and telephone number of the workplace;
 - (b) the name, address, location and telephone number of the employer;
 - (c) the nature of the business conducted at the workplace;
 - (d) identification of the possible risks to each worker working alone that arise from or in connection with the work assigned;
 - (e) the steps to be followed to minimize the risks identified in clause (d);
 - (f) details of the means by which a worker who is working alone can secure, and the employer can provide, assistance in the event of injury or other circumstances that may endanger the health or safety of the worker.

Specified information

- (3) The steps referred to in clause (2)(e) shall
- (a) specify the time intervals for checking on the worker;
 - (b) specify the person responsible for contacting the worker and recording the results of the contact;
 - (c) outline the process to be followed if the worker cannot be contacted, including provisions for an emergency rescue; and
 - (d) provide for checking with the worker at the end of the worker's shift. *(EC43/06)*

53.3 Employer, worker to comply

The employer and the worker who is working alone shall comply with the procedures developed under section 53.2. *(EC43/06)*

53.4 Training program

The employer shall implement a training program in respect of the procedures established under section 53.2 for each worker who is working alone and for each supervisor who is responsible for a worker working alone. *(EC43/06)*

53.5 Copy of procedures available to officer

The employer shall ensure that a copy of the procedures established under section 53.2 is available to an officer on request. *(EC43/06)*

SCHEDULES A TO D - REVOKED

REVOKED BY 289/21

(EC49/12; 289/21)

