The Occupational Health and Safety Regulations

Repealed by Chapter O-1.1 Reg 1 (effective December 4, 1996).

 $Formerly \\ Chapter O-1 Reg \ 1 \\ as amended by an Errata Notice dated November 23, 1984, \\ and by Saskatchewan Regulations 24/86, 90/88 and 9/89.$

NOTE:

This consolidation is not official. Amendments have been incorporated for convenience of reference and the original statutes and regulations should be consulted for all purposes of interpretation and application of the law. In order to preserve the integrity of the original statutes and regulations, errors that may have appeared are reproduced in this consolidation.

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	A . E		

CHAPTER O-1 REG 1

The Occupational Health and Safety Act

PART I Title, Interpretation and Application

Title

1 These regulations may be cited as The Occupational Health and Safety Regulations.

 $24~\rm Apr~81~cO\text{-}1~Reg~1~s1;$ Errata $23~\rm Nov~84~SR~142/84;$ $21~\rm Mar~86~SR~24/86~s3.$

Interpretation

- **2**(1) In these regulations and every other regulation made under the Act:
 - (a) "Act" means The Occupational Health and Safety Act;
 - (b) "approved" means approved by an agency acceptable to the director for use under the conditions prescribed by the agency or approved conditionally or otherwise by a certificate of the director;
 - (b.1) "atmosphere-supplying respirator" means a supplied air respirator, a self-contained breathing apparatus whether closed or open circuit or a combination of self-contained breathing apparatus and supplied air;
 - (b.2) "borehole" means any mechanically drilled hole in the ground;
 - (b.3) "building shaft" means a continuous vertical space substantially enclosed on all sides that extends for two or more floors and includes an elevator, ventilation shaft, stairwell and service shaft;
 - (c) Repealed. 28 Oct 88 SR 90/88 s3.
 - (c.1) "Class A fire" means a fire involving combustible materials such as wood, cloth and paper;
 - (c.2) "Class B fire" means a fire involving a flammable or combustible liquid, fat or grease;
 - (c.3) "Class C fire" means a fire involving energized electrical equipment;
 - (d) "co-chairpersons" means the employer co-chairperson and the worker co-chairperson designated pursuant to subsection 20(2);
 - (e) "committee" means an occupational health committee;
 - (f) "competent" means qualified by knowledge, experience and temperament to perform a specific duty;

(g) "construction" includes:

- (i) the erection, alteration, repair, dismantling, demolition, structural maintenance and painting of a structure or building;
- (ii) land clearing, earth moving, grading, excavating, trenching, digging, boring, drilling, blasting and concreting;
- (iii) the installation of any plant; and
- (iv) any work or undertaking in connection with a project;
- (g.1) "CSA" means the Canadian Standards Association;
- (g.2) "designated signaller" means a worker designated pursuant to clause 128(1)(a) to give signals;
- (g.3) "equipment" means any man-made mechanical or non-mechanical device or thing provided for use by workers at a place of employment and includes machinery;
- (g.4) "excavated shaft" means an excavation, the longest dimension of which exceeds 1.5 metres and of which the acute angle between the axis of the longest dimension and the vertical is less than 45°, but does not include a shaft that is covered by Saskatchewan Regulations 284/78;
- (h) "factory" means any place of employment in which workers are employed in preparing, manufacturing, altering or finishing any article, substance or material;
- (h.1) "fall-arresting device" means personal protective equipment that provides a means of safely arresting the fall of a worker and that, subsequent to the arrest of the fall, does not by itself permit the further release or lowering of the worker;
- (i) "first aid register" means the register required by section 63;
- (i.1) "hand tool" means hand-held equipment that is powered by the energy of a worker;
- (i.2) "hoist" means machinery comprising or including a raising and lowering mechanism and includes a mast and hoistway and a crane, derrick or similar machine but does not include a hoist for a mine shaft that is covered by Saskatchewan Regulations 284/78;
- (j) "inspector" means an occupational health officer;
- (j.1) "locked out" means to have isolated the energy source or sources from equipment, to have dissipated any residual energy in a system and to have secured the isolation by a device which is operated by a key;
- (j.2) "machinery" means any combination of mechanical parts that transmits from one part to another or otherwise modifies force, motion or energy;
- (k) "maintained" means kept in a condition of efficient and safe functioning by a system of regular examination, testing and servicing or repair;

- (k.1) "operator" means any person who operates any machinery;
- (l) "personal protective equipment" means any clothing, device or other article intended to be worn or used by a worker to prevent injury or to facilitate rescue:
- (m) "plant" includes any machinery, equipment or appliance;
- (m.1) "power tool" means hand-held machinery that is powered by energy other than the energy of a worker;
- (m.2) "powered mobile equipment" means self-propelled machinery designed to manipulate or move materials or to provide a work platform for workers;
- (n) Repealed. 28 Oct 88 SR 90/88 s3.
- (o) "professional engineer" means an engineer registered under *The Engineering Profession Act*;
- (o.1) "public highway" means a road allowance or a road, street or lane vested in Her Majesty or set aside for such purpose pursuant to "The North-West Territories Act" or an Act of Saskatchewan and includes a bridge, culvert, drain or other public improvement erected upon or in connection with a public highway;
- (p) "substance for use at work" means any substance intended for use, whether exclusively or not, by workers at work;
- (q) "supervisor" means a person authorized by an employer to oversee or direct the work of workers, and includes a manager, superintendent, shift boss and foreman;
- (q.1) "tower crane" means a hoist that raises and lowers a load and moves a load horizontally by means of a trolley running on a cantilevered boom that can rotate about the axis of a supporting tower;
- (q.2) "travelway" means any place where workers or vehicles regularly travel or pass and, without limiting the generality of the foregoing, includes any ramp, runway, catwalk, bridge, conveyor, gantry or passage;
- (q.3) "tunnel" means an underground passage having an incline of not more than 45° from the horizontal:
- (q.4) "vehicle" means a device, including powered mobile equipment, in, on or by which a person or thing may be transported or drawn;
- (r) "work" and "at work" means:
 - (i) in the case of a worker, the time during which he is in the course of his employment;
 - (ii) in the case of a self-employed person, the time that he devotes to work as a self-employed person. $\,$

- (s) "work area" includes all places ancillary to the operation of a place of employment such as lunchrooms, restrooms, first aid rooms, lecture rooms and offices but does not include permanent living accommodation;
- (t) "work site" means an area at a place of employment at which a worker is, or may be required or permitted to be, stationed.
- (2) For the purposes of the Act and in these regulations and every other regulation made under the Act:
 - (a) "injury" includes any disease and any impairment of the physical or mental condition of a person;
 - (b) "operation of a place of employment" means the work carried on by any employer or self-employed person at a place of employment, and includes construction activites carried out in respect of any building, structure or site;
 - (c) "practicable" means physically possible in the light of current knowledge and invention;
 - (d) "reasonably practicable" means practicable unless the person on whom a duty is placed can show that there is a gross disproportion between the benefit of the duty and the cost, in time, trouble and money, of the measures to secure the duty.
- (3) Any term, expression or word used in, but not defined in, these regulations or the Act has the meaning commonly given to it at the places of employment in the industry concerned.
- (4) Unless otherwise expressly stated:
 - (a) lumber sizes specified in these regulations are lumber sizes after dressing; and
 - (b) "lumber" means lumber that is free of visible defects.

 $24\;\mathrm{Apr}\;81\;\mathrm{cO}\text{-}1\;\mathrm{Reg}\;1$ s
2; 21 Mar $86\;\mathrm{SR}\;24/86$ s
4; 28 Oct $88\;\mathrm{SR}\;90/88$ s
3.

APPLICATION

These regulations prevail

3 Where any provision in these regulations is inconsistent with any provision in any other regulation in force under the authority of the Act, the provision in these regulations prevails.

24 Apr 81 cO-1 Reg 1 s3.

Generality of duties not limited

- 4(1) A specific duty provided for in these regulations does not limit the generality of any other duty contained in the Act or any other regulations in force under the authority of the Act.
- (2) A duty or requirement imposed on an employer or a worker pursuant to these regulations applies to a self-employed person *mutatis mutandis*.

- (3) Any provision of these regulations prohibiting a worker from carrying out a specified action applies to an employer or a self-employed person *mutatis mutandis*.
- (4) Any provision of these regulations that requires an employer to ensure that a worker carries out or refrains from carrying out a specified action is deemed to require:
 - (a) a self-employed person; and
- (b) an employer who engages in an occupation at a place of employment; to carry out or refrain from carrying out that action, as the case may require.

21 Mar 86 SR 24/86 s5; 28 Oct 88 SR 90/88 s4.

PART II Duties of Employers

General duties

- **5** Without limiting the generality of clause 3(a) of the Act, the duty of an employer under that clause includes:
 - (a) the provision and maintenance of a place of employment, plant, systems of work and working environment that are safe, without risk to health and adequate with regard to facilities for the welfare of his workers at work;
 - (b) arrangements for safety and for the absence of risk to health in connection with the use, handling, storage and transport of articles and substances;
 - (c) the provision of any information, instruction, training and supervision that is necessary to protect the health and safety of his workers at work; and
 - (d) the provision and maintenance of a safe means of access to and egress from the place of employment and to and from all work areas within the place of employment.

24 Apr 81 cO-1 Reg 1 s5.

Supervision of work

- **6** Every employer shall, so far as is reasonably practicable, ensure that:
 - (a) all work at the place of employment is sufficiently and competently supervised;
 - (b) every supervisor has sufficient knowledge of the Act and the regulations in force under the authority of the Act and the information and means to ensure that work under his supervision is carried out in a manner which is safe and without risk to health; and

(c) every supervisor conducts himself and the work under his supervision in a safe and responsible manner and in compliance with the Act and every regulation in force under the authority of the Act.

24 Apr 81 cO-1 Reg 1 s6.

Knowledge of, compliance with regulations

7 Every employer shall make reasonable arrangements to ensure that each worker understands the provisions of the Act and the regulations in force under the authority of the Act that apply at the place of employment and shall ensure, insofar as is reasonably practicable, that each worker complies with the duties prescribed in section 18.

24 Apr 81 cO-1 Reg 1 s7.

Orientation instruction to workers

- 8(1) Where a worker commences work at a place of employment, the employer shall provide him with health and safety orientation instruction, upon the worker's starting work, during the time that he is at work and with no loss of pay.
- (2) Health and safety orientation pursuant to subsection (1) must include instruction on:
 - (a) procedure in the event of fire or other emergency;
 - (b) first aid facilities;
 - (c) prohibited or restricted areas;
 - (d) chemical and physical hazards; and
 - (e) any other matters that are relevant to the health and safety of the worker while he is at work.
- (3) Where a worker is transferred from one work process or area to another which differs substantially with respect to hazards, facilities or procedures, the employer shall ensure that the worker receives adequate health and safety orientation instruction with respect to the new work area.

24 Apr 81 cO-1 Reg 1 s8.

Workers to be experienced or supervised

9 Every employer shall ensure that no worker is permitted to perform work unless that worker is sufficiently experienced or instructed to perform the work safely and in accordance with the regulations in force under the authority of the Act or where that work is done under close and competent supervision.

24 Apr 81 cO-1 Reg 1 s9.

Inspection, correction of unsafe conditions

- 10 Every employer shall arrange for the regular examination of all buildings, structures, sites and plant under his control to ensure, so far as is reasonably practicable, that they are capable of:
 - (a) withstanding the stress likely to be imposed upon them; and

(b) safely performing the functions for which they are used;

and shall promptly correct any unsafe condition and make immediate provision to protect the health and safety of any worker who may be at risk until the unsafe condition is corrected.

24 Apr 81 cO-1 Reg 1 s10.

Inspections by committee

- 11(1) Where a committee exists, the employer shall facilitate arrangements for members of the committee to conduct health and safety inspections of the place of employment at reasonable intervals to be determined by the committee.
- (2) Upon written notification by the committee of an unsafe condition found during an inspection under subsection (1), the employer shall promptly:
 - (a) undertake suitable corrective measures; and
 - (b) inform the committee in writing of the action he has taken.

24 Apr 81 cO-1 Reg 1 s11.

Posting of Act, information, etc.

- **12**(1) Every employer shall keep a copy of the Act posted in a conspicuous place at the place of employment and shall have readily available, for reference by workers, a copy of any regulations in force under the authority of the Act which apply to that place of employment or to any work done there.
- (2) Every employer shall cause to be posted in a conspicuous place at the place of employment, or shall distribute to the committee, copies of any notices, bulletins, inspection reports and other material relating to occupational health and safety that are supplied by the department and are marked for posting or distribution.
- (3) Every employer shall promptly cause to be delivered to the co-chairpersons any notice, bulletin, report, form or other written material supplied by the department and addressed to the co-chairpersons at the place of employment.
- (4) At every place of employment where a committee is required, the employer shall provide a suitable bulletin board for the exclusive use of that committee for the posting of its minutes and any other material concerning health and safety that the committee considers appropriate.
- (5) Where, at a construction site or other outdoor location, it is not practical to comply with the posting requirements of this section, the employer shall make alternative arrangements to bring the information to the attention of workers.

24 Apr 81 cO-1 Reg 1 s12.

Prior notice re new factory, etc.

- 13 As soon as practicable before occupying a factory or a mine at which, or commencing work at a construction site at which:
 - (a) work is likely to last for longer than 30 days; and

- (b) more than 10 workers are likely to be employed at any time; the employer shall send to the director a written notice containing, with respect to the factory, mine or construction site:
 - (c) the name;
 - (d) the location;
 - (e) the mailing address to which correspondence should be directed;
 - (f) the nature of the work processes to be undertaken and the number of workers to be employed on those processes; and
 - (g) the name of the firm under which the business is to be carried on.

24 Apr 81 cO-1 Reg 1 s13.

Responsibility of employer for work of contractors

- 14(1) An employer who has a place of employment under his control shall:
 - (a) not permit the worker of another employer or any self-employed person to work at that place until the employer is satisfied that the other employer or self-employed person understands the duties imposed by sections 3 to 5 of the Act and by any regulations in force under the authority of the Act that are applicable to the work to be done; and
 - (b) ensure, so far as is reasonably practicable, safe conditions for the work referred to in clause (a) to be done and that the work is done in compliance with the Act and the regulations in force under the authority of the Act.
- (2) For the purposes of subsection (1), in the case of a construction site, the project manager or, where there is no project manager, the prime contractor is deemed to be the employer who has the place of employment under his control.

24 Apr 81 cO-1 Reg 1 s14.

Where person in charge is not employer

15 Where, at a construction site or other place of employment, the person for whom work is to be done is not an employer at the place of employment, every contractor or other person who is an employer or a self-employed person at that place of employment shall require the person for whom the work is to be done to make suitable and adequate arrangements to enable the contractor or other employer or self-employed person to fulfill his duties under the Act and under the regulations made under the Act and shall not proceed with any work until those arrangements are made.

24 Apr 81 cO-1 Reg 1 s15.

Employer to provide protective equipment

16(1) Where personal protective equipment is required by these regulations or any other regulations made under the Act to be provided, the employer shall purchase the personal protective equipment and supply it to his workers at no cost to the workers.

- (2) Notwithstanding subsection (1), an employer may impose reasonable terms of security and deposit against wilful loss or damage that he may determine unless the context of the regulations clearly state otherwise or unless the terms of a collective bargaining agreement provide for an alternative method of payment for that equipment.
- (3) Every employer shall ensure, so far as is reasonably practicable, that personal protective equipment required by the regulations made under the Act is used by the workers.

24 Apr 81 cO-1 Reg 1 s16.

Worker may consult with inspector

17 Every employer shall permit any worker to consult with an inspector in the course of an inspection at the place of employment and, for that purpose, the inspector may require the employer to temporarily relieve the worker from his work without any loss of pay.

24 Apr 81 cO-1 Reg 1 s17.

PART III Duties of Workers

General duties

- 18 Every worker shall:
 - (a) co-operate with the employer in the discharge of the employer's responsibilities;
 - (b) use the safeguards, safety appliances and personal protective equipment or devices provided pursuant to the regulations in force under the authority of the Act; and
 - (c) conduct himself at work in a safe and responsible manner.

24 Apr 81 cO-1 Reg 1 s18.

PART IV Occupational Health Committees

Selection of committee members

- 19(1) Where a committee is established, the employer shall arrange for the selection of an appropriate number of workers to be representatives on the committee in consultation with the unions representing the workers or, where there is no union, with the workers and shall select persons to be employer representatives on that committee.
- (2) In determining the number of worker representatives as members of a committee, the employer shall ensure, so far as is reasonably practicable, that groups of workers which have substantially different occupational health and safety concerns are equitably represented.

24 Apr 81 cO-1 Reg 1 s19.

First meeting, co-chairpersons

- **20**(1) Every committee shall, within two weeks of its selection, hold its first meeting and, subject to section 21, it shall thereafter meet regularly as determined by the committee.
- (2) At the first meeting of a committee:
 - (a) an employer co-chairperson shall be designated by the employer; and
 - (b) a worker co-chairperson shall be elected by the worker representatives.
- (3) An employer co-chairperson shall keep the employer informed of the concerns and recommendations of the committee and of any information addressed to the committee from the department.
- (4) Subsection (3) applies, *mutatis mutandis*, to a worker co-chairperson and the employer shall facilitate the discharge of these duties by the worker co-chairperson during normal work hours by permitting meetings of workers or by other means which are appropriate in the circumstances.

24 Apr 81 cO-1 Reg 1 s20.

Regular meetings

- **21**(1) Every committee shall hold regular meetings at least quarterly.
- (2) Notwithstanding subsection (1), the director may allow less frequent meetings but not less often than once per year where a committee by written application:
 - (a) unanimously requests less frequent meetings; and
 - (b) declares that no health or safety concerns exist and that suitable arrangements have been made for calling meetings in the event that those concerns arise.
- (3) A quorum at a meeting of a committee consists of one-half of the membership of the committee, where:
 - (a) employer representatives and worker representatives are present; and
 - (b) worker representatives constitute at least one-half of the members present.
- (4) The director may require a committee to meet more often than is required by subsection (1) because of:
 - (a) the particular hazards;
 - (b) the complexity of the operation; or
 - (c) the large number of workers;

at the place of employment where the committee exists.

24 Apr 81 cO-1 Reg 1 s21.

Special meetings at call of co-chairperson

- **22**(1) Special meetings of a committee may be called by either co-chairperson to deal with urgent concerns, imminent dangers to health or safety, investigations of accidents or dangerous occurrences or refusals to work pursuant to section 26 of the Act.
- (2) Decisions with respect to refusals to work pursuant to section 26 of the Act shall be by unanimous vote of a quorum of the committee.

24 Apr 81 cO-1 Reg 1 s22.

Special meetings at call of inspecor

- **23** An inspector may call special meetings of a committee, of several committees jointly or of the co-chairpersons for the purpose of:
 - (a) ensuring the proper functioning of the committee or committees;
 - (b) providing information; or
 - (c) providing education concerning health or safety at work.

24 Apr 81 cO-1 Reg 1 s23.

Remuneration of committee members

- **24**(1) Every employer shall credit attendance by persons at regular or special meetings of a committee held pursuant to sections 20 to 23 as time at work.
- (2) Every employer shall allow members of a committee a reasonable opportunity, during normal working hours and without loss of pay or other benefits, to receive and investigate concerns, inform workers of the provisions of the Act or the regulations in force under the authority of the Act or conduct other business proper to the functioning of the committee.

24 Apr 81 cO-1 Reg 1 s24.

Minutes of meetings

- **25** Every committee shall ensure that minutes of all its meetings are recorded on forms that the department shall supply and that a copy is:
 - (a) kept on permanent file with the committee;
 - (b) returned to the director; and
 - (c) posted in the place of employment until such time as any concerns registered are resolved.

24 Apr 81 cO-1 Reg 1 s25.

Worker representative to accompany inspector

- **26** During any inspection or other visit by an inspector at the place of employment the employer shall allow:
 - (a) the worker co-chairperson or, in his absence, any other worker representative that the committee may designate;

- (b) where there is no committee, a worker designated by the union; or
- (c) where there is no union, a worker designated by an inspector;

to accompany the inspector and shall credit the time required for the inspection to the worker as time at work.

24 Apr 81 cO-1 Reg 1 s26.

Educational leave for committee members

- 27(1) Where a committee member gives reasonable notice, the employer shall permit that committee member to take educational leave for a period or periods of not more than five working days per year for the purpose of attending occupational health and safety training programs, seminars or courses of instruction.
- (2) Where a committee member attends a training program conducted by the department during normal working hours, the employer shall not deduct any pay or other benefits from that worker.

24 Apr 81 cO-1 Reg 1 s27.

Copies of reports, biological monitoring

- **28**(1) An inspector shall provide to the worker co-chairperson a copy of any inspection or other report or opinion provided by the inspector to the employer that is relevant to the health and safety of workers.
- (2) Every employer shall ensure that the worker representatives on the committee or, where there is no committee, the workers are kept fully informed of any information in the employer's possession concerning the work environment and the occupational health and safety of workers at that place of employment, including the general results of any environmental or biological monitoring, but no information of a personal medical nature is to be disclosed without the informed consent of the person to whom the information relates.
- (3) The employer shall ensure that any worker who is the subject of biological monitoring is informed of the purposes of the monitoring and of the results, and that detailed findings are, at the worker's request, made available to a physician designated by the worker.
- (4) Nothing in this section entitles a committee, a worker representative on a committee or a worker to receive information that is protected from disclosure pursuant to section 5.3 of the Act.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}28;~28~\mathrm{Oct}~88~\mathrm{SR}~90/88~\mathrm{s}5.$

Copies of accident reports

29(1) The employer shall provide each co-chairperson with a copy of any notification or report of any occupational accident or dangerous occurrence required to be submitted by the employer to the director or any other officer of the department pursuant to any regulations in force under the authority of the Act.

(2) The employer shall permit the committee to investigate any concerns arising from any notification or report mentioned in subsection (1) on the request of the committee or of the department.

24 Apr 81 cO-1 Reg 1 s29.

Inspection of required reports, etc.

30 The employer shall permit the committee to examine any log books, inspection reports or other records required to be kept by the employer at the place of employment pursuant to any regulations in force under the authority of the Act.

24 Apr 81 cO-1 Reg 1 s30.

PART V General Health Requirements

Duty to keep workplace clean

- 31 Every employer shall ensure that the place of employment is sanitary and kept as clean as is reasonably practicable and shall ensure, wherever it is reasonably practicable, that:
 - (a) accumulations of dirt and debris are removed daily by a suitable method from all floors, working surfaces, stairways and passages;
 - (b) floors are cleaned at least once each week by washing, vacuum cleaning or any other effective and suitable method; and
 - (c) all inside walls, partitions, ceilings, passages and staircases are cleaned at least once each year and are suitably finished and maintained.

24 Apr 81 cO-1 Reg 1 s31.

Overcrowding

- **32**(1) Every employer shall ensure that no part of the place of employment is overcrowded to a degree that may cause risk of injury to workers.
- (2) Without limiting the generality of subsection (1), the employer shall ensure that there is at least 10 cubic metres of space for each worker employed at any one time in any workroom.
- (3) For the purposes of subsection (2), no space that is more than three metres from the floor and no space occupied by solid objects is to be taken into account.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}32.$

Thermal environment

33(1) Every employer shall provide and maintain, in every indoor place of employment, thermal conditions including air temperature, radiant temperature, humidity and air movement which are reasonable and appropriate to the nature of the work performed.

- (2) At every indoor place of employment where the thermal environment is likely to be of concern to the workers, the employer shall provide an appropriate and suitably located instrument for measuring the thermal conditions.
- (3) Where it is not reasonably practicable to control thermal conditions pursuant to subsection (1) or where the work is being performed outdoors, the employer shall provide effective protection for the health and safety and reasonable thermal comfort of workers, which may include:
 - (a) frequent monitoring of thermal conditions;
 - (b) special or temporary equipment such as screens, shelters and temporary heating or cooling equipment;
 - (c) special clothing or personal protective equipment;
 - (d) hot or cold drinks, acclimatization or other physiological procedures;
 - (e) limited work schedules with rest and recovery periods, changes in workloads, changes in hours or other arrangements for work;
 - (f) any other appropriate measure.

24 Apr 81 cO-1 Reg 1 s33.

Illumination

- **34**(1) Every employer shall provide, while workers are present, lighting sufficient and suitable for the work to be done in every part of a place of employment.
- (2) Every employer shall ensure that the illumination of all parts of a place of employment where workers pass, other than underground at a mine, is at least 50 lux.
- (3) Where failure of the regular lighting system would be likely to create conditions dangerous to the health or safety of workers, the employer shall provide appropriate emergency lighting of at least 50 lux for the work area and exit routes from the work area.

24 Apr 81 cO-1 Reg 1 s34.

Windows and skylights

- **35** Every employer shall ensure that:
 - (a) all windows and skylights that provide light to work are, so far as is practicable, kept clean and free from obstruction, but this clause is not to be construed so as to prevent special treatment of windows or skylights for the purpose of reducing heat or glare; and
 - (b) any artificial light source or reflective surface is positioned, screened or provided with a shade to prevent, so far as is practicable, glare or the formation of shadows that causes discomfort or a risk of accident to any workers.

24 Apr 81 cO-1 Reg 1 s35.

Visual demands

- **35.1**(1) The employer, in consultation with the committee if one exists, shall identify those tasks that involve a potentially harmful visual demand on a worker and:
 - (a) take all practicable steps to reduce the harmful visual demand of those tasks;
 - (b) inform the worker of the risk of performing those tasks; and
 - (c) inform the worker of the importance of consulting a physician if any vision impairment, disability or visual strain that apparently results from performing any of those tasks should persist.
- (2) Where a worker is unable to recover the costs of a consultation mentioned in clause (1)(c), the employer shall reimburse the worker for the costs of the consultation that, in the opinion of the director, are reasonable.
- (3) Where it is not reasonably practicable for a worker to attend for a consultation mentioned in clause (1)(c) at a time other than during normal working hours, the employer shall permit the worker to attend for the consultation during normal working hours without loss of pay or other benefits.

28 Oct 88 SR 90/88 s6.

Toilet facilities

- **36**(1) Every employer shall ensure that sufficient, suitable and readily accessible toilet facilities for workers are provided, maintained and kept clean and that adequate provision is made for privacy, heat, light and ventilation, and shall provide:
 - (a) one toilet for up to 10 workers and one additional toilet for every additional 20 workers, or fraction thereof, who are likely to be at the place of employment at any time;
 - (b) additional toilets in a number proportionate to the number required by clause (a) where those facilities are likely to be used by persons other than the workers and, where use by those other persons is substantial and frequent, separate facilities;
 - (c) where two or more toilets are required and both males and females are employed at any time, separate toilets for workers of each sex; and
 - (d) a supply of toilet tissue to each toilet at all times and easily cleanable covered receptables for waste materials.
- (2) Where more than 100 males work or are likely to work on any shift and sufficient urinal accommodations are provided, the requirements of clause (1)(a) may be reduced at the discretion of an inspector.

24 Apr 81 cO-1 Reg 1 s36.

Personal washing facilities

- **37**(1) Every employer shall ensure that there are provided and maintained, for the use of workers, adequate and suitable facilities for personal washing, including a supply of clean hot and cold or warm water, soap and clean towels or other suitable means of cleaning or drying.
- (2) The facilities mentioned in subsection (1) must be:
 - (a) located in close proximity to toilets;
 - (b) provided with heat; and
 - (c) kept in a clean and orderly condition.

24 Apr 81 cO-1 Reg 1 s37.

Showers

38 Where conditions of work result in contamination of the workers to an extent that the director considers offensive or harmful, he may require the employer to provide suitable and adequate shower facilities and to allow sufficient time during normal working hours for the workers to use those facilities.

24 Apr 81 cO-1 Reg 1 s38.

Accomodation for clothing, etc.

- **39**(1) Every employer shall provide and maintain, for the use of workers, clean, appropriately located and suitable accommodation for street clothing not worn at work and, where that clothing is likely to become wet, dirty or contaminated, accommodation for that clothing shall be separate from the accommodation provided for clothing worn at work.
- (2) Where work clothing is likely to be contaminated by hazardous or offensive substances, the director may require the employer to provide clothing appropriate for the work and a suitable changing area and to provide for the safe handling and cleaning or disposal of the clothing.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}39.$

Eating area

- **40**(1) At every place of employment the employer shall ensure that sufficient, suitable areas are available in which workers may take food and drink during work-breaks and that those areas are kept clean, dry, reasonably quiet and thermally comfortable.
- (2) At places of employment where the substances used in work or the work processes are dusty or dirty or are otherwise likely to contaminate the worker's person, clothing or food, the employer shall provide an eating area separate from the work area and located near washing facilities.

24 Apr 81 cO-1 Reg 1 s40.

Wholesome drinking water

- **41**(1) Every employer shall provide, at suitable points conveniently accessible to all workers, an adequate supply of drinking water from a public main or from any other source approved by the appropriate health authority.
- (2) Every employer shall ensure that any supply of drinking water which is not piped is contained in suitable vessels and, where reasonably practicable, the water shall be renewed at least daily, and all practicable steps shall be taken to preserve the water and vessels from contamination.
- (3) The supply of drinking water shall, when necessary for identification, be clearly marked "Drinking Water".
- (4) Except where water is delivered in an upward jet for convenient drinking, the employer shall provide an adequate number of disposable cups.

24 Apr 81 cO-1 Reg 1 s41.

Ergonomic requirements

- **42**(1) Where workers have in the course of their work reasonable opportunities for sitting without detriment to their work, the employer shall provide and maintain for their use appropriate seating to enable them to sit.
- (2) Where a substantial portion of any work can properly be done sitting, the employer shall provide and maintain:
 - (a) a seat suitably designed, constructed, dimensioned and supported for the worker to do the work; and
 - (b) where needed, a footrest which can readily and comfortably support the feet.
- (3) The employer shall provide effective protection for any worker who may be at risk of injury from work that:
 - (a) takes place in a manner that imposes limitations on motion or action;
 - (b) is of a repetitive nature;
 - (c) requires constant and uninterrupted mental effort; or
 - (d) requires excessive or awkward physical effort.
- (4) The protection mentioned in subsection (3) may include:
 - (a) the provision of equipment or tools designed, constructed, positioned and maintained to reduce the harmful effects of the work;
 - (b) appropriate operating procedures to reduce the harmful effects of the work;
 - (c) limited work schedules with rest and recovery periods, changes in workloads or other arrangements for alternating work to reduce the harmful effects of the work; and

(d) any other appropriate measures.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}42;\,28~\mathrm{Oct}~88~\mathrm{SR}~90/88$ s⁷

Dry standing places

43 Where wet processes are used, the employer shall ensure that reasonable drainage is maintained and that false floors, platforms, mats or other dry standing places are provided, maintained and kept clean.

24 Apr 81 cO-1 Reg 1 s43.

Mechanical lifting equipment

- 44(1) Every employer shall ensure, so far as is reasonably practicable, that suitable mechanical equipment is provided and used for the handling of heavy or awkward loads.
- (2) Where the use of mechanical equipment is not reasonably practicable, the employer shall take all practicable means to adapt heavy or awkward loads to facilitate lifting, holding or transporting by workers or to otherwise minimize the manual handling required.

24 Apr 81 cO-1 Reg 1 s44.

Manual lifting limitation

45 No employer shall require a worker to engage in the manual lifting, holding or transporting of any load which by reason of its weight, size or shape, or by any combination of these, or by reason of the frequency, speed or manner in which it is undertaken, is likely to be injurious to the worker's health or safety.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}45.$

Training in safe lifting

46 Every employer shall ensure that any worker who is to engage in the lifting, holding or carrying of loads receives appropriate training in safe methods of lifting, holding or carrying of loads.

24 Apr 81 cO-1 Reg 1 s46.

General ventilation

47 Every employer shall make effective and suitable provision for securing and maintaining the circulation of an adequate supply of clean and wholesome air throughout the place of employment to ensure the adequate ventilation of the place of employment and, so far as is reasonably practicable, to render harmless and inoffensive any impurities in the air.

24 Apr 81 cO-1 Reg 1 s47.

Mechanical and local exhaust ventilation

- 48 Where, in a place of employment, any work or process gives off any dust, fume, gas, mist or vapour or other contaminant of a kind and quantity that is liable to be injurious to workers or gives off substantial quantities of contaminants of any kind, the employer shall ensure:
 - (a) the provision, maintenance and proper use of mechanical ventilation sufficient and suitable to protect the workers against inhalation of the contaminant and to prevent it accumulating in any work area;
 - (b) where practicable, that the ventilation includes local exhaust ventilation installed and maintained at or near the point of origin of the contaminant so as to prevent effectively the contaminant from entering the air of the work area;
 - (c) that the ventilation system is equipped with a device which will provide a warning to workers when the system is not working effectively; and
 - (d) that effective provision is made for the immediate protection of workers in the event of failure of the ventilation system.

24 Apr 81 cO-1 Reg 1 s48.

Contaminants to be exhausted clear

49 Contaminants removed pursuant to section 48 shall be exhausted clear of any work area and be prevented from entering any work area.

24 Apr 81 cO-1 Reg 1 s49.

Make-up air

50 The employer shall ensure that every ventilation system provides sufficient fresh and tempered air to replace the air exhausted by ventilation.

24 Apr 81 cO-1 Reg 1 s50.

Maintenance of ventilation systems

- **51** Every employer shall ensure that:
 - (a) all parts of a ventilation system are maintained;
 - (b) louvers are regularly cleaned; and
 - (c) ventilation openings are always free of any obstruction or source of contamination.

24 Apr 81 cO-1 Reg 1 s51.

PART VI First Aid and Emergency Arrangements

Interpretation of Part

- 52 In this Part:
 - (a) "class A qualification" means a certificate or certificates, issued by a competent authority, of successful completion of a first aid training course and a cardiopulmonary resuscitation training course that:
 - (i) meet the minimum requirements for course duration and content set forth in Table 1 of Part I of the Appendix; and
 - (ii) qualify the holder to perform the services set forth in Table 2 of Part I of the Appendix;
 - (b) "class B qualification" means a certificate or certificates, issued by a competent authority, of successful completion of a first aid training course and a cardiopulmonary resuscitation course that:
 - (i) meet the minimum requirements for course duration and content set forth in Table 3 of Part I of the Appendix; and
 - (ii) qualify the holder to perform the services set forth in Table 4 of Part I of the Appendix;
 - (c) "close," in relation to a place of employment or work site, means a place of employment or work site that requires not more than 30 minutes of travel time from a hospital or medical facility under normal travel conditions using the available means of transportation;
 - (d) "competent authority" means a body, person, association, society or any other organization that delivers first aid training courses by a competent instructor or instructors;
 - (e) "distant," in relation to a place of employment or work site, means a place of employment or work site that requires more than 30 minutes but less than 2 hours of travel time from a hospital or medical facility under normal travel conditions using the available means of transportation;
 - (f) **"emergency medical technician"** means a person who is licensed as an emergency medical technician pursuant to *The Ambulance Act*;
 - (g) "first aid" means immediate assistance given in case of injury until medical aid has been obtained;
 - (h) "first aid attendant" means the holder of a valid and subsisting:
 - (i) class A qualification;
 - (ii) class B qualification;
 - (iii) emergency medical technician's licence; or
 - (iv) licence, certificate or other qualification that, in the opinion of the director, is superior to one or more of those described in subclauses (i) to (iii);

- (i) "high-hazard work" means work regularly involving any activity listed in Table 5 of Part I of the Appendix;
- (j) "isolated," in relation to a place of employment or work site, means a place of employment or work site:
 - (i) that is more than 2 hours of travel time from a hospital or medical facility under normal travel conditions using the available means of surface transportation; or
 - (ii) for which transport by aircraft is the normal mode of transport;
- (k) "low-hazard work" means work of an administrative, professional or clerical nature that does not require substantial physical exertion or exposure to potentially hazardous conditions, work processes or substances;
- (l) "medical facility" means a medical clinic or the office of a practising physician.

28 Oct 88 SR 90/88 s8.

Application of Part

- **53** Sections 56 to 63 do not apply to:
 - (a) a close place of employment or work site where the work is entirely low-hazard work; or
 - (b) any hospital, medical facility or other health care facility where a physician or a registered nurse is always readily available.

28 Oct 88 SR 90/88 s8.

General requirements

- **54** The employer shall:
 - (a) ensure that provision is made for the prompt and effective administration of first aid, including the provision of competent personnel, supplies, equipment and facilities specified in this Part for each place of employment or work site:
 - (b) in consultation with the committee where one exists:
 - (i) review the provisions of this Part; and
 - (ii) if the provisions of this Part are not adequate to meet any specific hazard at a place of employment, provide additional suitable personnel, supplies, equipment and facilities that are appropriate for the hazard; and
 - (c) ensure that, where a worker may be entrapped or incapacitated in a situation that may be dangerous to any person involved in the rescue operation:
 - (i) an effective written procedure for the rescue of that worker is developed in advance; and

(ii) suitable personnel and rescue equipment are provided.

28 Oct 88 SR 90/88 s8.

Additional requirements

55 Where, in the opinion of the director, first aid and emergency arrangements at a place of employment or work site are inadequate, the director may, by notice in writing, require the employer to make additional provisions to meet the circumstances.

28 Oct 88 SR 90/88 s8.

First aid station

- **56**(1) The employer shall provide and maintain for every work site a readily accessible first aid station that contains:
 - (a) a first aid box containing the supplies and equipment set forth in Table 1 of Part II of the Appendix;
 - (b) a suitable first aid manual; and
 - (c) any other supplies or equipment required by these regulations.
- (2) Where there are not less than five workers at a distant or isolated work site, the employer shall provide and make readily accessible:
 - (a) two blankets;
 - (b) a stretcher; and
 - (c) a set of splints for the upper and lower extremities.
- (3) At every place of employment where a first aid attendant is required pursuant to section 58, the employer shall provide the additional first aid supplies set forth:
 - (a) in Table 2 of Part II of the Appendix where an attendant with a class A qualification is required; and
 - (b) in Table 3 of Part II of the Appendix where an attendant with a class B qualification or an emergency medical technician's licence is required.
- (4) The employer shall ensure that:
 - (a) all supplies and equipment required pursuant to this Part are protected and kept in a clean and dry state; and
 - (b) no supplies, equipment or other materials other than supplies and equipment for first aid are kept in the first aid box mentioned in clause (1)(a).
- (5) The employer shall ensure that:
 - (a) the location of each first aid station is clearly and conspicuously identified; and

- (b) at each first aid station, there is prominently displayed an appropriate emergency procedure that includes:
 - (i) an emergency telephone list or other instructions for reaching the nearest fire department, police, ambulance, physician and hospital services; and
 - (ii) any written rescue procedure required pursuant to clause 54(c).

28 Oct 88 SR 90/88 s8.

First aid kit, isolated workers

- 57 Where access to a first aid station or medical facility is not readily available, the employer shall provide a first aid kit containing, as a minimum, the supplies and equipment set forth in Table 4 of Part II of the Appendix to:
 - (a) any group of workers at an isolated work site; and
 - (b) any group of workers whom the employer transports at, to or from work.

28 Oct 88 SR 90/88 s8.

First aid attendants

- **58**(1) On and from November 1, 1990, every employer shall:
 - (a) where there are 10 or more workers working at a place of employment at any time, ensure that at least one first aid attendant possessing the credentials specified in subsection (2) is readily available and accessible at all times; and
 - (b) where there are 200 or more workers working at a place of employment at any time, ensure that at least two first aid attendants possessing the credentials specified in subsection (2) are readily available and accessible at all times.
- (2) Subject to subsection (3), a first aid attendant required pursuant to subsection (1) shall be:
 - (a) in the case of a close place of employment, the holder of a class A qualification or better;
 - (b) in the case of a distant place of employment where high hazard work is performed and there are:
 - (i) more than 40 but not more than 100 workers working at any one time, the holder of a class B qualification; and
 - (ii) more than 100 workers working at any one time, the holder of an emergency medical technician's licence;
 - (c) in the case of any distant place of employment other than one described in clause (b), the holder of a class A qualification;

- (d) in the case of an isolated place of employment where high-hazard work is being performed and there are:
 - (i) more than 20 but not more than 40 workers working at any one time, the holder of a class B qualification; and
 - (ii) more than 40 workers working at any one time, the holder of an emergency medical technician's licence;
- (e) in the case of an isolated place of employment where work other than low-hazard work or high-hazard work is performed and there are more than 40 workers working at any one time, the holder of a class B qualification;
- (f) in the case of any isolated place of employment other than one described in clause (d) or (e), the holder of a class A qualification.
- (3) A person who possesses credentials in first aid that are, in the opinion of the director, superior to the credentials prescribed in subsection (2) for a place of employment may serve as a first aid attendant at that place of employment.
- (4) On and from October 31, 1988 until October 31, 1990, every employer shall:
 - (a) take all reasonably practicable steps to implement the requirements of this section; and
 - (b) provide the highest degree of compliance with the requirements of this section that is possible.
- (5) No employer shall assign duties to a first aid attendant that will interfere with the prompt and adequate rendering of first aid by the attendant.

28 Oct 88 SR 90/88 s8.

Validity of certificates

- **59**(1) No certificate issued by a competent authority is valid for the purposes of this Part unless it specifies:
 - (a) the duration and content of the course for which the certificate is issued; and
 - (b) the date of issue.
- (2) A competent authority may specify:
 - (a) a period not exceeding three years for which a certificate is valid; and
 - (b) the conditions for the renewal of a certificate.
- (3) Any certificate that does not specify a period of validity is valid for a period of three years from the date of issue.
- (4) Where the director has reason to believe that a competent authority issuing a certificate for all or part of a class A qualification or class B qualification does not adequately deliver the training courses for that qualification, the director may for the purposes of these regulations, invalidate any certificate issued by that authority until he is satisfied that the training course is delivered adequately.

28 Oct 88 SR 90/88 s8.

Trained workers

60 Where:

- (a) five or more workers are working at any one time at:
 - (i) a work site where high-hazard work is performed; or
 - (ii) a distant or isolated work site;
- (b) rescue personnel are required to be provided at a work site pursuant to clause 131(2)(a); or
- (c) a worker works at a work site on exposed energized high voltage electrical conductors pursuant to clause 289(4)(b) or subsection 289(5);

the employer shall ensure that not less than one worker who is trained by a competent authority to provide artificial resuscitation, control hemorrhage and render any other life-saving first aid that is appropriate for the nature of the work performed at the work site is readily available at all times.

28 Oct 88 SR 90/88 s8.

First aid room

- **61** Where there are or are likely to be 100 or more workers at a distant or isolated place of employment at any one time, the employer shall:
 - (a) provide a suitable room for the purposes of administering first aid and medical examinations and providing rest to persons who are injured; and
 - (b) ensure that the room is:
 - (i) of adequate size, clean and provided with adequate lighting, heating, ventilation, hot and cold water and a permanently installed sink:
 - (ii) equipped with:
 - (A) the first aid supplies and equipment required pursuant to section 56; and
 - (B) a cot or bed equipped with moisture-protected mattress and pillows;
 - (iii) readily accessible to workers;
 - (iv) under the charge of a first aid attendant who is readily available for first aid duties; and
 - (v) used only for the purposes described in clause (a).

28 Oct 88 SR 90/88 s8.

Transportation of injured workers

- 62(1) The employer shall:
 - (a) ensure that:
 - (i) an ambulance service is available within 30 minutes of travel time from the ambulance base to the work site under normal travel conditions; or
 - (ii) a suitable means of transportation for injured workers is readily available; and
 - (b) provide a means of summoning the ambulance service or means of transportation mentioned in clause (a).
- (2) Where a stretcher is required to be provided pursuant to subsection 56(2), the employer shall ensure that a means of transportation made available pursuant to subclause (1)(a)(ii):
 - (a) is capable of adequately accommodating and restraining an occupied stretcher; and
 - (b) affords protection against the weather.
- (3) Where a worker:
 - (a) is seriously injured; or
 - (b) in the opinion of a first aid attendant, requires to be accompanied during transportation;

the employer shall ensure that the worker is accompanied by a competent person during transportation.

- (4) Where it is reasonably practicable to do so, the employer shall ensure that a means of transportation made available pursuant to subclause (1)(a)(ii) is equipped with:
 - (a) a flashing amber light for use during the rescue and loading of an injured worker; and
 - (b) a means of communicating effectively with workers at the scene of an accident and with the hospital to which the injured worker is being transported.

28 Oct 88 SR 90/88 s8.

First aid register

- 63 The employer shall ensure that:
 - (a) each first aid box or first aid room is provided with a first aid register;
 - (b) all particulars of:
 - (i) each first aid treatment administered to a worker while at work; and

- (ii) each case referred for medical attention;
- are recorded in the first aid register;
- (c) each first aid register is readily available for inspection by the committee, where one exists; and
- (d) each first aid register no longer in use is retained at the place of employment for a period of not less than five years from the date on which it ceased to be used.

28 Oct 88 SR 90/88 s8.

Additional requirements

64 Notwithstanding any other provision of this Part, where the employer provides lodging for workers at or near an isolated place of employment, the employer shall provide first aid services, supplies, equipment and facilities pursuant to this Part based on the total number of workers at or near the place of employment whether or not they are all working at any one time.

28 Oct 88 SR 90/88 s8.

More than one employer

- **64.1**(1) Where more than one employer has workers at the same place of employment:
 - (a) two or more of the employers may enter into a written agreement; or
 - (b) the director may, by notice in writing, require all of those employers;
- to collectively provide first aid attendants, supplies, equipment, facilities and transportation for injured workers, as required by this Part.
- (2) For the purposes of any provision in this Part in which requirements are determined by the number of workers of the employer, in any case where subsection (1) applies, the total number of workers of all employers at the place of employment is deemed to be the number of workers of the employer.

28 Oct 88 SR 90/88 s8.

PART VII Notification of Occupational Diseases

Notification by physicians

- 65 Every physician attending or called in to visit a worker suffering from or believed to be suffering from a disease related to the present or past employment of the worker and listed in Part III of the Appendix shall, without undue delay, inform the director of:
 - (a) the disease from which, in the opinion of the physician, the patient is suffering; and

(b) the name and address of the most recent place of employment of the patient, where exposure related to the disease is believed to have occurred.

 $24\;\mathrm{Apr}\;81\;\mathrm{cO}\text{-}1\;\mathrm{Reg}\;1\;\mathrm{s}65;\;21\;\mathrm{Mar}\;86\;\mathrm{SR}\;24/86\;\mathrm{s}8$

PART VIII

Chemical Substances, Biological Substances and Controlled Products

Interpretation of Part

- 66 In this Part:
 - (a) "bulk shipment" means a shipment of a controlled product that is contained without intermediate packaging in:
 - (i) a container with a water capacity of more than 454 litres;
 - (ii) a freight container, road vehicle, railway vehicle or portable tank, a freight container on a road vehicle, railway vehicle, ship or aircraft or a portable tank carried on a road vehicle, railway vehicle, ship or aircraft;
 - (iii) the hold of a ship; or
 - (iv) a pipeline;
 - (b) "container" includes a bag, barrel, bottle, box, can, cylinder, drum, storage tank or similar package or receptacle;
 - (c) "Controlled Products Regulations" means the Controlled Products Regulations made pursuant to the Hazardous Products Act (Canada);
 - (d) "fugitive emission" means a gas, liquid, solid, vapour, fume or dust that escapes from any process or emission control equipment or from a product;
 - (e) "hazard information" means information on the proper and safe use, storage and handling of a controlled product and includes information relating to its toxicological properties;
 - (f) "hazardous waste" means a controlled product that is intended for disposal or is sold for recycling or recovery;
 - (g) "laboratory sample" means a sample of a controlled product that is intended solely to be tested in a laboratory but does not include a controlled product that is to be used:
 - (i) by the laboratory for testing other products, materials or substances; or
 - (ii) for educational or demonstration purposes;

- (h) "manufactured article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent, in whole or in part, on its shape or design and that, under normal conditions of use, will not release or otherwise cause a person to be exposed to a controlled product;
- (i) "product identifier" means, with respect to a controlled product, the brand name, code name or code number specified by a supplier or the chemical name, common name, generic name or trade name;
- (j) "readily available" means present in an appropriate place in a physical copy form that can be handled;
- (k) "risk phrase" means, with respect to a controlled product or a class, division or sub-division of controlled products, a statement identifying a hazard that may arise from the nature of the controlled product or the class, division or sub-division of controlled products;
- (l) "supplier identifier" means, with respect to a controlled product, the name of the supplier of the controlled product;
- (m) "supplier label" means a label provided by a supplier disclosing the information and displaying the hazard symbols referred to in paragraph 13(b) of the *Hazardous Products Act* (Canada);
- (n) "supplier material safety data sheet" means a material safety data sheet provided by a supplier disclosing the information referred to in subparagraphs 13(a)(i) to (v) of the *Hazardous Products Act* (Canada);
- (o) "workplace label" means a legible label that discloses:
 - (i) a product identifier that is identical to that found on the material safety data sheet of the corresponding controlled product;
 - (ii) all necessary information for the safe handling of the controlled product; and
 - (iii) that a material safety data sheet, if supplied or produced, is available.

28 Oct 88 SR 90/88 s9.

General duties of employer

- 67 An employer shall, at a place of employment:
 - (a) keep under review the use or presence of any chemical substance or any biological substance that may be hazardous to the health or safety of any worker;
 - (b) insofar as is reasonably practicable, substitute a less hazardous chemical substance or biological substance for any hazardous chemical substance or biological substance used at the place of employment;

- (c) subject to subsection 78.5(4), insofar as is reasonably practicable, reduce any contamination of the place of employment by a chemical substance or biological substance;
- (d) design and implement procedures and processes that are as safe as is reasonably practicable for the handling, use, storage and production of chemical substances and biological substances;
- (e) where there is:
 - (i) any chemical substance or biological substance that may be harmful; or
 - (ii) any chemical substance or biological substance in combination or association with any other substance present that may be harmful;

take all practicable steps to prevent exposure of any worker to that substance to an extent likely to be harmful to that worker;

- (f) inform the worker of the nature and degree of the effects to his health or safety of any chemical substance or biological substance to which the worker is exposed in the course of his work; and
- (g) provide the worker with adequate instruction with respect to:
 - (i) proper and safe handling procedures for any substance mentioned in clause (f); and
 - (ii) the proper use of any personal protective equipment that may be necessary.

28 Oct 88 SR 90/88 s9.

Chemical substances to be listed

- **68**(1) An employer shall, in co-operation with the committee, if one exists, maintain a list of:
 - (a) all chemical substances and biological substances regularly used, handled or produced in the course of work processes that may be a hazard to the health and safety of workers; and
 - (b) any other chemical substances or biological substances that are of concern to the workers.
- (2) An employer shall:
 - (a) amend the list mentioned in subsection (1) whenever there is an addition or removal of a chemical substance or biological substance at the place of employment;
 - (b) submit a copy of each amendment to the committee; and
 - (c) keep a copy of the list at the place of employment and make it readily available to an inspector.

- (3) An employer shall identify on the list mentioned in subsection (1) every chemical substance or biological substance that is a controlled product.
- (4) Where a chemical substance or biological substance listed pursuant to subsection (1) is not a controlled product or is a controlled product that is excluded pursuant to subsection 69(1), the employer shall take all reasonable steps to:
 - (a) ascertain and record the hazards that might arise from the storage, handling or use of the substance;
 - (b) ascertain and record the precautions that need to be taken with respect to the substance to ensure the health and safety of any worker; and
 - (c) clearly mark the container holding the substance with the name of the substance as listed.
- (5) An employer shall ensure that a program of instruction is developed and implemented, in consultation with the committee if one exists, to inform each worker of the information mentioned in subsection (4).

28 Oct 88 SR 90/88 s9.

Certain products exempted

- **69**(1) The provisions of sections 70 to 78.4 with respect to a supplier label and a material safety data sheet do not apply to a controlled product that is:
 - (a) an explosive within the meaning of the *Explosives Act* (Canada);
 - (b) a cosmetic, device, drug or food within the meaning of the *Food and Drug Act* (Canada);
 - (c) a control product within the meaning of the *Pest Control Products Act* (Canada);
 - (d) a prescribed substance within the meaning of the *Atomic Energy Control Act* (Canada); or
 - (e) a product, material or substance packaged as a consumer product in a quantity normally used by the public.
- (2) The provisions of sections 70 to 78.4 do not apply to a controlled product that is:
 - (a) a wood or product made of wood;
 - (b) a tobacco or product made of tobacco;
 - (c) a manufactured article; or
 - (d) being transported or handled pursuant to *The Dangerous Goods Transportation Act* and the *Transportation of Dangerous Goods Act* (Canada).
- (3) Subject to subsection (4), the provisions of sections 70 to 78.4 do not apply to any hazardous waste.

(4) An employer shall ensure the safe storage and handling of hazardous waste generated at a place of employment through the combination of any mode of identification and worker instruction.

28 Oct 88 SR 90/88 s9.

Restriction on use of controlled products

- **70**(1) An employer shall ensure that a controlled product is not used, stored or handled in a place of employment unless all the applicable requirements of sections 71 to 78.4 with respect to labels, identifiers, material safety data sheets and worker instruction are complied with.
- (2) Notwithstanding subsection (1), an employer may store a controlled product in a place of employment while actively seeking information required pursuant to sections 71 to 78.4.

28 Oct 88 SR 90/88 s9.

Worker instruction

- **71**(1) An employer shall ensure that a worker who works with, or in proximity to, a controlled product is informed about:
 - (a) all hazard information received by the employer from a supplier concerning that controlled product; and
 - (b) any further hazard information of which the employer is aware or ought to be aware concerning the use, storage and handling of that controlled product.
- (2) Where a controlled product is produced in a place of employment, an employer shall ensure that a worker who works with, or in proximity to, that controlled product is informed about all hazard information of which the employer is aware, or ought to be aware, concerning the use, storage and handling of that controlled product.
- (3) An employer shall ensure that a worker who works with, or in proximity to, a controlled product is instructed in:
 - (a) the content required on a supplier label and workplace label for the controlled product and the purpose and significance of the information contained on those labels:
 - (b) the content required on a material safety data sheet for the controlled product and the purpose and significance of the information contained on the material safety data sheet;
 - (c) all necessary procedures for the safe use, storage, handling and disposal of the controlled product;
 - (d) all necessary procedures to be followed where fugitive emissions are present; and
 - (e) all necessary procedures to be followed in case of an emergency involving a controlled product.

- (4) An employer shall ensure that the instruction required by subsection (3) is developed and implemented:
 - (a) for that employer's place of employment; and
 - (b) in consultation with the committee, if one exists.
- (5) An employer shall ensure, so far as is reasonably practicable, that the instruction required by subsection (3) results in a worker being able to apply the information as needed to protect the health and safety of that worker or any other worker, as the case may require.
- (6) An employer shall, in consultation with the committee if one exists, review the instruction provided to workers concerning controlled products at least annually, or more frequently if there is a change in work conditions or available hazard information.

28 Oct 88 SR 90/88 s9.

Supplier label

- **72**(1) An employer shall ensure that the container of a controlled product or a controlled product that is received from a supplier at a place of employment is labelled with a supplier label.
- (2) Subject to section 5.3 of the Act, no employer shall remove, deface, modify or alter the supplier label on the container of a controlled product as long as any amount of the controlled product remains at the place of employment in the container in which it was received from the supplier.
- (3) Where a label applied to a controlled product or a container of a controlled product becomes illegible or is accidentally removed from the controlled product or container, the employer shall replace the label with either a supplier label or workplace label.
- (4) An employer who receives a controlled product in a multi-container shipment in which the individual containers have not been labelled by the supplier shall affix to each container a label that meets the requirements of the *Controlled Products Regulations*.
- (5) Where a controlled product imported pursuant to section 23 of the *Controlled Products Regulations* is received at a place of employment without a supplier label, the employer shall affix a label that meets the requirements of the *Controlled Products Regulations*.
- (6) An employer who receives a controlled product transported as a bulk shipment shall:
 - (a) affix a supplier label; or
 - (b) where, pursuant to section 15 of the *Controlled Products Regulations*, the supplier is not required to label a controlled product transported as a bulk shipment, affix a workplace label;

to the container of the controlled product or to the controlled product at the place of employment.

Workplace label for employer-produced products

- **73**(1) Subject to subsections (2) and (3), where a controlled product is produced at a place of employment, the employer shall ensure that a workplace label is applied to the controlled product or the container of the controlled product.
- (2) Subsection (1) does not apply to the production of fugitive emissions.
- (3) Subsection (1) does not apply to a controlled product in a container that:
 - (a) is intended to contain the controlled product for sale or disposition; and
 - (b) is or is about to be appropriately labelled within the normal course of business and without undue delay.

28 Oct 88 SR 90/88 s9.

Workplace label for decanted products

- **74**(1) Subject to subsection (2), where a controlled product at a place of employment is in a container other than the container in which it was received from a supplier, the employer shall ensure that a workplace label is applied to the container.
- (2) Subsection (1) does not apply to a portable container that is filled directly from a container that has a supplier label or workplace label applied to it if:
 - (a) the controlled product is:
 - (i) under the control of and used exclusively by the worker who filled the portable container; and
 - (ii) used only during the shift in which the portable container was filled;

and the content of the container is clearly identified; or

(b) all of the controlled product in the portable container is required for immediate use.

28 Oct 88 SR 90/88 s9.

$Identification \ of \ controlled \ products \ in \ piping \ systems \ and \ vessels$

- 75 Notwithstanding sections 72 to 74, where a controlled product in a place of employment is contained or transferred in or on:
 - (a) a pipe;
 - (b) a piping system including valves;
 - (c) a process vessel;
 - (d) a reaction vessel; or
 - (e) a tank car, tank truck, ore car, conveyor belt or similar conveyance;

the employer shall ensure the safe use, storage and handling of the controlled product through worker instruction and the use of colour coding, labels, placards or any other mode of identification.

Placard identifiers

- **76**(1) Notwithstanding sections 72 to 74, where a controlled product is:
 - (a) not in a container;
 - (b) in a container or form intended for export; or
 - (c) in a container that is intended to contain the controlled product for sale or disposition and the container is not yet labelled but is to be labelled pursuant to section 73;

the employer shall post a placard in accordance with subsection (2).

- (2) A placard required pursuant to subsection (1) shall:
 - (a) disclose the information required for a workplace label;
 - (b) be:
 - (i) of an appropriate size; and
 - (ii) placed in an appropriate location;

to make the information on it conspicuous and clearly legible to workers.

(3) An employer who complies with subsections (1) and (2) is deemed to have complied with sections 72 to 74.

28 Oct 88 SR 90/88 s9.

Laboratory and sample labels

- 77(1) Where a quantity of less than 10 kilograms of a controlled product packaged in a container originates from a laboratory supply house and is intended by the employer solely for use in a laboratory, a label supplied by the supplier and affixed to the container is deemed to be a supplier label for the purposes of section 72 if it discloses:
 - (a) a product identifier;
 - (b) where applicable, that a material safety data sheet is available; and
 - (c) all necessary risk phrases, precautionary measures and fist aid measures that are applicable to the product.
- (2) Where a sample of a product that is a controlled product or a product that a supplier or an employer has reason to believe may be a controlled product:
 - (a) is contained in a container that contains less than 10 kilograms of the product;
 - (b) is intended by the supplier or the employer solely for analysis, testing or evaluation in a laboratory; and
 - (c) is one with respect to which the supplier is exempted pursuant to section 9 of the *Controlled Products Regulations* from the requirement to provide a material safety data sheet;

a label provided by the supplier and affixed to the container received at the place of employment is deemed to be a supplier label for the purposes of section 72 if it meets the requirements of subsection (3).

- (3) A label mentioned in subsection (2) shall disclose:
 - (a) the product identifier;
 - (b) the chemical identity or generic chemical identity of any ingredient of the controlled product mentioned in any of subparagraphs 13(a)(i) to (v) of the *Hazardous Products Act* (Canada), if known to the supplier or the employer;
 - (c) the supplier identifier;
 - (d) the statement "Hazardous Laboratory Sample For hazard information or in an emergency call [number mentioned in clause (e)]";
 - (e) an emergency telephone number of the supplier that will enable:
 - (i) a user of the controlled product to obtain hazard information with respect to the controlled product; and
 - (ii) a physician or nurse to obtain, for the purpose of making a medical diagnosis of or rendering treatment to a person in an emergency, any information with respect to the controlled product that is mentioned in paragraph 13(a) of the *Hazardous Products Act* (Canada) and is in the possession of the supplier.
- (4) Where a controlled product mentioned in subsection (1) or (2) is:
 - (a) manufactured by the employer; or
 - (b) in the case of a controlled product received from a supplier, in a container other than the container in which it was received;

the employer is exempt from section 74 if he complies with subsection (5).

- (5) For the purposes of subsection (4), the employer shall:
 - (a) identify the controlled product through a combination of:
 - (i) any mode of identification visible to workers at the place of employment; and
 - (ii) worker instruction; and
 - (b) ensure that the mode of identification and worker instruction used enables the workers to readily identify and obtain either:
 - (i) the information required on a material safety data sheet or label; or
 - (ii) a document disclosing the information mentioned in clauses (3)(a) to (e) with respect to the controlled product or the sample.
- (6) Where a controlled product is produced in a laboratory, the employer is exempt from section 74 if:
 - (a) the controlled product is intended by the employer solely for evaluation, analysis or testing for research and development as defined in the *Controlled Products Regulations*;
 - (b) the controlled product is not removed from the laboratory;

- (c) the controlled product is clearly identified through a combination of:
 - (i) any mode of identification visible to workers at the place of employment; and
 - (ii) worker instruction; and
- (d) the employer ensures that the mode of identification and worker instruction used enables workers to readily identify the controlled product and obtain:
 - (i) the information required on a material safety data sheet, if one has been produced; or
 - (ii) any other information that is necessary for the safe use, storage and handling of the controlled product.

28 Oct 88 SR 90/88 s9.

Supplier material safety data sheets

- **78**(1) An employer who acquires a controlled product for use at a place of employment shall obtain a supplier material safety data sheet with respect to that controlled product.
- (2) Where a supplier material safety data sheet obtained pursuant to subsection (1) is more than three years old, the employer shall, if possible, obtain from the supplier an up-to-date supplier material safety data sheet with respect to that controlled product.
- (3) Where the employer is unable to obtain an up-to-date material safety data sheet pursuant to subsection (2), the employer shall add to the existing supplier material safety data sheet any new hazard information applicable to the controlled product on the basis of the ingredients disclosed in that material safety data sheet.
- (4) An employer may provide a material safety data sheet that is in a format different from the format provided by the supplier or that contains additional hazard information if the material safety data sheet provided by the employer:
 - (a) subject to section 78.3, contains no less information than the supplier material safety data sheet, or any lesser information that is acceptable to the committee if one exists; and
 - (b) the supplier material safety data sheet is available at the place of employment and the employer's material safety data sheet indicates that fact.
- (5) Where a supplier is exempted by section 9 or 10 of the *Controlled Products Regulations* from the requirement to provide a material safety data sheet for a controlled product, the employer is exempt from subsection (1).

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OCCUPATIONAL HEALTH AND SAFETY

Employer material safety data sheets

- **78.1**(1) Subject to section 78.3, where an employer produces a controlled product in the place of employment, the employer shall prepare a material safety data sheet with respect to that product that discloses the information required pursuant to the *Controlled Product Regulations*.
- (2) For purposes of subsection (1), "produces" does not include the production of a fugitive emission or intermediate products undergoing reaction within a reaction or process vessel.
- (3) An employer shall up-date the material safety data sheet mentioned in subsection (1):
 - (a) where new hazard information becomes available to the employer, as soon as is practical but not later than 90 days after the new information becomes available; and
 - (b) at least every three years.

28 Oct 88 SR 90/88 s9.

Availability of material safety data sheets

- **78.2**(1) An employer shall ensure that a copy of a material safety data sheet required pursuant to section 78 or 78.1 is made readily available:
 - (a) at a worksite to any worker who may be exposed to the controlled product; and
 - (b) to the committee, if one exists.
- (2) Where a controlled product is received at a laboratory and the supplier has provided a material safety data sheet, the employer shall ensure that a copy of the material safety data sheet is readily available to any worker in the laboratory.
- (3) Where a controlled product is received or produced at a laboratory and the employer has produced a material safety data sheet, the employer shall ensure that the material safety data sheet is readily available to any worker in the laboratory.
- (4) Notwithstanding subsection (1), a material safety data sheet may be made available on a computer terminal at a worksite if the employer:
 - (a) takes all reasonable steps to keep the terminal in active working order;
 - (b) makes the material safety data sheet readily available on the request of any worker; and
 - (c) provides training in accessing computer-stored material safety data sheets to:
 - (i) a worker working at a worksite where the material safety data sheet is available on the terminal; and
 - (ii) members of the committee, if one exists.

Omission from material data safety sheet

- **78.3** Where an employer claims an exemption pursuant to section 5.3 of the Act, the employer may:
 - (a) subject to any terms and conditions pursuant to that section; and
 - (b) pending the final determination of that claim;

omit from a material safety data sheet required pursuant to section 78 or 78.1 the information that is the subject of the claim but shall not omit any hazard information.

28 Oct 88 SR 90/88 s9.

Disclosure re claim for exemption, exemption granted

- **78.4**(1) An employer who claims an exemption from a requirement to disclose information pursuant to section 5.3 of the Act shall disclose:
 - (a) the date on which the claim for exemption was filed; and
 - (b) the registry number assigned to the claim pursuant to the *Hazardous Materials Information Review Act* (Canada);

on the material safety data sheet or label, as the case may require.

- (2) Where an employer receives notice of a decision that a claim or portion of a claim mentioned in subsection (1) is valid:
 - (a) subsection (1) continues to apply:
 - (i) if there is no appeal, for a period of 30 days after the expiry of the appeal period;
 - (ii) if there is an appeal, for a period of 30 days after the determination of the appeal; or
 - (iii) if there is a further appeal, until the final determination of that further appeal; and
 - (b) the employer shall, before the end of the period described in subclause (a)(i) or (ii) and throughout the period ending on the last day of the exemption period stated in the decision, disclose on the material safety data sheet or label, as the case may require:
 - (i) a statement that an exemption has been granted;
 - (ii) the date of the decision granting the exemption; and
 - (iii) the registry number assigned to the claim pursuant to the *Hazardous Materials Information Review Act* (Canada).

Conditions for use, manufacture and storage

- 78.5(1) The employer shall send to the director a written notice of any manufacture, use or storage, or any intended manufacture, use or storage, of any chemical substance or biological substance listed in Part IV of the Appendix.
- (2) No employer shall manufacture, use, store or distribute any substance listed in Part IV of the Appendix without the written permission of the director and subject to any conditions that he may specify.
- (3) Where workers are required to handle, use or produce any chemical substance or biological substance listed in Part V of the Appendix, the employer shall ensure that adequate engineering controls and suitable personal protective equipment are provided to prevent, as far as is practicable, the intake of the substance into the body.
- (4) Where any substance listed in Part VI of the Appendix is present in a place of employment, the employer shall ensure that the contamination limit stipulated in that Part is not exceeded in any area where workers are usually present.
- (5) Where the director is of the opinion that the use or presence of a chemical substance or biological substance at a place of employment is likely to be harmful to the health of any worker, he may inquire into the use or presence of the substance and may prohibit, restrict or modify the use or presence of the substance until the employer establishes to the satisfaction of the director that the use or presence of the substance will not be harmful to the health of any worker.

28 Oct 88 SR 90/88 s9.

Respiratory protective devices

78.6 The employer shall ensure that:

- (a) suitable and adequate, approved respiratory protective devices are provided for use by workers where the workers are likely to be exposed to dust, mist, fume, gas or vapour or any contaminant that may be present in any amounts that are harmful or offensive to the workers; and
- (b) a worker who may be required to wear a respiratory protective device is:
 - (i) informed of the dangers for which the device is provided and the limitations of the device; and
 - (ii) adequately instructed in the use and maintenance of the device.

28 Oct 88 SR 90/88 s9.

Emergency arrangements re asphyxia and poisoning

78.7(1) Where any worker is at risk of asphyxiation or poisoning that may cause a partial or total loss of physical control, the employer shall ensure that all practicable emergency arrangements are made for the rescue of the worker and for the prompt provision of antidotes, supportive measures, medical attention and any other measures appropriate to the nature and probable effects of the poisoning or asphyxia.

(2) The employer shall ensure that all incidents involving the poisoning or asphyxia of a worker are recorded in the first aid register required pursuant to section 63.

28 Oct 88 SR 90/88 s9.

Spills and leaks

- 78.8 Where there is a possibility of an accumulation, spill or leak of a chemical substance or biological substance that may be hazardous to the health or safety of any worker at a place of employment, the employer shall:
 - (a) in consultation with the committee if one exists, prepare an emergency procedure to be implemented in the event of an accumulation, spill or leak; and
 - (b) ensure that equipment and supplies are available for the prompt, safe and effective containment, de-activation and de-contamination of any accumulation, spill or leak.

28 Oct 88 SR 90/88 s9.

PART IX Noise

Interpretation

79 In this Part, "dBA" means the sound pressure level in decibels measured on the A. scale of a sound level meter.

24 Apr 81 cO-1 Reg 1 s79.

Noise reduction

80 At every place of employment, the employer shall ensure that all reasonably practicable means are used to reduce noise levels in all areas where workers may be required to work.

24 Apr 81 cO-1 Reg 1 s80.

Monitoring, etc., of noise levels

- 81 Every employer shall ensure at every place of employment:
 - (a) before the expiration of three months from the date these regulations come into force, in every area where workers are required to work and the noise level may frequently exceed 85 dBA, that the noise level is measured, and the sources of the noise are evaluated by a competent person in conjunction with the committee, if one exists, and that those findings are documented;
 - (b) where there is reason to believe that substantial changes in noise levels documented pursuant to clause (a) have occurred, that the noise level is measured, evaluated and documented in accordance with clause (a);

- (c) that the findings mentioned in clause (a) and (b) are considered by the employer in conjunction with the committee, if one exists, and, where in the opinion of the employer it is not reasonably practicable to reduce the noise or separate workers from the noise, that the reasons for his opinion are documented and readily available at the request of an inspector;
- (d) that any area in which measurements show noise levels in excess of 85 dBA is clearly marked by a sign indicating the range of noise levels measured; and
- (e) that in any area where the noise level may exceed 85 dBA, effective means are provided to protect workers from any harmful effects of the noise and that the means are documented so as to be readily available for any examination that the inspector may request.

24 Apr 81 cO-1 Reg 1 s81.

Opinion re abatement of noise levels

82 Where an inspector has reason to believe that an employer has not taken all reasonably practicable means to reduce noise levels which frequently exceed 85 dBA, the inspector may require the employer, within a specified period of time, to obtain a competent opinion with respect to means of abating the noise.

24 Apr 81 cO-1 Reg 1 s82.

Suitable ear protective devices

83 In the case of equipment used in temporary locations, on farms and in similar situations where compliance with section 81 is not reasonably practicable, the employer shall provide suitable ear protective devices for workers likely to be regularly exposed to noise levels in excess of 85 dBA.

24 Apr 81 cO-1 Reg 1 s83.

Selection of ear protective devices

84 Where ear protective devices are provided, the selection of the type of ear protection devices provided by the employer is a matter to be jointly decided by the employer and the committee or, where no committee exists, other representatives of the workers.

24 Apr 81 cO-1 Reg 1 s84.

Alternative ear protective devices

85 Where an inspector has reason to believe that the type of ear protective device provided by an employer is unsuitable for use by any worker, he may require the employer to provide an alternate type.

24 Apr 81 cO-1 Reg 1 s85.

Additional ear protective devices

86 Notwithstanding the other provisions of these regulations, every employer shall provide any additional ear protective device that the director may, in writing, specify in respect of a worker examined by that officer or on his behalf.

24 Apr 81 cO-1 Reg 1 s86.

Duty to wear ear protective device

87 Every worker shall, so far as is reasonably practicable, wear ear protective devices necessary to comply with this Part.

24 Apr 81 cO-1 Reg 1 s87.

Request for ear protective device

88 Every employer shall provide suitable ear protective devices at the request of any worker or group of workers regularly exposed to noise which, with the concurrence of an inspector, is considered irritating or annoying or to add to the risk of accident.

24 Apr 81 cO-1 Reg 1 s88.

Quality of ear protective device

89 Every ear protective device provided pursuant to these regulations shall reduce the noise level received into the ear to not more than 85 dBA.

24 Apr 81 cO-1 Reg 1 s89.

Fitting of ear protective device

90 Every employer shall ensure that any ear protective device which depends, for effectiveness, on close approximation of size or shape to the auditory canal is fitted to the worker by a competent person.

24 Apr 81 cO-1 Reg 1 s90.

PART X Silica Processes and Abrasive Blasting

Interpretation

91 In this Part:

- (a) "abrasive blasting" or "blasting" means the cleaning, smoothing, roughening or removing of part of the surface of any article by the use, as an abrasive, of a jet of sand, metal shot, grit or other material propelled by compressed air or steam or by a wheel;
- (b) "blasting chamber" means a blasting enclosure into which workers enter;
- (c) "blasting enclosure" means a chamber, barrel, cabinet or other similar enclosure designed for the purpose of blasting articles;

- (d) "cleaning of castings" means, where it is done as an incidental or supplemental process in connection with the making of metal castings, the freeing of the castings from adherent sand containing or other substance containing more than 5% uncombined silica, and includes the removal of cores and the general smoothing of the castings where such freeing is done, but does not include the freeing of castings from scale formed during annealing or heat treatment;
- (e) "sandblasting" means the process of projecting sand by means of compressed air or steam or by a wheel;
- (f) "silica flour" means the ground material produced by the milling of siliceous rocks or other siliceous substances including diatomite;
- (g) "silica process" means a silica process specified in section 92;
- (h) "uncombined silica" means silica which is not combined chemically with any other element or compound;
- (i) "use of a parting material" means the application of a material to a surface of a pattern or of a mould to facilitate the separation of the pattern from a mould or the separation of parts of the mould.

24 Apr 81 cO-1 Reg 1 s91.

Application of Part to silica processes

- **92** This Part applies where workers are employed in any of the following silica processes:
 - (a) sandblasting;
 - (b) the cleaning of castings;
 - (c) the blasting, grinding or dressing of any surface containing more than 5% uncombined silica, including the engraving or abrasive cleaning of gravestones, buildings or structures;
 - (d) the getting, cutting, splitting, crushing, grinding, milling, drilling, sieving or other mechanical manipulation of gravel or other siliceous stone or rock containing more than 5% uncombined silica;
 - (e) any process in which silica flour is used;
 - (f) the manufacture of silica-containing bricks and the dismantling or repair of silica-containing, refractory linings of furnaces;
 - (g) any process which the director has reason to believe creates a risk to the health of workers by silica dust.

24 Apr 81 cO-1 Reg 1 s92.

Control of silica dust

- 93 Every employer shall ensure that where any silica process is carried on, except abrasive blasting, the entry of dust into the air is prevented, so far as is practicable, by the provision of:
 - (a) total or partial enclosure of the process;
 - (b) efficient, local exhaust ventilation;
 - (c) jets or sprays of water or other suitable wetting agent; or
 - (d) any other method that the director considers suitable.

24 Apr 81 cO-1 Reg 1 s93.

Maintenance of exhaust ventilation apparatus

- **94** Every employer shall ensure that:
 - (a) enclosure apparatus and exhaust-ventilation equipment provided pursuant to section 93 is:
 - (i) maintained;
 - (ii) inspected daily when in use; and
 - (iii) certified by a competent person at least once each year; and
 - (b) no air discharged from any ventilation system provided pursuant to section 93 is recirculated in the place of employment unless it is passed through an effective dust removal system, approved by the director, equipped with a device that will provide a warning to workers when the system is not working effectively.

24 Apr 81 cO-1 Reg 1 s94.

Workers to be isolated from silica contamination

95 Where it is not practicable to prevent the entry into the air of dust from a silica process, the employer shall, where it is practicable, provide for the isolation of workers from the air containing the dust.

24 Apr 81 cO-1 Reg 1 s95.

Protective equipment

- **96**(1) Where the protective measures prescribed in sections 93 and 95 are not practicable and, in the case of all cleaning and maintenance work, the employer shall provide for use by each worker who may be exposed to dust from a silica process:
 - (a) approved respiratory protective equipment; and
 - (b) protective coveralls and headgear, which will when worn exclude the dust, and maintain and clean that protective clothing in a safe manner.

(2) No employer shall permit a worker to perform work for which respiratory protective equipment and clothing is provided unless the worker is fully instructed in the need for and proper use of that equipment and clothing.

24 Apr 81 cO-1 Reg 1 s96.

Regular cleaning

97 Every employer shall ensure that all work areas where dust from a silica process may accumulate are regularly cleaned using vacuum methods or, where vacuum methods are not practicable, wet methods.

24 Apr 81 cO-1 Reg 1 s97.

Prohibition re silica flour

- 98 Every employer shall ensure that no silica flour is used:
 - (a) for any purpose for which a less hazardous substance may be substituted; and
 - (b) in the manufacture of scouring powder or abrasive soaps or as an abrasive in any process.

24 Apr 81 cO-1 Reg 1 s98.

Warning of risk of danger to health

99 Every employer shall warn every worker, who in the course of his employment is likely to be engaged in a silica process, of the dangers to health from the inhalation of dust containing silica.

24 Apr 81 cO-1 Reg 1 s99.

Prohibition re minors

- 100 No minor shall be employed:
 - (a) in a silica process; or
 - (b) in any cleaning or maintenance work likely to involve exposure to dust from a silica process;

except where that work is conducted under close and competent supervision.

24 Apr 81 cO-1 Reg 1 s100.

Abrasive blasting

- 101 Every employer shall ensure:
 - (a) so far as is practicable, that no blasting of articles that are likely to give rise to dust containing uncombined silica is done other than in a blasting enclosure;
 - (b) that no sand or other substance containing more than 1% by weight of uncombined silica is used for blasting in any blasting enclosure; and

- (c) that no work is performed in a blasting enclosure except:
 - (i) blasting and work immediately incidental to blasting; and
 - (ii) cleaning and repairing of the enclosure and of the plant and appliances situated in the enclosure.

24 Apr 81 cO-1 Reg 1 s101.

Blasting enclosures

- 102 Every employer shall ensure that every prescribed blasting enclosure is:
 - (a) constructed, operated and maintained to prevent the escape of dust;
 - (b) provided with an efficient, dust-extraction system, which is kept in continuous operation whenever the blasting enclosure is in use, whether or not blasting is actually taking place, and, in the case of a blasting chamber, is in operation when any worker is inside the chamber; and
 - (c) provided with efficient apparatus for separating the abrasive from the dust, so far as is practicable, and that the abrasive is not reintroduced into the blasting apparatus until it has been so separated.
- (2) Every employer shall ensure that:
 - (a) every prescribed blasting enclosure is inspected daily when in use for blasting;
 - (b) the enclosure, the apparatus connected with it and the ventilating plant associated with it are thoroughly examined and tested once each month by a competent person who shall record the results of those examinations and tests; and
 - (c) all defects identified pursuant to this section are remedied immediately.

24 Apr 81 cO-1 Reg 1 s102.

Sandblasting

- 103 Every employer shall ensure that no sandblasting is done:
 - (a) outside a blasting enclosure, to any article which it is reasonably practicable to introduce into a blasting enclosure; and
 - (b) inside any building, structure or confined space, without the written permission of the inspector and in accordance with any conditions and to any extent that he may specify.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}103.$

Registration for sandblasting

104 Every employer of workers who engage in sandblasting and every selfemployed sandblaster shall register annually with the department.

 $24 \; \mathrm{Apr} \; 81 \; \mathrm{cO}\text{-}1 \; \mathrm{Reg} \; 1 \; \mathrm{s}104.$

Protective equipment

105(1) Every employer shall provide and maintain:

- (a) for workers exposed to abrasive materials during blasting operations, approved abrasive blasting hoods supplied with air of a volume of not less than 170 litres per minute at a pressure of not more than 140 kilopascals which is clean and at a reasonable temperature; and
- (b) for all workers who may be exposed to dust resulting from a blasting operation, suitable respirators approved for protection against silica.
- (2) Every employer shall provide suitable gauntlets and coveralls for the use of workers:
 - (a) while performing blasting; or
 - (b) when necessary to protect the workers against abrasive materials or dust from blasting operations;

and provide for the storage, regular cleaning by vacuum and maintenance of those gauntlets and coveralls.

(3) Every employer shall ensure that all practicable measures are taken to prevent the inhalation of silica dust or its dissemination into the air of the place of employment during the cleaning or maintenance of any blasting apparatus or enclosure, ventilating or separating plant, and its surroundings.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}105.$

Medical examinations

- **106**(1) Any worker regularly employed in a silica process is entitled, upon request to the employer, to be medically examined once each year.
- (2) Within one month after the day a request is received pursuant to subsection (1), the employer shall arrange for and pay the full cost of the medical examination, which must include:
 - (a) a comprehensive physical examination with special attention to the lungs;
 - (b) lung-function tests including forced vital capacity and forced expiratory volume at one second; and
 - (c) any further medical procedures that are necessary for the diagnosis of a silica-related disease.
- (3) The findings of the medical examination described in subsection (2) shall be given by the physician to the worker and, upon the request of the worker, to a designated physician, but shall otherwise be kept by the examining physician in confidence except:
 - (a) with respect to the chief occupational medical officer;
 - (b) where otherwise required by law; or
 - (c) with the informed consent of the worker.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}106.$

PART XI Asbestos

Interpretation

107 In this Part:

- (a) "asbestos" means crocidolite, amosite, chrysotile, fibrous anthophyllite or any mixture containing any of these minerals;
- (b) "asbestos dust" means dust consisting of or containing asbestos fibers;
- (c) "asbestos process" means any handling of materials containing asbestos and includes:
 - (i) the sawing, cutting, sanding or spraying of asbestos-containing materials;
 - (ii) the repair or maintenance of asbestos surfaces;
 - (iii) the cleaning or disposal of asbestos materials;
 - (iv) the mixing or application of asbestos shorts, cements, grouts, putties or similar compounds;
 - (v) the storing or conveyance of materials containing asbestos; and
 - (vi) the demolition of buildings or structures containing asbestos;
- (d) "crocidolite" means crocidolite or any mixture containing crocidolite.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}107.$

Application of Part

108 This Part applies wherever asbestos dust is likely to be released into the atmosphere where workers work.

24 Apr 81 cO-1 Reg 1 s108.

Crocidolite prohibited

109 No crocidolite shall be used in any asbestos process.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}109.$

Asbestos spraying prohibited

110 The spraying of insulation materials containing asbestos is prohibited.

 $24 \; \mathrm{Apr} \; 81 \; \mathrm{cO}\text{-}1 \; \mathrm{Reg} \; 1 \; \mathrm{s}110.$

Asbestos processes exhaust

- 111 Every employer shall, where it is practicable, ensure that:
 - (a) no asbestos process is carried out without exhaust ventilation which prevents, so far as is practicable, the dispersal into the air of asbestos dust; and

(b) exhaust ventilation equipment used or likely to be used regularly to contain asbestos dust is maintained and inspected at least once each week and is certified by a competent person at least once each year.

24 Apr 81 cO-1 Reg 1 s111.

Protective clothing and equipment

- 112(1) Where it is not practicable to comply with section 111, the employer shall ensure that each worker who may be exposed to asbestos dust is provided with and uses:
 - (a) approved respiratory protective equipment;
 - (b) protective coveralls and headgear which, when worn, will exclude asbestos dust, and that protective clothing shall be disposed of after use or shall be kept, maintained and cleaned in a safe manner by the employer each time it is used.
- (2) No employer shall permit or require a worker to perform work for which protective equipment is provided unless the worker has been fully instructed in the proper use of that equipment.

24 Apr 81 cO-1 Reg 1 s112.

Cleaning of asbestos wastes

- 113 Every employer shall ensure that:
 - (a) asbestos waste or dust produced in any place of employment is cleaned away promptly and at least once each day by vacuum cleaning equipment to prevent the escape of asbestos dust into the air or, where vacuum cleaning is not practicable, by wet method;
 - (b) no loose asbestos or asbestos waste is kept or conveyed within or out of a place of employment except in impervious, closed receptacles labelled clearly "ASBESTOS"; and
 - (c) every worker engaged in the cleaning of asbestos waste or dust is provided with and wears personal protective equipment as required by section 112.

 $24 \; \mathrm{Apr} \; 81 \; \mathrm{cO}\text{-}1 \; \mathrm{Reg} \; 1 \; \mathrm{s}113.$

Maintenance of asbestos surfaces

- **114**(1) Every employer shall ensure that:
 - (a) every asbestos surface is kept in good condition and any repairs or sealing necessary to prevent the breaking-off of asbestos or the release of asbestos dust is done immediately;
 - (b) no asbestos surface is disturbed for the purpose of maintenance, replacement, removal or repair until it is thoroughly wetted throughout its entire thickness;

- (c) where it is not practicable to comply with clause (b), the asbestos surface is kept wet as it is being disturbed or effective means are used to capture, at source, any dust created by the disturbance.
- (2) In respect of any asbestos process including replacement, maintenance, removal or repair work to an asbestos surface, the employer shall ensure that:
 - (a) the area is screened off or otherwise enclosed, so far as is practicable, to prevent the escape of asbestos dust to any other part of the place of employment and that a warning notice is prominently displayed indicating that asbestos work is in progress; and
 - (b) asbestos materials removed are placed in impervious receptacles, sealed and labelled clearly "ASBESTOS".

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}114.$

Warning to workers of hazards

- 115 Every employer shall ensure that all persons who, in the course of their employment, are likely to be engaged in an asbestos process or are otherwise liable to be exposed to asbestos dust are warned:
 - (a) of the dangers of admitting asbestos into the body in causing pneumoconiosis, lung cancer and mesothelioma; and
 - (b) that the risk of injury to health is increased by smoking.

24 Apr 81 cO-1 Reg 1 s115.

Prohibition re minors

116 No employer shall permit a minor to work in any place where asbestos dust is likely to be released into the atmosphere except when that work is performed under close and competent supervision.

24 Apr 81 cO-1 Reg 1 s116.

Warning labels on asbestos materials

117 At every place of employment, the employer shall ensure that any substance containing asbestos is clearly and prominently labelled "ASBESTOS", and that label must contain a warning of the danger to health from taking asbestos fibers into the body.

 $24~\mathrm{Apr}~81~\mathrm{cO}\text{-}1~\mathrm{Reg}~1~\mathrm{s}117.$

Disposal of asbestos wastes

118 Every employer shall ensure that any workers engaged in the disposal of asbestos wastes are adequately instructed in the safe means of handling those wastes and of their proper disposal in a manner that will not create a hazard to workers at the disposal site.

24 Apr 81 cO-1 Reg 1 s118.

Medical examinations

- 119(1) Any worker regularly employed in an asbestos process is entitled, upon request to the employer, to be medically examined once in each year.
- (2) Within one month after the day a request is received pursuant to subsection (1), the employer shall arrange for and pay the full cost of the medical examination, which must include:
 - (a) a comprehensive physical examination with special attention to the lungs;
 - (b) lung-function tests including forced vital capacity and forced expiratory volume at one second; and
 - (c) any further medical procedures that are necessary for the diagnosis of an asbestos-related disease.
- (3) The findings of the medical examination described in subsection (2) shall be given by the physician to the worker and, upon the request of the worker, to a designated physician, but shall otherwise be kept by the examining physician in confidence except:
 - (a) with respect to the chief occupational medical officer:
 - (b) where otherwise required by law; or
 - (c) with the informed consent of the worker.

24 Apr 81 cO-1 Reg 1 s119.

PART XII

Prohibition re employment

- **120**(1) Every employer shall ensure that no person under the age of 16 years is employed or permitted to work:
 - (a) at or about any construction site, work of engineering construction, trench or excavation:
 - (b) at any pulp mill, saw mill or woodworking establishment;
 - (c) in the vicinity of industrial processes at any factory;
 - (d) in any silo, storage bin, vat, hopper, tunnel, shaft, sewer or other confined space;
 - (e) on the cutting line of any packing plant or the evisceration line of any poultry plant;
 - (f) in any forestry or logging operation;
 - (g) on any drilling or servicing rig;
 - (h) as an operator of any heavy, mobile equipment, any crane or other heavy, hoisting equipment; or

- (i) as an operator of a forklift truck or similar mobile equipment within a place of employment or in the vicinity of other workers.
- (2) Every employer shall ensure that no minor is employed:
 - (a) underground or at the open-pit face of any mine;
 - (b) as a radiation worker; or
 - (c) in any activity for which respiratory protective equipment is required by any regulations made under the Act, except where that work is performed under close and competent supervision.

24 Apr 81 cO-1 Reg 1 s120.

PART XIII Notification of Accidents and Dangerous Occurrences

Fatal accidents

- **121**(1) Where an accident that causes the death of a worker occurs at or about his place of employment, his employer shall ensure that an inspector is notified about the death as soon as is reasonably possible.
- (2) Unless expressly authorized by statute or pursuant to subsection (3), no person shall, except for the purpose of saving life or relieving human suffering, interfere with, destroy, carry away or alter the position of any wreckage, article, document or thing at the scene of or connected with an accident described in subsection (1) until an inspector has completed an investigation of the circumstances surrounding the accident.
- (3) When an accident described in subsection (1) has occurred and an inspector has not been able to complete an investigation of the circumstances surrounding the accident, an inspector may, unless prohibited by statute, grant permission to move the wreckage, articles and things at the scene or connected with the accident to any extent that may be necessary to allow the work to proceed, if:
 - (a) photographs or drawings showing details at the scene of the accident are made before he grants such permission; and
 - (b) the co-chairpersons of any committee for the place of employment at which the accident occurred or their designates have inspected the site of the accident and agreed that the wreckage, article or thing may be moved.

21 Mar 86 SR 24/86 s12.

Serious injuries

- 122(1) In this section, "serious bodily injury" means any injury likely to endanger life or cause permanent impairment and includes:
 - (a) a fracture of the skull, spine, pelvis, femur, humerus, fibula, tibia, radius or ulna;
 - (b) an amputation of a major part of a hand or foot;

- (c) the permanent loss of the sight of an eye;
- (d) any serious internal hemorrhage;
- (e) any burn that is caused by electricity and requires medical attention;
- (f) any third degree burn;
- (g) any injury caused directly or indirectly by explosives; and
- (h) any asphyxiation or poisoning that causes a partial or total loss of physical control.
- (2) An employer shall:
 - (a) notify the branch as soon as possible during the branch's normal working hours of the time, place and nature of any accident occurring at or about a place of employment that causes serious bodily injury; and
 - (b) if required by the director, provide a written report about the accident as soon as is reasonably practicable.

21 Mar 86 SR 24/86 s12.

Dangerous occurences

123(1) In this section, "dangerous occurrence" includes:

- (a) the structural failure of a building, structure, temporary falsework or concrete formwork;
- (b) the overturning or major failure of a crane or similar hoisting device;
- (c) contact with an uninsulated electrical conductor by hoisting or excavating equipment, by any vehicle or by any load associated with that equipment or vehicle;
- (d) the structural failure of all or part of temporary or permanent supports for an excavated shaft, tunnel, caisson, coffer dam, trench or excavation;
- (e) the bursting of a grindstone or grinding wheel;
- (f) an uncontrolled spill or escape of a toxic, corrosive or explosive substance that has or may have seriously affected the health and safety of workers;
- (g) any premature detonation or uncontrolled use of explosives; and
- (h) the failure of a support system of any suspended platform.
- (2) An employer shall:
 - (a) immediately notify the branch during the branch's normal working hours of any dangerous occurrence that takes place at or about a place of employment, whether or not a worker sustains injury; and
 - (b) if required by the director, provide a written report about the dangerous occurrence as soon as is reasonably practicable.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s10.

Workers working alone

124 An employer shall use, at intervals that are reasonably practicable under the circumstances, a method of checking on the well-being of a worker who is working alone under conditions that may give rise to a danger to the worker.

21 Mar 86 SR 24/86 s12.

Statistics

125 An employer shall, not later than March 31 in each year, provide to the department or any other agency that may be designated by the minister a report setting out details of all person-hours worked and all time lost because of accidents during the preceding year.

21 Mar 86 SR 24/86 s12.

PART XIV General Safety Provisions

Form of required approvals

- **126**(1) An employer shall ensure that equipment that is required by these regulations to be approved by a named organization has the seal, stamp, logo or similar identifying mark of that organization affixed to it to indicate that approval.
- (2) Any certification by a professional engineer required by these regulations is to be in writing and bear the official stamp or seal of the engineer.

21 Mar 86 SR 24/86 s12.

Maintenance of equipment

- **127**(1) A worker who has equipment under his control that he knows or has reason to believe is not in a safe condition shall immediately:
 - (a) if he is authorized and able to do so, repair it; or
 - (b) report the condition of the equipment to his employer.
- (2) An employer who receives a report of an equipment defect that, if uncorrected, could create a danger to workers or who becomes aware of such an equipment defect shall take immediate steps to protect the workers from that danger.

21 Mar 86 SR 24/86 s12.

Signals

- **128**(1) When these regulations require the giving of signals by a designated signaller, an employer shall:
 - (a) designate a worker who has had sufficient training and experience to be able to give and receive signals safely to give those signals;
 - (b) keep a record of the training mentioned in clause (a); and
 - (c) give a copy of the record mentioned in clause (b) to the worker.

- (2) When these regulations require the giving of signals by a designated signaller, no worker other than the designated signaller shall give signals to an operator except in an emergency.
- (3) An employer shall ensure that:
 - (a) subject to clause (c), only one designated signaller gives signals to an operator at a time;
 - (b) if hand signals are used, the designated signaller is provided with a high visibility vest, armlets or other means of clearly identifying him; and
 - (c) if hand signals cannot be transmitted properly between a designated signaller and an operator, additional designated signallers are available to effect proper transmission of signals or some other means of communicating is provided.
- (4) A designated signaller shall ensure that it is safe to proceed with a movement before he signals for that movement to proceed.

21 Mar 86 SR 24/86 s12.

Protection from traffic on public highway

- 129(1) Where there is a danger to any worker from vehiclar traffic on a public highway, the employer shall institute a traffic control scheme to ensure that the worker is adequately protected from traffic hazards by the use of one or more of the following:
 - (a) approved warning signs;
 - (b) approved barriers;
 - (c) approved lane control devices;
 - (d) flashing lights;
 - (e) flares;
 - (f) appropriately identified pilot vehicles;
 - (g) automatic or remote-controlled traffic control systems;
 - (h) designated signallers directing traffic;
 - (i) training and instructions to workers;
 - (j) provision, where practical, of written procedures.
- (2) Where, in the opinion of an inspector, the measures contained in a traffic control scheme instituted pursuant to subsection (1) are inadequate to protect workers:
 - (a) the inspector may require the employer to include in the traffic control scheme any additional measures that the inspector considers necessary; and
 - (b) the employer shall implement the additional measures required by the inspector pursuant to clause (a).

- (3) The employer shall use designated signallers to control traffic on a public highway only where other methods of traffic control are not adequate or suitable.
- (4) Where designated signallers are used to control traffic on a public highway, the employer shall provide:
 - (a) at least one designated signaller if:
 - (i) traffic approaches from one direction only; or
 - (ii) traffic approaches from both directions and the designated signaller and the operator of any approaching vehicle would be clearly visible to one another; and
 - (b) at least two designated signallers if traffic approaches from both directions and the designated signaller and the operator of any approaching vehicle would not be clearly visible to one another.

28 Oct 88 SR 90/88 s11.

Designated signallers

129.1(1) The employer shall ensure that:

- (a) where two or more designated signallers are used, they are able to communicate effectively with each other;
- (b) each designated signaller is sufficiently trained to carry out his duties in a manner that will ensure his safety and the safety of any other workers;
- (c) a suitable light is provided for each designated signaller to signal with during hours of darkness and in conditions of poor visibility; and
- (d) suitably placed approved signs to warn traffic of the presence of a designated signaller are installed before the signaller commences his duties.
- (2) The employer shall:
 - (a) provide each designated signaller and each other worker at risk from vehicular traffic, whether on a public highway or at any other place of employment, with a high visibility vest, armlets or other high visibility clothing; and
 - (b) require each designated signaller and worker mentioned in clause (a) to wear the vest, armlets or clothing provided pursuant to that clause.

 $28 \; {\rm Oct} \; 88 \; {\rm SR} \; 90/88 \; {\rm s}11.$

Protection from traffic not on public highway

- **129.2**(1) Where there is or may be a hazard to any worker from traffic at a place of employment other than a public highway, the employer shall institute a traffic control scheme in accordance with this section to ensure that the worker is adequately protected.
- (2) A traffic control scheme required pursuant to subsection (1) shall:
 - (a) be in writing;

- (b) be made readily available to any worker at the place of employment; and
- (c) prescribe, where appropriate:
 - (i) the maximum allowable speed of any vehicle or class of vehicles, including powered mobile equipment, in use at the place of employment;
 - (ii) maximum operating grades;
 - (iii) the location and nature of control signs;
 - (iv) the route to be taken by any vehicle or mobile equipment;
 - (v) the priority to be established for any class of vehicle;
 - (vi) the location and nature of any barrier or restricted area; and
 - (vii) the duties of workers and the employer.
- (3) Where, in the opinion of an inspector, the measures contained in a traffic control scheme instituted pursuant to subsection (1) are inadequate to protect workers:
 - (a) the inspector may require the employer to include in the traffic control scheme any additional measures that the inspector considers necessary; and
 - (b) the employer shall implement the additional measures required by the inspector pursuant to clause (a).
- (4) Where more than one employer operate vehicles at a place of employment:
 - (a) the employer who has control of the place of employment shall institute the traffic control scheme required pursuant to subsection (1); and
 - (b) every other employer and worker at the place of employment shall comply with the requirements of the traffic control scheme mentioned in clause (a).
- (5) Where no employer has charge of a place of employment at which more than one employer operate vehicles:
 - (a) all employers at the place of employment shall institute the traffic control scheme required pursuant to subsection (1); and
 - (b) every worker at the place of employment shall comply with the requirements of the traffic control scheme mentioned in clause (a).
- (6) Where, in the opinion of an inspector, a traffic control scheme instituted pursuant to subsection (4) or (5) is not adequate to protect workers:
 - (a) the inspector may require any or all of the employers to take any actions or precautions that the inspector considers necessary for the safety of any worker at the place of employment; and
 - (b) each employer shall take any actions or precautions that he is required by an inspector to take pursuant to clause (a).

(7) A worker who operates a vehicle at a place of employment and does not have a clear view of the path to be travelled shall not proceed until he receives a signal from a person who has a clear view of the path to be travelled by the vehicle.

28 Oct 88 SR 90/88 s11.

Exceptions

129.3(1) If any provision of sections 129 to 129.2 conflicts with any provision of *The Highway Traffic Act, The Highways and Transportation Act* or *The Vehicle Administration Act* or a regulation made pursuant to any of those Acts or any bylaw of a municipality made pursuant to *The Urban Municipality Act, 1984, The Rural Municipality Act* or *The Northern Municipalities Act*, the provision of the other statute, regulation or bylaw prevails.

(2) Nothing in sections 129 to 129.2 applies to a peace officer in the performance of his duties.

28 Oct 88 SR 90/88 s11.

Protection against falls

130(1) An employer shall ensure that a worker who may fall is protected by:

- (a) the installation of a guard-rail;
- (b) the installation of a safety net; or
- (c) the installation and use by a worker of:
 - (i) a fall-arresting device;
 - (ii) a lifeline, lanyard and safety belt; or
 - (iii) an alternative means of protection acceptable to the director.
- (2) Subsection (1) only applies in situations in which it is possible for a worker to fall:
 - (a) a vertical distance of more than:
 - (i) three metres, in the case of a temporary installation; or
 - (ii) 1.2 metres in the case of a permanent installation;
 - (b) into any substance or material; or
 - (c) on any operating machinery.
- (3) Subsection (1) does not apply to:
 - (a) situations otherwise specifically provided for in these regulations;
 - (b) workers engaged in the application of roofing materials or repairs to a roof, if the slope of the roof is less than one to four and all the workers are experienced in, and have received instructions in the hazards of, that work; or

(c) workers who are engaged in connecting the structural members of a skeletal steel structure or a pre-cast structure and who are experienced in that work.

21 Mar 86 SR 24/86 s12.

Protection from drowning

131(1) In this section:

- (a) "buoyant apparatus" means a device which is capable of supporting the weight in the water of any worker who may use it and which is constructed so that it:
 - (i) is stable when floating on either side;
 - (ii) has no projections that would prevent it from sliding easily over the side of a boat or ship; and
 - (iii) requires no adjustment before it is used;
- (b) "life jacket" means approved personal protective equipment capable of supporting a person with the head above water in a face-up position without the direct effort of the person wearing it.
- (2) The employer of any worker who is required to work at a place from which he could fall and drown and that is not guarded by a guard-rail shall ensure that:
 - (a) the worker is provided with a life jacket and is required to wear it and that provided at the worksite are rescue personnel and equipment consisting of:
 - (i) a suitable boat equipped with a boat hook that is available at all times for rescue purposes;
 - (ii) a buoyant apparatus attached to a nylon rope that is not less than nine millimetres in diameter and not less than 15 metres in length; and
 - (iii) a sufficient number of workers who are available at all times to implement rescue procedures and are properly equipped and instructed in those procedures;
 - (b) the worker is provided with a safety belt and lifeline and is required to wear it; or
 - (c) a net is installed capable of safely catching the worker should he fall.
- (3) An employer shall ensure that a life jacket is provided for each worker who is transported by boat and that each worker wears the life jacket at all times when he is in the boat.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s12.

Working on ice

- 132(1) Before a worker is required or permitted to work or travel on ice over water that is likely to be more than one metre deep, the employer shall ascertain by making suitable tests that the ice will support any load which he may cause to be placed on it.
- (2) Subsection (1) does not apply to winter roads built and maintained by the Department of Highways and Transportation.

21 Mar 86 SR 24/86 s12.

Emergency communications

133 An employer shall provide at any isolated place of employment a suitable means of communication whereby assistance can be promptly summoned in an emergency.

21 Mar 86 SR 24/86 s12.

Restricted visibility

134 No employer shall require or permit a worker to work in any area where visibility is restricted to the extent that it might result in the worker's being injured by the presence of smoke, steam or any other substance in the atmosphere unless the worker is provided with an effective means of communication with another worker who is readily available and competent to assist him in the event of an emergency.

21 Mar 86 SR 24/86 s12.

Use of compressed air

- 135(1) No employer shall permit compressed air to be directed towards any worker for the purpose of cleaning clothing or equipment worn by that worker or for any other purpose.
- (2) When compressed air is used for cleaning purposes not prohibited by subsection (1), an employer shall:
 - (a) provide suitable and adequate eye protective equipment for the worker performing the work and require him to use it; and
 - (b) provide adequate protective equipment for any other worker who may be struck by flying particles and require him to use it.

21 Mar 86 SR 24/86 s12.

Boiler and pressure vessels

136 An employer shall ensure that any boiler or pressure vessel not required to be inspected or registered pursuant to *The Boiler and Pressure Vessel Act* is of good construction and adequate strength and is maintained.

21 Mar 86 SR 24/86 s12.

PART XV General Provisions Respecting Machinery

General safety requirements

137(1) An employer shall ensure, to the extent that is reasonably practicable, that:

- (a) machinery is operated only by or under the direct supervision of a competent worker;
- (b) operational controls on machinery are not likely to be activated by accidental contact; and
- (c) stopping devices on machinery are located within easy reach of the operator and are readily identifiable.
- (2) If a worker is required during the course of his work to feed material into a metal-forming press, punch, shear or similar machine, the employer shall, if practicable, install a positive means of preventing the machine from being activated while any part of the worker's body could be injured by moving parts of that machine or, if that is not practicable, install guards to prevent the contact of the worker with any moving part of that machinery.
- (3) No employer shall require or permit a worker to leave unattended or in a suspended position any machinery or any part of machinery unless the machinery or part has been immobilized and secured against accidental movement.
- (4) No worker shall leave unattended or in a suspended position any machinery or any part of machinery unless the machinery or part has been immobilized and secured against accidental movement.

21 Mar 86 SR 24/86 s12.

Worker-machine contacts

- 138 When there is a possibility that a worker or his clothing will come into contact with moving parts of machinery, the employer shall ensure, to the extent that is reasonably practicable, that the worker:
 - (a) wears close-fitting clothing;
 - (b) confines or cuts short any head and facial hair; and
 - (c) does not wear dangling neckwear or jewelery, rings or other similar items.

21 Mar 86 SR 24/86 s12.

Starting machinery

- 139(1) When moving machinery parts may endanger workers when a machine is started and the operator does not have a clear view from his position of all parts of that machine and the surrounding area of potential danger, the employer shall install:
 - (a) an audible alarm system which provides a warning of sufficient volume and for a sufficient period of time before start-up of the machine to give workers timely notice of the imminent start-up; or

- (b) a distinctive and conspicuous visual warning system that is arranged to alert workers of the imminent start-up.
- (2) Before starting any machinery, the operator shall ensure, to the extent that is reasonably practicable, that neither he nor any other worker will be endangered by its starting.
- (3) An employer shall place adequate and appropriate warning signs at each point of access to any machine that starts automatically in a visible location on the machine.

21 Mar 86 SR 24/86 s12.

Lock out procedures

- 140(1) Subject to subsection (2) and section 141, before any maintenance, repair, test or adjustment to any machinery other than power tools or machinery exempted by the director is commenced, an employer shall ensure that the machinery is locked out and that it remains locked out during such activity.
- (2) Before any maintenance, repair, test or adjustment to any tool or machinery to which subsection (1) does not apply is commenced, an employer shall ensure that the energy source has been isolated from the tool or machinery, any residual energy in it has been dissipated and the energy source remains isolated during such activity.
- (3) An employer shall:
 - (a) provide written lock-out procedures to each worker who is required to work on machinery to which subsection (1) applies; and
 - (b) issue to that worker a lock that is operable only by that worker's key and a duplicate key.
- (4) An employer shall designate a person to keep the duplicate key mentioned in clause (3)(b) and ensure that:
 - (a) the duplicate key is accessible only to the designated person; and
 - (b) a log book is maintained to record the use of the duplicate key and the reasons for its use.
- (5) When it is not practicable to use a worker's key to remove a lock, the employer may permit the person designated pursuant to subsection (4) to remove the lock if:
 - (a) the designated person has ascertained the reason that the worker's key is not available;
 - (b) the designated person has ascertained that it is safe to remove the lock and activate the machinery;
 - (c) the designated person records in the log book the use of the key and the reason for its use; and
 - (d) if a committee is in place, the co-chairpersons or their designates have been informed of the proposed use before the use of the key.

- (6) Before undertaking any maintenance, repairs, tests or adjustments to any machinery to which subsection (1) applies, a worker shall lock out the machinery following the procedures mentioned in clause (3)(a).
- (7) After a lock-out device has been installed, the worker who installed the first lock shall check the machinery to ensure that it is inoperative.
- (8) No person shall remove a lock-out device except the worker who installed it or, subject to subsection (5), the person designated pursuant to subsection (4).

21 Mar 86 SR 24/86 s12.

Cleaning, etc., of machinery in motion

141 When any machinery or part of machinery requires cleaning, lubrication or adjustment while the machinery or part is in motion, an employer shall ensure that such activity is carried out by a method which is intrinsically safe.

21 Mar 86 SR 24/86 s12.

Belts

- 142(1) An employer shall ensure that a permanent belt shifter is:
 - (a) provided for all loose pulleys on any machinery; and
 - (b) so constructed that the belt cannot creep back on to the tight pulley.
- (2) An employer shall ensure, to the extent that is reasonably practicable, that a worker does not shift a belt on any machinery by hand when the belt is in motion.

21 Mar 86 SR 24/86 s12.

Elevated conveyors

143 If an elevated conveyor crosses over a place where a worker may pass or work, the employer shall ensure that suitable precautions are taken to prevent materials on the conveyor from falling on the worker.

21 Mar 86 SR 24/86 s12.

Air-actuated fastening tools

144 No employer shall permit the trigger of an air-actuated fastening tool to be mechanically held in the operating position unless the tool is specifically designed to be used in that manner.

21 Mar 86 SR 24/86 s12.

Airless spray units

- 145 When an airless spray unit capable of operating at a pressure greater than seven megapascals is in use, the employer shall ensure that:
 - (a) the gun, the reservoir and the pump are effectively grounded with a single continuous ground wire; and

(b) the gun is fitted with suitable tip and trigger guards.

21 Mar 86 SR 24/86 s12.

Explosive-actuated fastening tools

- 146(1) In this section, "explosive-actuated fastening tool" means machinery that propels or discharges, by means of an explosive force, a fastening device for the purpose of impinging the fastening device on, affixing it to or causing it to penetrate another object or material.
- (2) An employer shall ensure that every explosive-actuated fastening tool system, including the tool, cartridge and fastener, is approved.
- (3) An employer of an operator of an explosive-actuated fastening tool system shall ensure that the operator is trained, for any tool that he may be called on to operate, in:
 - (a) the selection of an appropriate tool, accessories, fastener and power load for each application;
 - (b) the limitations of each type of tool, fastener and power load;
 - (c) the maintenance, inspection and procedures for the safe use of the tool; and
 - (d) the procedures for protection of the operator and any other worker.
- (4) An employer of any worker operating an explosive-actuated fastening tool shall ensure, to the extent that is reasonably practicable, that the worker:
 - (a) does not leave the tool or explosive charges unattended; and
 - (b) stores the tool and explosive charges in a locked container when not in use.

21 Mar 86 SR 24/86 s12.

Grinding

- **147**(1) An employer shall ensure that:
 - (a) no abrasive wheel is operated at a speed in excess of the manufacturer's recommendations; and
 - (b) the maximum speed of each grinder shaft in revolutions per minute is permanently marked on the grinder.
- (2) If a tool rest is installed on a fixed grinder, the employer shall ensure, to the extent that is reasonably practicable, that the tool rest is:
 - (a) installed in a manner compatible with the work process;
 - (b) securely attached to the grinder; and
 - (c) not set:
 - (i) more than three millimetres from the face of the wheel; or

- (ii) below the horizontal centre line of the wheel.
- (3) No employer shall require or permit grinding to be done on the sides of an abrasive wheel unless it is designed for such use.
- (4) If it is not practicable to install a guard as required by section 156, a handheld grinder without a guard may be used if the employer ensures that:
 - (a) the abrasive wheel is of reinforced construction and rated for a speed of 25% faster than the maximum speed of the grinder;
 - (b) the worker operating the grinder is provided with a suitable face shield and gloves and required to wear them; and
 - (c) the worker is instructed in the correct use and the potential hazard of incorrect use of the grinder.

21 Mar 86 SR 24/86 s12.

Chain-saws

148 An employer shall ensure that:

- (a) every chain-saw is equipped with an effective chain brake or a chain and bar designed to minimize the possibility of a kickback;
- (b) When a chain-saw is to be used by a worker operating from an elevated cage or basket, the width of which is less than twice the length of the chainsaw, a secondary platform is installed outside the cage or basket and used for storing and starting the engine.

21 Mar 86 SR 24/86 s12.

Use of chain-saws

149 The employer of a worker operating a chain-saw shall ensure, to the extent that is reasonably practicable, that the worker:

- (a) stops the chain when he is walking with the saw;
- (b) does not operate the saw at a height higher than his shoulder level; and
- (c) holds the saw firmly in both hands while he is operating it.

21 Mar 86 SR 24/86 s12.

Circular saws

- **150**(1) Subject to subsection (2), when a circular saw blade has developed a crack, the depth of which is more than 5% of the diameter of the saw blade, the employer shall ensure that the blade is discarded unless it is effectively repaired by a competent person and the original blade tension is restored.
- (2) An employer shall ensure that any circular saw blade that has developed a crack from the eye or the collar is discarded.

21 Mar 86 SR 24/86 s12.

Band saws

- **151**(1) When a band-saw blade has developed a crack, the depth of which is more than 10% of the width of the saw blade, the employer shall ensure that the blade is discarded unless:
 - (a) the width of the blade is reduced so as to eliminate the crack; or
 - (b) the cracked section is repaired by a competent person.
- (2) An employer shall ensure that a band-saw has an automatic tension control device.

21 Mar 86 SR 24/86 s12.

Power-fed circular saws

152 An employer shall ensure that:

- (a) every power-fed circular rip saw with horizontal, power-driven feed rolls is equipped with a sectional non-kickback device located in front of the saw blade across the full width of the feed rolls; and
- (b) every power fed circular re-saw:
 - (i) is equipped with a splitter which extends to the height of the top of the saw blade; and
 - (ii) has a saw blade equipped with a guard.

21 Mar 86 SR 24/86 s12.

Cut-off saws

153 An employer shall ensure that:

- (a) every hand-operated, sliding or swing cut-off saw is equipped with a device that will return the saw automatically to the back of the table when the saw is released at any point in its travel; and
- (b) a limit device is installed on every swing or sliding cut-off saw to prevent the saw from travelling beyond the outside edge of the cutting table.

21 Mar 86 SR 24/86 s12.

Planners

154 An employer shall ensure that the drives on every planer are such that the planer feed-rolls may be stopped independently of the cutting heads.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

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OCCUPATIONAL HEALTH AND SAFETY

PART XVI Safeguards and Warning Signs

Interpretation of Part

155 In this Part:

- (a) "safeguard" means a guard, shield, wire mesh, guard-rail, gate, barrier, safety net, handrail or any other similar equipment designed to protect the safety of workers, but does not include personal protective equipment;
- (b) "toeboard" means a low vertical guard that is located at the outer edge of a platform, scaffold, floor, stair or walkway and that is designed to prevent materials or equipment from falling over the edge.

21 Mar 86 SR 24/86 s12.

General requirements for safeguards

- **156**(1) Except where otherwise provided by these regulations, an employer shall provide an effective safeguard where a worker may contact:
 - (a) any dangerous moving part of a machine;
 - (b) any pinch point, cutting edge or point of a machine at which material is cut, shaped, bored or formed;
 - (c) any open flame, steam pipe or other surface with temperatures that exceed or may exceed 80° Celsius; or
 - (d) any cooled surface which is or may be less than -80° Celsius.
- (2) Subsection (1) does not apply to:
 - (a) a machine that is equipped with an effective safety device that stops the machine automatically before any part of a worker's body comes into contact with a hazard mentioned in clause (1)(a) or (b); or
 - (b) a belt, rope or chain operated from a cathead or capstan.

21 Mar 86 SR 24/86 s12.

Removal of safeguards for maintenance

157 An employer shall ensure that any safeguard that is removed from any machinery or rendered ineffective to permit maintenance, testing, repair or adjustment of the machinery is replaced or rendered effective before any worker is required or permitted to use the equipment.

21 Mar 86 SR 24/86 s12.

Safeguards for machine failures

158 When there is a significant possibility of machine failure and of injury to a worker resulting from the failure, the employer shall install guards strong enough to withstand the impact of debris from the machine failure and to contain any debris resulting from it.

21 Mar 86 SR 24/86 s12.

Safeguards for cutting and shaping machinery

159(1) In this section:

- (a) "pushblock" means a short block of wood with a shoulder at the rear provided with a suitable handle which will engage with the shoulder;
- (b) "pushstick" means a narrow strip of wood or other soft material with a notch cut into one end.
- (2) An employer shall ensure, to the extent that is reasonably practicable, that every worker uses a pushstick or pushblock to feed material into any machinery for cutting or shaping wood or similar material.
- (3) An employer shall ensure that:
 - (a) every portable hand-operated circular saw is equipped with a guard that will automatically cover the exposed part of the blade during use and the entire blade when the saw is not in use; and
 - (b) every hand-fed planer or joiner with a horizontal cutting head has an automatic guard that will cover all sections of the head on the working side of the guard when material is not being cut.

21 Mar 86 SR 24/86 s12.

Protection from falling objects from scaffolds, etc.

160(1) Wire mesh required by these regulations is to be:

- (a) made from wire that is at least 1.6 millimetres in diameter; and
- (b) capable of preventing the passage of a ball 40 millimetres in diameter.
- (2) When a suspended scaffold or swing stage scaffold, cantilever hoist platform or skip is suspended from or attached to a building or other structure, an employer shall ensure that wire mesh or other material equally effective to prevent objects from falling from the working surface is installed from the working surface to a height of at least 900 millimetres on all sides except the side adjacent to the building or structure.
- (3) An employer shall ensure that wire mesh is installed from the working surface of the platform to a height of two metres on all sides of:
 - (a) a tower hoist as defined in section 222;
 - (b) a building shaft hoist; and
 - (c) a hoist cage in an excavated shaft.
- (4) When it is necessary to hoist or lower materials that are of such a nature that the sides of a cantilever hoist platform or skip cannot be equipped as required by subsection (2), the employer shall provide another equally effective means for the protection of workers against falling materials.

(5) If it is necessary for workers to pass through a safeguard required by this section, the employer shall install a gate that is equally effective to prevent objects from falling from the working surface and shall ensure that the gate is kept closed except when it is in use.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s13

Handrails

- **161**(1) An employer shall ensure that every stairway with five or more treads is equipped with:
 - (a) a handrail which:
 - (i) extends the entire length of the stairway;
 - (ii) is adequately secured to the building or structure;
 - (iii) is installed on the stairway at a height of between 800 and 920 millimetres above the front edge of the treads; and
 - (iv) is of adequate strength to support a worker who falls on the stairway;
 - (b) on any open side, both a handrail and an intermediate rail or equivalent safeguard;
- (2) When a handrail is required for a temporary stairway to which subsection (1) applies, the employer shall ensure that it is constructed of at least 38 by 89 millimetre construction grade lumber, or material of equivalent strength, and is supported by posts not more than three metres apart.

21 Mar 86 SR 24/86 s12.

Guard rails

- **162**(1) Whenever these regulations require the installation of a guard-rail, the employer shall ensure that the guard-rail:
 - (a) subject to subsection (4), has a horizontal top member that is not less than 920 millimetres nor more than 1070 millimetres above the working surface;
 - (b) has a horizontal intermediate member spaced midway between the horizontal top member and the working surface;
 - (c) is supported for its entire length by vertical members installed not more than three metres apart;
 - (d) is capable of supporting a worker who may fall against it; and
 - (e) is constructed of 38 by 89 millimetre construction grade lumber or other materials that are of equal or greater strength.

- (2) Notwithstanding subsection (1):
 - (a) a horizontal intermediate member is not required in the case of a temporary guard-rail that is manufactured with a substantial barrier completely filling the area enclosed by the horizontal top member, a horizontal bottom member and the vertical members; and
 - (b) a wire cable guard-rail may be used at the external perimeter of a building under construction.
- (3) When a wire cable guard-rail is used pursuant to clause (2)(b), the employer shall ensure that the guard-rail:
 - (a) consists of a top rail and intermediate rail made of wire cable not less than 9.5 millimetres in diameter with vertical separators not less than 50 millimetres wide spaced at intervals not exceeding 2.4 metres;
 - (b) is maintained taut by means of a turnbuckle; and
 - (c) is arranged in such a manner that a worker coming into contact with the cables cannot fall through them.
- (4) Clause (1)(a) does not apply to a guard-rail that:
 - (a) was installed on or before October 30, 1988; and
 - (b) is not less than 900 millimetres nor more than one metre above the working surface.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s14.

Toeboards

- **163**(1) An employer shall provide toeboards at the edge of:
 - (a) every permanent floor, platform, mezzanine, walkway, ramp, runway or other surface from which it is possible for materials to fall more than 1.2 metres;
 - (b) every temporary scaffold or work platform from which it is possible for materials to fall more than 3.5 metres; and
 - (c) every pit for any flywheel or pulley.
- (2) Subsection (1) does not apply to a loading or unloading area if the employer has taken other precautions to ensure that materials will not fall from the floor or other horizontal surface.
- (3) Where a toeboard is required by these regulations, the employer shall ensure that the toeboard extends from the floor or other horizontal surface to a height of not less than:
 - (a) 125 millimetres from the floor or surface; or
 - (b) in the case of a toeboard that was installed before the coming into force of this section, 100 millimetres from the floor or surface.

Floor, roof or other work area openings

- **164**(1) An employer shall ensure that any opening or hole in a floor, roof or other working area into which a worker could step or fall is:
 - (a) covered with a securely installed covering capable of supporting a load of 360 kilograms per square metre and provided with a warning sign or permanent marking clearly indicating the nature of the hazard; or
 - (b) provided with a guard-rail and a toeboard.
- (2) If the covering or guard-rail and toeboard mentioned in subsection (1) or any part of them is removed for any reason, the employer shall ensure that an effective alternative means of protection is immediately provided.

21 Mar 86 SR 24/86 s12.

Building shafts

- **165**(1) An employer shall ensure that every work platform that is an integral part of a slip form used in a building shaft is designed by a professional engineer to withstand the maximum foreseeable load and is constructed and erected in accordance with that design.
- (2) An employer shall ensure that any platform mentioned in subsection (1) that has been moved is examined by a competent person and that a written report of the examination is made by the person who carried it out and kept by the employer.
- (3) No employer shall require or permit any worker to work on a platform mentioned in subsection (1) that has been moved before the platform has been examined in accordance with subsection (2), unless that worker is wearing a safety belt and is tied to a substantial anchorage by a lifeline or lanyard.
- (4) If there is no work platform installed at the level of a doorway or opening in a building shaft, the employer shall ensure that the doorway or opening is covered by a solid barrier that extends from the bottom of the doorway or opening to a height of at least two metres and is capable of preventing any worker or loose material from falling down the shaft.
- (5) During construction of any building shaft, the employer shall ensure that at least one warning sign indicating the presence of an open building shaft is placed on any barrier erected pursuant to subsection (4).

21 Mar 86 SR 24/86 s12.

Safety nets

166 An employer shall ensure that a safety net used as required by these regulations:

- (a) is manufactured from rope that is at least:
 - (i) eight millimetres in diameter; and
 - (ii) equivalent in breaking strength to number one grade pure manilla rope nine millimetres in diameter;

- (b) has a mesh size no greater than 150 by 150 millimetres;
- (c) has safety hooks or shackles of drop-forged steel 17.8 kilonewtons proof tested:
- (d) has joints between the net panels which are equal in strength to the net itself:
- (e) extends at least two metres beyond and is not more than six metres below the work area; and
- (f) is installed and maintained so that the maximum deflection when arresting the fall of a worker does not allow any portion of the net to contact another surface.

21 Mar 86 SR 24/86 s12.

Protection from falling objects

- **167**(1) The employer of any worker who is required to work in an area where he may be in danger from any falling object shall ensure that the worker is adequately protected by the installation of an overhead barrier.
- (2) An employer shall ensure that every area where a worker could be struck by a falling object is clearly marked by barriers, notices, warning lights or other warning devices.

21 Mar 86 SR 24/86 s12.

Storage tanks

- **168**(1) An employer shall ensure that any storage tank on top of which a worker is regularly required to walk or work is fitted with a permanent walkway with guard-rails.
- (2) The employer of a worker who is required to walk or work on the top of a storage tank but not on a regular basis shall make adequate provision for the worker's safety.

21 Mar 86 SR 24/86 s12.

Employer's duty when inflating tires

- **169**(1) The employer of a worker who is required to inflate a tire shall provide the worker with:
 - (a) written instructions specifying the maximum inflation pressures for the various sizes and types of tires normally encountered;
 - (b) if the tire is mounted on a split rim or locking ring assembly, a suitable cage or other restraining device; and
 - (c) if a clamp-on type air hose is used, an in-line pressure gauge and a positive pressure control.
- (2) An employer shall, to the extent that is reasonably practicable, ensure that the worker follows the instructions mentioned in clause (1)(a).

Worker's duty when inflating tires

170 A worker who is inflating a tire shall:

- (a) not inflate the tire in excess of the maximum pressure listed for the size and type of tire in the written instructions provided pursuant to clause 169(1)(a);
- (b) before commencing, place any tire that is mounted on a split rim or locking ring assembly in a cage or restraining device; and
- (c) if he is using a clamp-on type air hose, use an in-line pressure gauge and positive pressure control.

21 Mar 86 SR 24/86 s12.

Material storage

171 An employer shall ensure that:

- (a) no material or equipment is so placed, stacked or stored as to constitute a hazard to workers; and
- (b) any stacked materials or containers are stabilized, if necessary, by interlocking, strapping or other effective means of restraint.

21 Mar 86 SR 24/86 s12.

Pallets and storage racks

172 An employer shall ensure that:

- (a) every pallet is maintained in a manner which will permit safe lifting of the pallet and its load by a fork-lift truck or other device; and
- (b) every rack for the storage of material or equipment is:
 - (i) designed, constructed and maintained to support any load placed on that rack; and
 - (ii) erected on a firm foundation.

21 Mar 86 SR 24/86 s12.

Restraining device on pressurized hose

173 An employer shall ensure that an effective restraining device is used on every hose, pipe or connection that is under pressure if inadvertent disconnection of the hose, pipe or connection could result in danger to workers.

21 Mar 86 SR 24/86 s12.

PART XVII Access, Egress and Ladders

Doors

174 An employer shall ensure that:

(a) every door in a hazardous work area opens in the direction away from the hazard and is not blocked by any obstruction; and

(b) every walk-in freezer or refrigerator is provided with a means of opening the door from the inside.

21 Mar 86 SR 24/86 s12.

Design of travelways

175 An employer shall ensure that:

- (a) every travelway is strong enough to withstand any traffic to which it may be subjected;
- (b) every travelway is at least 600 millimetres wide;
- (c) every travelway that may give rise to a hazard described in clause 130(2)(a), (b) or (c) is provided with a guard-rail; and
- (d) if the surface condition of any travelway is such that a slipping hazard may exist, provision is made to have secure footing for workers and adequate traction for vehicles.

21 Mar 86 SR 24/86 s12.

Stairways

176 An employer shall ensure that:

- (a) the width of treads and the vertical distance between treads are uniform throughout the length of any stairway and that each tread is level; and
- (b) any stairs, including temporary stairs, installed on or after the day on which these regulations come into force, are at least 600 millimetres wide.

21 Mar 86 SR 24/86 s12.

Ladders generally

- **177**(1) An employer shall ensure that every ladder is designed, constructed and maintained to perform its function safely.
- (2) An employer shall ensure that:
 - (a) no wooden ladder or step-ladder is painted with any substance other than a transparent coating; and
 - (b) no ladder is made by fastening cleats across a single rail or post.

21 Mar 86 SR 24/86 s12.

Portable ladders

- 178(1) In this section, "portable ladder" means any ladder that is not fixed in place and includes a step-ladder.
- (2) An employer shall ensure that:
 - (a) every portable ladder is equipped with non-slip feet;
 - (b) every portable ladder is secured against accidental movement during use;

- (c) no metal or wire-bound portable ladder is used where the ladder or any worker handling or using the ladder may come into contact with any exposed energized electrical conductor;
- (d) the side rails of any portable ladder extend at least one metre above any platform, roof or other landing to which the ladder is used as a means of access; and
- (e) each worker who handles or uses a portable ladder is instructed in the requirements of this section.
- (3) Each worker who uses a portable ladder shall position the ladder in such a way that the horizontal distance from the point of contact of the ladder with the wall to the foot of the ladder is one quarter of the length of the ladder measured from the foot to the point of contact.
- (4) No worker shall work from either of the top two rungs or steps of any portable ladder, unless that ladder is a step-ladder which has a platform equipped with a suitable handrail.
- (5) An employer shall ensure that:
 - (a) no step-ladder exceeds six metres in height when set for use;
 - (b) the legs of every step-ladder are securely held in position by means of metal braces or an equivalent rigid support; and
 - (c) when a step-ladder is in use, the front section has a pitch of six to one.
- (6) An employer shall ensure that:
 - (a) any extension ladder is equipped with locks that securely hold the sections of the ladder in the extended position;
 - (b) where a section of an extension ladder is extended, the section that is extended overlaps another section for at least one metre;
 - (c) no extension ladder comprised of two sections exceeds 14.6 metres in length; and
 - (d) no extension ladder comprised of more than two sections exceeds 20 metres in length.
- (7) An employer shall ensure that:
 - (a) no single portable ladder; and
 - (b) no section of an extension ladder;

exceeds nine metres in length.

Fixed ladders

- 179(1) In this section, "fixed ladder" means a ladder that is permanently fixed to a building or structure, but does not include a ladder used in underground mining operations to which section 414.36 of Saskatchewan Regulations 284/78 applies:
 - (a) in a vertical position; or
 - (b) at an angle between vertical and 25° to the vertical;
- (2) A ladder that is permanently fixed to a building or structure at an angle between horizontal and 25° to the vertical is deemed to be a stairway and is subject to the requirements of sections 161 and 176.
- (3) An employer shall ensure that:
 - (a) the rungs on every fixed ladder are uniformly spaced with centres that are not less than 250 and not more than 300 millimetres apart;
 - (b) a clearance of at least 150 millimetres is maintained between the rungs on any fixed ladder and the building or structure to which the ladder is affixed;
 - (c) every fixed ladder is securely held in place at the top and bottom and at any intermediate points necessary to prevent sway;
 - (d) the side rails of every fixed ladder extend not less than one metre above any platform, roof or other landing on the building or structure to which the ladder is fixed;
 - (e) a ladder opening in a platform, roof or other landing does not exceed 750 millimetres by 750 millimetres;
 - (f) every fixed ladder that is more than six metres in height is equipped with:
 - (i) if installed:
 - (A) on or before March 11, 1986, platforms at intervals of not more than six metres or ladder cages; or
 - (B) on or after March 12, 1986, platforms at intervals of not more than six metres and ladder cages; or
 - (ii) a climbing safety device certified by the manufacturer or a professional engineer to be designed and constructed to lock and suspend a worker if he should lose his grasp on the ladder; and
 - (g) every fixed ladder in an excavated shaft is installed in a compartment separated from the hoist compartment by a substantial partition.
- (4) Where a ladder cage is required by these regulations, the employer shall ensure that:
 - (a) the ladder cage is constructed of hoops that are not more than 1.8 metres apart, joined by vertical members not more than 300 millimetres apart around the circumference of the hoop;

- (b) the lowest hoop of the ladder cage is not more than three metres from a platform or landing or the ground;
- (c) the uppermost hoop of the ladder cage is at the level of a platform, landing or roof;
- (d) no point on a hoop of a ladder cage is more than 750 millimetres from the ladder; and
- (e) the ladder cage is of sufficient strength and is designed to contain any worker who may lean or fall against a hoop.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s15

Construction ladders

- **180**(1) In this section, "**construction ladder**" means a ladder constructed at a worksite from materials normally present on the work site.
- (2) An employer shall ensure that:
 - (a) the side rails of every construction ladder five metres or less in length are constructed of lumber that measures not less than 38 by 89 millimetres or of material of equivalent strength and rigidity;
 - (b) the side rails of every construction ladder over five metres in length are constructed of lumber that measures not less than 38 by 140 millimetres or of material of equivalent strength and rigidity;
 - (c) no construction ladder is more than 10 metres in length;
 - (d) the rungs of a construction ladder are:
 - (i) constructed of lumber that measures not less than 21 by 89 millimetres or of material of equivalent strength and rigidity;
 - (ii) supported by filler blocks or secured by a single continuous wire; and
 - (iii) uniformly spaced with not more than 300 millimetres between their centres;
 - (e) the width between the side rails at the bottom of a construction ladder is at least 500 millimetres:
 - (f) every two-way construction ladder that permits traffic in both directions at the same time is constructed with a centre structural rail throughout its entire length and is not less than 1.2 metres wide; and
 - (g) no plywood is used as a component of any construction ladder.

Fixed ladders on extending booms

- **181**(1) Every employer shall ensure, to the extent that is reasonably practicable, that:
 - (a) subject to subsection (2), no worker is required or permitted to be on a ladder that is attached as a permanent part of an extending boom on powered mobile equipment during any movement of the equipment, including extension or retraction of the boom;
 - (b) if outriggers are incorporated into powered mobile equipment, no worker is required or permitted to climb a ladder attached to an extending boom unless the outriggers are deployed; and
 - (c) any powered mobile equipment equipped with an extending boom is stable under all operating conditions.
- (2) Clause (1)(a) does not apply to fire-fighting equipment.

21 Mar 86 SR 24/86 s12.

PART XVIII Personal Protective Equipment

Personal protective equipment

- **182**(1) If it is not reasonably practicable to protect the safety and health of workers by design of the work place and work processes, suitable work practices or administrative controls, an employer shall ensure that every worker wears or uses suitable and adequate personal protective equipment.
- (2) When personal protective equipment is required to be provided pursuant to these regulations, the employer shall ensure that:
 - (a) the personal protective equipment is at a work site before commencement of the work;
 - (b) every worker is made aware of the location of the personal protective equipment on a work site and instructed in its use; and
 - (c) the personal protective equipment is maintained.
- (3) Notwithstanding subsection 127(1), a worker shall return any personal protective equipment required by these regulations that is or becomes defective or otherwise does not fulfill the function for which it was intended to the employer.
- (4) An employer shall immediately replace or repair any personal protective equipment returned to him pursuant to subsection (3).

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s16.

Eye protection

- **183**(1) An employer shall provide adequate, suitable and properly-fitting goggles, face shields or other eye protective equipment to every worker who:
 - (a) handles or is exposed to any material or chemical substance that is likely to injure or irritate the eyes; or

- (b) is engaged in any work in which there is a risk of injury to his eyes from flying objects or particles, light or heat rays.
- (2) An employer shall take all reasonable steps to ensure that a worker does not perform electric arc welding if another worker may be exposed to radiation from the arc, unless the other worker is wearing suitable eye protection or is protected from the radiation by a suitable screen.
- (3) A worker shall take all reasonable steps to ensure that he does not perform electric arc welding if another worker may be exposed to radiation from the arc, unless the other worker is wearing suitable eye protection or is protected from the radiation by a suitable screen.

21 Mar 86 SR 24/86 s12.

Head protection

184(1) Subject to subsection (2), at any:

- (a) mine;
- (b) place where a logging operation is in progress;
- (c) construction site;
- (d) demolition site; or
- (e) any other place of employment where there is a risk of injury to the head of a worker;

the employer shall provide an approved safety hat for each worker and require the worker to wear that hat.

- (2) If, in the opinion of the employer, the wearing of a safety hat by a worker would be impractical during a particular work process, the employer:
 - (a) may, if he first ensures that an adequate alternative means of protecting the worker's head is in place, permit the worker to perform that work process without wearing the safety hat; and
 - (b) shall ensure that the worker resumes wearing the safety hat after he completes that work process.
- (3) An employer shall ensure that:
 - (a) any safety hat that is intended to be worn in close proximity to an exposed energized electrical conductor is of adequate dielectric strength to protect the worker; and
 - (b) any safety hat that is required to be worn in logging operations is fluorescent orange or red in colour.
- (4) An employer shall ensure that every worker who is required or permitted to travel in or on an all-terrain vehicle, including a snowmobile as defined in *The Snowmobile Act* and a motorized trail bike, is provided with and is required to wear protective headgear that complies with CSA Standard D230-1970, "Safety Helmets For Motorcycle Riders".

- (5) Subsection (4) does not apply if:
 - (a) the vehicle is equipped with roll-over protective structures or a cab which is an integral part of the vehicle; and
 - (b) the worker is wearing a seat-belt.
- (6) An employer shall provide suitable liners for any safety hat or protective headgear required by these regulations when it is necessary to protect a worker from cold conditions.

21 Mar 86 SR 24/86 s12.

Protective footwear

- **185**(1) An employer shall ensure, to the extent that is reasonably practicable, that:
 - (a) every worker wears footwear appropriate to the risks associated with that worker's place of employment and occupation; and
 - (b) every worker who may be exposed to a risk from any heavy or falling object or may tread on any sharp object wears approved safety footwear.
- (2) Any part of a mine, any place where any logging operation is in progress, any construction site and any demolition site is deemed to be a place where the worker is exposed to a risk described in clause (1)(b).
- (3) An employer shall:
 - (a) if there is substantial risk of a crushing injury to the foot of a worker, provide outer foot guards; and
 - (b) if the feet of a worker may be endangered by hot, corrosive or poisonous substances, provide suitable and adequate footwear.
- (4) Notwithstanding subsections (1) and (2), an employer may, after consultation with the committee if one exists:
 - (a) permit:
 - (i) a worker who is a competent steel erector engaged in the connection of structural components of skeletal structure; or
 - (ii) a competent worker who is engaged in the installation of a roof;
 - to wear approved soft-soled footwear with safety toecaps and without puncture-proof plates in the soles; and
 - (b) impose any conditions that he considers appropriate on the wearing of footwear described in clause (a).

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s17.

Safety belts and lanyards

186 If these regulations require the use of a safety belt or lanyard, the employer shall ensure that:

- (a) the safety belt and lanyard are approved and maintained;
- (b) all metal parts of the safety belt and lanyard are of drop-forged steel 17.8 kilonewtons proof tested;
- (c) a protective thimble is used whenever a rope or strap is connected to an eye or ring used in a safety belt or lanyard.

21 Mar 86 SR 24/86 s12.

Lifelines

- **187**(1) Unless otherwise specifically provided, if these regulations require the use of a lifeline, the employer shall ensure that the lifeline is:
 - (a) suitable for the conditions in which it is to be used, having regard to such factors as strength, abrasion resistance, extensibility and chemical stability;
 - (b) made of steel wire or synthetic material;
 - (c) free of knots, splices other than end terminations, and imperfections; and
 - (d) fastened to a secure anchor point.
- (2) Unless otherwise specifically provided, the employer shall ensure that every lifeline required by these regulations has a minimum diameter of:
 - (a) 12 millimetres if it is made of synthetic material; or
 - (b) eight millimetres if it is made of steel wire.

21 Mar 86 SR 24/86 s12.

Fall-arresting devices

- **188**(1) An employer shall ensure that every fall-arresting device used as required by these regulations is approved for that use and is maintained.
- (2) An employer shall ensure that every lifeline used as part of a fall-arresting device is made of nylon, polypropylene or steel and has a minimum diameter of:
 - (a) 12 millimetres if it is made of nylon;
 - (b) 15 millimetres if it is made of polypropylene; or
 - (c) eight millimetres if it is made of steel.

21 Mar 86 SR 24/86 s12.

Lifelines, employer's duties

- 189 An employer shall ensure that:
 - (a) a separate safety belt, lifeline and lanyard are provided for each worker on a work platform suspended by three or fewer suspension lines;

- (b) no lifeline mentioned in clause (a) is attached to the same anchor point as a suspension line; and
- (c) a lanyard mentioned in clause (a) is attached to the lifeline by an approved device or, in the case of a rope lanyard and lifeline, by a triple sliding hitch.

21 Mar 86 SR 24/86 s12.

Worker's duty, lanyards, belts and lifelines

190(1) A worker shall, before using any lifeline or lanyard, ensure that it is:

- (a) free of any knot or splice, except for the ends;
- (b) protected by padding where it passes over sharp edges;
- (c) protected from any heat, flame or abrasive or corrosive materials during use; and
- (d) rigged in such a manner that if the platform on which he is working fails no part of the platform can strike him.
- (2) A worker shall, before using any lifeline, ensure that:
 - (a) the lower end extends to the ground or to a safe landing;
 - (b) the upper end is attached to a fixed anchor that is capable of supporting the shock load which may be applied; and
 - (c) it is protected at the lower end to ensure that the line cannot be fouled by any equipment.
- (3) A worker shall, before using any safety belt, ensure that it is:
 - (a) properly adjusted to fit the worker securely; and
 - (b) attached by means of a lanyard to a fixed anchor or a lifeline.
- (4) A worker who uses a safety belt and lanyard shall ensure that the lanyard is attached to a lifeline or a fixed anchor in a manner that will prevent him from falling more than 1.5 metres.

21 Mar 86 SR 24/86 s12.

Working in dangerous atmospheres

- 191(1) Any respiratory protective device required pursuant to this section shall be an approved atmosphere supplying respirator that operates in a pressure demand or other positive pressure mode.
- (2) Notwithstanding sections 48, 72, 73 and 78.6, the employer of a worker who is required to enter an atmosphere which is contaminated by toxic substances, or in which there is a shortage of oxygen, to the extent that the atmosphere is immediately dangerous to the life or health of the worker shall ensure that the worker is provided with, and wears, a respiratory protective device.

- (3) An employer shall ensure that any self-contained breathing apparatus that is used as a respiratory protective device:
 - (a) has a minimum rated capacity of 30 minutes; and
 - (b) is fitted with either a low pressure warning alarm or an escape bottle.
- (4) An employer shall ensure that any airline respirator that is used as a respiratory protective device is equipped with an auxiliary air supply of sufficient capacity to allow the worker to escape in case of failure of the primary air supply equipment.
- (5) The employer of any worker who is required to enter an atmosphere immediately dangerous to life shall ensure that a second worker, suitably equipped, is present at all times and that provision is made for rescuing the endangered worker immediately if his respiratory protective device fails or he becomes incapacitated for any other reason.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s18

Care of respiratory protective devices and respirators

192(1) An employer shall ensure that:

- (a) any respiratory protective device required by these regulations is regularly cleaned and maintained in an approved manner and when not in use is kept in a convenient and sanitary location in which it is not exposed to extremes of temperature;
- (b) any respiratory protective device for emergency use is thoroughly inspected by a competent person at least once a month and after each use; and
- (c) the date of every inspection made pursuant to clause (b) and the name of the person who made the inspection are recorded and conspicuously displayed at the location where the respiratory protective device is stored.
- (2) An employer shall ensure that the face piece of any respiratory protective device required by these regulations to be worn by a worker makes an effective seal to the facial skin of the worker.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s19.

Written instructions

193 An employer shall provide written instructions to a worker on the proper use of respiratory protective devices and no employer shall require or permit a worker to enter an environment in which he is required by these regulations to wear a respiratory protective device until he is satisfied that the worker is thoroughly familiar with those instructions.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s20.

Eye flushing equipment

194 If there may be a risk to the eyes of a worker from corrosive or other injurious substances, the employer shall provide suitable and adequate means of flushing the eyes of that worker with lukewarm water or another appropriate liquid at readily accessible locations.

21 Mar 86 SR 24/86 s12.

Emergency showers

195 If there may be a risk of substantial contamination of a worker or of his clothing from corrosive or other injurious substances, the employer shall provide and maintain a suitable means of bathing or showering the worker in lukewarm water that is readily accessible at all times.

21 Mar 86 SR 24/86 s12.

PART XIX

Powered Mobile Equipment and Other Vehicles

Interpretation of Part

196 In this Part, "hours of darkness" means:

- (a) the period from one-half hour after sunset to one hour before sunrise; or
- (b) any time when, because of insufficient light or unfavourable atmospheric conditions, persons or vehicles are not clearly discernable at a distance of 150 metres.

21 Mar 86 SR 24/86 s12.

General equipment requirements

197(1) An employer shall ensure that each unit of powered mobile equipment is equipped with:

- (a) a device within easy reach of the operator which will permit the operator to stop as quickly as possible any ancillary equipment driven from the powered mobile equipment, including any power take-off, crane and auger, and any digging, lifting and cutting equipment;
- (b) a horn or other similar audible warning device;
- (c) if the equipment is operated during hours of darkness in an area that is not illuminated by floodlight, suitable headlights and back-up lights that clearly illuminate the path of travel;
- (d) if it has a windshield, suitable windshield washers and wipers;
- (e) seats designed and installed to ensure the safety of all workers required or permitted to be in or on the equipment while it is in motion;
- (f) if it is fitted with roll-over protective structures:
 - (i) approved seat-belts for the operator and any passenger; or

- (ii) if the work process renders the wearing of a seat-belt impracticable, shoulder belts, bars, gates, screens or other restraining devices designed to prevent the operator and any passenger from being thrown outside the roll-over protective structures; and
- (g) if there is a danger to the operator or passenger from any falling object or projectile, a suitable and adequate cab, screen or guard.
- (2) Clause (1)(b) does not apply to crawler tracked equipment.
- (3) Every worker who rides any powered mobile equipment shall wear the seatbelt or use the other devices described in clause (1)(f).

21 Mar 86 SR 24/86 s12.

Bulkheads

198 An employer shall install a bulkhead or other effective restraining device to protect the operator and any passengers of powered mobile equipment which is used for transporting equipment or materials which may shift under emergency stopping conditions and endanger the operator and passengers.

21 Mar 86 SR 24/86 s12.

Back-up alarms

199 An employer shall ensure that a motor vehicle or unit of powered mobile equipment that may be used in such a way that a worker may be placed at risk by an unexpected reverse movement is equipped with a suitable warning device which operates automatically when the vehicle or equipment starts to move in reverse.

21 Mar 86 SR 24/86 s12.

Roll-over protective structures

- **200**(1) Except as otherwise provided in these regulations, the employer shall ensure that every roll-over protective structure:
 - (a) is designed, manufactured and installed in accordance with the criteria of the Society of Automotive Engineers Standard J1040C "Performance Criteria for Rollover Protective Structures (ROPS) for Construction, Earthmoving, Forestry, and Mining Machines" or the CSA Standard B352-M-1980 "Rollover Protective Structures (ROPS) for Agriculture, Construction, Earthmoving, Forestry, Industrial and Mining Equipment"; and
 - (b) has permanently and legibly marked on it:
 - (i) the manufacturer's name and address;
 - (ii) the model and serial number;
 - (iii) the make and model or series number of the machines that the structure is designed to fit; and
 - (iv) an identification of the standard in accordance with which it was designed, manufactured and installed.

- (2) An employer shall ensure that no:
 - (a) crawler tractor, other than one operating with side booms;
 - (b) wheeled or tracked dozer and loader, other than one operating with side booms;
 - (c) self-propelled wheeled scraper;
 - (d) rubber-tired tractor; or
 - (e) skidder;

manufactured on or after January 1, 1976 and equipped with an engine rated at 15 kilowatts or more is used unless it is fitted with a roll-over protective structure that meets the criteria prescribed in subsection (1).

- (3) An employer shall ensure that no:
 - (a) self-propelled rubber-tired or partially rubber-tired roller; or
 - (b) compactor;

manufactured on or after January 1, 1980 is used unless it is fitted with a roll-over protective structure that meets the criteria prescribed in subsection (1).

- (4) Subject to subsections (5) to (8), an employer shall ensure that no equipment:
 - (a) described in subclauses (2)(a) to (e) and manufactured on or before December 31, 1975; or
 - (b) described in subclause (3)(a) or (b) and manufactured on or before December 31, 1979;

is used on or after April 1, 1989 unless it is equipped with a roll-over protective structure, where available, that meets the criteria prescribed in subsection (1).

- (5) Where an employer can show that a roll-over protective structure that meets the criteria prescribed in subsection (1) is not available, equipment mentioned in clause (4)(a) or (b) may be equipped with a roll-over protective structure manufactured to any other national or international standard or manufacturer's design.
- (6) Where an employer can show that a roll-over protective structure that meets the criteria prescribed in subsection (1) or (5) is not available, equipment mentioned in clause (4)(a) or (b) may be equipped with a roll-over protective structure designed to meet the criteria prescribed in subsection (7).
- (7) For the purposes of subsection (6), a roll-over protective structure shall:
 - (a) be designed by a professional engineer;
 - (b) be designed and fabricated so that the structure and supporting attachments will support not less than twice the weight of the equipment to which it is to be fitted, based on the ultimate strength of the metal and integrated loading of structural members, with the resultant load applied at the point of impact; and

- (c) have a vertical clearance of 1.2 metres between the decks and the structures at the point of operator access or egress.
- (8) Where the employer can show that a roll-over protective structure that meets the criteria prescribed in subsection (1), (5) or (7) is not available, equipment mentioned in clause (4)(a) or (b) may be equipped with a roll-over protective structure designed in consultation with a professional engineer to provide protection that is as effective as is practicable.
- (9) Notwithstanding any other provision in this section, every roll-over protective structure that:
 - (a) was installed on or before March 11, 1986 on equipment mentioned in subsection (2) or (3);
 - (b) was not designed or manufactured in accordance with the standards prescribed by subsection (1); and
 - (c) was designed and manufactured to meet any contemporary national standard;

is deemed to meet the requirements of this section.

- (10) Notwithstanding any other provision in this section, every roll-over protective structure that was:
 - (a) installed on or before March 11, 1986 on equipment mentioned in subsection (4); and
 - (b) designed and manufactured to meet any standard described in subsections (5) to (8);

is deemed to meet the requirements of this section.

- (11) An employer shall ensure that:
 - (a) no new motor grader purchased on or after March 12, 1986 is used unless it is equipped with a roll-over protective structure that meets the criteria prescribed in subsection (1); and
 - (b) no motor grader, other than one described in clause (a), is used in any manner or place in which there is a risk of its rolling over unless it is equipped with a roll-over protective structure that meets the criteria specified in subsection (4), (5), (6) or (8), as the case may require.
- (12) Notwithstanding any other provision in this section, the director may, in writing:
 - (a) grant permission to an employer to use a unit of powered mobile equipment without a roll-over protective structure in a restricted area in which there is no apparent risk of the equipment rolling over; or
 - (b) grant the permission described in clause (a) subject to any conditions that he considers necessary to protect the operator.

(13) This section does not apply to any equipment that is used underground in a mine and governed by Saskatchewan Regulations 284/78.

28 Oct 88 SR 90/88 s21.

Glazing

- **201**(1) An employer shall ensure that any transparent material used as part of the enclosure for a cab, canopy or roll-over protective structure on powered mobile equipment is made of safety glass or another material giving at least equivalent protection against shattering.
- (2) An employer shall ensure that any broken or cracked glass or other transparent material in a cab, canopy or roll-over protective structure that creates or may create a hazard is removed and replaced.

21 Mar 86 SR 24/86 s12.

Starting equipment

- **202**(1) No employer shall require or permit a worker to commence the operation of any powered mobile equipment until a complete visual inspection of the machine and surrounding area has been made to ensure that no person, including the operator, is endangered by the commencement of the operation.
- (2) No worker shall commence the operation of any powered mobile equipment until the inspection mentioned in subsection (1) has been completed.

21 Mar 86 SR 24/86 s12.

Fuel tanks

203 An employer shall ensure that any fuel tank that is located in the enclosed cab of any powered mobile equipment has a filler spout and vents extending to the outside of the cab.

21 Mar 86 SR 24/86 s12.

Movement of loads or parts

- **204**(1) If any danger may be caused by the swinging movement of any load or any part of any powered mobile equipment, no employer shall require or permit any worker to remain within range of the swinging load or part.
- (2) No operator of any powered mobile equipment shall move or cause to be moved any load or part of the equipment when any worker may be exposed to danger by that movement.
- (3) When maintenance, repairs or other work is required to be performed on or under any elevated part of any powered mobile equipment, the employer shall ensure that the elevated part is securely blocked to prevent its accidental movement.

Flammables, explosives

205(1) An employer shall ensure, to the extent that is reasonably practicable, that no servicing or maintenance of any vehicle is undertaken while any flammable liquid or gas or explosive material is:

- (a) being loaded into or unloaded from the vehicle; or
- (b) present in the vehicle in any place other than in the fuel tank.
- (2) An operator of a vehicle containing flammable liquids or gases or explosive materials shall ensure that the engine of the vehicle is shut off during the connection or disconnection of the lines for the loading or unloading of the liquids, gases or materials.

21 Mar 86 SR 24/86 s12.

Fueling restrictions

- **206**(1) No employer shall require or permit any worker to fuel a vehicle, powered mobile equipment or stationary machinery with gasoline or other flammable liquid or combustible liquid as defined in section 264 while:
 - (a) the engine is running;
 - (b) anyone is smoking in or about the vehicle, equipment or machinery; or
 - (c) there is a known source of ignition in the immediate vicinity of the vehicle, equipment or machinery.
- (2) No worker shall fuel any vehicle, powered mobile equipment or stationary machinery in the circumstances prohibited by subsection (1).

21 Mar 86 SR 24/86 s12.

Transportation of workers

- **207**(1) Except as provided in section 208, no employer shall require or permit any worker to ride on a vehicle or on any powered mobile equipment unless the worker is seated and, if the vehicle or equipment is equipped with seat-belts, uses his seatbelt.
- (2) No employer shall require or permit any worker to ride on the top of a load that is being moved by any vehicle or powered mobile equipment.
- (3) An employer shall ensure, to the extent that is reasonably practicable, that no equipment or material is carried in a vehicle compartment in which the operator or any other worker is being transported unless it is so placed or secured as to prevent injury to the operator or that other worker.
- (4) If an open vehicle is used to transport any worker, the employer shall ensure that the worker is restrained from falling from the vehicle and that no part of the worker's body protrudes beyond the side of the vehicle.
- (5) An employer shall ensure that sufficient protection against inclement weather is provided for workers required to travel in a vehicle.

(6) If a vehicle with an enclosed body is used to transport workers, the employer shall ensure that the exhaust outlet of the vehicle's engine is located so that exhaust gases cannot enter the enclosed body.

21 Mar 86 SR 24/86 s12.

Transportation of fire-fighters

208 If a fire-fighting vehicle is used to transport workers, the employer shall ensure that:

- (a) in the case of any new fire-fighting vehicle put into service after July 1, 1986:
 - (i) the vehicle is provided with safe crew accommodations within the body of the vehicle including well-constructed and properly secured seats equipped with seat-belts; and
 - (ii) to the extent that is reasonably practicable, every worker is seated and uses his seat-belt; and
- (b) in the case of any fire-fighting vehicle equipped with tail boards:
 - (i) the workers ride only in secure positions;
 - (ii) the capacity of the tail board is not exceeded;
 - (iii) adequate handles and suitable safety belts are provided; and
 - (iv) an electrical signal system or voice communication system between the tail board and the driver's compartment is provided.

21 Mar 86 SR 24/86 s12.

PART XX Hoists, Cranes and Other Lifting Appliances and Lifting Tackle

Interpretation

209 In this Part:

- (a) "load rating" means the maximum loads that may be lifted or lowered safely at a series of stated configurations under a series of stated conditions;
- (b) "rated load" means the maximum load that may be lifted or lowered safely using a particular configuration under the conditions existing at the time of the lifting or lowering operation.

21 Mar 86 SR 24/86 s12.

General requirements of cranes and hoists

210(1) An employer shall ensure that every hoist, crane and other lifting appliance, including all attached ropes and load-carrying attachments, used at a place of employment is designed, constructed, installed and maintained to perform safely any task for which it is used.

- (2) No employer shall require or permit the operator of any hoist, crane or other lifting appliance to raise any load greater than the rated load determined by:
 - (a) the manufacturer of the equipment;
 - (b) a professional engineer; or
 - (c) another person whose qualifications are acceptable to the director;

for the conditions in which the equipment is to be operated.

21 Mar 86 SR 24/86 s12.

Load rating chart

- 211 An employer shall ensure that each hoist or crane is provided with a durable and clearly legible load rating chart which is fixed in a location easily visible to the operator while seated at his control station and which contains:
 - (a) all appropriate load ratings for the hoist or crane;
 - (b) adequate warning that no allowance is made in the load ratings for such factors as the effects of swinging loads, tackle weight, wind, degree of machine level, ground conditions, inflation of tires and operating speeds; and
 - (c) any applicable restrictions to operating in low temperatures.

21 Mar 86 SR 24/86 s12.

Determining weight of load

- **212**(1) An employer shall furnish the operator of any hoist, crane or other lifting appliance with all the information necessary to enable the operator to determine readily and accurately the weight of any load that he is required or permitted to raise.
- (2) An employer shall provide a permanent load gauge that will measure the weight of any load being hoisted and instantaneously indicate that weight to the operator for every:
 - (a) mobile crane that may be used to lift by rope a rated load of 15 tonnes or greater at the minimum operating radius;
 - (b) mobile lattice boom crane with a boom length of 15 metres or more; and
 - (c) tower or gantry crane;

that is purchased on or after October 31, 1988.

(3) On and from January 1, 1990, no employer shall use any type of crane mentioned in clauses (2)(a) to (c) that was purchased on or before October 30, 1988 unless it is equipped with a permanent load gauge that will measure the weight of any load being hoisted and instantaneously indicate that weight to the operator.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s22.

Operation of hoists, cranes

213(1) An employer shall:

- (a) designate a competent person to operate a hoist, crane or other lifting appliance; and
- (b) ensure that no person other than:
 - (i) the operator designated pursuant to clause (a); or
 - (ii) a worker being trained who is under the direction of a competent person;

operates a hoist, crane or other lifting appliance.

(2) An employer shall develop procedures for the safe operation and use of every hoist, crane or other lifting appliance and ensure that every operator of such equipment is thoroughly instructed in those procedures.

21 Mar 86 SR 24/86 s12.

Worker not to operate crane unless instructed

- **214**(1) No worker shall operate a hoist, crane or other lifting appliance unless he has been designated by his employer pursuant to clause 213(1)(a) and instructed in the operation of that hoist, crane or lifting appliance.
- (2) No operator of a hoist or crane shall raise a load until he has determined:
 - (a) the accurate weight of the load; and
 - (b) that the load is less that the rated load for the operating conditions.

21 Mar 86 SR 24/86 s12.

Requirements for signaller

- **215**(1) An employer shall provide a designated signaller when the operator of a hoist or crane does not have a clear, unobstructed view of the pick-up point, the dropping point and the load or, if there is no load, the hook, throughout the whole range of movement of the load or hook.
- (2) In addition to the requirements of section 128, before any hoisting operation is commenced, the employer shall ensure that the operator of any hoist or crane reviews with the designated signaller the signals to be used.
- (3) Where a hand signal is required to be used in connection with any hoist or crane, the employer shall ensure that the signal used is the signal contained in:
 - (a) CSA Standard Z-150, "Safety Code for Mobile Cranes"; or
 - (b) CSA Standard Z-248, "Code for Tower Cranes";

that is appropriate for the activity to be carried out.

(4) Every operator of a hoist or crane and every designated signaller shall use the signal contained in the standard mentioned in clause (3)(a) or (b) that is appropriate for any activity that is to be carried out.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s23.

Design of hoists and cranes

- 216(1) An employer shall ensure that a mobile crane with a rope suspended boom is equipped with:
 - (a) positive boom stops to prevent inadvertent movement of the boom;
 - (b) a boom stop limit device to prevent the boom from being drawn back beyond a predetermined safe boom angle; and
 - (c) if a jib is attached to the boom, a jib stop device to prevent the jib from being drawn back over the boom.
- (2) An employer shall ensure that any crane or hoist that operates on rails, tracks or trolleys has:
 - (a) a positive stop or limiting device installed on the crane or hoist or on the rails, tracks or trolleys to prevent it from over-running safe limits or contacting other equipment that is on the same rail, track or trolley; and
 - (b) sweepguards installed to prevent materials on the rail, track or trolley from causing dislodgment of the crane or hoist.
- (3) If any hoist or crane is designed to be operated with outriggers or other stabilizing devices, the employer shall ensure that:
 - (a) the outriggers or other stabilizing devices are:
 - (i) used;
 - (ii) set on a solid footing or pad; and
 - (iii) have their controls, if any, readily accessible and in a suitable position for safe operation; and
 - (b) the area around the outriggers or other stabilizing devices is kept free of obstruction.
- (4) If an operator's cab is to be attached to the boom or jib of a tower crane, the employer shall ensure that the cab is designed, positioned and attached in accordance with the specifications of the manufacturer of the crane or a professional engineer.
- (5) An employer shall ensure that every power driven hoist is equipped with a device that will safely arrest the platform if the hoist rope fails.

21 Mar 86 SR 24/86 s12.

Erecting and dismantling

- **217**(1) Subject to subsection (2), an employer shall:
 - (a) develop a written procedure for the safe erection and dismantling of every crane and hoist, which shall include *inter alia* requirements respecting the safe blocking of any mast, boom, jib or derrick and the number and competence of workers required to implement the procedure; and

- (b) ensure that the erection and dismantling of any crane or hoist is carried out in accordance with the written procedure mentioned in clause (a).
- (2) Instructions for the erection or dismantling of a crane or hoist furnished by the manufacturer may be used if they contain the requirements mentioned in clause (1)(a).

21 Mar 86 SR 24/86 s12.

Inspection of cranes, hoists, etc.

218(1) An employer shall ensure that:

- (a) every hoist and crane is inspected by a competent person to determine whether the hoist or crane is in safe working condition:
 - (i) before it is used at the start of each work shift; and
 - (ii) at regular intervals as recommended by the manufacturer;
- (b) a log book or other record is kept containing the particulars of every inspection made pursuant to clause (a).
- (2) In addition to the inspections required by subsection (1), the employer shall ensure that:
 - (a) every lattice-boom mobile crane with a rated capacity over one tonne is subjected every three years to a thorough examination, including non-destructive testing, under the supervision of a professional engineer; and
 - (b) every tower crane is subjected to a thorough examination, including non-destructive testing, under the supervision of a professional engineer before erection at each site and at subsequent intervals of 2,000 operating hours or once in each year, whichever occurs first.
- (3) No person shall operate or cause to be operated a lattice-boom crane with rated capacity over one tonne or tower crane unless a copy of the results of the testing or inspection required by subsection (2) is available on site.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88

Repairs to hoists and cranes

- **219**(1) If the examination of a hoist, crane or other lifting appliance reveals a condition which might render the equipment unsafe or incapable of raising the rated load mentioned in section 210, the employer shall not require or permit the use of the equipment until any necessary repair is completed.
- (2) An employer shall ensure that:
 - (a) any structural repair or modification to any component of a crane or hoist is performed only under the direction and control of a professional engineer; and

- (b) before a crane or hoist is used after any structural repair or modification:
 - (i) the equipment is tested under the direction of a professional engineer;
 - (ii) a professional engineer has determined the rated load of the repaired or modified crane or hoist and has certified that it is capable of safely raising the new rated load; and
 - (iii) where the rated load of a hoist or crane after repair or modification differs from the rated load before repair or modification, a new load rating chart is fixed pursuant to section 211.

21 Mar 86 SR 24/86 s12.

Friction type hoists

220 On a construction site, the employer shall ensure that no material is hoisted vertically by a rope driven by friction between the rope and a powered surge wheel or drum.

21 Mar 86 SR 24/86 s12.

Material hoists

221(1) In this section, "material hoist" means a hoist designed for raising and lowering equipment or material and includes a tower hoist as defined in section 222, but does not include a hoist to which Saskatchewan Regulations 284/78 apply or a hoist designed for raising or lowering personnel.

- (2) If a material hoist is in use, the employer shall ensure that:
 - (a) no worker is required or permitted to ride on the hoist;
 - (b) no load projects beyond the edges of the hoist platform or skip;
 - (c) if the controls are not remote from the hoist, an adequate overhead barrier is provided to protect the operator;
 - (d) the braking systems on the hoist are capable of stopping 150% of the rated load mentioned in section 210 at the maximum speed;
 - (e) the area around the base of the hoist is fenced or otherwise barricaded to prevent the entry of workers, and no worker is required or permitted to enter that area except when the hoist platform is at its lowest level; and
 - (f) a landing gate is installed on any landing served by the material hoist not less than 600 nor more than 900 millimetres from the edge of the landing.
- (3) No operator of a material hoist shall:
 - (a) leave his controls while the skip, hoist platform or load is in the raised position;
 - (b) operate his hoist when any landing gate is open; or

- (c) move a hoist platform, cage or skip until he is informed by signal that it is safe to move it.
- (4) An employer shall ensure that:
 - (a) the operator of a material hoist and a signaller at a landing at which loading or unloading is carried on are able to maintain visual or audible communication with each other at all times during loading or unloading;
 - (b) a material hoist that is or is designed to be over 20 metres in height is equipped with a signal system that is designed to:
 - (i) allow voice communication between a worker at any landing and the operator; and
 - (ii) inform the operator from which landing a signal originates.

21 Mar 86 SR 24/86 s12.

Tower hoists

222(1) In this section, "tower hoist" means a hoist:

- (a) of which a tower is an integral part of the supporting structure; and
- (b) in which the platform travels between fixed guides.
- (2) An employer shall ensure, in respect of any tower hoist, that:
 - (a) the pulley block and the exposed section of the rope from the pulley to the hoisting engine are enclosed; and
 - (b) at each landing the hoist is equipped with landing gates and devices which will prevent:
 - (i) movement of the hoist platform when a landing gate is open; and
 - (ii) opening of a landing gate when the hoist platform is not standing at that platform.
- (3) An employer shall ensure that any tower hoist that is not erected inside a building:
 - (a) is enclosed on all sides except the landing side by solid walls or equally effective fencing from ground level to a height of not less than two metres; and
 - (b) is adequately braced or guyed to prevent sway or movement.
- (4) An employer shall ensure, in respect of any tower hoist erected inside a building, that:
 - (a) the hoist is enclosed on all sides except the landing side at the ground level and at each floor level by solid walls or equally effective fencing from ground or floor level to a height of not less than two metres;
 - (b) each point of access to the hoist is conspicuously marked by a warning sign; and

(c) the hoist structure is adequately supported at vertical intervals not exceeding six metres.

21 Mar 86 SR 24/86 s12.

Roofer's hoists

223(1) An employer shall ensure, in respect of any roofer's hoist, that:

- (a) all counterweights on the hoist:
 - (i) are designed as an integral part of the hoist;
 - (ii) remain securely attached to the hoist at all times that hoisting is in progress; and
 - (iii) are designed to exert an opposing moment equal to at least four times the moment exerted by the maximum rated load; and
- (b) any part or section of the hoist that may become disconnected is equipped with suitable locking devices.
- (2) No employer shall require or permit any worker to use any roofing material as a counterbalance on a roofer's hoist.
- (3) An employer shall ensure that a roofer's hoist is used to perform only vertical lifts.
- (4) If a wooden gallows frame roofer's hoist is used, the employer shall ensure that:
 - (a) all parts of the hoist are at least equal in strength to:
 - (i) in the case of thrustouts, 38×184 millimetre structural grade lumber;
 - (ii) in the case of uprights, 89 x 89 millimetre structural grade lumber;
 - (iii) in the case of braces and base plates, 38×140 millimetre structural grade lumber; and
 - (iv) in the case of a hoisting line, manilla rope with a diameter not less than 20 millimetres;
 - (b) no thrustout overhangs a roof edge more than one quarter of its length; and
 - (c) the sheaves are attached to the thrustouts securely enough that the attachment will withstand any imposed load.

21 Mar 86 SR 24/86 s12.

Vehicle hoists

224(1) In this section, "**block**" means to fix the controls of a hoist in one position by any mechanical means.

- (2) An employer shall ensure that a pneumatic or hydraulic vehicle hoist is equipped with clearly marked controls that raise or lower the hoist only when the worker is applying pressure to the controls.
- (3) An employer shall ensure that no worker:
 - (a) is required or permitted during raising or lowering of the hoist to block the controls referred to in subsection (2); or
 - (b) is required or permitted to work or position himself under a raised vehicle or trailer unless it is supported by:
 - (i) a vehicle hoist designed for that purpose; or
 - (ii) adequate stands or blocks and, where necessary, wheel chocks.
- (4) For the purpose of subclause (3)(b)(ii), jacks alone are not sufficient.

21 Mar 86 SR 24/86 s12.

Hand-operated hoists

- **225**(1) An employer shall ensure that every hand-operated hoist is provided with a spring actuated or weighted ratchet and pawl which will stop the load and hold it at any height desired by the operator.
- (2) No employer shall require or permit any worker to work under any load raised by a hand-operated hoist unless the load is supported with adequate stands or blocks.

21 Mar 86 SR 24/86 s12.

Vehicle winch

- **226**(1) Before any worker operates a winch on a vehicle, he shall ensure that the brakes are applied or other effective means are taken to prevent movement of the vehicle.
- (2) No worker operating a vehicle on which a winch is in use shall move the vehicle until the winch operator has given a signal that the vehicle can be moved safely.
- (3) No employer shall require or permit any worker to cross over or under a winch cable between a winch and its load or to go underneath the load while winching is in progress.

21 Mar 86 SR 24/86 s12.

A-frames and gin poles

227 An employer shall ensure that:

- (a) no A-frame or gin pole is inclined more than 45° from the vertical; and
- (b) every A-frame or gin pole is restrained from uncontrolled lateral movement.

Pile driving equipment and operations

228(1) An employer shall ensure that on pile driving equipment any brake band or clutch that is contaminated by oil or grease is dismantled and cleaned or replaced before further use.

- (2) An employer shall ensure that:
 - (a) before any pile is placed in position for driving, the pile head is cut square and, in the case of a timber pile, cleaned free of debris, bark and splintered wood; and
 - (b) workers are adequately protected from injury that may be caused by the failure of a timber pile being driven.
- (3) No employer shall require or permit any worker working with pile driving equipment:
 - (a) to remain or ride on any load being moved;
 - (b) to work, stand or pass under a suspended load; or
 - (c) to be on the superstructure of the equipment or within range of a falling pile unless the worker is directly involved in the operation of hoisting piles.
- (4) On any pile driving equipment, the employer shall ensure, to the extent that is reasonably practicable, that:
 - (a) a pile hammer is securely chocked while it is suspended and the equipment is not operating; and
 - (b) no pile is hoisted in the leads while any worker not directly involved in the operation is on the superstructure of the equipment or within range of a falling pile.
- (5) The operator of pile driving equipment shall ensure that:
 - (a) the pile hammer is securely chocked while it is suspended and the equipment is not operating; and
 - (b) no pile is hoisted in the leads while any worker not directly involved in the operation is on the superstructure of the equipment or within range of a falling pile.

21 Mar 86 SR 24/86 s12.

PART XXI Rigging

General provisions

229(1) In this section, "rigging" means any combination of rope, chain, sling, sheave, hook and associated fittings that is used in connection with any hoisting operation and that is ancillary to the main hoist lines, and includes the anchorage of any sheave to any structure.

- (2) An employer shall ensure that no load is imposed on any rigging that is in excess of:
 - (a) in the case of any rigging to be used for hoisting workers, 10% of the breaking strength of the weakest part of the rigging;
 - (b) in the case of any other rigging, 20% of the breaking strength of the weakest part of the rigging.
- (3) An employer shall ensure that the maximum load that may be hoisted by any rigging, as determined pursuant to subsection (2), is conspicuously marked on the rigging.
- (4) An employer shall ensure that all rigging and components of rigging are inspected thoroughly at appropriate intervals to ensure that they will safely perform their intended function.
- (5) An employer shall ensure that:
 - (a) any sling applied over a sharp edge is guarded to prevent possible damage to the sling; and
 - (b) any shackle pin is secured to prevent accidental withdrawal.
- (6) An employer shall ensure that:
 - (a) the diameter of any wire rope sheave, spool or drum is not less than 15 times the diameter of any rope running over that sheave spool or drum and that the grooving of the sheave is the correct size for that diameter of rope;
 - (b) any rigging block is constructed or installed so that the rope cannot jump off the sheave;
 - (c) any rope fastened to the winding drum is fastened securely;
 - (d) at least five full wraps of rope remain on the winding drum at all times;
 - (e) no knot or wire rope clip is used as a stopper on a rope or rope end that passes through an opening in the winding drum;
 - (f) where U-bolt type clips are used for fastening wire rope, the U-bolt is installed so that the U section bears on the short or "dead" end of the rope, the saddle bears on the long or "live" end of the rope and the nuts are correctly torqued and the number of clips and their spacing is as shown in Part VIII of the Appendix;
 - (g) where double saddle type or fist clips are used for fastening wire rope, they are installed in numbers and with the spacing as shown in Part VIII of the Appendix;
 - (h) where double base clips are used for fastening wire rope, they extend at least six rope diameters in length;
 - (i) every eye loop is formed either:
 - (i) from a "flemish eye" splice secured by a pressed steel ferrule; or

(ii) from a steel wire loop secured by a cold formed aluminum alloy ferrule;

and that every such eye loop is readily identifiable as being so formed;

- (j) every hook used in any circumstances where the dislodgment of the hook could cause injury to workers is secured by a safety latch, mousing or shackle, except in cases when:
 - (i) hoisting skeleton steel or a similar operation is in progress and a sorting hook is used; or
 - (ii) a worker would be required to position himself adjacent to a melting pot or a tank containing a harmful substance to disconnect the hook.

21 Mar 86 SR 24/86 s12.

PART XXII Scaffolding and Temporary Supporting Structures

Interpretation of Part

230 In this Part:

- (a) "heavy-duty scaffold" means a scaffold designed to support an evenly distributed load of more than 350 kilograms per square metre;
- (b) "ladderjack scaffold" means a scaffold erected by means of attaching brackets to ladders to support the scaffold planks;
- (c) "light-duty scaffold" means a scaffold designed to support an evenly distributed load of not more than 350 kilograms per square metre.
- (d) "maximum load" means the maximum actual load which a scaffold is intended to bear:
- (e) "outrigger scaffold" means a scaffold with a working platform that is directly attached to members that are cantilevered out from the structure;
- (f) "suspended outrigger scaffold" means a scaffold with a working platform suspended by means of rigid attachment from members that are cantilevered out from the structure:
- (g) "suspended scaffold" means a scaffold with a working platform supported by four wire ropes suspended from members that are cantilevered out from the structure;
- (h) "swingstage scaffold" means a scaffold with a working platform supported by two wire ropes.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s25.

Guard-rails

231 An employer shall ensure that guard-rails are installed on the outer edges and ends of every scaffold or other working platform that is more than three metres above ground level.

21 Mar 86 SR 24/86 s12.

Scaffolds general provisions

232 An employer shall ensure that:

- (a) every wooden scaffold is constructed of unpainted dressed lumber;
- (b) every scaffold is designed and constructed to provide a safety factor of not less than four when subjected to the maximum load;
- (c) every scaffold is erected, maintained and dismantled under the direct supervision of a worker experienced in such work;
- (d) every scaffold built from the ground or other horizontal surface is:
 - (i) set level on a stable footing or mud sill;
 - (ii) supported against lateral movement by adequate bracing;
 - (iii) anchored vertically at four-metre intervals and horizontally at sixmetre intervals; and
 - (iv) provided with internal stairways or ladders if it is nine metres or more in height;
- (e) every rope or wire rope that forms an integral part of a scaffold is protected against fraying or other physical damage;
- (f) where damage to a rope that forms an integral part of a scaffold from heat or chemicals is possible, rope of heat or chemical resistant material is used: and
- (g) all workers required to work on a scaffold are informed of the maximum load of the scaffold.

21 Mar 86 SR 24/86 s12.

Scaffold planks

233(1) An employer shall ensure that every scaffold plank:

- (a) is of 38 x 240 millimetre fir or material of equivalent or greater strength;
- (b) is:
 - (i) inspected to ensure that it is free of cracks, knots and any other defect; and
 - (ii) tested to ensure that it is capable of withstanding the load intended to be placed on it;

by an experienced worker before the plank is incorporated in a scaffold;

- (c) does not span more than three metres between vertical supports on a light-duty scaffold or 2.3 metres between vertical supports on a heavy-duty scaffold;
- (d) does not extend less than 150 millimetres nor more than 300 millimetres beyond the outer vertical supporting members of the scaffold; and
- (e) is secured to prevent accidental or inadvertent movement in any direction.
- (2) An employer shall ensure that every scaffold platform is at least one-half metre wide for a light-duty scaffold and at least one metre wide for a heavy-duty scaffold.

21 Mar 86 SR 24/86 s12.

Half-horse scaffolds

234 An employer shall ensure that:

- (a) no half-horse scaffold is used as a heavy-duty scaffold;
- (b) the legs of a half-horse scaffold are not:
 - (i) spliced;
 - (ii) more than three metres in height; or
 - (iii) spread more than one metre apart;
- (c) the dimensions of members of a half-horse scaffold are not less than the dimensions specified in Table 1 of Part IX of the Appendix; and
- (d) a ladder is used to provide access to and egress from a half-horse scaffold.

21 Mar 86 SR 24/86 s12.

Bracket scaffolds

235(1) Except as provided in subsection (2), an employer shall ensure that:

- (a) the brackets of any bracket scaffold are securely attached in a manner that will prevent the brackets from dislodging;
- (b) the brackets of any bracket scaffold are not more than three metres apart; and
- (c) no bracket scaffold is used at a height of more than six metres above the ground or other working surface.
- (2) An employer shall ensure that:
 - (a) no carpenter's bracket scaffold is used at a height of more than three metres above the ground or other working surface; and
 - (b) every carpenter's bracket scaffold is bolted through the wall and through a 39×89 millimetre scab that spans at least two studs.

Ladderjack scaffold

- **236**(1) An employer shall ensure that:
 - (a) no ladderjack scaffold is used at a height of more than five metres above the ground or other working surface;
 - (b) ladders used for a ladderjack scaffold are not more than three metres apart; and
 - (c) brackets used for a ladderjack scaffold are so designed that the load is applied to the side rails of the ladders.
- (2) Notwithstanding clause 233(1)(a) and subsection 233(2), a single manufactured extending painter's plank may be used in a ladderjack scaffold.

21 Mar 86 SR 24/86 s12.

Single-pole scaffolds

- 237 An employer shall ensure that:
 - (a) no single-pole scaffold is used:
 - (i) as a heavy duty scaffold; or
 - (ii) at a height of more than six metres above the ground or other working surface;
 - (b) every single-pole scaffold is adequately supported in two directions by a system of diagonal braces that are:
 - (i) no more than six metres in length; and
 - (ii) connected to the uprights as close as possible to the ledgers;
 - (c) every ledger on a single-pole scaffold is supported by a bearer that is of substantial construction and is securely fastened to the wall; and
 - (d) the dimensions of members of a single-pole scaffold are not less than the dimensions specified in Table 2 in Part IX of the Appendix.

21 Mar 86 SR 24/86 s12.

Double-pole scaffolds

238 An employer shall ensure that the dimensions of a double-pole scaffold are not less than the sizes specified in Table 3 of Part IX of the Appendix.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Needle-beam scaffolds

- **239** An employer shall ensure that:
 - (a) a needle-beam scaffold is used only in steel erection work;
 - (b) the beams supporting a needle-beam scaffold are:
 - (i) constructed of lumber measuring at least 89 x 140 millimetres;

- (ii) placed on their edges; and
- (iii) not laminated;
- (c) the planks forming the working platform of a needle-beam scaffold are pinned to prevent shifting;
- (d) the ropes supporting a needle-beam scaffold are manila rope with a diameter of at least 25 millimetres or other material of equivalent strength; and
- (e) the beam ends of a needle-beam scaffold are provided with stops to prevent the ropes from slipping off the beam.

21 Mar 86 SR 24/86 s12.

Outrigger and suspended outrigger scaffolds

240(1) This section applies to outrigger scaffolds and suspended outrigger scaffolds.

- (2) An employer shall ensure that:
 - (a) thrustouts are:
 - (i) constructed of lumber measuring at least 89 x 140 millimetres; and
 - (ii) placed on their edges;
 - (b) thrustouts do not extend more than 1.2 metres beyond the edge of the bearing surface;
 - (c) the inboard portion of the thrustouts from the fulcrum point to the point of anchorage is not less than 1.5 times the length of the outboard portion;
 - (d) thrustouts are securely braced at the fulcrum point against movement or upsetting and the inboard ends securely anchored against horizontal or vertical movement or upsetting;
 - (e) counterweights are not used;
 - (f) thrustouts are no more than 2.3 metres apart;
 - (g) the working platform fills the entire area between the hangers;
 - (h) the working platform is braced to prevent swaying; and
 - (i) no scaffold is used for the storage of materials.

21 Mar 86 SR 24/86 s12.

$Suspended\ outrigger\ scaffolds$

241(1) This section applies to suspended outrigger scaffolds.

- (2) An employer shall ensure that:
 - (a) the working platform is supported by vertical hangers that:
 - (i) are made of lumber measuring at least 38 by 140 millimetres;

- (ii) are not more than three metres long;
- (iii) are secured to the side of each thrustout; and
- (iv) extend at least 300 millimetres above the top of each thrustout;
- (b) the working platform is secured to a block which rests on the top edge of each thrustout as an additional support; and
- (c) the working platform is supported by ledgers that are:
 - (i) made of lumber measuring at least 38 by 140 millimetres;
 - (ii) secured to the vertical hangers at least 3000 millimetres above the bottom of the hangers; and
 - (iii) resting on blocks that are secured to the side of the hangers below each beam as an additional support.

21 Mar 86 SR 24/86 s12.

Suspended scaffolds

242(1) This section applies to suspended scaffolds.

- (2) An employer shall ensure that:
 - (a) suspension ropes consist of wire rope with a diameter of not less than 15 millimetres;
 - (b) the upper ends of the suspension ropes terminate in spliced loops in which a steel thimble or eye is securely inserted;
 - (c) the suspension ropes are attached to the thrustouts by fittings designed to support a load equivalent to the ultimate strength of the rope;
 - (d) the lower ends of the suspension ropes are firmly secured to the hoisting mechanism with not less than five full wraps of the rope;
 - (e) each thrustout is securely anchored to the building or other structure;
 - (f) counterweights are not used for anchoring a thrustout;
 - (g) a stop bolt is placed at the end of each thrustout;
 - (h) the working parts of the hoisting mechanism are left exposed so that defective parts or irregular working of the mechanism can be easily detected;
 - (i) no worker is permitted to operate a scaffold hoisting mechanism unless he has been designated by the employer to perform that work;
 - (j) the planks of the working platform are laid tightly together and overlap the supporting ledgers at each end of the scaffold by not less than 300 millimetres;
 - (k) the working platform is not less than one metre wide;
 - (l) thrustouts are at least S200 I-beams weighing not less than 27 kilograms per metre or beams of equivalent strength;

- (m) I-beams are set with their webs vertical;
- (n) thrustouts are spaced not more than 2.28 metres apart; and
- (o) all parts of the scaffold are inspected daily.

21 Mar 86 SR 24/86 s12.

Swingstage scaffolds

243(1) This section applies to swingstage scaffolds.

- (2) An employer shall ensure that:
 - (a) no swingstage scaffold is used as a heavy-duty scaffold;
 - (b) any swingstage scaffold is supported by at least two upper attachment points so placed that the suspension ropes are parallel;
 - (c) thrustouts are timbers measuring at least 140 millimetres by 89 millimetres set on edge or metal beams of equivalent strength;
 - (d) thrustouts are at least 4.8 metres long;
 - (e) any thrustout or parapet hook is tied back or otherwise secured to a solid part of the structure to prevent movement or dislodgment;
 - (f) counterweights, if used, are:
 - (i) firmly attached to the thrustouts; and
 - (ii) heavy enough to counter-balance at least four times the maximum load likely to be imposed on the scaffold;
 - (g) no counterweight consisting of bagged or loose materials is used;
 - (h) any power unit is equipped with:
 - (i) positive pressure controls; and
 - (ii) positive drives for raising and lowering the scaffold;
 - (i) any manually operated unit is equipped with spring-actuated locking pawls;
 - (j) where workers are required to be on a manually operated scaffold, the hoisting mechanism is locked in a positive drive position by means of a spring steel locking pin and the locking pin is permanently attached to the hoist mechanism by a light chain;
 - (k) any suspension rope consists of either wire rope at least eight millimetres in diameter or manila rope at least 19 millimetres in diameter;
 - (l) either:
 - (i) the suspension rope is long enough to reach the next working surface below the scaffold; or

- (ii) the end of the suspension rope is doubled back and held securely by a cable clamp to prevent the hoisting machine from running off the end of the rope;
- (m) there is no covering or hoarding around or over a swingstage scaffold;
- (n) two or more scaffolds are not linked together by bridging the distance between them with planks or any similar form of connection;
- (o) the working platform is at least 500 millimetres wide and fastened to the stirrups;
- (p) the working platform is designed to prevent the scaffold from swinging or swaying away from the building or structure; and
- (q) any worker required or permitted to be on a swingstage scaffold is provided with and wears a safety belt with lanyard attached to a lifeline.

(3) A worker shall:

- (a) before starting to work on the scaffold, inspect the scaffold to ensure that:
 - (i) the thrustouts or parapet hooks are secured in accordance with clause (2)(e); and
 - (ii) the counterweights, if any, comply with clauses (2)(f) and (g);
- (b) remain between the stirrups at all times;
- (c) secure from fouling all ropes from the scaffold that extend to the ground or a landing;
- (d) while working on the scaffold, wear a safety belt with lanyard attached to a lifeline;
- (e) ensure that, when the scaffold is being moved up or down on its suspension ropes, the stage is kept level;
- (f) not bridge the distance between the scaffold and any other scaffold with planks or by any other means; and
- (g) not use the safety line or the suspension ropes as a means of access to or egress from the scaffold.

21 Mar 86 SR 24/86 s12.

Boatswain's chairs

- **244**(1) An employer shall ensure that:
 - (a) a boatswain's chair is:
 - (i) constructed of select No. 1 hardwood which is at least 25 millimetres thick; and
 - (ii) suspended from its four corners by manila rope at least 19 millimetres in diameter or material of equal or greater strength crossed diagonally under the seat;

- (b) any worker required or permitted to work in a boatswain's chair is provied with and wears a safety belt with lanyard attached to a lifeline;
- (c) the lifeline and the support for a boatswain's chair are secured to separate anchor points; and
- (d) all parts of a boatswain's chair, including attached ropes, are inspected daily.
- (2) A worker who works in a boatswain's chair shall wear a safety belt with lanyard attached to a lifeline.

21 Mar 86 SR 24/86 s12.

Metal scaffolds

245 An employer shall ensure that a suitable and safe procedure is implemented for the erection, use, maintenance and dismantling of any metal scaffold.

21 Mar 86 SR 24/86 s12.

Free standing or rolling scaffolds

246(1) An employer shall ensure that:

- (a) the height of a free-standing or rolling scaffold is not more than three times:
 - (i) the smallest dimension of its base; or
 - (ii) where outriggers are provided, the smallest dimension of its base including the extended outriggers;
- (b) where outriggers are provided, every outrigger is firmly attached to ensure the stability of a free-standing or rolling scaffold;
- (c) every scaffold erected on a vehicle is securely fastened to that vehicle; and
- (d) where outriggers are required to maintain the stability of a scaffold mounted on a vehicle, outriggers are securely attached to the frame of the vehicle.
- (2) No employer shall require or permit a worker to remain on a rolling scaffold while it is being moved, unless:
 - (a) the height of its work platform does not exceed twice the shortest base dimension of the scaffold;
 - (b) the route to be travelled by the rolling scaffold has been thoroughly examined and found to be free of any condition that could cause the rolling platform to tilt or otherwise go out of control; and
 - (c) a work platform that fills the entire area enclosed by the scaffold structure is installed.

 $21~\mathrm{Mar}$ 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s26.

Shinglers' roofing brackets

- 247 An employer shall ensure that shinglers' roofing brackets are:
 - (a) designed and constructed to support the loads that may be applied to them;
 - (b) provided with effective non-slipping devices;
 - (c) installed by securely nailing them to the roof; and
 - (d) not used on a roof with a pitch greater than 1 in 3.

21 Mar 86 SR 24/86 s12.

Crawl boards and roof ladders

248 An employer shall ensure that a crawl board or roof ladder used for roof work is securely fastened by hooking it over the ridge of the roof or by equally effective means and is not supported by the eavestrough.

21 Mar 86 SR 24/86 s12.

Prohibition on workers being lifted by a crane or front end loader

249 Except as provided in sections 246, 251 and 252, an employer shall ensure that no worker is raised or lowered by, or is required or permitted to work on, any platform or load suspended from a hoist, crane or powered mobile equipment or a hook, headache ball or other part of a hoist, crane or powered mobile equipment.

28 Oct 88 SR 90/88 s27.

Permanent suspension powered work platforms

250(1) In this section, "permanent suspension powered work platform" means a powered work platform that is suspended from a suspension mechanism which is a permanent part of a building or structure.

- (2) An employer shall ensure that:
 - (a) every permanent suspension powered work platform is installed, designed, constructed and maintained so as to perform safely any task that it is required to perform; and
 - (b) after any permanent suspension powered work platform is installed, a professional engineer certifies that the platform and all components and attachments are safe before the platform is used.
- (3) An employer shall:
 - (a) develop safe procedures for the use of any permanent suspension powered work platform;
 - (b) instruct the workers in the procedures mentioned in clause (a); and
 - (c) ensure, to the extent that is reasonably practicable, that every worker complies with the procedures mentioned in clause (a).

(4) A worker who works on a permanent suspension powered work platform shall comply with the procedures mentioned in clause (3)(a).

21 Mar 86 SR 24/86 s12.

Mobile elevating platforms

- **251**(1) In this section, "platform" includes a manbasket, bucket and any other similar device.
- (2) This section applies to platforms elevated by an elevating system that is attached to or is an integral part of powered mobile equipment for which:
 - (a) the platform and elevating system have been designed, manufactured and mounted:
 - (i) specifically for the purpose of raising workers; and
 - (ii) to the appropriate standard of the Canadian Standards Association; or
 - (b) a professional engineer has certified that:
 - (i) the platform, elevating system and mountings are safe for the purpose of raising workers; and
 - (ii) the components of the platform, elevating system and mountings are designed to the factors of safety specified in subsection (3).
- (3) All load-supporting components of a platform, elevating system and mountings shall be designed:
 - (a) in the case of steel, bronze and other metals having an elongation of failure of 14% in a gauge length of 50 millimetres, a factor of safety of not less than 2, based on the yield strength;
 - (b) in the case of cast iron, fibreglass reinforced plastic and other materials having an elongation of failure of less than 14% in a gauge length of 50 millimetres, a factor of safety of not less than 5, based on the ultimate strength; and
 - (c) in the case of wire rope or chain supporting the platform, a factor of safety of not less than 10, based on the ultimate strength.
- (4) No employer shall require or permit a worker to be raised or lowered by any powered mobile equipment described in subsection (2) or to work from a platform maintained in an elevated position by equipment of that type unless:
 - (a) the controls are in the care of a competent worker at all times when a worker is raised on the platform;
 - (b) if the worker operating the controls is not the same person as the worker raised on the platform, there is an adequate and suitable means of communication between those workers;

- (c) the elevating mechanism is designed so that, if any failure of the mechanism occurs, the platform will descend in a controlled manner so that no worker on the platform will be endangered;
- (d) the controls are designed so that the platform will be moved only when direct pressure is applied to the controls;
- (e) the drive mechanism of any operation for moving the platform is positive and does not rely on gravity; and
- (f) the platform is provided with guardrails.
- (5) No employer shall require or permit a worker to ride on a platform elevated by powered mobile equipment:
 - (a) where road traffic conditions, environmental conditions, overhead wires, cables or other obstructions create a danger to the worker;
 - (b) unless the brakes of the vehicle or other structure to which the platform is attached are engaged;
 - (c) where the vehicle or other structure to which the platform is attached is equipped with outriggers, unless the outriggers are set; and
 - (d) unless the worker is provided with and is required to wear a safety belt secured to a suitable and substantial anchorage.
- (6) Notwithstanding clause (5)(b), a worker raised on a platform may be moved by a unit of powered mobile equipment if the employer has prepared a written procedure that gives details of the circumstances under which this may be done and any conditions imposed by the employer with respect to this operation.
- (7) Notwithstanding any other provision in this section but subject to section 289, no employer shall require or permit a worker working on any exposed energized electrical conductor with a voltage exceeding:
 - (a) 208 volts to ground; or
 - (b) 300 volts phase to phase;

to work from a platform elevated by powered mobile equipment unless the controls are operated by the worker on the platform.

28 Oct 88 SR 90/88 s28; 17 Mar 89 SR 9/89 s2.

Work platforms mounted on fork-lifts

- **252**(1) An employer shall ensure that no worker is raised or lowered by, or required or permitted to work on, a fork-lift or any device mounted on a fork-lift except as provided by this section.
- (2) An employer shall ensure that any cage or work platform mounted on a forklift on which a worker may be raised or lowered or required or permitted to work is:
 - (a) designed and constructed to support safely the maximum load it is expected to support;

- (b) securely attached to the forks of the fork-lift to prevent accidental lateral or vertical movement of the cage or platform;
- (c) equipped with guard-rails and toeboards;
- (d) equipped with a screen or similar barrier along the edge of the cage or platform adjacent to the mast of the fork-lift truck, to prevent any worker from contacting the mast drive mechanism.
- (3) An employer shall, to the extent that is reasonably practicable, ensure that while a worker is in a cage or on a work platform mounted on a fork-lift and the fork-lift is in the raised position:
 - (a) the fork-lift truck is not moved; and
 - (b) the operator remains at the controls.

21 Mar 86 SR 24/86 s12.

Temporary supporting structures

- **253**(1) In this section, "temporary supporting structure" means falsework, form, flyform deck panel, shoring, brace or cable used to support a structure temporarily or to stabilize materials or earthworks until they are self-supporting or their instability is otherwise overcome and includes metal scaffold components and every other part of a temporary supporting structure.
- (2) An employer shall ensure that any temporary supporting structure is designed and constructed to safely withstand all loads that are foreseeable.
- (3) In addition to the requirements of subsection (2), where a temporary supporting structure:
 - (a) consists of shoring that is more than 3.6 metres in height; or
 - (b) is composed of members connected to one another so that a load applied to any member of it may alter the stresses induced in the other members;

an employer shall ensure that:

- (c) a professional engineer:
 - (i) designs;
 - (ii) inspects after assembly and before use;
 - (iii) certifies to be safe;

the temporary support structure; and

- (d) all the drawings and other instructions necessary to safely construct and use the structure are kept at the project site.
- (4) An employer shall ensure that any scaffold constructed as an integral part of a temporary supporting structure is designed and certified to be safe by a professional engineer.

Flyform deck panels

- **254**(1) In this section and in section 253, "flyform deck panel" means a temporary supporting structure that is used as a modular falsework and that is intended to be moved and is capable of being moved from floor to floor and re-used during a construction project.
- (2) In addition to the requirements of section 253, an employer shall ensure that:
 - (a) a flyform deck panel is securely attached to the permanent structure or to an adjacent panel;
 - (b) the attachments referred to in clause (a) are completed and made secure before the flyform deck panel is detached from the hoist used to position the panel;
 - (c) all drawings and written procedures necessary to safely assemble, fly, use, dismantle or re-use a flyform deck panel are kept at the site for reference;
 - (d) the workers are instructed in and comply with the procedures referred to in clause (c); and
 - (e) the drawings and procedures referred to in clause (c) include:
 - (i) the plan view, the longitudinal section and the cross-section of the panel;
 - (ii) the calculated position of the centre of gravity of the panel;
 - (iii) the step by step procedures for all phases of assembly, flying, use, dismantling, repair and re-use of the panel;
 - (iv) procedures for ensuring stability, if the panel is inherently unstable;
 - (v) procedures for application of the panel on any non-typical floor; and
 - (vi) any other instructions necessary to ensure the safety of workers.

21 Mar 86 SR 24/86 s12.

Masonry wall erection

255 An employer shall ensure that a temporary supporting structure used to stabilize a masonry wall during its erection is not removed until the wall has been permanently stabilized.

21 Mar 86 SR 24/86 s12.

Skeleton steel pre-cast concrete erection

- **256**(1) Where structural members of a skeleton structure or concrete sections of a structure are to be erected, an employer shall ensure that the design includes safe procedures for erecting the members or sections.
- (2) An employer shall ensure that:
 - (a) the design and safe procedures for erecting the members or sections mentioned in subsection (1) are certified by a professional engineer; and

- (b) all the necessary drawings and instructions to safely erect the structure are kept at the project site.
- (3) An employer shall ensure that the workers are instructed in the safe procedures mentioned in subsection (1) and that the procedures are followed.
- (4) Where for any reason the procedures referred to in subsection (1) have to be modified, an employer shall ensure that:
 - (a) the modified procedures are certified by a professional engineer; and
 - (b) the drawings showing the modified procedures are available at the site.
- (5) An employer shall ensure that an experienced supervisor is present on the worksite while the erection of a skeleton structure is in progress until the structure has been permanently stabilized.

21 Mar 86 SR 24/86 s12.

PART XXIII Excavations, Trenches, Tunnels and Excavated Shafts

Interpretation

257 In this Part:

- (a) "excavation" means any dug out area of ground other than a trench, tunnel or excavated shaft;
- (b) "hard compact ground" means ground that can be excavated only by machinery and shows no sign of cracks after the excavation;
- (c) "spoil pile" means material excavated from an excavation, trench, tunnel or excavated shaft:
- (d) "temporary protective structure" means a structure or device in an excavation, trench, tunnel or excavated shaft designed to provide protection from cave-ins, collapse, sliding or rolling materials, and includes shoring, bracing, piles, planking and cages;
- (e) "trench" means an elongated dug out area of land whose depth exceeds its width at the bottom.

21 Mar 86 SR 24/86 s12.

General provisions

258(1) Before the commencement of work using power tools or powered mobile equipment on an excavation, trench, tunnel or excavated shaft, an employer shall establish the location of all underground pipelines, cables and conduits in the area where the work is to be done and shall conspicuously mark their locations.

- (2) An employer shall ensure that:
 - (a) where an operation is to be undertaken involving the disturbance of soil within 600 millimetres of an existing pipeline, cable or conduit, the pipeline, cable or conduit is exposed by hand digging before mechanical excavation is allowed to commence within that area; and
 - (b) where an operation mentioned in clause (a) has exposed a pipeline, cable or conduit, the pipeline, cable or conduit is supported to prevent any damage during backfilling and any subsequent settlement of the ground.
- (3) An employer shall ensure that every temporary protective structure to be used pursuant to this Part is designed, constructed and installed to provide adequate protection to any worker in an excavation, trench, tunnel or excavated shaft and to any worker installing the temporary protective structure.
- (4) Freezing of the ground by artificial means is acceptable as an alternative or partial alternative to the installation of a temporary protective structure in any tunnel, excavated shaft, excavation or trench provided that it is:
 - (a) designed by a professional engineer to control the ground condition so as to ensure the safety of every worker; and
 - (b) performed in accordance with the professional engineer's specifications and instructions.
- (5) Natural freezing of the ground is not acceptable as an alternative or partial alternative to the installation of temporary protective structures.
- (6) An employer shall ensure that:
 - (a) all drawings and instructions necessary to safely construct, install and use each temporary protective structure required pursuant to this Part are kept at the site of the excavation, trench, tunnel or excavated shaft; and
 - (b) where required by this Part, a professional engineer certifies that the temporary protective structure, if constructed and installed as drawn and used as instructed, will provide adequate protection to any worker constructing, installing or using the temporary protective structure.

21 Mar 86 SR 24/86 s12.

Excavations

- **259**(1) Where a worker is required or permitted to be present in an excavation that is more than 1.5 metres in depth and to be closer to the wall or bank than the distance equal to the depth of the excavation, the employer shall ensure that he is protected from cave-ins or sliding material by:
 - (a) cutting back the upper portion of the walls of the excavation to reduce the height of the remaining vertical walls to not more than 1.5 metres;
 - (b) the installation of a temporary protective structure; or

- (c) a combination of cutting back the walls and the installation of a temporary protective structure.
- (2) Where a wall of an excavation is cut back, an employer shall ensure that the slope of the cut-back wall is not less than 30 degrees from the vertical in hard compact ground and not less than 45 degrees from the vertical in any other ground.
- (3) An employer shall ensure that a temporary protective structure in an excavation more than three metres in depth is designed by and certified as safe by a professional engineer and installed in accordance with that design.

21 Mar 86 SR 24/86 s12.

Trenching

- **260**(1) Where a worker is present in a trench more than 1.2 metres in depth, the employer shall ensure that he is protected from any cave-in or sliding material by:
 - (a) cutting back the upper portion of the walls of the trench to an angle of not less than 30° to the vertical in hard compact ground or not less than 45° to the vertical in any other ground so that any remaining vertical wall does not exceed 1.2 metres in height;
 - (b) the installation of a temporary protective structure; or
 - (c) a combination of cutting back the walls and the installation of a temporary protective structure.
- (2) Subject to subsection (4), an employer shall ensure that any temporary protective structure is:
 - (a) designed and installed in accordance with Part X of the Appendix; or
 - (b) certified by a professional engineer to be adequate protection for any worker in the trench and is installed according to that certification.
- (3) Where any machine or heavy object is within a distance from the trench equal to one half the depth of the trench or where the trench is adjacent to or abutting a building or other structure, an employer shall ensure that additional protection is installed in the trench to compensate for the stress or weight of the machinery, heavy objects, buildings and structures.
- (4) Screw jacks, hydraulic equipment or other apparatus may be used as shoring, stringers or bracing, if they are at least equivalent in strength and reliability to the shoring, stringers or bracing described in Part X of the Appendix.
- (5) An employer shall ensure that:
 - (a) every worker is instructed in and complies with the requirements of this section;
 - (b) any worker who is installing shoring, stringers or bracing uses a ladder and works downward from the top of the trench, installing each brace in descending order; and

- (c) subject to subsection (8), any worker who is removing shoring, stringers or bracing uses a ladder and works upward from the bottom of the trench, removing each brace in ascending order.
- (6) When any worker is in a trench, the employer shall ensure that a competent worker is stationed on the surface to alert any worker in the trench about the development of any potentially unsafe conditions and to provide assistance in an emergency.
- (7) When any worker is required to enter a trench, the employer shall ensure that a safe means of access to and egress from the trench is provided at suitable locations.
- (8) Where the quality of ground in a trench or portion of a trench has deteriorated to the extent that it would be unsafe to use the method of removal referred to in clause (5)(c), an employer shall ensure that the shoring, stringers or bracing are removed by a method that does not require a worker to enter the trench or any part of that trench.

21 Mar 86 SR 24/86 s12.

Provisions for both excavations and trenches

261(1) An employer shall ensure that:

- (a) before proceeding with the work of excavation, any foundation that may be affected by an excavation or trench is supported by a temporary protective structure designed by a professional engineer and constructed and installed in accordance with that design;
- (b) all loose material is scaled or trimmed from the side of an excavation or trench where a worker is required to be present; and
- (c) any spoil pile is piled so that no part is nearer than 600 millimetres to the edge of an excavation or trench and the slope of the spoil pile adjacent to the excavation or trench is at an angle of not less than 45° to the vertical.
- (2) An employer shall notify the director before commencing work on an excavation or trench more than five metres in depth.
- (3) Where an excavation or trench is to be made in the vicinity of an overhead power line, an employer shall ensure that the work is carried out in a manner that will not reduce the original support provided for any overhead power line pole, unless permission has previously been obtained from the utility company responsible for that overhead power line.

21 Mar 86 SR 24/86 s12.

Tunnels and excavated shafts

262(1) An employer shall ensure that:

(a) during excavation, the walls of an excavated shaft are retained by adequate temporary protective structures to prevent collapse or cave-in of the walls of the excavated shaft;

- (b) during the excavation of any excavated shaft three metres or more in depth or of any tunnel, the walls of the shaft or tunnel are retained by temporary protective structures designed and certified by a professional engineer to be adequate for the protection of any worker in the shaft or tunnel and constructed and installed in accordance with that design;
- (c) a solid or wire mesh fence at least one metre in height or other equally effective means of preventing material from falling into an excavated shaft or the surface opening of a tunnel is provided around that shaft or opening; and
- (d) substantial gates not less than one metre in height are installed in every opening in a fence provided pursuant to clause (c) and that the gates are kept closed except when being used.
- (2) Before commencing work on any tunnel or any excavated shaft five metres or more in depth, an employer shall take all necessary steps to ensure that he has all the information respecting the ground conditions surrounding that tunnel or shaft necessary to enable him to provide safe temporary support structures and adequate drainage.
- (3) An employer shall provide suitable machinery or devices to maintain a tunnel or excavated shaft free from any accumulation of water.
- (4) Every worker who opens a gate referred to in clause (1)(d) shall close the gate after he no longer has a need to keep it open.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s29

Boreholes

263(1) An employer shall ensure that:

- (a) a worker who is required or permitted to enter a borehole is protected by the installation of a casing of sufficient strength to resist any movement of the surrounding ground; and
- (b) the casing referred to in clause (a) extends and remains at least 300 millimetres above the surface of the ground.
- (2) No employer shall require or permit any worker:
 - (a) to enter the belled area of an excavated shaft unless he is protected by a suitable temporary protective structure; or
 - (b) to remain in a belled area of an excavated shaft where he may be exposed to falling materials;

and the employer shall require that the worker precedes or accompanies each load of excavated material to the surface.

PART XXIV

Heat, Fire, Explosion, Hot Work and Confined Space Entry

Interpretation of Part

264 In this Part:

- (a) "combustible liquid" means any liquid having a flashpoint at or above 37.8° Celsius and below 93.3° Celsius;
- (b) "confined space" means a place that has a restricted means of access or egress and poor natural ventilation and includes an open or enclosed tank, vat, sewer, pipe, duct, flue, reactor, chamber and borehole;
- (c) "flammable liquid" means any liquid having a flashpoint below 37.8° Celsius and having a vapour pressure not exceeding 275.8 kilopascals at 37.8° Celsius;
- (d) "parachute type harness" means a safety harness which includes leg and shoulder straps and is so designed that it maintains the body in a vertical position when suspended.

21 Mar 86 SR 24/86 s12.

General duties with respect to fire prevention and control

265 An employer shall:

- (a) take all reasonably practicable steps to prevent the outbreak of fire at a place of employment and to provide effective means to control any fire that may occur;
- (b) prepare and implement an effective procedure which provides for the safety of all workers in the event of a fire including, where necessary, the control of that fire;
- (c) inform each worker of and instruct him in any duties which he may be required to perform by virtue of clause (b); and
- (d) post details of the procedures at a suitable place within the place of employment at all places of employment where 10 or more workers are usually present.

21 Mar 86 SR 24/86 s12.

Flammable liquids and flares

266 An employer shall:

- (a) prepare and implement written procedures to ensure the safety of workers:
 - (i) in the use or handling of any flammable liquid or substance present at a work site that is subject to auto-ignition or ignition when in combination with any other substance; and

- (ii) in the lighting or operation of any flare tip, flare stack or flare line used at a work site; and
- (b) instruct all workers in the application of those procedures.

21 Mar 86 SR 24/86 s12.

Fire precautions

267(1) An employer shall ensure that:

- (a) no gasoline is used for starting a fire; and
- (b) no flammable liquid is used in a cleaning operation.
- (2) An employer shall ensure that all materials contaminated by flammable liquids are placed in a covered metal container that is labelled "FLAMMABLE".
- (3) An employer shall provide covered containers for garbage that may constitute a fire hazard.
- (4) No employer shall require or permit a worker to:
 - (a) replenish a tank on a heating device with flammable or combustible liquid while the device is in operation or is hot enough to ignite that liquid; or
 - (b) place a tar pot, while in use, within three metres of an entrance to a building.
- (5) No worker shall replenish a tank on a heating device with flammable or combustible liquid while the device is in operation or is hot enough to ignite that liquid.
- (6) Every worker shall place materials contaminated by flammable liquids and garbage that may constitute a fire hazard into the appropriate container referred to in subsection (2) or (3).

21 Mar 86 SR 24/86 s12.

Storage of flammable liquid

268 An employer shall ensure that any combustible or flammable liquid is kept in a container that complies with the requirements of the National Fire Code of Canada, 1980, as amended from time to time, respecting container storage of flammable and combustible liquids.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Transfer of flammable liquids and explosive dust

269 An employer shall ensure that suitable procedures are used to prevent the ignition of flammable liquid or explosive dust by any static charge when any flammable liquid or explosive dust is transferred from one vessel to another.

Control of ignition sources

270 An employer shall ensure that all sources or potential sources of ignition have been eliminated or controlled where an explosive atmosphere exists or is likely to exist.

21 Mar 86 SR 24/86 s12.

Fire extinguishers, heating devices and tar pots

271 An employer shall have a fire extinguisher of at least nine kilograms capacity suitable for use on class B and class C fires placed not more than 10 metres away from each temporary industrial heating device or tar pot in use and each welding or cutting operation in progress.

21 Mar 86 SR 24/86 s12.

Hot work

- **272**(1) In this section, "hot work" means any work in which a flame is used or sparks are produced and includes welding and burning.
- (2) An employer shall ensure that no hot work is performed where a flammable liquid or explosive substance is or may be present until:
 - (a) suitable tests properly conducted have been made that indicate the work may be safely performed; and
 - (b) suitable procedures, including testing, have been adopted and implemented to ensure continuous safe performance of the work.
- (3) When testing procedures are required during hot work, an employer shall have tests made at intervals appropriate to the work being performed and the results recorded.
- (4) No employer shall require or permit any hot work to be performed in the vicinity of any material that may constitute a fire hazard until suitable steps, which may include the wetting down of the material, have been taken to reduce the risk of fire.
- (5) An employer shall ensure that every tanker, tank, vessel or piping that contains or has contained any combustible liquid, flammable liquid or explosive substance is purged before any hot work is commenced on that tanker, tank, vessel or piping.
- (6) No employer shall require or permit any welding or cutting of metal that has been cleaned with a combustible liquid until it has thoroughly dried.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Pressurized gases

273(1) An employer shall ensure that:

- (a) every tank, cylinder and other container containing compressed gas and any associated fittings, pipes or apparatus used for the burning or other use of the compressed gas is:
 - (i) located or protected in a manner that will prevent damage from physical contact or misuse; and

- (ii) installed, maintained and regularly inspected by competent persons to ensure safe storage and use;
- (b) every tank, cylinder and other container for compressed gas is secured against falling during transportation, storage and use; and
- (c) every service valve outlet and extension of every service valve outlet of every tank, cylinder and other containing flammable compressed gas that is not connected to any apparatus is capped.
- (2) Where equipment is designed for use with a particular compressed gas or gases, the employer shall ensure that only that gas is used or those gases are used in that equipment.
- (3) Where gas burning or welding equipment is in use, the employer shall ensure that suitable flashback devices to prevent reverse gas flow are installed on both hoses at either the torch end or the regulator end.
- (4) An employer shall ensure that every acetylene cylinder is stored and used in an upright position.

28 Oct 88 SR 90/88 s30.

Worker responsibility

274 A worker shall:

- (a) shut off the cylinder valve and release the pressure in the hose when he has finished with any gas welding or burning equipment and is not likely to use it within the next two hours;
- (b) secure the cap in place before transporting any compressed gas cylinder; and $% \left(1\right) =\left(1\right) \left(1\right)$
- (c) take all reasonable steps to ensure that sparks, flames or other sources of ignition do not come into contact with any compressed gas cylinder, regulator or hose.

21 Mar 86 SR 24/86 s12.

Compressed and liquified gas systems

275(1) An employer shall:

- (a) develop written instructions for the safe use of any compressed or liquified gas system;
- (b) post the instructions mentioned in clause (a) in the work area before requiring or permitting the use of the system; and
- (c) ensure that any compressed or liquified gas system is used in accordance with the written instructions mentioned in clause (a).
- (2) An employer shall ensure that:
 - (a) every compressed or liquified gas system is:
 - (i) not exposed to temperatures that may result in the failure of the system or explosion of the contents of the system; and

- (ii) maintained in a clean state, free from oil, grease or any other contaminant that may cause a failure of the system or that may burn or explode if it comes into contact with the contents of the system; and
- (b) the cylinders, piping and fittings of the system mentioned in clause (a) are located, guarded and handled during filling, transportation, use and storage in such a manner that they are protected from damage from physical contact.

21 Mar 86 SR 24/86 s12.

Oxygen distribution systems

276 An employer shall ensure that:

- (a) no oil, grease or other contaminant contacts any cylinder, valve, regulator or any other fitting of an oxygen using apparatus or any oxygen distribution or generating system; and
- (b) no oxygen distribution or generating system is used:
 - (i) in pneumatic tools;
 - (ii) to create pressure; or
 - (iii) for ventilating purposes.

21 Mar 86 SR 24/86 s12.

Working in confined spaces

- **277**(1) Before a worker is required or permitted to enter a confined space, the employer shall examine the confined space for all possible hazards that may endanger the worker, including:
 - (a) the presence of any toxic, flammable or explosive substance;
 - (b) a lack of oxygen;
 - (c) the release of toxic, flammable or explosive substance or the depletion of oxygen resulting from work activities or the other causes during the worker's occupation of the confined space;
 - (d) the movement of any material within or into the confined space; and
 - (e) the release of energy within or into the confined space.
- (2) Where the examination mentioned in subsection (1) reveals:
 - (a) no possible hazard, the employer shall make a written statement to this effect; and
 - (b) a possible hazard, the employer shall:
 - (i) prepare written instructions for measures to ensure the safety of a worker who enters or works in the confined space; and
 - (ii) implement the measures mentioned in subclause (i).

- (3) Where a possible hazard arises from atmospheric conditions within a confined space, the written instructions required pursuant to subclause (2)(b)(i) shall include a requirement that:
 - (a) the confined space is:
 - (i) purged and ventilated before a worker is allowed to enter the space, so that:
 - (A) any hazard associated with a toxic, flammable or explosive substance is eliminated; and
 - (B) an oxygen content of not less than 18% and not more than 23% is ensured; and
 - (ii) continuously ventilated at all times during which the worker occupies the confined space, to maintain the safety of the atmosphere; or
 - (b) subject to subsection (3.2), the worker is provided with a respiratory protective device as defined in subsection 191(1).
- (3.1) Where ventilation is used to eliminate a possible hazard pursuant to clause (3)(a), the employer shall test the atmosphere at appropriate intervals to ensure that the ventilation is adequate to protect a worker who enters or works in the confined space.
- (3.2) No employer shall require or permit a worker to enter or work in a confined space using a respiratory protective device if any flammable or explosive material is present in the atmosphere of the confined space at a level that is more than 20% of the lower explosive limit of that material.
- (3.3) Where any flammable or explosive gases, vapours or liquids are or may be present in a confined space, the employer shall ensure that all sources of ignition are eliminated or controlled.
- (4) Where a worker is required or permitted to work in a confined space, the employer shall ensure that:
 - (a) the worker is attended by and in communication with another worker who has been adequately trained in effective rescue procedures and who is stationed at or near the entrance to the confined space;
 - (b) instructions for rescue procedures are posted at the work site;
 - (c) equipment necessary to rescue the worker is available at the work site and is used in accordance with the instructions mentioned in clause (b); and
 - (d) where access to the confined space is from the top, the worker wears a parachute type harness attached to a lifeline that is attended by another worker.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s31

Piping connected to confined spaces

- **278**(1) When a worker may be required or permitted to work in a confined space into which piping may discharge a harmful substance, the employer shall ensure that the piping:
 - (a) is capable of having a blank installed before the piping enters the confined space; or
 - (b) is equipped with two valves with a bleed-off valve installed between them.
- (2) When a worker is required or permitted to enter a confined space into which piping may discharge a harmful substance, the employer shall ensure that:
 - (a) where provision has been made for installing a blank pursuant to clause (1)(a), that blank is installed; or
 - (b) where two valves and a bleed-off valve have been installed pursuant to clause (1)(b):
 - (i) the valves in the flow lines are locked in the "CLOSED" position and the bleed-off valve is locked in the "OPEN" position and that reasonable measures are taken to ensure that the valves are not activated while a worker is in the confined space; and
 - (ii) a worker is stationed at the location of the bleed-off valve to monitor its operation and to warn the workers in the confined space in case of emergency.

21 Mar 86 SR 24/86 s12.

Piping, fittings and valves

- **279**(1) Where workers are required or permitted to work on piping that may contain harmful substances or substances under pressure, the employer shall ensure that suitable precautions are taken to protect those workers from contact with those substances.
- (2) For the purposes of subsection (1):
 - (a) a single valve is not a suitable precaution to protect workers; and
 - (b) either:
 - (i) the installation of a blank in the piping; or
 - (ii) the closing of two valves installed in the line and the opening of a bleed-off valve installed between them;

is a suitable precaution for the protection of workers.

- (3) An employer shall ensure that:
 - (a) piping mentioned in subclause (2)(b)(i) is clearly marked to indicate that a blank has been installed; or

- (b) the two valves mentioned in subclause (2)(b)(ii) are locked in the "CLOSED" position and the bleed-off valve is locked in the "OPEN" position and that reasonable measures are taken to ensure that the valves are not activated while a worker is working on the piping.
- (4) Repealed. 28 Oct 88 SR 90/88 s32.
- (5) An employer shall ensure that any valve installed on any piping or vessel mentioned in this section is clearly marked to indicate the "OPEN" and "CLOSED" positions.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s32

PART XXV Electrical Requirements

Interpretation

280 In this Part:

- (a) "absolute limit of approach" means the least distance permissible under any circumstances between any exposed energized high voltage electrical conductor and any part of a worker's body or any part of any equipment or material with which the worker may be in contact, as prescribed in Part XI of the Appendix;
- (b) "high voltage" means any voltage in excess of 208 volts to ground or 300 volts phase to phase.

21 Mar 86 SR 24/86 s12.

Extension cords

- **281** An employer shall ensure that any electrical extension cord used for supplying energy to any piece of equipment other than a light is:
 - (a) approved for the intended use and location;
 - (b) provided with a grounding conductor unless it is used with equipment exempted from grounding requirements pursuant to section 284; and
 - (c) protected from damage from physical contact.

21 Mar 86 SR 24/86 s12.

Extension lights

- 282 An employer shall ensure that where an extension light is used:
 - (a) the electrical extension cord and fitting are of an approved type and are properly maintained; and
 - (b) the electrical extension cord is not used to supply power to any equipment other than the extension light unless it meets the requirements of section 281.

Extension lights in moist locations

283 In addition to the requirements of sections 281 and 282, an employer shall ensure that an electrical extension light used in any moist location or in any metallic enclosure including any drum, tank, vessel or boiler, is operated at a potential of not more than 12 volts or is supplied by a circuit protected by a ground fault interrupter.

21 Mar 86 SR 24/86 s12.

Grounding of tools and equipment

284 An employer shall ensure that every exposed metal part of any portable equipment not designed to carry current is effectively grounded unless:

- (a) the equipment is of approved double insulated-type and is clearly marked as such;
- (b) power is supplied through an isolating transformer having a non-grounded secondary of not more than 50 volts potential;
- (c) power is supplied through a ground fault circuit interrupter; or
- (d) power is supplied from a battery of not over 50 volts potential.

21 Mar 86 SR 24/86 s12.

Grounding of relocatable electric power plants

285 An employer shall ensure that a relocatable electric power plant supplying energy to any equipment, building or trailer is properly grounded with a copper conductor whose cross sectional area is not less than the cross sectional area of the largest conductor supplying energy to the system.

21 Mar 86 SR 24/86 s12.

Electrical panels

286 An employer shall ensure that every electrical panel is:

- (a) located where water will not accumulate:
- (b) protected from damage from physical contact; and
- (c) readily accessible.

21 Mar 86 SR 24/86 s12.

Housing of permanent electrical switchgear and transformer

287 An employer shall ensure, to the extent that is reasonably practicable, that every place where a permanent electrical switchgear or a transformer is housed is:

- (a) kept clean of extraneous material;
- (b) adequately and suitably ventilated; and
- (c) not used as a travelway by workers or vehicles.

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OCCUPATIONAL HEALTH AND SAFETY

Guarded locations

- **288**(1) In this section, "guarded location" means an area to which access is restricted by the use of fences, barricades or other equally effective means.
- (2) Subject to subsection (3), an employer shall ensure that a warning sign is posted at the entrance of a room or guarded location where there are energized high voltage electrical transformers or switchgear.
- (3) The warning signs posted pursuant to subsection (2) are to indicate:
 - (a) the highest voltage in use; and
 - (b) that entry is restricted to authorized persons only.
- (4) An employer shall instruct all workers who work in a room or adjacent to a guarded location containing energized high voltage electrical conductors in procedures to:
 - (a) be followed in case of electrical fires;
 - (b) rescue a worker in contact with a live conductor; and
 - (c) resuscitate a worker who has suffered the effects of an electrical shock;

by posting suitable notices at the entrance to such a room or guarded location or by conducting a training program.

(5) An employer shall ensure that a fire extinguisher approved for class C fires is located in a position adjacent to any room or guarded location containing energized high voltage electrical conductors.

21 Mar 86 SR 24/86 s12.

Protection from contact with energized high voltage electrical conductors

- **289**(1) No employer shall require or permit a worker who is at ground potential to approach an exposed energized high voltage electrical conductor closer than the absolute limit of approach under any circumstances.
- (2) Except as otherwise provided in this section, an employer shall ensure that no worker works, no material is piled, stored or otherwise handled, no scaffold is erected or dismantled or any tool, machinery or powered mobile equipment operated within the minimum distance from any energized high voltage electrical conductor prescribed in subsection (3).
- (3) An employer shall ensure that the following minimum distances from any exposed energized high voltage electrical conductor are maintained for the specified voltage:

Voltage	Minimum Distance
Phase to Phase	
300 V - 75 kV	3 metres
over 75 kV - 250 kV	4.6 metres
over $250 \text{ kV} - 550 \text{ kV}$	6.1 metres

- (4) Subsection (2) does not apply to any work performed in close proximity to:
 - (a) an overhead trolley wire system; or
 - (b) an energized high voltage electrical conductor where the work is carried out with the consent of:
 - (i) the Saskatchewan Power Corporation;
 - (ii) an electric company to which *The Public Utilities Companies Act* applies; or
 - (iii) the owner of a private electric power distribution system; as the case may require.
- (5) Subsection (2) does not apply to work performed on an energized high voltage electrical conductor where that work is performed by an electrical worker who is competent in such work in accordance with written instructions for a safe work procedure developed by a competent person and signed by a competent person appointed by the employer for the purpose.
- (6) Where, pursuant to subsection (4) or (5), an employer requires or permits a worker to work in the area between the minimum distance prescribed by subsection (3) and the absolute limit of approach, the employer shall ensure that the worker remains in that area for the minimum time necessary for him to perform his work.
- (7) An employer shall ensure that no vehicle as defined in *The Highway Traffic Act* or vehicle and its load is operated on a public road, highway, street, lane or alley within the following minimum distances from any exposed energized high voltage electrical conductor:

Voltage Phase to Phase	Minimum Distance
230 kV	1.83 metres
138 kV	1.22 metres
$72~\mathrm{kV}$	0.8 metres
$25~\mathrm{kV}$	0.5 metres
$15~\mathrm{kV}$	0.5 metres
4.16 kV	0.3 metres

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s33.

Low voltage conductors

290 Where work is being carried out in proximity to energized electrical conductors operating at 50 volts to 208 volts to ground or 300 volts phase to phase, the employer shall ensure that such work is carried out in a manner that contact with the energized conductor by any worker is prevented.

Electrical conductors and equipment to be de-energized

291 Before any work, other than work to which subsection 289(6) applies, is commenced on any electrical conductor or equipment and during the progress of such work, the employer shall ensure that the conductor or equipment is isolated, locked out and grounded or that other effective procedures are taken to ensure the safety of the workers.

21 Mar 86 SR 24/86 s12.

Testing of energized line tools

292 An employer shall ensure that tools and measuring devices used in work on energized high voltage electrical conductors are of an approved type and tested by an approved method at suitable intervals.

21 Mar 86 SR 24/86 s12.

Electrical trailing cables

293(1) An employer shall ensure that:

- (a) every electrical trailing cable is protected from damage from physical contact;
- (b) every splice in an electrical trailing cable is sufficiently strong and adequately insulated to retain the mechanical and dielectric strength of the original cable;
- (c) every electrical trailing cable and its plugs are examined by a competent person during each work shift and, where reasonably practicable, before the commencement of the work shift; and
- (d) an electrical trailing cable is immediately taken out of service or repaired where examination shows that the cable or plugs may be unsafe.
- (2) A worker shall take all reasonably practicable steps not to drive equipment over, or otherwise damage, electrical trailing cables.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Cables in tunnels and manholes

294 Where a cable or piece of electrical equipment is permanently installed in a tunnel or manhole, the employer shall ensure so far as is reasonably practicable that:

- (a) the tunnel or manhole is kept clear of water; and
- (b) the cable or equipment is protected from damage by physical contact.

21 Mar 86 SR 24/86 s12.

Work limited to qualified workers

295(1) Subject to subsection (2), the employer shall permit only electrical workers who are competent to work on high voltage electrical conductors to work in the construction, alteration, repair or maintenance of electrical transmission and distribution lines and equipment.

- (2) An employer may permit any competent worker to:
 - (a) extend a trailing cable for routine advancement; and
 - (b) change:
 - (i) light bulbs or tubes; or
 - (ii) fuses up to a maximum of 120 volts potential.

21 Mar 86 SR 24/86 s12.

Lighting

296 An employer shall ensure that any lighting fixture located at a height of less than two metres above a working or walking surface is protected against damage from physical contact.

21 Mar 86 SR 24/86 s12.

PART XXVI Demolition Work

Demolition work

297(1) In this section "demolition" means the tearing down, destruction, breaking up or razing of a building or a structure including the demolition of any major part of a building or structure involving outer walls or principal supporting members.

- (2) An employer shall ensure that in any demolition:
 - (a) a competent supervisor is appointed to be in charge of the demolition at all times that the work is in progress;
 - (b) any temporary office or tool box is located clear of any falling material;
 - (c) subject to subsection (3), every gas, electrical, telecommunications, sewer and water service connected to the building or structure is disconnected prior to demolition;
 - (d) where any worker is or may be present in the building during demolition, the demolition is performed floor by floor from the top downward;
 - (e) all glass is removed before demolition commences;
 - (f) where the demolition of a structure may affect the stability of an adjoining structure, the demolition is carried out in accordance with procedures certified in writing by a professional engineer to safeguard the stability of the adjoining structure;
 - (g) a copy of the procedures mentioned in clause (f) is kept at the work site during demolition;
 - (h) dust from the demolition is controlled to the extent that is reasonably practicable;

- (i) materials and debris are not allowed to accumulate in any area to the extent that they cause overloading of a structure which could result in the collapse of all or part of the structure;
- (j) any material chute steeper than 45 degrees from the horizontal is constructed to enclose the material placed in it;
- (k) where a material chute presents a danger to workers, a guard-rail is installed around the top of the chute to prevent workers from falling into the chute;
- (l) any opening or hole in a floor or roof is guarded or covered as required by section 164;
- (m) a free-standing scaffold is used in the demolition of a building shaft from the inside:
- (n) steel structures are dismantled column length by column length and tier by tier from the top downward;
- (o) a structural member which is being removed is not under any stress other than its own weight and is secured or supported to prevent any unexpected movement;
- (p) where any structural member is being hoisted by a crane or other similar lifting device from a structure being demolished or from the demolition rubble, the hoisting line is in a vertical position and is over the centre of gravity of the load in such a manner as to reduce the danger to workers from a swinging or uncontrolled load;
- (q) before powered mobile equipment is placed on a floor for the purpose of demolition, the floor is capable of supporting the load that may be placed on it;
- (r) safe work procedures are developed and implemented where powered mobile equipment is used for the purpose of demolishing a structure; and
- (s) no wall or other part of the structure is left in an unstable condition or in danger of accidental collapse except during the actual demolition of that wall or part of the structure.
- (3) Notwithstanding clause (2)(c), where power is required for illumination or another purpose, the employer shall provide a suitably located temporary power service.
- (4) Where any building is to be demolished by explosives, the employer shall have a demolition procedure designed by a competent person to ensure the safety of workers and shall submit a copy to the director 30 days before the proposed date of the demolition.

PART XXVII Work in Compressed Air

Interpretation of Part

298 In this Part:

- (a) "air lock" means a chamber designed for the passage of persons or materials from one place to a place with a different air pressure;
- (b) "compressed air" means air mechanically raised to a pressure higher than 15 kilopascals above atmospheric pressure;
- (c) "medical lock" means a chamber in which persons may be subjected to changes in air pressure for medical purposes;
- (d) "working chamber" means the part of a project under construction that is used for work in compressed air, but does not include an air lock or medical lock.

21 Mar 86 SR 24/86 s12.

Application

299 This Part applies to work performed in compressed air, but does not apply to divers or persons working in diving bells.

21 Mar 86 SR 24/86 s12.

General provisions

- **300**(1) At least 30 days before the beginning of work in compressed air, the employer shall notify the director in writing of the nature and location of the work and shall furnish the director with copies of the certificates of a professional engineer and a physician certifying that the design of the compressed air installation and its components, including any air lock, medical lock, bulkhead, door and working chamber, the air supply system, the control system and the emergency facilities, are of suitable and adequate design to provide a safe and healthy working environment.
- (2) The certificates mentioned in subsection (1) are to contain a statement of conditions and procedures that are necessary to ensure the safety and health of workers employed in the compressed air installation.
- (3) An employer shall ensure that any work in the compressed air installation is performed in accordance with conditions and procedures stated in the certificates mentioned in subsection (1).
- (4) An employer shall ensure that when workers are employed in a working chamber:
 - (a) proper emergency procedures have been adopted and implemented including adequate decompression procedures to prevent worker ill health;
 - (b) all workers are fully instructed in the emergency procedures mentioned in clause (a);

- (c) the workers are regularly monitored by a physician; and
- (d) a competent supervisor is appointed who is given the authority and resources necessary to ensure the health and safety of workers in the working chamber.
- (5) A worker monitored by a physician pursuant to clause (4)(c) shall comply with any requirement the physician considers necessary to prevent or treat ill health caused by working in compressed air.

21 Mar 86 SR 24/86 s12.

PART XXVIII Diving Operations

Interpretation of Part

301 In this Part:

- (a) "air" means respirable air;
- (b) "atmospheric pressure" means atmospheric pressure at the surface of the water;
- (c) "bail-out system" means an independent breathing gas supply of sufficient quantity to return a diver to the surface, a diving bell or an emergency supply in the event of a malfunction of the primary breathing gas supply system;
- (d) "bottom time" means the total elapsed time, measured in minutes, from the time a descending diver leaves the surface of the water to the time the diver begins final ascent;
- (e) "breathing gas" means:
 - (i) air; or
 - (ii) mixed gas;
- (f) "Class A hyperbaric chamber" means a hyperbaric chamber that meets the requirements of CSA Standard Z275.1-M1982 Hyperbaric Facilities for Class A Hyperbaric Chambers;
- (g) "decompression limit" means that point in the descent of a diver, based on the depth and duration of the dive and determined in accordance with a decompression table, beyond which the diver, if he descends further, will require one or more decompression stops during his ascent;
- (h) "decompression schedule" means the procedure derived from a decompression table that a diver follows during his ascent from a depth in order to minimize the risk of decompression sickness;

- (i) "decompression sickness" means a condition caused by formation of gas bubbles in the blood or body tissue as a result of the reduction of pressure on the body;
- (j) "decompression table" means a table mentioned in section 303;
- (k) "deep diving" means diving by any mode to depths greater than 33 metres;
- (l) "dive site" means that location at the surface of the water at which the diver enters the water at the commencement of a dive and to which he intends to return when he ascends:
- (m) "diver" means a worker or self-employed person who performs underwater work;
- (n) "diver's tender" means a worker who is competent and knowledgeable in the diving apparatus being used for a dive, the diving operation in progress, emergency diving procedures and signals to be used between diver and divers's tender and who monitors the dive of a diver;
- (o) "diving supervisor" means a competent person who has complete responsibility for a diving operation including responsibility for the health and safety of all diving personnel;
- (p) "dressed in" means fully equipped to dive and ready to enter the water, with all life support and communications equipment tested and at hand, but not necessarily with the helmet, face plate or face mask in place;
- (q) "free swimming diving" means diving while using scuba with the diver supervised but not tethered to the surface by a lifeline or float;
- (r) "hyperbaric chamber" means a pressure resistant structure and associated equipment designed for the purpose of subjecting persons to pressure greater than atmospheric pressure;
- (s) "lifeline" means a line of manilla rope 12.7 millimetres in diameter or of material of equivalent or greater breaking strength secured at the surface to a substantial anchorage;
- (t) "life support hose bundle" means a composite hose and cable, or separate hoses and cables, extending from the surface to a diver or to a submersible chamber occupied by a diver that supplies breathing gas, power, heat and communication to the diver;
- (u) "mixed gas" means a respirable breathing mixture other than air that provides adequate oxygen to support life and does not cause detrimental physiological effects, such as excessive breathing resistance and impairment of neurological function;
- (v) "scuba" means self-contained open circuit compressed air breathing apparatus;

- (w) "stand-by diver" means a diver who is:
 - (i) available at a dive site to give assistance to a submerged diver in the event of an emergency;
 - (ii) dressed in; and
 - (iii) trained and equipped to operate at the depths and in the circumstances in which the submerged diver is operating;
- (x) "surface supply diving" means a mode of diving in which the diver is supplied from the dive site with a breathing gas by way of an umbilical;
- (y) "therapeutic recompression" means treatment of a diver for decompression sickness, usually in a hyperbaric chamber, in accordance with approved procedures;
- (z) "umbilical" means a life support hose bundle.

21 Mar 86 SR 24/86 s12.

Application

302 This Part applies to underwater diving operations.

21 Mar 86 SR 24/86 s12.

Standards

303 An employer shall ensure that all diving operations, repetitive dives and treatment of divers are carried out in strict accordance with decompression tables and procedures published or approved by the Defence and Civil Institute of Environmental Medicine (Canada), the United States Navy or another approved agency.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Employer's duties

304 An employer shall ensure that:

- (a) no diver is required or permitted to dive unless the diver furnishes him with a copy of the certificate of a physician obtained pursuant to subsection 317(2) within the preceding 12 months;
- (b) he retains a copy of the certificate mentioned in clause (a) while the diver is employed by him; and
- (c) every diver employed by him is competent in the use of the diving apparatus he will be required to use in any diving operation.

21 Mar 86 SR 24/86 s12.

Diving supervisor

305 An employer shall:

(a) ensure that each diving operation is conducted under the supervision of a diving supervisor; and

(b) give to the diving supervisor all the information and resources necessary to ensure the health and safety of every diver under his supervision.

21 Mar 86 SR 24/86 s12.

Hyperbaric chamber

306 An employer shall ensure that a Class A hyperbaric chamber, in operable condition, is on site whenever:

- (a) a dive is planned which may exceed the decompression limit; or
- (b) the depth of a dive is greater than 33 metres.

21 Mar 86 SR 24/86 s12.

Standby dive

- **307**(1) An employer shall ensure that a dressed in stand-by diver is present at all times when diving operations are in progress.
- (2) No employer shall require or permit a stand-by diver to dive except in the case of emergency.

21 Mar 86 SR 24/86 s12.

Air quality

308 An employer shall ensure that:

- (a) when air is used as the breathing gas, it is clean and wholesome and supplied in adequate quantity and that a reserve supply of 2.5 times the air required for the operation is supplied; and
- (b) where a mixed gas is used as the breathing gas, the decompression procedures, schedules and tables used are appropriate for the mixed gas.

21 Mar 86 SR 24/86 s12.

Equipment requirements

309 An employer shall ensure that all diving equipment including breathing apparatus, compressor, compressed gas cylinder, gas control valve, pressure gauge, reserve supply device, piping, helmet, winch, cable, diving bell or stage and every other accessory necessary for the safe conduct of the diving operation is of approved design, sound construction, adequate strength, free from patent defect and properly maintained.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Diver's tender

- **310**(1) An employer shall ensure that a diver's tender acceptable to the diver is provided for each diver in the water during a diving operation.
- (2) An employer shall ensure that the diver's tender devotes his whole time and attention to monitoring the dive of the diver and receiving signals from the diver.

Duties of diving supervisor

- **311**(1) The diving supervisor shall submit a general diving plan in writing to the employer before commencement of any diving operation.
- (2) Notwithstanding the duties of the employer pursuant to section 304, the diving supervisor shall:
 - (a) plan the dive to ensure the health and safety of the diver;
 - (b) instruct the surface crew on the procedures necessary to ensure the health and safety of the diver;
 - (c) ensure that all necessary equipment, including the diving equipment mentioned in section 309, is available and is in good operating condition;
 - (d) ensure that the quantity of breathing gas supplied to a diver is sufficient for the dive that is planned;
 - (e) develop and implement a contingency plan for any emergency situation that may endanger the diver;
 - (f) keep a log showing each diver's activities on each day and make entries respecting each dive on the day on which the dive is performed;
 - (g) remain in the immediate area of the dive site at all times while diving operations are in progress;
 - (h) ensure that each diver enters in his personal log the information required by clause 317(4)(a) for each dive performed by the diver; and
 - (i) verify the accuracy of the information recorded in each diver's personal log pursuant to clause 317(4)(a) and sign the entry to acknowledge his verification.

21 Mar 86 SR 24/86 s 12.

Free swimming diving

- **312**(1) An employer shall ensure that free swimming diving is performed only where a dive cannot safely be accomplished in the tethered mode.
- (2) No employer shall require or permit a diver to perform free swimming diving unless:
 - (a) the "buddy" system is used; and
 - (b) the employer has first ensured that the conditions are such that the free swimming dive can be undertaken without unreasonable danger to the diver.

21 Mar 86 SR 24/86 s12.

Scuba equipment

- 313 An employer shall ensure that during scuba diving operations a diver uses:
 - (a) open-circuit demand apparatus with quick release harness;
 - (b) a reserve device or bail-out system; and

(c) except where the "buddy system" is used, a lifeline.

21 Mar 86 SR 24/86 s12.

Scuba maximum depth

314 An employer shall ensure that no diver using scuba equipment dives to a depth exceeding 33 metres.

21 Mar 86 SR 24/86 s12.

Minimum crew

- 315 An employer shall ensure that at least three workers are present at each dive site of whom:
 - (a) one is to be a diver;
 - (b) one is to be a stand-by diver; and
 - (c) one is to be a diver's tender.

21 Mar 86 SR 24/86 s12.

Surface supply diving equipment

- 316 In addition to the other diving equipment requirements set out in this Part, the employer shall ensure, where a diver is required or permitted to perform surface-supply diving, that:
 - (a) the connections between the airline and the equipment supplying the breathing gas to the diver are secured and properly guarded to prevent accidental disconnection or damage;
 - (b) the airline is equipped with the following, in sequence from the surface connection:
 - (i) a regulating valve clearly marked as to which diver's air supply it controls;
 - (ii) a pressure measuring gauge accessible and clearly visible to the diver's tender; and
 - (iii) a non-return valve at the point of attachment of the airline to the diving helmet or mask; and
 - (c) the diver is equipped with a lifeline and an effective means of two-way communication between the diver and the diver's tender.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Diver's duties

317(1) Each diver shall have a comprehensive medical examination conducted by a physician at least once every 12 months in accordance with the criteria set forth in Appendices A and B of CSA Standard Z275.2-M 1982 Occupational Safety Code for Diving Operations.

- (2) No diver shall dive unless he has been certified by the physician mentioned in subsection (1) to be free of any medical condition that would make unsafe the performance of the type of dive to be carried out.
- (3) Each diver shall:
 - (a) furnish his employer with a copy of the certificate given by the physician mentioned in subsection (1); and
 - (b) place the original certificate in his personal log.
- (4) Each diver shall maintain and retain in his possession for a five-year period after its completion a personal log that records in chronological order:
 - (a) an entry for every dive that he has made, verified and signed by the diving supervisor, that includes:
 - (i) the type of breathing apparatus used;
 - (ii) the breathing gas used;
 - (iii) the time the diver left the surface;
 - (iv) the bottom time;
 - (v) the maximum depth reached;
 - (vi) the time the diver left the bottom;
 - (vii) the time the diver reached the surface;
 - (viii) the surface interval, if more than one dive is undertaken in a day;
 - (ix) the decompression table and schedule used;
 - (x) the date of the dive;
 - (xi) any observations relevant to the health and safety of the diver arising from the dive; and
 - (xii) the name of the employer; and
 - (b) an entry respecting any medical recompression or other exposure to hyperbaric environment signed by the attending physician or diving supervisor.
- (5) Every diver shall:
 - (a) proceed in accordance with the general diving plan and the instructions of the diving supervisor;
 - (b) inspect his equipment immediately preceding each dive; and
 - (c) commence each dive by submerging and checking all equipment to ensure that there are no leaks and that it is functioning properly.

PART XXIX Explosives

General provisions

- **318**(1) Every employer who plans to conduct blasting activities, other than those subject to Saskatchewan Regulations 284/78 or 2/85, shall ensure that the worker undertaking a blasting operation has been thoroughly instructed by a competent person regarding:
 - (a) the estimation of the amount of explosives required, the placing of the charge and the priming and initiation of the charge;
 - (b) appropriate procedures to ensure the safety of other workers;
 - (c) procedures to be adopted in the event of a misfire; and
 - (d) the examination of the site after blasting to ensure that the site is safe to return to.
- (2) No employer shall require or permit a worker to conduct blasting activities unless the worker is:
 - (a) competent;
 - (b) the holder of written authorization to blast signed by the employer; and
 - (c) provided with suitable testing and detonating equipment.
- (3) An employer shall ensure that appropriate written procedures are given to the worker conducting a blasting operation to ensure the safety of that worker and any other person in the vicinity of the blasting operation.
- (4) An employer shall forward to the director a duplicate of any written authorization to blast required pursuant to clause (2)(b) within three days of the date on which the authorization was issued to the worker.
- (5) No worker shall undertake any blasting activity until he:
 - (a) is familiar with federal and provincial statutes, regulations and codes of practice pertaining to the safe use of explosives; and
 - (b) has in his possession written authorization to blast signed by his employer.
- (6) Any worker undertaking a blasting activity shall follow the procedures given by the employer pursuant to subsection (3).

21 Mar 86 SR 24/86 s12.

Blasting certificates

- **319**(1) On and after January 1, 1987, no employer who conducts blasting activities shall issue an authorization to blast to any worker unless that worker has a certificate from the director stating that the worker:
 - (a) has demonstrated his competence to carry out the procedures mentioned in subsection 318(1); and

- (b) has a thorough knowledge of all statutes, regulations and codes of practice pertaining to the safe use of explosives that are relevant to the blasting operation in question.
- (2) On and after January 1, 1989, no employer or self-employed person shall personally undertake a blasting operation unless he has a certificate from the director stating that the employer or self-employed person has the competence and knowledge described in clauses (1)(a) and (b).
- (3) This section does not apply to activities that are governed by Saskatchewan Regulations 284/78 or Saskatchewan Regulations 2/85.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88

PART XXX Oil and Gas Drilling, Servicing and Producing

Interpretation of Part

320 In this Part:

- (a) "derrick" means a superstructure used to support a drilling mechanism;
- (b) "drilling rig" includes the derrick, engine houses and all mechanical equipment directly involved with drilling a well or producing oil or gas from a well;
- (c) "rig" includes drilling rig and service rig.

21 Mar 86 SR 24/86 s12.

Application of Part

321 This Part applies to all drilling procedures for the exploration of oil and gas and to the drilling, operation and servicing of any gas or oil well, the production of oil or gas from any well and the ancillary processes associated with these activities.

21 Mar 86 SR 24/86 s12.

Daily tour book

- **322** An employer shall provide for each rig a daily tour book and shall ensure that:
 - (a) the daily tour book is kept at the site of the rig; and
 - (b) details of all inspections required by these regulations are entered in the daily tour book.

Structural changes and load

- **323**(1) An employer shall ensure that every rig, including every derrick, winch, rope and load-carrying attachment, is designed, constructed, installed and maintained so as to fulfil its intended purpose safely.
- (2) An employer shall ensure that:
 - (a) the maximum safe operating depth of every rig, based on the design of the equipment, for each specified condition is determined and certified by the manufacturer or a professional engineer;
 - (b) the maximum safe operating load of every derrick is determined and certified by the manufacturer or a professional engineer;
 - (c) the maximum safe operating depth and maximum safe operating load as determined in accordance with clauses (a) and (b) are displayed on the rig or derrick and are not exceeded;
 - (d) any structural change or addition to a rig is certified as safe by a professional engineer before the derrick is used; and
 - (e) where a structural change or addition is made to a rig, the maximum safe operating depth of the rig and maximum safe operating load of the derrick are redetermined and recertified by a professional engineer and displayed on the rig.

21 Mar 86 SR 24/86 s12.

Securing parts of rig

- **324**(1) In addition to the requirements of section 167, an employer shall ensure that any part of a rig and any equipment attached to a rig which may endanger a worker, were it to fail, move or fall from the derrick, is secured in such a way as to eliminate the danger.
- (2) An employer shall ensure that the driller's position on a rig is protected from any hazard created by the cathead or tong lines.

21 Mar 86 SR 24/86 s12.

Raising and lowering derricks

- **325** An employer shall ensure that:
 - (a) before any derrick is raised or lowered:
 - (i) a complete inspection of all its parts is made by an experienced worker who is qualified to make the inspection; and
 - (ii) the inspection is recorded in the daily tour book and signed by the worker completing the inspection;
 - (b) an experienced worker is in charge of and present during the raising and lowering of any derrick; and
 - (c) a derrick is raised or lowered in a manner that does not create a danger to any worker.

Guy lines

326 An employer shall ensure that:

- (a) guy lines are installed on every derrick in sufficient numbers and properly spaced to ensure the stability of the derrick when supporting the maximum safe operating load; and
- (b) instructions for the number of guy lines needed and the proper spacing of them are displayed by means of a plate fixed to the derrick or by a specification sheet available at the rig.

21 Mar 86 SR 24/86 s12.

Derrick ladders

- **327**(1) An employer shall ensure that platforms are provided at the fourble board and crown of any derrick.
- (2) Notwithstanding clause 179(3)(f) and subject to subsection (3), an employer shall ensure that platforms are provided on the ladder of any derrick so that they are:
 - (a) spaced uniformly:
 - (i) between the rig floor and the fourble board; and
 - (ii) between the fourble board and crown; and
 - (b) not more than nine metres apart or nine metres distant from the rig floor or a platform mentioned in subsection (1).
- (3) A climbing device or ladder cage that complies with section 179 may be used as an alternative to providing a derrick ladder platform.
- (4) An employer shall ensure on any rig that:
 - (a) a stairway extending from the ground to the derrick floor is installed beside the ramp; and
 - (b) every catwalk to which there is access from inside a rig structure is provided with a stairway at the outer end.

21 Mar 86 SR 24/86 s12.

Auxiliary escape

- **328**(1) An employer shall provide a ready, convenient and safe auxiliary means of escape from the derrickman's principal working platform on a rig and ensure that:
 - (a) the means of escape is visually inspected by a driller, derrickman or rig manager at least once a week;
 - (b) the inspection mentioned in clause (a) is recorded in the daily tour book; and
 - (c) the path of escape is kept free of obstruction.

(2) An employer shall ensure that no worker is required or permitted to slide down a pipe, kelly hose, cable or rope line on a derrick, other than the escape line, in an emergency.

21 Mar 86 SR 24/86 s12.

Elevated work platforms

329 Where a worker on a rig is stationed three or more metres above the derrick floor, the employer shall provide a solid anchor point to facilitate the attachment of a lanyard or lifeline.

21 Mar 86 SR 24/86 s12.

Personal protective equipment

- **330**(1) Every worker working on or about a rig shall wear approved safety boots.
- (2) Every worker who is engaged in handling any pipe, tubing or rod on a rig at any point three metres or more above the derrick floor shall:
 - (a) wear a safety belt equipped with shoulder straps attached to a lanyard or lifeline; and
 - (b) when wearing a safety belt, keep the shoulder straps of the safety belt in place at all times.

21 Mar 86 SR 24/86 s12.

Fuel tanks

- **331** An employer shall ensure that:
 - (a) no gasoline or liquid fuel, other than diesel fuel or fuel in the tank of the operating machinery, is stored within 20 metres of a well; and
 - (b) any drainage from a fuel storage container on a work site runs in a direction away from a well.

21 Mar 86 SR 24/86 s12.

Pressure relief devices

- **332**(1) An employer shall ensure that:
 - (a) every drilling fluid pump is equipped with a pressure relief device;
 - (b) a pressure relief device is installed on the discharge side of a positive displacement drilling fluid pump;
 - (c) there is no valve between the pump and the pressure relief device;
 - (d) the pressure relief device is set to discharge at a pressure not in excess of the maximum working pressure for which the drilling fluid pump and the connecting pipes and fittings have been designed;
 - (e) shear pins used in a pressure relief device are of a design and strength specified in the design specifications for the pressure relief device;

- (f) fluids or materials discharged through a pressure relief device are piped to a place where they will not endanger workers;
- (g) the diameter of piping connected to the pressure side and discharge side of a pressure relief device is not smaller than the diameter of the openings to that device;
- (h) piping on the discharge side of a pressure relief device is:
 - (i) secured; and
 - (ii) sloped to drain liquids away from the discharge outlet;
- (i) a mud gun used for jetting is securely anchored;
- (i) a rig mud pump is protected against freezing; and
- (k) no valves of the quick closing type are used on the discharge line from a drilling fluid pump unless they are certified to be safe by a professional engineer.

21 Mar 86 SR 24/86 s12.

Catheads

333 An employer shall ensure that:

- (a) any cathead on which a rope is manually operated is equipped with a blunt, smooth-edged rope divider;
- (b) the clearance between the rope divider and the friction surface of a cathead does not exceed seven millimetres;
- (c) every key seat and projecting key on a cathead is covered with a smooth thimble or plate;
- (d) there is clearance of at least 500 millimetres between the outer flange of a cathead and any sub-structure, guard-rail or wall;
- (e) an experienced worker attends the drawworks control while a cathead is in use;
- (f) the operating area of a manually operated cathead is kept clear at all times and the portion of the rope or line not being use is kept coiled or spooled; and
- (g) every automatic cathead is equipped with a separate control unless:
 - (i) it is equipped with dual controls; and
 - (ii) a locking device is installed to prevent one automatic cathead from being engaged accidentally while the other is in operation.

Duties of operator of cathead

- **334**(1) The operator of a manually operated cathead shall keep his operating area clear at all times and keep coiled or spooled that portion of the rope or line that is not in use.
- (2) No operator of a manually operated cathead shall:
 - (a) leave a rope or line wrapped around or in contact with an unattended cathead; or
 - (b) allow a splice to come in contact with the friction surface of the cathead. 21 Mar 86 SR 24/86 s 12.

Blow-out preventor

- 335 Where any blow-out preventor assembly is being removed, the employer shall ensure that two opposing anchor lines remain in position until:
 - (a) the lifting sling is securely attached to the assembly;
 - (b) the slack in the hoisting line is taken up; and
 - (c) the draw works brake handle is securely tied down.

21 Mar 86 SR 24/86 s12.

Spudding in

- **336**(1) An employer shall ensure that spudding in is not commenced until:
 - (a) all guards required by these regulations are in place;
 - (b) all platforms, stairways, handrails and guard-rails are installed and securely fastened in position; and
 - (c) the auxiliary means of escape required by section 327 is installed and inspected.
- (2) An employer shall ensure that, immediately prior to spudding in and at successive intervals not exceeding 90 days:
 - (a) a drilling rig is inspected for compliance with this Part by an experienced worker designated by the employer;
 - (b) the inspection mentioned in clause (a) is recorded in the daily tour book; and
 - (c) the entry required by clause (b) is signed by the worker who made the inspection.

21 Mar 86 SR 24/86 s12.

Operating controls

- **337**(1) An employer shall ensure that:
 - (a) all operating controls of a rig are clearly labelled as to their function; and

- (b) where there is a danger of any operating controls being engaged by accidental contact, the controls are protected by a guard.
- (2) The worker in charge of the operating controls of the draw works shall ensure that all other workers are clear of the machinery and lines before putting the draw works in motion.

21 Mar 86 SR 24/86 s12.

Travelling blocks

338 An employer shall ensure, in respect of any travelling block, that:

- (a) every hook to which equipment is directly or indirectly attached is equipped with a safety latch or a wire rope safety line;
- (b) the block itself and every hook, elevator, elevator link and travelling equipment is free of any projecting bolt, nut, pin or part;
- (c) an upward travel limiting device is installed on a drilling rig with a triple stand derrick; and
- (d) the upward travel limiting device mentioned in clause (c) disengages the power to the hoisting drum and applies the brakes to prevent the travelling block from contacting the crown structure.

21 Mar 86 SR 24/86 s12.

Counterweights

339 An employer shall ensure that every counterweight above a derrick floor, if not fully encased or running in permanent guides, is prevented from coming within 2.3 metres of the floor.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Weight indicators

340 An employer shall ensure that:

- (a) the hoist mechanism of a rig is equipped with a reliable weight indicator; and ${}^{\prime}$
- (b) any weight indicator mentioned in clause (a) that is hung above the derrick floor is secured against falling by means of a secondary cable or chain.

21 Mar 86 SR 24/86 s12.

Draw works

341 An employer shall ensure, in respect of the draw works on a rig, that:

- (a) a mechanism installed or used to hold down the brakes in the engaged position is designed in such a manner as to prevent accidental disengagement;
- (b) the brakes are tested at the beginning of each crew shift and are examined at least weekly to ensure that they are in good working order;

- (c) unless the draw works are equipped with an automatic feed control, the brakes are not left unattended without first being secured in the engaged position; and
- (d) controls are not left unattended while the hoist drum is in motion except during drilling.

21 Mar 86 SR 24/86 s12.

Racking pipes in derricks

- 342 An employer shall ensure that:
 - (a) where any drill pipe, drill collar or tubing is racked in a derrick, provision is made for the complete drainage of fluids or gases from the pipe, collars or tubing; and
 - (b) every drill pipe, drill collar, tubing, casing or rod racked in a derrick is secured to prevent it from falling out of or across the derrick.

21 Mar 86 SR 24/86 s12.

Trailer pipe racks

343 An employer shall ensure that a trailer used as a pipe rack is designed and constructed to ensure that, when a pipe is being hoisted into the derrick, the lower end of the pipe will not roll off the trailer.

21 Mar 86 SR 24/86 s12.

Rotary tong

344 An employer shall ensure that a rotary tong is provided with a safety device to prevent uncontrolled movement.

 $21~{\rm Mar}~86~{\rm SR}~24/86~{\rm s}12.$

Rotary table

- **345**(1) An employer shall ensure that:
 - (a) workers do not work on a derrick floor when the rotary table is in motion and visibility on the derrick floor is obscured; and
 - (b) the rotary table is not used for the final making up or initial breaking out of a pipe connection.
- (2) No worker shall:
 - (a) handle or use hoses, lines or chains near a rotary table while it is in motion; or
 - (b) engage a rotary table until all other workers and materials are clear of it.

Derrick enclosures

- **346** An employer shall ensure that:
 - (a) safe exits from a derrick floor enclosure to ground level are provided on at least three sides of the derrick floor;
 - (b) all doors of a derrick floor enclosure open away from the borehole and provide unimpeded egress in the event of an emergency; and
 - (c) the pump house enclosure has at least two exits leading in different directions to the outside.

21 Mar 86 SR 24/86 s12.

Rig tanks or pits

347 An employer shall ensure that a rig tank or pit used for the circulation of drilling fluids contaminated with flammable material is protected from sources of ignition.

21 Mar 86 SR 24/86 s12.

Drill stem testing

- 348 An employer shall ensure that, during drill stem testing:
 - (a) if fluids are encountered, the mud can and test plug are used on every joint of pipe that is disconnected unless the drill stem contents have been pumped out and replaced with drilling fluid;
 - (b) motors and engines not required in the testing operation are shut off;
 - (c) no motor vehicle is located within 25 metres of the well bore;
 - (d) where swivel joints are used in the piping system, the source and discharge ends of the piping system are secured in a manner that will prevent whipping and flailing of the pipe in the event of separation of the pipe from the source or discharge connection;
 - (e) where oil, water or gas have been encountered, tests for the presence of hydrogen sulphide are conducted; and
 - (f) if hydrogen sulphide is found to be present, the sour fluids in the drill stem are replaced with drilling fluid and circulated to a flare pit or holding tank that is not less than 45 metres from the well.

21 Mar 86 SR 24/86 s12.

Swabbing

- 349 An employer shall ensure that, during swabbing operations:
 - (a) auxiliary swabbing units are anchored securely;
 - (b) fluids used in or resulting from the swabbing operation are piped directly to a battery, skid tank, mobile trailer tank or tank truck located not less than 45 metres from the well bore; and

(c) while fluids used in or resulting from the swabbing operation are being piped into a tank truck, the engine of the tank truck is shut down and the driver does not remain in the truck cab.

21 Mar 86 SR 24/86 s12.

Well servicing

- **350** An employer shall ensure that, during the servicing of a well:
 - (a) when the pump is circulating hydrocarbons, the air intake and exhaust of the pump motor are located not less than six metres from the rig tank;
 - (b) the tank truck is located on the far side of the rig tank from the well bore and at a distance of not less than six metres from the rig tank during loading and unloading;
 - (c) carbon dioxide suction lines are secured to the supply vehicle and pumping unit;
 - (d) adequate warning signs prohibiting the presence of workers are positioned along the discharge pipelines before the commencement of pressurization; and
 - (e) before fluids are unloaded into the well head, the lines between the pump and the well head are hydraulically pressure tested for 10 minutes, to at least 10% above the maximum pressure anticipated during service but not above the working pressure rating of the line.

21 Mar 86 SR 24/86 s12.

Well stimulation

- **351**(1) An employer shall ensure that, during well stimulation or any similar operation:
 - (a) where a working pressure of 2,000 kilopascals or more is applied to the piping system, equipment located between a pump or sand concentrator and the well head is controlled remotely from a location outside the potential danger area;
 - (b) subject to subsection (2), no worker enters the potential danger area when the system is pressurized;
 - (c) when liquid carbon dioxide or liquid nitrogen is being used, the pumping unit is positioned so that the valve controls can be operated from the low pressure side of the system;
 - (d) a check valve is installed as close as is practicable to the well head except while cementing or selective acidizing is being done;
 - (e) where flammable fluids are being pumped during fracturing and acidizing treatment by two or more pumping units, including blenders and endless tubing units, fire suppression equipment capable of extinguishing any fire that may occur is provided; and

- (f) the mud line from the cement truck is not used as a circulating line.
- (2) Notwithstanding clause (1)(b), an employer may permit a worker to enter the area between the check valve and the well head for the purpose of operating the bleed-off valve if the pumping motor is shut off before the worker enters the area.

21 Mar 86 SR 24/86 s12.

Well operations

- 352 An employer shall ensure that, during the period when a well is operating:
 - (a) every swivel joint used with a hammer union is of sufficient strength to withstand the stresses to which it may be subjected;
 - (b) every oil saver is equipped with controls that can be readily operated from the rig floor; and
 - (c) a bleed-off valve is installed between a check valve and the well head.

21 Mar 86 SR 24/86 s12.

Geophysical operations

353 An employer shall ensure that, in respect of a shot hole drilling operation, any pipe wrench used as a break out tong is equipped with a suitable hand guard on the pipe wrench handle.

21 Mar 86 SR 24/86 s12.

Gas sample containers

354 An employer shall ensure that every container, piping and fitting used in the collection of a gas sample is of sufficient strength to withstand all the pressure to which it may be subjected and is designed, used and transported in such a manner as to prevent the accidental release of the contents.

21 Mar 86 SR 24/86 s12.

Piping systems at sites

355 An employer shall ensure that every piping system installed and maintained at a well site as part of the drilling or servicing well system is designed, constructed and maintained in such a manner as to safely contain any fluid at the maximum operating pressures anticipated.

21 Mar 86 SR 24/86 s12.

Provision of breathing apparatus

356 In addition to the requirements of section 191, an employer shall ensure that there are readily available at each rig for use in a rescue at least two units of usable and operable self-contained breathing or oxygen generating apparatus that are:

- (a) of a type that maintains positive pressure in the face piece at all times;
- (b) of at least 30 minutes capacity; and

(c) fitted with a low air pressure warning alarm.

21 Mar 86 SR 24/86 s12.

PART XXXI Forestry, Sawmilling and Related Operations

Interpretation of Part

357 In this Part, "cutting" includes felling, limbing and bucking.

21 Mar 86 SR 24/86 s12.

Application of Part

358 This Part applies to all forestry operations including logging, sawing, planing, peeling and preserving, creosoting, the operation of pulp and paper mills, stud and chip mills and the manufacture of plywood and other manufactured composite materials primarily made of wood products.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88

First aid

359 Where a cutting or skidding operation is carried out, the employer shall ensure that, in addition to the requirements of Part VI, at least one worker who is trained by a competent authority to provide artifical resuscitation, control hemorrhage and render any other life-saving first aid that is appropriate for the nature of the work performed at the work site is readily available at all times.

28 Oct 88 SR 90/88 s36.

Personal protective equipment

360 In addition to the requirements of Part XVIII, an employer shall ensure that every worker engaged in a forestry operation wears safety pants or chaps and safety gloves or mitts appropriate to the work being performed.

21 Mar 86 SR 24/86 s12.

Employer's duties for cutting and skidding

361(1) During cutting and skidding operations, an employer shall ensure that:

- (a) only workers who have duties associated with cutting and skidding are authorized to enter the area where such operations are carried out;
- (b) all timber adjacent to a proposed landing or other place where workers will work regularly is felled before the landing or other place is used;
- (c) no tree is felled within range of a travelled road unless effective means are taken to stop any traffic until the tree has been felled and the tree and all debris have been removed from the road; and

- (d) every tree is closely trimmed before it is:
 - (i) taken onto a landing;
 - (ii) loaded onto a vehicle; or
 - (iii) placed on a saw.
- (2) An employer shall ensure, to the extent that is reasonably practicable, that:
 - (a) no worker enters a logging area where another worker is felling trees unless the worker engaged in felling has been made aware of his presence and has advised him it is safe to enter; and
 - (b) every worker is instructed in and complies with the duties placed on him by sections 362 and 365.
- (3) Where a tree is partially cut, the employer shall ensure that:
 - (a) the worker immediately completes the felling of the partially cut tree; or
 - (b) if it is not practicable to complete the felling of the partially cut tree immediately, the area is marked to prohibit entry until the felling is completed.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 27

Worker's duties in cutting

362(1) During cutting operations, a worker shall ensure that:

- (a) adjacent brush is cleared away to provide sufficient room to work and to provide a path to a safe position before starting to fell a tree;
- (b) any damaged or dead tree or part of a damaged or dead tree that may create a hazard to the worker or any other worker in the vicinity is felled to the ground before he fells any other tree;
- (c) before he commences to fell a tree, no other worker is located closer to the tree than a distance equal to twice the height of the tree being felled;
- (d) before the felling cut is commenced on any tree with a trunk having a diameter of 15 centimetres or more, the trunk is undercut to control the direction of the fall;
- (e) the depth of the undercut is at least one third of the diameter of the tree trunk at that point;
- (f) the wood is removed from the undercut before the back cut is started and sufficient wood remains in the back cut side to control the direction of the fall of the tree;
- (g) the back cut is at least 50 millimetres above the undercut;
- (h) where:
 - (i) he cannot safely fell a tree because of the condition of the tree; or

(ii) a tree being felled has become unsafe;

he advises the skidder operator of the condition of the tree and does no further work in the vicinity of the tree until the skidder operator has caused the tree to be made safe;

- (i) he moves quickly to a predetermined safe position when a tree starts to fall;
- (j) Repealed. 28 Oct 88 SR 90/88 s38.
- (k) any brush or object that might catch his saw is cleared away before he commences to buck a log;
- (l) he remains at a safe distance from any tree that is lodged or may be dangerous for any other reason unless he is removing that tree;
- (m) he does not work on a hillside below a cutting or skidding operation where a danger may exist from a tree or log rolling or moving downhill towards him;
- (n) he works only on the uphill side of a log lying on an incline while he is engaged in bucking operations; and
- (o) before he commences bucking he is at a distance from any tree being felled, skidded or otherwise moved that is at least equal to twice the length of the tree.
- (2) No worker shall proceed with the felling of a tree or any other activity until every other tree in the vicinity that has been partially cut has been felled to the ground.
- (3) Where a worker cannot safely complete the felling of a partially cut tree, he shall immediately inform the employer and shall not leave the area unless it is marked to prohibit entry.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88

Provisions for mechanized fallers and limbers

- **363** An employer shall ensure that every mechanized faller and limber is provided with:
 - (a) adequate protection for the operator including protection against any falling tree or part of a tree; and
 - (b) a cab for the operator from which the operator can readily escape.

21 Mar 86 SR 24/86 s12.

Employer's duties for skidding

- 364 During skidding operations, an employer shall ensure that:
 - (a) every snag, chicot, hanging tree or windfall that may be hazardous and that is located along or adjacent to any skid trail, haul road or landing, is removed;

- (b) every skidder operator pulls down any tree that is lodged or dangerous for any other reason immediately when it is reported to the skidder operator;
- (c) every winching machine is equipped with suitable guards to protect the operator from any flying object;
- (d) no worker, other than the operator, is required or permitted to ride on any skidder except where the skidder is provided with a second seat that is adequately protected;
- (e) every skidder operator is required to discontinue operating when the operation of the skidder may endanger any other worker until the operation may proceed without danger to that worker;
- (f) no skidder operator operates the skidder within a distance equal to two tree lengths from a worker who is felling a tree or moves the skidder to within that distance until the worker has signalled that it is safe to do so; and
- (g) no skidder operator operates the skidder near the edge of any bank, fill, excavation, incline or any other place where he cannot safely control the machine.

21 Mar 86 SR 24/86 s12.

Worker's duties for skidding

365 A skidder operator shall ensure that:

- (a) he does not operate the winch at an angle that may cause the skidder to overturn;
- (b) any loose winch cable is wound up on the winch drum and any choker is kept clear of the ground during travel;
- (c) neither he nor any other worker is located under or near the winch cable or choker cables or in a position where he could be struck by such a cable were it to break or come loose:
- (d) any choker cable applied to a log is attached no farther from the end of the log than one metre;
- (e) before he moves a log, no other worker may be endangered by moving the log;
- (f) he does not operate the skidder winch except from the seat provided unless a remote control device is provided;
- (g) the skidder is operated at a speed and in a manner that will prevent the skidder overturning;
- (h) each drag is winched up tight before he moves the skidder;
- (i) when a worker is attaching a choker to a load on sloping ground, the blade of the skidder is lowered to the ground;

- (j) he pulls down immediately any tree reported to him that is lodged or may be dangerous for any other reason; and
- (k) he removes any hanging tree, snag, chicot or windfall that may be hazardous and that is located along or adjacent to any skid trail, haul road or landing.

21 Mar 86 SR 24/86 s12.

Employer's duties for loading and unloading logs

366 An employer shall ensure in relation to loading and unloading logs that:

- (a) every loading and unloading area is suitably graded and maintained clear of obstructions;
- (b) when loading or unloading logs with a crane or other type of mechanical loader, no worker is required or permitted to stand or work under the path of the bucket or grapple while a load is suspended;
- (c) no worker is required or permitted to remain in the cab of any vehicle while loading or unloading is in progress;
- (d) any worker who is not actively engaged in a loading or unloading operation remains at a safe distance from that operation;
- (e) where a loader is equipped with a clam, the jaws of the clam overlap the entire load;
- (f) where a loader is equipped with a fork, rear stoppers are provided of a design and strength that will prevent any log from falling back on the operator;
- (g) every log yard is constructed, arranged, maintained and operated in such a manner that a worker may work without exposure to danger from any moving log, machine or equipment;
- (h) no log deck is built to a height greater than that which can be safely handled by the equipment used in the stacking and breaking down of any such deck;
- (i) no worker is required or permitted to work on or beside the haul unit during any unloading operation;
- (j) where the operator of a loading or unloading machine is unable to see clearly all phases of the operation, a worker who has a clear view of the operation and is visible to the operator is designated to give all signals necessary to ensure the safety of any worker involved in the loading or unloading operation; and
- (k) no logs are loaded higher than the height of the stakes installed on the vehicle to restrain the load.

21 Mar 86 SR 24/86 s12; 28 Oct 88 SR 90/88 s39.

Worker's duties for loading and unloading logs

367 A worker engaged in loading or unloading logs shall ensure that:

- (a) where he has finished operating a loader and before leaving that equipment, he lowers the clam or forks, puts the machine in neutral and applies the brakes;
- (b) when he is manually loading, unloading, decking or breaking decks, he works only at the end of the logs; and
- (c) when he is loading or unloading logs, he works in a safe position, in view of the operator or signalman.

21 Mar 86 SR 24/86 s12.

Use of log carriages

368 An employer shall ensure, in relation to the use of log carriages, that:

- (a) no worker is required or permitted to ride on any log carriage;
- (b) where the area immediately behind a log carriage is used as a walkway, a guard-rail is installed between the walkway and the carriage for the full extent of the carriage travel;
- (c) suitable devices are installed to arrest a log carriage at the end of its normal travel in each direction;
- (d) each log carriage is equipped with a suitable headblock that is equipped with suitable dogs that are used to secure the log during the sawing operation;
- (e) each log carriage is provided with a safety device that will ensure that the headblock cannot be moved to a position within 30 millimetres of the saw blade;
- (f) sweepers are provided in front and at the back of a log carriage to remove all obstructions from the track;
- (g) any power-driven log carriage is propelled by a steel cable that is maintained in good condition;
- (h) the sawyer's lever operating a carriage drive mechanism is arranged so that the movement of the lever is in the opposite direction to the carriage travel except when the sawyer's position and controls are enclosed;
- (i) means are provided for securely locking the sawyer's log turning and carriage control levers; and
- (j) the sawyer engages the carriage control lever lock before leaving his position.

Operation of sawmill head rigs

- **369**(1) An employer shall ensure, in relation to the operation of a sawmill head rig, that:
 - (a) every circular blade sawmill is equipped with suitable saw guides that can only be adjusted from outside the husk;
 - (b) every husk is completely enclosed and is provided with a substantial, securely hinged cover;
 - (c) a solid splitter is provided, the leading edge of which is adjacent to and conforms to the curvature of the saw blade and which extends above the carriage deck a distance of not less than one quarter of the diameter of the saw blade in use:
 - (d) a substantial guard is provided over the lower portion of the head saw blade under the carriage tracks and which extends at least six inches below the bottom of the largest size saw blade in use;
 - (e) a substantial heavy mesh screen or other suitable material is securely placed between the saw blade and the sawyer's position to protect the sawyer from any throw-backs from the saw;
 - (f) every mesh screen required pursuant to clause (e) is backed by a mesh screen located on the sawyer's side of the heavy screen to protect the sawyer from any small flying particles; and
 - (g) every power unit driving a sawmill is equipped with an emergency stopping device located within immediate reach of the sawyer.
- (2) No employer shall use or require or permit a worker to use a top saw except with the permission of the director under any conditions that the director may impose.

21 Mar 86 SR 24/86 s12.

Use of trimmer saws

370 An employer shall ensure that every trimmer saw blade is equipped with a guard that will prevent a worker from coming into contact with that blade.

21 Mar 86 SR 24/86 s12.

Use of edgers

- **371** An employer shall ensure that:
 - (a) the top of any edger is covered effectively to control flying debris;
 - (b) the roll of any edger is kept in contact with the material being cut; and
 - (c) every edger is equipped with an effective device to prevent any kick-back of the material being edged.

Use of bandsaws

- 372 An employer shall ensure that:
 - (a) every saw blade of a bandsaw is enclosed or guarded between the top guideroll and the table, except on the working side of the blade, and that every bandsaw wheel is fully enclosed;
 - (b) every bandsaw machine is provided with an effective automatic tension control device; and
 - (c) every feedroll of a resaw is protected with a semi-cylindrical metal guard to prevent the hands of a worker from coming in contact with that roll.

21 Mar 86 SR 24/86 s 12.

Use of dry kilns

- 373 An employer shall ensure that:
 - (a) before the heating process is commenced, no person remains in a dry kiln; and
 - (b) every dry kiln is equipped with a readily identifiable escape door or kick out panel measuring not less than 600 millimetres by 600 millimetres.

Appendix

PART I

Qualifications of First Aid Attendants and Standards of First Aid Services

Table 1 [subclause 52(a)(i)]

Minimum Requirements for Class A Qualification

A. First aid training course:

I Course duration: 14-16 hours

II Course content:

The role of the first aid attendant.

Interaction with higher trained personnel and with medical care agencies.

Medico-legal aspects of first aid.

Responsibilities of the first aid attendant.

Knowledge of the ambulance system.

Basic anatomy and physiology: how the body systems work.

Patient assessment: primary and secondary surveys.

Assessment and monitoring of basic vital signs.

Respiratory emergencies: respiratory system review, management of airways.

Chest injuries: pneumothorax, flail chest, sucking chest wound.

Circulatory emergencies: Circulatory system review, heart attack, stroke.

Bleeding: wounds, control of bleeding and bandaging.

Shock: kinds and recognition of signs and symptoms.

Abdominal injuries: system review by quadrant.

Head, spine and pelvis injuries.

Upper and lower extremity injuries.

Medical emergencies: epilepsy, diabetes.

Assessment and treatment of burns.

Assessment and treatment of poisonings and acute effects of abused drugs.

Problems of heat and cold.

Emotional problems.

Immobilization: spinal injuries.

Movement of a casualty.

Situation simulations, reporting on the patient to higher level trained personnel.

Understanding and familiarity with the relevant Occupational Health and Safety Regulations.

B Cardiopulmonary resuscitation training course:

I Course duration: 4-6 hours

II Course content:

Risk factors.

Signals and actions of heart attack.

Airway obstruction: prevention, causes, recognition.

Entrance into the emergency medical services system.

One rescuer cardiopulmonary resuscitation (adult).

Conscious and unconscious obstructed airways (adult).

Turning and recovery.

Table 2 [subclause 52(a)(ii)]

First Aid Services Authorized by Class A Qualification

Primary and secondary assessment.

Cardio-pulmonary resuscitation.

Bandaging and splinting.

Monitoring vital signs

Basic management of medical emergencies.

Spine immobilization.

Any other services for which the person has acquired additional training from a competent authority.

Table 3 [subclause 52(b)(i)]

Minimum Requirements for Class B Qualification

A First aid training course:

I Course duration: 60-80 hours

It is recommended that the review and practice time should be at least 20 hours.

II Course content:

Roles and Responsibility: knowledge of emergency medical system, the place of the first aid attendant in the system, other skill levels in the system.

The different phases of emergency medical care.

Adequate training in the use of first aid equipment.

The medico-legal aspects of first aid.

Anatomy and physiology appropriate to the course.

Primary and secondary survey.

Monitoring and assessment of vital signs.

Bleeding: wounds, control of bleeding and bandaging.

Airway management and equipment use.

Assessment and treatment of common medical emergencies.

Assessment and treatment of shock.

Trauma to head, spine, chest, abdomen and pelvis.

Injuries to extremities.

Environmental emergencies.

Crisis intervention: provision of psychological support.

First on the scene management skills, triage.

Assessment and treatment of burns.

Obstetrics: emergency delivery and post-partum hemorrhage.

Assessment and treatment of persons and acute effects of abused drugs.

Assessment and treatment of the acute abdomen.

Basic extrication.

Record keeping: preservation of information necessary for subsequent action.

Understanding and familiarity with the relevant Occupational Health and Safety Regulations.

B Cardiopulmonary resuscitation training course:

I Course duration: 8 - 10 hours

II Course content:

Risk factors.

Signals and actions of heart attack.

Airway obstruction: prevention, causes, recognition.

Entrance into the emergency medical services system.

One rescuer cardiopulmonary resuscitation.

Two rescuer cardiopulmonary resuscitation.

Conscious and unconscious obstructed airways.

Mouth-to-mask resuscitation.

Spinal injuries.

Turning and recovery.

Table 4 [subclause 52(b)(ii)]

First Aid Services Authorized by Class B Qualification

Primary and secondary assessment.

Cardio-pulmonary resuscitation while moving a patient.

Bandaging and splinting.

Monitoring vital signs.

Basic management of medical emergencies.

Airway management, the use of suction devices and bag-valve mask.

Proper procedures and conditions for the administration of oxygen.

Use of spinal immobilization devices.

Psychological support measures.

Any other services for which the person has acquired additional training from a competent authority.

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OCCUPATIONAL HEALTH AND SAFETY

Table 5 [*clause 52(i)*]

Activities That Constitute High Hazard Work

Building construction.

Drilling for gas, oil and minerals.

Service for gas and oil wells and power tong service.

Logging.

Sawmilling.

Iron and steel processing and fabrication.

Road construction and earthwork.

Local and provincial hauling and trucking.

Mining and smelting.

Exploration drilling, shaft sinking, quarrying and crushing of rocks.

Manufacturing of concrete block, brick, artificial stone and other clay and cement products.

28 Oct 88 SR 90/88 s40.

PART II First Aid Supplies and Equipment

Table 1 [clause 56(1)(a)]

Required Contents of First Aid Box

Amounts or quantities of the following supplies and equipment adequate for the expected emergencies contained in a well-marked container:

An approved antiseptic, wound solution or antiseptic swabs.

Bandage – adhesive strips and hypoallergenic adhesive tape.

Bandage - triangular, 100-centimetre folded, and safety pins.

Bandage – gauze roller, various sizes.

Dressing – sterile and wrapped gauze pads and compresses, various sizes including abdominal pad size.

Dressing – self-adherent roller, various sizes.

Pad with shield or tape for eye.

Suitable soap.

Disposable gloves.

Pocket mask with disposable one way rebreathe valves.

Forceps - splinter.

Scissors - bandage.

Table 2 [clause 56(3)(a)]

Additional Supplies and Equipment — Class A Qualification

Bag – hot water or hot pack.

Bag – ice or cold water.

Bandage – elastic, 5-centimetre and 10-centimetre width.

Sterile burn sheet.

Table 3 [clause 56(3)(b)]

$Additional \ Supplies \ and \ Equipment -- Class \ B \ Qualification$

Bag – hot water or hot pack.

Bag - ice or cold water.

Bandage – elastic, 5-centimetre and 10-centimetre width.

Sterile burn sheet.

Stethoscope with a bell.

Sphygnomanometer.

Thermometer.

Where there is a possibility of the release of toxic gases, an emergency resuscitator set. Where there are potential causes for spinal injury, short and long spine boards with adequate restraining straps and medium and large extrication cervical collars. Emergency oxygen system.

Any other first aid supplies and equipment that are appropriate to the dangers and other circumstances of the place of employment and commensurate with the training of the first aid attendant.

Table 4 [section 57]

Required Contents of First Aid Kit

Amounts or quantities of the following supplies adequate for the expected emergencies contained in a well-marked container:

Approved antiseptic, wound solution or antiseptic swabs.

Bandage – adhesive strips and hypoallergenic adhesive tape.

Bandage - triangular 100 centimetre folded and safety pins.

Bandage – gauze roller, various sizes.

Dressing – sterile and wrapped gauze pads and compresses, various sizes including abdominal pad size.

Dressing – self-adherent roller, various sizes.

Pad with shield or tape for eye.

Suitable soap.

Disposable gloves.

Pocket mask with disposable one-way rebreathe valves where provision for artificial resuscitation is required pursuant to section 60.

28 Oct 88 SR 90/88 s40.

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PART III Notifiable Occupational Diseases

- 1 Acute, sub-acute or chronic disease of any organ, due to lead, arsenic, beryllium, phosphorus, manganese, cadmium or mercury or their compounds or alloys.
- 2 Neoplasia of the skin or mucous membrane due to tar, pitch, bitumen, mineral or cutting oils or arsenic or their compounds, products or residue.
- 3 Neoplasia of the renal tract in any worker employed in rubber-compounding, dyestuff manufacture or mixing or in a laboratory.
- 4 Pneumoconiosis due to silica or silicate, including asbestos, talc, mica or coal.
- 5 Toxic jaundice, that is, jaundice due to tetrachloroethane or nitro- or amidoderivatives of benzene or other hepato-toxic or haemato-toxic substances.
- 6 Neoplasia or any form of sickness due to internal or external exposure to ionizing radiation or electro-magnetic radiation.
- 7 Poisoning by the anti-cholinesterase action of any organophosphorous or carbamate compound.
- 8 Any form of decompression illness.
- 9 Toxic anaemia, that is, anaemia due to trinitrotoluene, or any other haematogenic poison, including chronic poisoning by benzene.
- 10 Mesothelioma of the pleura or peritoneum.
- 11 Angiosarcoma of the liver.

Ethyleneimine

21 Mar 86 SR 24/86 s13.

PART IV Carcinogenic Substances

Any of the following chemical substances or any mixture containing more than 1% of any of them:

2-Acetylaminofluorene Magenta

4-Aminobiphenyl Methyl chloromethyl ether

Auramine 1-Naphthylamine Benzidine 2-Naphthylamine bis-Chloromethyl ether 4-Nitrobiphenyl

o-Dianisidine N-Nitrosodimethylamine

3,3'-Dichlorobenzidine beta-Propiolactone

4-Dimethylaminoazobenzene Vinyl chloride

PART V Hazardous Chemical Substances

1. Any mixture containing less than 1% of any chemical substance listed in Part IV.

2. Any substance containing:

Acrylonitrile	Hydrazine
Asbestos	Lead chromate
3-Amino 1,2,4-triazole	4,4'-Methylene bis (2-chloroaniline)
Benzene	Methyl iodide
Benzo (a)pyrene	Monomethyl hydrazine
Benzidine derived dyes	2-Nitropropane
Beryllium	Nitrosamines
Chrysene	N-Phenyl-2-naphthylamine
2,4-Diaminoanisole	Propane Sultone
Dimethylcarbamyl chloride	Polychlorinated biphenyls
1,1-Dimethyl hydrazine	Propyleneimine
Dimethyl sulfate	o-Tolidine
1,2-Dibromoethane (ethylene dibromide)	Trichloromethane (chloroform)
1,2-Dichloroethane (ethylene dichloride)	Tetrachloromethane
Epichlorhydrin	(Carbon Tetrachloride)
Ethylene thiourea	Vinyl cyclohexene dioxide
Hexachlorobutadiene	Vinyl bromide
Hexamethyl phosphoramide	Zinc chromate

 $^{21~{\}rm Mar}~86~{\rm SR}~24/86~{\rm s}13.$

 $\begin{array}{c} {\rm PART\,VI} \\ {\bf Workplace\,\, Contamination\,\, Limits} \end{array}$

Substance	8 hour average contamination limit mg/m³*	15 minute average contamination limit mg/m ³
Acetaldehyde	180	270
Acetic acid	25	37
Acetic anhydride	20	20
Acetone	1780	2375
Acetonitrile	70	105
Acetylene tetrabromide	15	20
Acetylsalicylic acid	5	10
Acrolein	0.25	0.8
Acrylamide	0.03	0.09
Acrylic acid	6	12
Aldrin	0.25	0.75
Allyl alcohol	5	10

	_	
Allyl chloride	3	6
Allyl glycidyl ether (AGE)	22	44
Allyl propyl disulfide	12	18
Aluminum metal and oxide	10	20
Aluminum pyro powders	5	10
Aluminum welding fumes	5	10
Aluminum, soluble salts	2	4
Aluminum, alkyls	2	4
2-Aminoethanol (Ethanolamine)	8	15
2-Aminopyridine	2	4
Ammonia	18	27
Ammonium chloride-fume	10	20
Ammonium perfluoro-octanoate	0.1	0.3
Ammonium sulfamate	10	20
n-Amyl acetate	530	800
sec-Amyl acetate	665	800
Aniline and homologues	10	20
Anisidine (o-, p-isomers)	0.5	1.5
Antimony and compounds (as Sb)	0.5	1.5
ANTU (a-Naphthyl thiourea)	0.3	0.9
Arsenic and compounds (as As)	0.05	0.05
Asphalt (petroleum) fumes	5	10
Atrazine	5	10
Azinphos-methyl	0.2	0.6
Barium (soluble compounds) (as Ba)	0.5	1.5
Barium sulfate	10	20
Benomyl	10	15
p-Benzoquinone, (Quinone)	0.4	1
Benzoyl peroxide	5	10
Benzyl chloride	5	10
Biphenyl (diphenyl)	1.5	4
Bismuth telluride	1.0	20
Bismuth telluride, Se-doped	5	10
Borates, tetra, sodium salts,	O .	10
Anhydrous	1	3
Decahydrate	5	10
Pentahydrate	1	3
Boron oxide	10	20
Boron tribromide	10	10
Boron tribromide Boron trifluoride	3	3
Bromacil	10	20
Bromine Browning and Classical	0.7	2
Bromine pentafluoride	0.7	2
Bromochloromethane/chlorobromomethane	1050	1300
Bromoform	5	10
1,3-Butadiene	22	33
Butane	1900	2375
2-Butoxyethanol (Butyl Cellosolve)	120	360

n-Butyl acetate	710	950
sec-Butyl acetate	950	1190
tert-Butyl acetate	950	1190
Butyl acrylate	55	83
n-Butyl alcohol	150	150
sec-Butyl alcohol	305	455
tert-Butyl alcohol	300	450
Butylamine	15	15
tert-Butyl chromate (as Cr0 ₃)	0.1	0.1
n-Butyl glycidyl ether (BGE)	135	169
n-Butyl lactate	25	38
Butyl mercaptan	1.5	3.0
o-sec-Butylphenol	30	45
p-tert-Butyltoluene	60	120
Cadmium, dust and salts (as Cd)	0.05	0.2
Cadmium oxide fume (as Cd)	0.01	0.03
Calcium carbonate/marble	10	20
Calcium cyanamide	0.5	1
Calcium hydroxide	5	10
Calcium oxide	2	4
Calcium silicate	10	20
Camphor, synthetic	12	18
Caprolactam	1	3
Captafol	0.1	0.3
Captan	5	15
Carbaryl	5	10
Carbofuran	0.1	0.3
Carbon black	3.5	7
Carbon dioxide	9000	54,000
Carbon disulfide	30	45
Carbon monoxide	55	440
Carbon tetrabromide	1.4	4
Carbonyl chloride (Phosgene)	0.4	1.2
Carbonyl fluoride	5	15
Catechol (Pyrocatechol)	20	30
Cellulose (paper fibre)	10	20
Cesium hydroxide	2	4
Chlordane	0.5	2
Chlorinated camphene	0.5	1
Chlorinated diphenyl oxide	0.5	2
Chlorine	1.5	3
Chlorine dioxide	0.3	0.9
Chlorine trifluoride	0.4	0.4
Chloroacetaldehyde	3	3
Chloroacetone	4	4
a-Chloroacetophenone		
(Phenacyl chloride)	0.3	0.9
Chloroacetyl chloride	0.2	0.6

Chlorobenzene (Monochlorobenzene)	350	438
o-Chlorobenzylidene malonitrile	0.4	0.4
2-Chloro-1,3-butadiene (B-Chloroprene)	35	53
Chlorodifluoromethane	3500	4375
2-Chloroethanol (Ethylene	9900	4010
chlorohydrin)	3	3
	10	20
1-Chloro-1-nitropropane	6320	7900
Chloropentafluoroethane		
Chloropicrin	0.7	2
o-Chlorostyrene	285	430
o-Chlorotoluene	250	375
Chlorpyrifos	0.2	0.6
Chromium metal	0.5	1.5
Chromium (II) compounds (as Cr)	0.5	1.5
Chromium (III) compounds (as Cr)	0.5	1.5
Chromium (VI) compounds (as Cr)	0.05	0.15
Chromyl chloride	0.15	0.45
Clopidol	10	20
Coal dust (respirable size)+	2	_
Coal tar pitch volatiles		
(bezene solubles)	0.2	0.6
Cobalt metal, dust and fume (as Co)	0.05	0.1
Cobalt carbonyl (as Co)	0.1	0.3
Cobalt hydrocarbonyl (as Co)	0.1	0.3
Copper fume,	0.2	0.6
dusts and mists (as Cu)	1	2
Cotton dust, raw	0.2	0.6
Cresol, all isomers	22	33
Crotonaldehyde	6	18
Crufomate	5	20
Cumene	245	365
Cyanamide	2	4
Cyanides (as CN)	5	10
Cyanogen	20	30
Cyanogen chloride	0.6	0.6
Cyclohexane	1050	1300
Cyclohexanol	200	250
Cyclohexanone	100	400
Cyclohexene	1015	1269
Cyclohexylamine	40	60
Cyclonite	1.5	3
Cyclopentadiene	200	400
Cyclopentane	1720	2580
Cyclopentane	5	10
2,4-D (2,4-Dichlorophenoxy-acetic acid)	5 10	
		20
DDT (Dichlorodiphenyltrichloroethane)	1	3
Decaborane	0.3	0.9
Demeton	0.1	0.3

Diacetone alcohol (4-hydroxy-4-methyl-		
2-pentanone)	240	360
Diazinon	0.1	0.3
Diazomethane	0.4	1.2
Diborane	0.1	0.3
2-N-Dibutylaminoethanol	14	28
Dibutyl phosphate	5	10
Dibutyl phthalate	5	10
Dichloroacetylene	0.4	0.4
o-Dichlorobenzene	300	300
p-Dichlorobenzene	450	675
Dichlorodifluoromethane	4950	6200
1,3-Dichloro-5,5-dimethyl hydantoin	0.2	0.4
1,1-Dichloroethane	810	1010
1,2-Dichloroethylene	790	1000
Dichloroethyl ether	30	60
Dichloromonofluoromethane	40	60
1,1-Dichloro-1-nitroethane	10	20
Dichloropropene	5	15
2,2-Dichloropropionic acid	6	12
Dichlorotetrafluoroethane	7000	8750
Dichlorvos	1	3
Dicrotophos	0.25	0.75
Dicyclopentadiene	30	45
Dicyclopentadiene Dicyclopentadienyl iron	10	20
Dieldrin	0.25	0.75
Diethanolamine	15	23
Diethylamine	30	75
2-Diethylaminoethanol	50	75 75
Diethylene triamine	4	75 8
Diethyl ketone	705	881
Diethyl phthalate	705 5	10
Difluorodibromomethane	860	1290
Diglycidyl ether (DGE)	0.5	1.5
Diisobutyl ketone	150	187
Diisopropylamine	20	30
Dimethyl acetamide	35	50
Dimethylamine	18	27
Dimethylaniline (N,N-Dimethylaniline)	25	50
Dimethylformamide	30	60
Dimethylphthalate	5	10
Dinitolmide	5	10
Dinitrohnide Dinitrobenzene (all isomers)	1	3
Dinitrobenzene (an isomers) Dinitro-o-cresol	0.2	0.6
Dinitro-o-cresor Dinitrotoluene	1.5	3
Dioxane	90	3 135
Dioxathion	0.2	0.6
Diphenylamine	10	20
Diplicitylamine	10	۵0

Dipropylene glycol methyl ether	600	900
Dipropyl ketone	235	294
Diquat	0.5	1
Di-sec, octyl phthalate (Di-2-ethylhexyl		
phthalate)	5	10
Disulfiram	2	4
Disulfoton	0.1	0.3
2,6-Ditert, butyl-p-cresol	10	20
Diuron	10	20
Divinyl benzene	50	75
Emery	10	20
Endosulfan	0.1	0.3
Endrin	0.1	0.3
Enflurane	575	719
EPN	0.5	1.5
Ethion	0.4	1.2
2-Ethoxyethanol (Glycol monoethyl ether)	19	29
2-Ethoxyethyl acetate		
(Cellosolve acetate)	27	41
Ethyl acetate	1400	1750
Ethyl acrylate	20	61
Ethyl alcohol (Ethanol)	1900	2375
Ethylamine	18	27
Ethyl amyl ketone	130	162
Ethyl benzene	435	545
Ethyl bromide	890	1110
Ethyl butyl ketone	230	345
Ethyl chloride	2600	3250
Ethylenediamine	25	38
Ethyl ether	1200	1500
Ethyl formate	300	450
Ethyl silicate	85	128
Ethylene glycol, vapour	125	125
Ethylene glycol dinitrate	0.3	0.6
Ethylene oxide	2	4
Ethylidene norbornene	25	25
Ethyl mercaptan	1	3
N-Ethylmorpholine	23	35
Fenamiphos	0.1	0.3
Fensulfothion	0.1	0.3
Fenthion	0.2	0.6
Ferbam	10	20
Ferrovanadium dust	1	3
Fluoride (as F)	2.5	5
Fluorine	2	4
Fonfos	0.1	0.3
Formaldehyde	1.5	3

T3	15	20
Formamide	15	23
Formic acid	9	18
Furfural	8	12
Furfuryl alcohol	40	60
Gasoline	900	1500
Germanium tetrahydride	0.6	1.8
Glutaraldehyde	0.7	0.7
Glycerin mist	10	20
Glycidol	75	300
Grain dust (oats, wheat, barley)	4	
Graphite, natural (respirable size)+	2.5	_
Graphite (Synthetic)	10	20
Gypsum	10	20
Hafnium	0.5	1.5
Halothane	400	500
Heptachlor	0.5	1.5
Heptane (n-Heptane)	1600	2000
Hexachlorocyclopentadiene	0.1	0.3
Hexachloroethane	10	15
Hexachloronaphthalene	0.2	0.6
Hexafluoroacetone	0.7	2
Hexamethylene diisocyanate	0.035	0.1
Hexane (n-Hexane)	180	225
Hexane (other isomers)	1800	3600
sec-Hexyl acetate	300	375
Hexylene glycol	125	125
Hydrogenated terphenyls	5	10
Hydrogen bromide	10	10
Hydrogen chloride	7	7
Hydrogen cyanide	10	10
Hydrogen fluoride (as F)	2.5	5
Hydrogen peroxide	1.5	3
Hydrogen selenide (as Se)	0.2	0.6
Hydrogen sulfide	14	21
Hydroquinone	2	4
2-Hydroxypropyl acrylate	3	6
Indene	45	70
Indium and Compounds (as In)	0.1	0.3
Iodine	1	1
Iodoform	10	20
Iron oxide fume (Fe ₂ 0 ₃ , as Fe)	5	10
Iron pentacarbonyl (as Fe)	0.8	1.6
Iron salts, soluble (as Fe)	1	2
Isoamyl acetate	525	655
Isoamyl alcohol	360	450
Isobutyl acetate	700	875
Isobutyl alcohol	150	$\begin{array}{c} 275 \\ 225 \end{array}$
Isooctyl alcohol	270	338
1500cty1 attorior	210	990

Isophorone	25	25
Isophorone diisocyanate	0.045	0.14
Isopropyl acetate	950	1185
Isopropyl alcohol	980	1225
Isopropylamine	12	24
N-Isopropylaniline	10	20
Isopropyl ether	1050	1320
Isopropyl glycidyl ether (IGE)	240	360
Isopropoxyethanol	105	320
Kaolin	10	20
Ketene	0.9	3
Lead, inorg., fumes and dusts (as Pb)	0.15	0.45
Limestone	10	20
Lindane	0.5	1.5
Lithium hydride	0.025	0.075
L.P.G. (liquified petroleum gas)	1800	2250
Magnesite	10	20
Magnesium oxide fume	10	20
Malathion	10	20
Maleic anhydride	1	3
Manganese dust and compounds (as Mn) 5	5
Manganese fume (as Mn)	1	3
Manganese cyclopentadienyl		
tricarbonyl (as Mn)	0.1	0.3
Manganese tetroxide	1	3
Mercury (alkyl compounds) (as Hg)	0.01	0.03
Mercury vapour (as Hg)	0.05	0.15
Mercury aryl and inorganic compounds	(as Hg) 0.1	0.3
Mesityl oxide	60	100
Methacrylic acid	70	105
Methomyl	2.5	5
Methoxychlor	10	20
2-Methoxyethanol (Methyl cellosolve)	16	24
2-Methoxyethyl acetate		
(Methyl cellosolve acetate)	24	36
4-Methoxyphenol	5	10
Methyl acetate	610	760
Methyl acetylene	1650	2040
Methyl acetylene-propadiene mixture		
(MAPP)	1800	2250
Methyl acrylate	35	53
Methylacrylonitrile	3	6
Methylal	3100	3875
Methyl alcohol (methanol)	260	310
Methylamine	12	18
N-Methylaniline	2	4
Methyl 2-cyanoacrylate	8	16
Methyl n-amyl ketone (2-Heptanone)	235	465

Methyl bromide	20	30
Methyl n-butyl ketone	20	40
Methyl chloride	105	205
Methyl chloroform	1900	2450
Methylcyclohexane	1600	2000
Methylcyclohexanol	235	350
o-Methylcyclohexanone	230	345
Methylcyclopentadienyl manganese	200	010
tricarbonyl (as Mn)	0.2	0.6
Methyl demeton	0.5	1.5
Methylene bisphenyl isocyanate (MDI)	0.055	0.17
Methylene bis (4-cyclohexylisocyanate)	0.055	0.17
Methylene chloride	175	219
4,4'-Methylene dianiline	0.8	$\frac{213}{2.4}$
Methyl ethyl ketone	590	885
	1.5	1.5
Methyl ethyl ketone peroxide		
Methyl formate	250	375
Methyl isoamyl ketone	240	300
Methyl isobutyl carbinol	100	165
Methyl isobutyl ketone	205	300
Methyl isocyanate	0.05	0.15
Methyl isopropyl ketone	705	881
Methyl mercaptan	1	3
Methyl methacrylate	410	510
Methyl parathion	0.2	0.6
Methyl propyl ketone	700	875
Methyl silicate	6	12
a-Methyl styrene	240	485
Metribuzin	5	10
Mevinphos	0.1	0.3
Mica (respirable size)+	3	_
Molybdenum (as Mo) Soluble compounds	5	10
Insoluble compounds	10	20
Monocrotophos	0.25	0.75
Morpholine	70	105
Naled	3	6
Naphthalene	50	75
Nickel carbonyl (as Ni)	0.35	1.05
Nickel metal	1	3
Nickel, soluble compounds (as Ni)	0.1	0.3
Nicotine	0.5	1.5
Nitrapyrin	10	20
Nitric acid	5	10
Nitric oxide	30	45
p-Nitroaniline	3	6
Nitrobenzene	5	10
p-Nitrochlorobenzene	0.6	1.8
Nitroethane	310	465
2.111.000114110	010	100

Nitrogen dioxide	6	10
Nitrogen trifluoride	30	45
Nitroglycerin	0.5	1
Nitromethane	250	375
1-Nitropropane	90	135
Nitrotoluene	11	16
Nitrous oxide	91	137
Nonane	1050	1300
Nuisance particulates	10	
Octachloronaphthalene	0.1	0.3
Octane	1450	1800
Oil mist, mineral	5	10
Osmium tetroxide (as Os)	0.002	0.006
Oxalic acid	1	2
Oxygen difluoride	0.1	0.1
Ozone	0.2	0.2
Paraffin wax fume	2	6
Paraquat, respirable sizes	0.1	0.3
Parathion	0.1	0.3
Particulate polycyclic aromatic hydroca	rbons	
(PPAH) (as benzene solubles)	0.2	0.6
Pentaborane	0.01	0.03
Pentachloronaphthalene	0.5	2
Pentachlorophenol	0.5	1.5
Pentaerythritol	10	20
Pentane	1800	2250
Perchloromethyl mercaptan	0.8	2.4
Perchloryl fluoride	14	28
Perlite	10	20
Phenol	19	38
Phenothiazine	5	10
p-Phenylene diamine	0.1	0.3
Phenyl ether (vapour)	7	14
Phenyl glycidyl ether (PGE)	6	12
Phenylhydrazine	20	45
Phenyl mercaptan	2	4
Phenylphosphine	0.25	0.25
Phorate	0.05	0.2
Phosphine	0.4	1.0
Phosphoric acid	1	3
Phosphorus (yellow)	0.1	0.3
Phosphorus oxychloride	0.6	3
Phosphorus pentachloride	1	3
Phosphorus pentasulfide	1	3
Phosphorus trichloride	1.5	3
Phthalic anhydride	6	24
m-Phthalodinitrile	5	10
Picloram	10	20

T		
Picric acid	0.1	0.3
Pindone	0.1	0.3
Piperazine dihydrochloride	5	10
Plaster of Paris	10	20
Platinum metal	1	3
Platinum (soluble salts) (as Pt)	0.002	0.006
Portland cement	10	20
Potassium hydroxide	$\frac{2}{2}$	2
Propargyl alcohol		6
Propionic acid	30	45
Proposur	0.5	2.0
n-Propyl acetate	840	1050
Propyl alcohol	500	625
Propylene dichloride	350	510
n-Propyl nitrate	105	170
Propylene glycol dinitrate	0.3	0.6
Propylene glycol monomethyl ether	360	540
Propylene oxide	50	75 10
Pyrethrum	5	10
Pyridine Resorcinol	15 45	30
	45	90
Rhodium metal and insoluble compounds	1	9
(as Rh)	1	3
Rhodium, soluble compounds (as Rh) Ronnel	0.01	0.03
	10 5	20
Rotenone (commercial)		10 20
Rouge Pubbon coluent (Norththe)	10 1600	2000
Rubber solvent (Naphtha)	0.2	0.6
Selenium compounds (as Se)	$0.2 \\ 0.2$	0.6
Selenium hexafluoride (as Se) Sesone	10	20
	10	20
Silica (respirable size)+ amorphous	10	
Cristobalite		_
fused silica	$0.05 \\ 0.1$	_
precipitated and silica gel	10	
Quartz	0.1	
Tridymite	0.05	
Tripoli	0.03	_
Silicon	10	20
Silicon carbide	10	20
Silicon tetrahydride (Silane)	7	14
Silver, metal	0.1	0.3
Silver soluble compounds (as Ag)	0.01	0.03
Soapstone (respirable size)+	3	0.03
Soapstone (respirable size)+	6	
Sodium azide	0.3	0.3
Sodium bisulfite	5	10
Dourant Distillio	U	10

Sodium fluoroacetate	0.05	0.15
Sodium hydroxide	2	2
Sodium metabisulfite	5	10
Starch	10	20
Stearates	10	20
Stibine	0.5	1.5
Stoddard solvent	525	1050
Strychnine	0.15	0.45
Styrene, monomer	215	425
Subtilisins (Proteolytic enzymes as 100%		
pure crystalline enzyme)	0.00006	0.00006
Sucrose	10	20
Sulfotep	0.2	0.6
Sulfur dioxide	5	10
Sulfur hexafluoride	6000	7500
Sulfuric acid	1	3
Sulfur monochloride	6	6
Sulfur pentafluoride	0.1	0.1
Sulfur tetrafluoride	0.4	0.4
Sulfuryl fluoride	20	40
Sulprofos	1	3
Talc (respirable size)+	2	J
Tantalum, metal and oxide	10	20
	0.1	0.3
Tellurium and compounds (as Te)	0.1	0.6
Tellurium hexafluoride (as Te)		20
Temphos	10	
TEPP	0.05	0.2
Terphenyls	5	5
1,1,1,2-Tetrachloro-2,2-difluoroethane	4170	5210
1,1,2,2-Tetrachloro-1,2-difluoroethane	4170	5210
1,1,2,2-Tetrachloroethane	7	14
Tetrachloroethylene (Perchloroethylene)	335	1340
Tetrachloronaphthalene	2	4
Tetraethyl lead (as Pb)	0.1	0.3
Tetrahydrofuran	590	735
Tetramethyl lead (as Pb)	0.15	0.5
Tetramethyl succinonitrile	3	9
Tetranitromethane	8	16
Tetrasodium pyrophosphate	5	10
Tetryl (2,4,6-trinitrophenyl-methyl nitram		3.0
Thallium, soluble compounds (as Tl)	0.1	0.3
4,4'-Thiobis (6-tert. butyl-m-cresol)	10	20
Thioglycolic acid	4	8
Thiram	1	3
Thionyl chloride	5	5
Tin metal	2	4
Tin oxide and inorganic compounds except		
SnH ₄ (as Sn)	2	4

m: 1 (G)	0.4	2.2
Tin organic compounds (as Sn)	0.1	0.2
Titanium dioxide	10	20
Toluene (toluol)	375	560
Toluene-2,4-diisocyanate (TDI)	0.04	0.15
m-Toluidine	9	18
o-Toluidine	9	18
p-Toluidine	9	18
Tributyl phosphate	2.5	5
Trichloroacetic acid	7	14
1,2,4-Trichlorobenzene	40	40
1,1,2-Trichloroethane	45	90
Trichloroethylene	270	1080
Trichlorofluoromethane	5600	5600
Trichloronaphthalene	5	10
1,2,3-Trichloropropane	60	90
1,1,2-Trichloro 1,2,2-trifluoroethane	7600	9500
Triethylamine	40	60
Trifluorobromomethane	6100	7300
Trimellitic anhydride	0.04	0.12
Trimethylamine	24	36
Trimethyl benzene	125	170
Trimethyl phosphite	10	20
2,4,6-Trinitrotoluene (TNT)	0.5	1.5
Triorthocresyl phosphate	0.1	0.3
Triphenyl amine	5	10
Triphenyl phosphate	3	6
Tungsten (as W) Insoluble compounds	5	10
Soluble compounds	1	3
Turpentine	560	840
Uranium compounds (as U)	0.100	
Uranium and insoluble compounds (as U)	0.050	_
n-Valeraldehyde	175	219
Vanadium (as V ₂ O ₅) dust and fume	0.05	0.15
Vegetable oil mists	10	20
Vinyl acetate	30	60
Vinylidene chloride	20	80
Vinyl toluene	240	485
VM and P Naphtha	1350	1800
Warfarin	0.1	0.3
Welding fumes	5	10
Wood dust (soft wood)	5	10
Wood dust (certain hard woods as		
beech and oak)	1	3
Xylene (o-, m-, p-isomers)	435	655
m-Xylene a,a'diamine	0.1	0.1
Xylidene	10	20
Yttrium metal and compounds (as Y)	1	3
Zinc chloride fume	1	2

Zinc oxide fume	5	10
Zinc oxide dust	10	20
Zirconium compounds (as Zr)	5	10

^{*}Milligrams of substance per cubic metre of air.

+Note: For the application of this limit, respirable size is the fraction of dust that penetrates a separator whose size collection efficiency is described by a cumulative lognormal function with a median aerodynamic diameter of 3.5 um ($^{\pm}$ 0.3 um) and with a geometric standard deviation of 1.5 um ($^{\pm}$ 0.1 um).

28 Oct 88 SR 90/88 s40.

PART VII **Repealed.** 28 Oct 88 SR 90/88 s40.

PART VIII Cable Clips

Diameter of Rope (millimetres)	Number of clips	Spacing Between Clips Centre to Centre (millimetres)
6	2	38
8	2	51
10	2	57
11	2	64
12	2	76
16	3	102
19	4	114
22	4	133
25	4	152
29	5	178
32	5	203
38	6	229
44	7	267
50	8	305

OCCUPATIONAL HEALTH AND SAFETY

PART IX

Table 1

Dimensions of Members of Half-horse Scaffolds

1.	Ledgers	38 x 140 millimetres
2.	Legs	38 x 89 millimetres
3.	Braces	21 x 184 millimetres
4.	Ribbons	21×140 millimetres

Table 2

Dimensions of Members of Single-pole Scaffolds

1.	Uprights	38 x 89 millimetres
2.	Ledgers	$2-21 \times 140$ millimetres
3.	Ribbons	$1-21 \times 184$ millimetres
4.	Bracing	21 x 140 millimetres

Table 3

$Dimensions\ of\ Members\ of\ Double-pole\ Scaffolds$

- 1. Uprights a) 38 x 89 millimetres for scaffolds under 6 metres in height;
 - b) 89 x 89 millimetres for scaffolds 6 metres or more but less than 15 metres in height;
 - c) 89 x 144 millimetres for scaffolds 15 metres or more in height.
- 2. Ledgers $2-21 \times 140$ millimetres
- 3. Ribbons 21 x 140 millimetres
- 4. Braces 21 x 140 millimetres

PART X Trench Shoring, Stringers and Bracing

PART XI
Absolute Limits of Approach

Nominal		Absolute
Voltage	Voltage	Limit of
Phase-To	to	Approach For
Phase	Ground	Personnel and Tools
230 kV	133 kV	1.40m (4'6")
138 kV	$79.8 ext{ kV}$	1.0m (3'0")
72 kV	41.6 kV	0.60m (2'0")
$25 ext{ kV}$	14.4 kV	0.30m (1'0")*
15 kV	$8.6 ext{ kV}$	0.30m (1'0")*
4.16 kV	2.4 kV	0.15m (6")*

NOTE: *These limits may be reduced with approved rubber and insulating barriers, as follows:

Personnel and Equipment

25 kV — 0.15m (6")

15 kV — 0.15m (6")

4.16 kV — 0.10m (4")

OCCUPATIONAL HEALTH AND SAFETY

Editorial Appendix

The Occupational Health and Safety Amendment Regulations, 1988 (SR 90/88) provide the following transitional application:

- "41(1) Notwithstanding any other section but subject to subsection (2), the provisions of these regulations respecting supplier labels do not apply during the period commencing on October 31, 1988 and ending on October 30, 1989 to an employer with respect to a controlled product that is received at a place of employment on or before October 30, 1988.
- (2) The employer shall ensure that a controlled product mentioned in subsection (1) bears a workplace label during the period mentioned in that subsection.
- (3) Notwithstanding any other section but subject to subsection (5), the provisions of these regulations respecting supplier material safety data sheets do not apply during the period of 90 days commencing on October 31, 1988 to an employer with respect to a controlled product mentioned in subsection (1) if:
 - (a) the employer is actively seeking a supplier material safety data sheet for the controlled product; or
 - (b) where a supplier material safety data sheet is not available, the employer is developing a material safety data sheet containing the information that is required for a supplier material safety data sheet.
- (4) The provisions of sections 70 to 78 respecting the instruction of workers do not apply to an employer with respect to a controlled product during the period of 90 days commencing on October 31, 1988.
- (5) Notwithstanding any other section, where a controlled product received at a place of employment on or before March 14, 1989 is exempt by sections 8.1 and 15.1 of the *Controlled Products Regulations* from the requirements to provide a material safety data sheet and a supplier label for the controlled product, the employer is exempt from the provisions of these regulations respecting supplier material safety data sheets and supplier labels in accordance with subsections (6) and (7) if the employer:
 - (a) ensures that the controlled product or the container of the controlled product bears a workplace label containing the information known to the employer when the controlled product is received at the place of employment; and
 - (b) uses a combination of worker instruction and any visible mode of communication to communicate to workers that the controlled product is:
 - (i) a controlled product that has been received at the workplace on or before March 14, 1989; and
 - (ii) temporarily exempt from the requirements of section 13 of the *Hazardous Products Act* (Canada) with respect to the provision of supplier labels and supplier material safety data sheets.

OCCUPATIONAL HEALTH AND SAFETY

- (6) The provisions of these regulations respecting supplier material safety data sheets do not apply with respect to controlled products mentioned in subsection (5) to employers who comply with clauses (5)(a) and (b) during the period commencing on October 31, 1988 and ending on June 15, 1989 if, on and after March 15, 1989:
 - (a) the employer is actively seeking a supplier material safety data sheet; or
 - (b) where a supplier material safety data sheet is not available, the employer is developing a material safety data sheet for the controlled product containing the information that is required for a supplier material safety data sheet.
- (7) The provisions of these regulations respecting supplier labels do not apply with respect to controlled products mentioned in subsection (5) to employers who comply with clauses (5)(a) and (b) during the period commencing on October 31, 1988 and ending on October 31, 1989".