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Part II Regulations under the Regulations Act

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N.S. Reg. 44/99

Made: April 28, 1999

Filed: April 29, 1999

Construction Safety Regulations, Industrial Safety
Regulations and Occupational Safety General Regulations

Order in Council 1999-195 made April 28, 1999
Regulations made by the Governor in Council
pursuant to Section 82
of the *Occupational Health and Safety Act*

The Governor in Council on the report and recommendation of the Minister of Labour dated March 30, 1999, pursuant to Section 82 of Chapter 7 of the Acts of 1996, the *Occupational Health and Safety Act*, is pleased to:

- (a) repeal the Construction Safety Regulations made by Order in Council 68-104 dated February 12, 1968, effective on, from and after October 1, 1999, except Sections 1, 66, 68 and 82, which are repealed effective on, from and after April 28, 1999;
- (b) repeal the Industrial Safety Regulations made by Order in Council 69-127 dated February 11, 1969, effective on, from and after October 1, 1999, except Sections 1 and 249, which are repealed effective on, from and after April 28, 1999; and
- (c) make new regulations respecting occupational safety general requirements in the form set forth in Schedule "A" attached to and forming part of the report and recommendation, effective on, from and after October 1, 1999, except Sections 158 and 165 which are effective on, from and after April 28, 1999.

Schedule "A"

**Regulations respecting occupational safety general requirements
made by the Governor in Council
pursuant to Section 82 of Chapter 7 of the Acts of 1996,
the *Occupational Health and Safety Act***

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Part 1 - Title and Definitions

Citation

1 These regulations may be cited as the *Occupational Safety General Regulations*.

Definitions

2 In these regulations,

- (a) "adequate" means sufficient to protect a person from injury or damage to health;
- (b) "angle of repose" means the angle with the horizontal at which material will no longer flow freely;
- (c) "ANSI" means the American National Standards Institute;
- (d) "ASME" means the American Society of Mechanical Engineers;
- (e) "ASTM" means the American Society for Testing and Materials;
- (f) "CGSB" means the Canadian General Standards Board;
- (g) "competent person" means a person who is
 - (i) qualified because of that person's knowledge, training and experience to do the assigned work in a manner that will ensure the health and safety of every person in the workplace, and
 - (ii) knowledgeable about the provisions of the Act and regulations that apply to the assigned work, and about potential or actual danger to health or safety associated with the assigned work;
- (h) "CSA" means the Canadian Standards Association;

- (i) "demolition" means the destruction or removal of all, or part, of an existing building or structure;
- (j) "designated" means designated, in writing, by the employer unless otherwise specifically provided;
- (k) "electrical installation" means the wires, machinery, apparatus, appliances, devices, material and equipment used or intended for use for the generation, transmission, distribution, supply and use of electrical power or energy, and includes a power line and power line equipment;
- (l) "engineer" means a person who is registered as a member or licensed to practise under the *Engineering Profession Act* and is competent to do the work being performed;
- (m) "firefighter" means
 - (i) an employee who provides fire suppression services to the public from a fire department within a municipality or local service district, or
 - (ii) an industrial firefighter;
- (n) "guardrail" means a system of vertical and horizontal members that warn of a fall hazard and reduce the risk of a fall;
- (o) "hazardous substance" means chemical or biological material, dangerous goods within the meaning of the *Dangerous Goods Transportation Act* or a controlled product within the meaning of the *Hazardous Products Act* (Canada) that is likely to, because of its harmful nature, cause injury or damage to the health or safety of a person exposed to it;
- (p) "hoist" means a mechanical device or equipment and its structure used for moving, lifting, or lowering material, including a mobile crane, a tower crane, an electric overhead travelling crane, an automotive lift, a winch, a chain fall or other similar device, but does not include an industrial lift truck, a power operated elevating work platform, a device to which the *Elevators and Lifts Act* applies or a hoist serving the underground at an underground mine;
- (q) "industrial firefighter" means an employee who
 - (i) is designated to fight fires at the employee's place of employment, and
 - (ii) is employed by an employer who does not, in the normal course of its business, provide fire suppression services to the public;

- (r) "industrial lift truck" means a self-propelled vehicle
 - (i) designed primarily to carry, lift, stack, tier, push or pull material,
 - (ii) equipped with an elevating mechanism, and
 - (iii) with a lifting capacity that is greater than 450 kg,but does not include a hoist;
- (s) "locked out" means to have
 - (i) isolated the energy source or sources from a machine, equipment, tool or electrical installation,
 - (ii) dissipated any residual energy in a system, and
 - (iii) secured the isolation of the energy source or sources by an inhibiting device that is operated by a key or other process,and to have performed a "lock-out" has a similar meaning;
- (t) "machine" means an apparatus for applying mechanical power that has several parts, each with a definite function;
- (u) "manufacturer's specifications" means
 - (i) the written instructions or recommendations of a manufacturer of a machine, material, tool or equipment that outline the manner in which the machine, material, tool or equipment is to be erected, installed, assembled, started, operated, used, handled, stored, stopped, adjusted, carried, maintained, repaired, inspected, serviced, tested, cleaned or dismantled, and
 - (ii) an instruction, operating or maintenance manual and drawings respecting a machine, tool or equipment;
- (v) "NFPA" means the National Fire Protection Association;
- (w) "power line" means the above-ground or underground wiring that is used to distribute electricity to the workplace;
- (x) "power line equipment" means the components that are required to distribute electricity to the workplace by means of a power line;
- (y) "power operated elevating work platform" means a temporary horizontal working surface that provides access and support to a person at a workplace, and that is elevated and lowered by means of a mechanical, hydraulic, pneumatic or other powered mechanism and that complies with Section 36 of the *Fall Protection and Scaffolding Regulations*, including a standard listed in subsection (4) thereof;

- (z) "powered mobile equipment" means self-propelled equipment designed to operate in conditions other than a public highway, but does not include an industrial lift truck or a power operated elevating work platform;
- (aa) "SAE" means the Society of Automotive Engineers;
- (ab) "structural fire-fighting" means the activities of rescue, fire suppression and conservation of property from fires involving buildings, structures, vehicles, vessels, aircraft or other large objects constructed by human effort;
- (ac) "surface mine" means a work or undertaking, other than a trench, for the purpose of opening up, proving, removing or extracting any metallic or non-metallic mineral or mineral bearing substance, rock, earth, clay, sand or gravel by means of an open excavation, and includes a pit or quarry;
- (ad) "tool" includes a hand tool, a portable power-operated hand tool and a powder-actuated tool;
- (ae) "trench" means an excavation in which the excavation depth exceeds the excavation width;
- (af) "work area" means a location at the workplace at which an employee is working, or may be required or permitted to work.

Part 2 - General

Application

- 3** These regulations apply to all workplaces to which the *Occupational Health and Safety Act* applies, unless otherwise expressly provided.

Duties of parties

- 4 (1)** Where these regulations impose a duty on an employer, the duty is also imposed on a contractor, constructor, supplier, employee, owner or self-employed person, to the extent of the contractor's, constructor's, supplier's, employee's, owner's or self-employed person's authority and ability to discharge the duty in the circumstances.
- (2)** For the purpose of applying Section 23 of the Act,
- (a) the person with the greatest authority and ability to ensure that a duty is discharged or a requirement is met is presumed to be the person with the greatest degree of control over the matter that is the subject of the duty or the requirement; and

- (b) where a provision in a lease or other agreement relating to property rights gives a specified owner authority to control an aspect of lands or premises that are used as a workplace, the provision is *prima facie* evidence that the specified owner has the greatest degree of control over that aspect of the land or premises.

Conflict with incorporated standard

- 5** In the event of an inconsistency between these regulations and a standard incorporated by reference in these regulations, the regulations prevail over the standard to the extent of the inconsistency.

Compliance with specified editions of standards

- 6 (1)** Subject to subsection (2), where these regulations require that an object, or activity in relation to an object, comply with an edition of a standard published in a specified year,

- (a) if the requirement is to ensure that an object physically conforms to the standard, the object shall be deemed to comply with the standard if
 - (i) it conforms to the physical specifications contained in the latest version of the standard published at the object's date of manufacture, or
 - (ii) in the event that no version of the standard existed at the object's date of manufacture, it conforms to generally accepted engineering principles prevailing at the object's date of manufacture,

unless there is evidence raising a reasonable doubt as to whether the object is adequate;

- (b) if the requirement is to ensure that inspection, maintenance, use or other activity in relation to an object is carried out in accordance with the standard, compliance with the standard is required unless it is established that compliance with an earlier version of the standard, or with generally accepted engineering principles prevailing at the object's date of manufacture, is more likely to ensure adequate performance of the object.
- (2)** Subsection (1) does not apply to the requirement to conform to an edition of a standard appearing in subsection 10(1), Section 11, subsection 13(2), Section 14, subsections 16(2), 18(1), 45(2), and 134(4), Section 136, subsection 154(4), or Section 156.

Consultation and implementation

- 7** An employer developing or reviewing a written policy or procedure for the purpose of these regulations shall do so in consultation with the committee or representative, if any.

- 8 Where a written policy or procedure is developed for the purpose of the Act or these regulations, the employer shall ensure that
- (a) the policy or procedure is adequate and implemented; and
 - (b) each employee required to perform a function under the policy or procedure is trained in respect of the policy or procedure generally, and in particular in the requirements relating to that employee.

Part 3 - Personal Protective Equipment

Use of personal protective equipment

- 9 (1) An employer shall ensure the use of the type and level of personal protective equipment or device that is required for an assigned task based on
- (a) the nature of the task;
 - (b) the location and the condition of the workplace; and
 - (c) other hazards that may affect the health and safety of people in the workplace.
- (2) Where personal protective equipment is required by the employer, the Act or any regulations,
- (a) an employer shall ensure that
 - (i) an employee is trained in the proper use and care of the personal protective equipment,
 - (ii) an employee wears and uses the protective equipment in accordance with the instruction and training provided, and
 - (iii) the personal protective equipment is
 - (A) maintained, and
 - (B) tested or visually inspected before each use, as appropriate to the type of equipment to be used,

in accordance with the manufacturer's specifications; and
 - (b) an employee shall wear and use the protective equipment as so required.
- (3) Where a person identifies any defect in personal protective equipment that may impair the adequacy of the equipment, the employer shall ensure that the personal protective equipment is not used until it is repaired.

Hazard to eyes, face or neck

- 10 (1)** Where a person is exposed to a hazard that may irritate or injure the eyes, face, or front of the neck, an employer shall ensure that protective equipment is worn that is appropriate to the hazard and that complies with CSA standard CAN/CSA-Z94.3-92, "Industrial Eye and Face Protectors".
- (2)** Subsection (1) does not apply if a person operating a chain saw is wearing adequate face protection as a substitute for the protective equipment referred to in subsection (1).

Hazard to head

- 11** Where a person is exposed to a hazard that may injure the person's head, an employer shall ensure that protective equipment is worn that is appropriate to the hazard and that complies with CSA Standard
- (a) CAN/CSA-Z94.1-92, "Industrial Protective Headwear"; or
 - (b) CSA - Z94.1 - M1977, "Industrial Protective Headwear".

Hazard to foot or skin

- 12 (1)** Where a person is exposed to a hazard that may injure the person's foot, an employer shall ensure that protective equipment is worn that is appropriate to the hazard and that complies with CSA standard CAN/CSA-Z195-M92, "Protective Footwear".
- (2)** Where a person is exposed to a hazard that may injure the skin, an employer shall ensure that adequate protection is worn or used.

Respiratory hazard

- 13 (1)** Where a person is exposed to a respiratory hazard that may cause injury or disease, an employer shall provide and ensure the use of adequate respiratory protective equipment that is appropriate to the hazard.
- (2)** An employer shall ensure that the compressed breathing air used in self-contained respiratory protective equipment complies with or exceeds CSA standard CAN3-Z180.1-M85, "Compressed Breathing Air and Systems".

Risk of drowning

- 14** Where a person is exposed to the risk of drowning, an employer shall provide and ensure the use of a personal flotation device that complies with CGSB standard CAN/CGSB-65.11-M88, "Personal Flotation Devices" or an alternative means of protection that provides an equivalent level of safety to prevent the person from drowning.

Part 4 - Ventilation, Lighting, Sanitation and Accommodation**Ventilation**

15 An employer shall

- (a) provide for a supply of fresh air into, and the removal of air from, a workplace or part thereof that is, so far as is reasonably practicable, sufficient to
 - (i) keep the air reasonably pure, and
 - (ii) render harmless all gases, vapours, dust or other impurities that are likely to endanger the health or safety of any person therein;
- (b) where a process is carried on that produces a gas, vapour, dust or other impurity that is likely to be inhaled to an injurious extent by a person in the workplace, provide and use such mechanical means as are capable of
 - (i) preventing such inhalation so far as is reasonably practicable,
 - (ii) effectively carrying off and disposing of the impurity, and
 - (iii) preventing the recirculation and re-entry into the workplace of air containing the impurity; and
- (c) ensure that all ventilation systems used for controlling the dissemination of gases, vapours, dust or other impurities, including their collection systems and emptying processes, are designed, installed, operated, maintained and repaired in an adequate manner.

Lighting

16 (1) An employer shall ensure the provision of lighting that is sufficient for the type of work being done considering

- (a) the quantity of illumination; and
 - (b) the quality of illumination, including reflectance, direct glare and reflected glare.
- (2)** Where it is reasonably practicable, considering the nature of the work, an employer shall use the applicable ANSI standard listed below to determine the lighting required by subsection (1):
- (a) ANSI/IES-RP-7-1991, “American National Standard Practice for Industrial Lighting”;
 - (b) ANSI/IES RP3 - 1988, “American National Standard Guide for Educational Facilities Lighting”; or
 - (c) ANSI/IES RP-1-1992, “American National Standard Practice for Office Lighting”.

- 17 Where failure of the normal lighting system may constitute a danger to the health or safety of a person, the employer shall ensure that emergency lighting is available.

Drinking water

- 18 (1) An employer shall, where reasonably practicable, make accessible sufficient potable water for drinking and hand-cleaning that meets the standards set out in the *Guidelines for Canadian Drinking Water Quality*, Sixth Edition, published under the authority of the Minister of Health Canada, 1996.
- (2) Where drinking water is not taken directly from a water pipe, an employer shall ensure that it is kept in a container that is covered in an adequate manner and, if used by more than one person, that the container is equipped with a faucet.
- (3) An employer shall, where reasonably practicable, make accessible individual sanitary drinking vessels or cups to be used with drinking water, except where the drinking water is delivered in an upward jet from which a person may drink.
- (4) Where outlets exist for both drinking water and water not suitable for drinking, an employer shall appropriately and clearly label the outlets.

Toilets

- 19 (1) An employer shall make accessible a minimum number of toilets for each gender, determined according to the maximum number of people of each gender who are normally employed at any one time at the same workplace, as follows:
- (a) where the number of people does not exceed 9, 1 toilet;
- (b) where the number of people exceeds 9 but does not exceed 24, 2 toilets;
- (c) where the number of people exceeds 24 but does not exceed 49, 3 toilets;
- (d) where the number of people exceeds 49 but does not exceed 74, 4 toilets;
- (e) where the number of people exceeds 74 but does not exceed 100, 5 toilets; and
- (f) where the number of people exceeds 100, 5 toilets and 1 toilet for every 30 such people in excess of 100.

- (2) Despite subsection (1), where a workplace, such as a motor vehicle or an isolated small temporary workplace such as a logging operation or a survey site, does not have running water or sewage facilities, an employer shall ensure that the toilets required in subsection (1) are accessible where it is reasonably practicable.
- (3) Despite subsection (1), where the total number of people normally employed in the workplace at any one time does not exceed 9, an employer may provide 1 toilet for both male and female persons if the toilet is situated in a room with an entrance door that is fitted on the inside with a locking device.
- (4) Despite subsection (1), where more than 2 toilets are required for male employees, an employer may substitute urinals for up to $\frac{2}{3}$ of the required number of toilets.
- (5) An employer shall ensure that toilets are of the water flush, chemical, self-contained portable or other similar types of toilets.
- (6) An employer shall ensure that a toilet facility required by these regulations is
 - (a) within easy access of a person's workplace;
 - (b) enclosed so that a person is sheltered from view and protected from the natural elements;
 - (c) adequately ventilated and illuminated;
 - (d) heated, where reasonably practicable;
 - (e) kept in a clean and sanitary condition;
 - (f) provided with a sufficient supply of toilet paper;
 - (g) provided with a waste receptacle;
 - (h) maintained in working condition; and
 - (i) in the case of a self-contained unit, emptied and serviced at intervals to ensure that the unit does not overflow.
- (7) An employer shall ensure that an employee has reasonable opportunities to use the toilet facilities.

Hand-cleaning facilities

- 20 (1)** Where the workplace has running water, an employer shall provide a wash basin or equivalent hand-cleaning facility in a room with 1 toilet and sufficient additional wash basins or equivalent hand-cleaning facilities in the room for additional toilets or urinals.

- (2) Where the workplace does not have running water and toilet facilities are provided, an employer shall provide hand-cleaning facilities or supplies, where it is reasonably practicable.
- (3) An employer shall provide a hand-cleaning facility and supplies as close to the toilet as is reasonably practicable and provide sufficient additional hand-cleaning facilities as close as is reasonably practicable to additional toilets.
- (4) Where a person works in an area that is exposed to a hazardous substance that may contaminate food, an employer shall provide the person with the opportunity, facilities and supplies for hand cleaning.
- (5) Where a wash basin is provided, an employer shall provide
 - (a) hot and cold running water;
 - (b) soap or other appropriate cleansers; and
 - (c) sufficient sanitary hand-drying facilities.

Eating areas

- 21** (1) Where the possibility of contamination of food from a hazardous substance exists in a work area, an employer shall provide an eating area separate from the work area.
- (2) Where an eating area referred to in subsection (1) is in an enclosed structure, the employer shall ensure that the eating area
 - (a) is kept in a sanitary condition; and
 - (b) is adequately provided with
 - (i) light, heat and ventilation,
 - (ii) tables and seating sufficient for the number of people who use the eating area at any one time, and
 - (iii) garbage receptacles.
 - (3) No person shall store food or drink in an area where the food or drink may be contaminated by a hazardous substance.

Work clothes and change rooms

- 22** (1) Where the nature of a person's work makes it necessary for the person to change out of street clothes and into work clothes to protect the person's health or safety, an employer shall provide a changing room and storage for the person's street clothes and work clothes that will prevent the clothes from becoming wet or dirty.

- (2) Where a person's work clothes are liable to be contaminated so that the health or safety of a person may be adversely affected by exposure to the clothes when contaminated, an employer shall provide
 - (a) work clothes for the person's use;
 - (b) storage for the person's street clothes and work clothes that will prevent the street clothes from becoming wet, dirty or contaminated;
 - (c) a changing room; and
 - (d) for work clothes to be cleaned as necessary.
- (3) Where a person's skin may be contaminated by a hazardous substance, an employer shall provide a shower facility if it is reasonably practicable.
- (4) For the purposes of subsection (3), the employer shall provide a shower facility that includes
 - (a) a number of showers for each gender determined according to the maximum number of people of each gender who are normally employed at the same workplace and who are exposed as described in subsection (3) at any one time as follows:
 - (i) where the number of employees does not exceed 10, 1 shower, and
 - (ii) an additional shower for each unit of 10 additional employees of each gender;
 - (b) a sufficient water supply that can be manually adjusted to come within a range of 35°C and 45°C; and
 - (c) sufficient soap and towels.

Emergency showers and eyewashes

- 23 (1)** Where a person's skin or eyes may be acutely affected by an exposure to a caustic, acidic or other hazardous substance, an employer shall, as necessary in the circumstances, provide
- (a) an emergency shower;
 - (b) an eye wash fountain; or
 - (c) other equipment sufficient for removal of the substance
- in the work area where the exposure may occur.
- (2) An employer shall ensure that an adequate emergency shower or eye wash fountain is designed, installed, inspected, tested, maintained and operated in accordance with the manufacturer's specifications.

Housekeeping

24 An employer shall ensure that waste material and debris are removed from a workplace to a suitable disposal area on a regular basis, so as to prevent a hazard.

Fire protection and escape

- 25** (1) An employer shall ensure that adequate fire protection is provided in the workplace.
- (2) An employer shall maintain and service the fire protection equipment required in subsection (1) in accordance with the manufacturer's specifications.
- (3) In determining the type and quantity of fire protection required in subsection (1), an employer shall consider
- (a) where the workplace is an occupied or enclosed structure, the *Fire Prevention Act*; or
 - (b) where the workplace is a project, Part 8 of the *Nova Scotia Building Code* under the *Building Code Act*.
- (4) Subject to the *Fire Prevention Act*, unless each person present in the workplace has suitable keys to all doors that are required to be open to exit the premises, no person shall lock, bolt or bar a door while a person is present in the workplace, if doing so would prevent a person from exiting a work area.
- (5) The requirements of subsection (4) do not apply to a room in which a legally restrained person is located and other means of protection from fire are provided.

Part 5 - Handling And Storage of Material**General handling of objects and material**

- 26** Where the lifting or moving of a thing or person may be a hazard to the health and safety of a person at the workplace, an employer shall ensure that
- (a) adequate and appropriate equipment for the lifting and moving is provided; and
 - (b) training and instruction as to the appropriate method of performing the lifting and moving is provided.
- 27** (1) An employer shall ensure that where rubbish or debris is moved, it is carried in suitable containers, or moved by means of chutes or other safe methods that provide an equivalent degree of protection.
- (2) Subsection (1) does not apply during demolitions while

- (a) a heavy weight suspended by a cable from a crane or other hoist; or
- (b) a power shovel, bulldozer or other powered mobile equipment,

is being used to conduct the demolition.

28 An employer shall ensure that a chute

- (a) is well constructed and rigidly fastened;
- (b) if at more than 45° to the horizontal, is enclosed on all sides; and
- (c) has an adequate gate on every loading entrance to the chute.

29 An employer shall ensure that the entrance to a chute

- (a) has a 100 mm by 100 mm or larger curb or cleat, where the entrance is at or below the floor level;
- (b) is not more than 1.2 m above the floor; and
- (c) is kept closed when not in use.

Bulk material in bins, hoppers and tanks

30 An employer shall ensure that a bin, hopper, tank or other similar structure used to store combustible bulk dry material has a lid, an adequate ventilation system and is fire-resistant.

31 Where a person is likely to be endangered by clogs in bulk material stored in a bin, hopper, tank or other similar structure, an employer shall establish a written work procedure for the safe breaking up of clogs and shall ensure that a copy of the work procedure is readily available near the bin, hopper, tank or structure.

Piled material

32 An employer shall ensure that piled material is

- (a) located so as not to interfere with
 - (i) illumination,
 - (ii) ventilation,
 - (iii) means of access and exit,
 - (iv) passageways or traffic lanes,
 - (v) the operation of machines,
 - (vi) sprinklers and firefighting equipment, or
 - (vii) electrical panels or energized electrical power lines;
- (b) located on a firm foundation that is able to support the load;
- (c) located so that the pile is not resting against a partition or wall of a building unless the partition or wall is designed to support the load;
- (d) arranged in a manner that makes it stable;

- (e) protected from conditions that may significantly damage the structural integrity of any container used to store the material; and
 - (f) regularly inspected for hazards.
- 33** Where pipes, bar stock or other material or objects may create a hazard by rolling, an employer shall ensure that the piled material is stacked in a manner to prevent rolling.
- 34**
 - (1)** Where unconsolidated bulk material is stockpiled, an employer shall ensure that it is inspected to determine if it is in a safe condition before a person is permitted to work close to or on the pile.
 - (2)** Where unconsolidated bulk material is stockpiled and removed by means of powered mobile equipment, an employer shall ensure that
 - (a) the working face of the unconsolidated bulk material is sloped at the angle of repose;
 - (b) the vertical height of the working face of the unconsolidated bulk material is not more than 1.5 m above the maximum reach of the equipment; or
 - (c) the stockpiling and removal is done in accordance with the specifications certified by an engineer following consultation with the committee or representative, if any.
 - (3)** Where the face of unconsolidated bulk material that is stockpiled is undermined by means of powered mobile equipment, an employer shall ensure that the undermining is
 - (a) restricted to the depth of the bucket of the powered mobile equipment;
 - (b) permitted only when the approach of the powered mobile equipment is at a 90° angle to the face of the material; and
 - (c) done as specified by an engineer following consultation with the committee or representative, if any.
 - (4)** Where unconsolidated material is loaded or unloaded from a vehicle or equipment, an employer shall ensure that adequate precautions are taken to ensure that the vehicle or equipment does not overturn.
- 35** An employer shall ensure that any material or debris is collected, and removed or positioned so as not to endanger the safety of a person at the workplace.

Hazardous substance storage

- 36 (1)** An employer shall ensure that a container used for storing a hazardous substance is designed, constructed and maintained in an adequate manner.
- (2)** In determining whether or not a container is adequate, an employer shall consider
- (a) the material safety data sheet for the substance, if one exists;
 - (b) information provided by the supplier;
 - (c) whether there is a means of ensuring that a leak can be readily detected;
 - (d) the location where the container is stored, including
 - (i) the foundation on which the container is placed, and its ability to resist reaction with the hazardous substance, and
 - (ii) the need for overflow pipes, catch basins and other similar devices to ensure that the contents of the hazardous substance are contained in case of a leak; and
 - (e) the need to ensure that the container does not significantly corrode from exposure to the hazardous substance in the container.
- 37** Where a container has been used to store a hazardous substance and the container will not be refilled with the same or a compatible substance, an employer shall ensure that the container is cleaned in an adequate manner without undue delay, unless the container is rendered unusable.
- 38 (1)** In this Section "carboy" means a bottle or container for liquids of a 20 L capacity or greater, but less than 75 L, and made of glass, plastic or metal.
- (2)** An employer shall ensure that a carboy containing a liquid hazardous substance is
- (a) if the carboy is made of glass, individually encased in a basket or box or other suitable container cushioned with noncombustible packing during transportation;
 - (b) stored with compatible material in a storage area or building with flooring that is resistant to the chemical being stored;
 - (c) not piled on top of another carboy, unless piled in accordance with the manufacturer's specifications;
 - (d) placed in a suitable storage rack or on strips laid on the floor; and
 - (e) stored in accordance with the manufacturer's specifications.

- (3) The employer shall ensure that a carboy holding a liquid hazardous substance is in adequate condition.
- 39 Where a hazardous substance is likely to create a hazard if it reacts with another substance, an employer shall ensure that the substances are stored separately.
- 40 An employer shall ensure that piping and associated equipment for a hazardous substance is
- (a) appropriate for the substance contained;
 - (b) maintained in adequate operating condition; and
 - (c) regularly inspected.
- 41 Where a hazardous substance is used in a workplace in such quantities that a spill could affect the health or safety of a person, an employer shall ensure that
- (a) it is kept only in working quantities in areas where a person is working;
 - (b) a written emergency procedure that includes the use of emergency equipment, if necessary, is developed for use in the event of escape of a hazardous substance; and
 - (c) any spillage of a hazardous substance is immediately cleaned up in an adequate manner.

Rechargeable storage batteries

- 42 (1) An employer shall ensure that the electric charging of rechargeable storage batteries is performed in accordance with the battery manufacturer's specifications.
- (2) Where the electric charging of rechargeable storage batteries is routinely performed, and there are reasonable grounds to believe that contaminants are likely to be generated during the charging process, an employer shall obtain an assessment in writing from a competent person, who shall
- (a) consult with the committee or representative, if any; and
 - (b) determine whether the charging is likely to cause an explosive mixture of hydrogen or the release of another hazardous substance.
- (3) Where the assessment in subsection (2) determines that the electric charging of rechargeable storage batteries is likely to cause an explosive mixture of hydrogen or the release of another hazardous substance, an employer shall ensure that the electric charging is performed in a designated area or room that
- (a) is adequately ventilated to prevent the accumulation of flammable gases;

- (b) is marked at the entrance with a notice prohibiting smoking or open flames;
 - (c) has a floor made of non-sparking material;
 - (d) where rechargeable storage batteries are mounted in trays or on racks, has level trays or racks constructed or covered with non-sparking material and of sufficient strength to carry the weight of the batteries; and
 - (e) is not used for general storage of objects unrelated to the charging process.
- (4)** An employer shall ensure that a competent person prepares a written review of the assessment required in subsection (2) on an annual basis or when there is a change in the process or volume of electric charging, whichever is the lesser period of time.
- (5)** Where electrolyte is spilled, an employer shall ensure that the spill is immediately cleaned up in an adequate manner to neutralize the electrolyte.
- 43 (1)** An employer shall ensure that a competent person changes or charges a rechargeable storage battery.
- (2)** Where a rechargeable storage battery is charged, or filled with or drained of electrolyte, an employer shall
- (a) provide an employee performing this work with
 - (i) goggles and a face shield,
 - (ii) acid resistant gloves, and
 - (iii) an acid resistant apron; and
 - (b) ensure that an employee uses this personal protective equipment while performing this work.
- 44** An employer shall ensure that a rechargeable storage battery
- (a) is adequately secured when in use or during charging;
 - (b) has clear ventilation openings; and
 - (c) where a rechargeable storage battery containing electrolyte is of no further use, is disposed of in a manner that prevents unintentional spillage of electrolyte.

Compressed gas

- 45 (1)** An employer shall ensure that compressed gas in a container is used, stored and handled in an adequate manner.

- (2) For the purpose of subsection (1), Compressed Gas Association standard CGA P-1-1991, "Safe Handling of Compressed Gases in Containers", is presumed to indicate the required standard of reasonable care, unless an employer proves that this is not reasonably practicable in a particular circumstance.
- 46 (1) An employer shall ensure that a regulator, automatic reducing valve, gauge, hose line or other equipment provided for use with a compressed gas cylinder and a particular gas or group of gases, is not used on a compressed gas cylinder containing a different gas unless this use is approved by the supplier of the regulator, automatic reducing valve, gauge, hose line or other equipment.
- (2) An employer shall ensure that a compressed gas cylinder has
- (a) connections to piping, regulators and other components that are kept tight to prevent leakage; and
 - (b) valves that are kept closed at all times, whether the cylinder is charged or empty, except where
 - (i) gas is flowing from the cylinder,
 - (ii) the gas in the cylinder is maintaining pressure in a supply line, or
 - (iii) the cylinder is on stand-by during and between operations using gas.
- (3) An employer shall ensure that hose lines for conveying flammable gas or oxygen from supply piping or compressed gas cylinders to torches have threads designed in compliance with Compressed Gas Association standard ANSI/CGA V-1-1994, "American National Standard/Compressed Gas Association Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections".

Portable compressed gas cylinders

- 47 (1) In this Section and in Sections 48 and 49, "portable compressed gas cylinder" means a cylinder having a water capacity of 450 kg or less that contains or is intended to contain a compressed or liquefied gas.
- (2) Subject to the *Fire Prevention Act*, an employer shall ensure that a portable compressed gas cylinder is stored
- (a) in a well-ventilated storage area where the temperature does not exceed 52°C;
 - (b) with cylinders grouped by types of gas and the groups arranged to take into account the gases contained;

- (c) with full and empty cylinders separated;
 - (d) at a safe distance from all operations that produce flames, sparks or molten metal or result in excessive heating of the cylinder;
 - (e) securely; and
 - (f) with protective devices in place.
- (3) Subject to the *Fire Prevention Act*, an employer shall ensure that a portable compressed gas cylinder is
- (a) not exposed to corrosive materials or corrosion-aiding substances; and
 - (b) protected from falling and from having objects fall on it.
- (4) An employer shall prominently post in a storage area for portable compressed gas cylinders the names of the gases stored and signs prohibiting smoking.
- 48 (1)** No person shall
- (a) roll a portable compressed gas cylinder on its side;
 - (b) subject a portable compressed gas cylinder to rough handling; or
 - (c) move a portable compressed gas cylinder with a lifting magnet.
- (2) Where appropriate lifting mechanisms have not been provided on a portable compressed gas cylinder, an employer shall ensure that suitable cradles or platforms for holding the cylinder are used for lifting it.
- 49** An employer shall ensure that a portable compressed gas cylinder is
- (a) securely fastened and in an upright position during transportation, unless designed for transport in another orientation;
 - (b) has a protective cap attached or located on the cylinder or the cylinder is positioned in a manner that will provide an equivalent level of safety during transportation; and
 - (c) is transported in a manner that will prevent damage to the cylinder and its components.

Refuelling

- 50** An employer shall adopt an adequate refuelling procedure for equipment that has an internal combustion engine and an employee shall follow the procedure when refuelling equipment.

Part 6 - Lock-out**Interpretation, application, control and energizing****51 (1)** In this Part,

- (a) "equipment" includes
 - (i) pipes for transporting a material, and
 - (ii) hydraulic or pneumatic lines;
 - (b) "lock-out device" means the device that secures the isolation of the energy source of a locked out machine, equipment, tool or electrical installation;
 - (c) "lock-out location" means the location of a lock-out device; and
 - (d) "lock-out tag" means a tag that
 - (i) is installed at a lock-out location,
 - (ii) has words directing a person not to start or operate the machine, equipment, tool or electrical installation,
 - (iii) identifies the person who has performed a lock-out, and
 - (iv) does not readily conduct electricity; and
 - (e) "zero energy state" means a condition in which a machine, equipment, tool or electrical installation is rendered incapable of spontaneous or unexpected action or otherwise releasing kinetic or potential energy.
- (2)** This Part applies to a machine, equipment, tool or electrical installation that is erected, installed, assembled, started, operated, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, maintained, repaired or dismantled .
- (3)** An employer shall ensure that, in addition to any normal start and stop control mechanism, a machine, equipment, tool or electrical installation has a means of isolating all sources of energy to the machine, equipment, tool or electrical installation that is
- (a) accessible when needed by an employee; and
 - (b) readily identifiable.
- (4)** An employer shall ensure that where a person may be exposed to a hazard by the energizing of a machine, equipment, tool or electrical installation, or any part of it, a de-energized machine, equipment, tool or electrical installation, or any part of it, is energized

- (a) only in accordance with an applicable written procedure established by the employer; and
- (b) only after all persons are clear of the hazardous area and have been instructed to remain clear.

Lock-out procedure

52 (1) Where work is performed on a machine, equipment, tool or electrical installation, and the work is hazardous to a person in the workplace if the machine, equipment, tool or electrical installation is or becomes energized, an employer shall ensure that

- (a) the work is done in accordance with a written lock-out procedure established by the employer;
- (b) no person works on the machine, equipment, tool or electrical installation until the machine, equipment, tool or electrical installation
 - (i) is put in a zero energy state,
 - (ii) is locked out,
 - (iii) has a lock-out tag at each lock-out location; and
- (c) a competent person verifies that the requirements of clauses (a) and (b) have been complied with and tests to determine that the machine, equipment, tool or electrical installation is in a zero energy state.

(2) The written lock-out procedure referred to in subsection (1) shall include

- (a) provision for complying with the requirements of subsection (1);
- (b) the method of notifying a person in the work area of safe conditions for work after a lock-out has been completed;
- (c) the method of determining that all persons near the locked out machine, equipment, tool or electrical installation are clear of the hazardous area and have been instructed to remain clear before the machine, equipment, tool or electrical installation, or any part of it, is energized; and
- (d) the method of energizing the machine, equipment, tool or electrical installation.

53 (1) No person other than the person who installed it shall remove a lock-out device or a lock-out tag on a machine, equipment, tool or electrical installation.

(2) Despite subsection (1), where reasonable attempts have been made to contact the person who locked out the machine, equipment, tool or electrical installation and that person is not available,

- (a) in a serious emergency, a person who has determined that it is safe to energize the equipment may remove a lock-out device or a lock-out tag; or
- (b) a competent person who
 - (i) is designated in the written lock-out procedure, and
 - (ii) has determined that it is safe to energize the equipment,may remove a lock-out device or a lock-out tag.

54 Despite subsection 51(4) or Section 52, where work is performed on a machine, equipment, tool or electrical installation, and the work is hazardous to a person in the workplace if the machine, equipment, tool or electrical installation is or becomes energized, and the requirements of subsection 51(4) or Section 52 are

- (a) inappropriate for the work to be performed or inadequate for the protection of persons at the workplace; or
- (b) not reasonably practicable where the electrical installation is used for the generation or transmission of electricity,

an employer may substitute for the requirements of those provisions an alternative adequate written procedure that specifies personnel responsibilities, training and equipment requirements and the details for carrying out the work in a manner that will ensure the safety of all person who may be exposed to a hazard arising from the work.

Part 7 - Hoists and Mobile Equipment

General provisions

- 55** An employer shall ensure that a hoist, industrial lift truck or powered mobile equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, maintained, repaired and dismantled in accordance with the manufacturer's specifications, or, where there are no manufacturer's specifications, the specifications certified by an engineer.
- 56** An employer shall ensure that a hoist, industrial lift truck or powered mobile equipment
- (a) is operated by a designated competent person;
 - (b) has gears and moving parts securely guarded by adequate means where necessary to prevent a hazard to a person in the workplace;
 - (c) has any load on it adequately secured where necessary to prevent a hazard to a person in the workplace;

- (d) is provided with safe means of access and exit from the operator's position and any passenger's position.

Signaller

57 (1) An employer shall designate one or more competent persons as a signaller to direct the safe movement and operation of the equipment where the operator of a hoist, industrial lift truck or powered mobile equipment

- (a) does not have an adequate view of the load;
- (b) does not have a clear view of the route the load is to take;
- (c) is not able to see clearly around the equipment when moving and has not taken measures sufficient to ensure that no person is exposed to a hazard as a result of the movement of equipment;
- (d) is not able to see clearly where the hoist or its load may encroach the minimum distance specified in Section 126 or a hoist is positioned closer than the length of its boom to an overhead energized power line or power line equipment; or
- (e) is causing the equipment to move under its own power from one location to another and the situation creates a hazard in the workplace.

(2) A signaller shall

- (a) be readily identifiable to the operator;
- (b) direct the movement of a load or equipment by a well understood distinctive code of hand signals or another effective communication system;
- (c) warn the operator each time
 - (i) any part of the hoist or its load may encroach on the minimum distance specified in Section 126, or
 - (ii) the hoist is positioned closer than the length of its boomfrom an overhead energized power line or power line equipment; and
- (d) obtain the assistance of another signaller if all or part of the view of the load or route is obstructed from both the signaller and the operator.

(3) An operator of a hoist, industrial lift truck or powered mobile equipment in a situation referred to in subsection (1) shall move a load only on a signal from a signaller.

Safety equipment and precautions

- 58 (1)** An employer shall ensure that a hoist, industrial lift truck or powered mobile equipment is equipped with
- (a) an audible back-up alarm that
 - (i) operates automatically when the vehicle is in reverse gear, and
 - (ii) is clearly audible above the background noise at the workplace,or that another means of protection or warning that provides an equivalent level of safety is used;
 - (b) a manually operated horn, unless such a horn was not installed at the time of manufacture;
 - (c) adequate front and rear lights when the equipment is used after dark or in dimly lit areas;
 - (d) an adequate braking system; and
 - (e) a screen, shield, grill, deflector, guard or other adequate protection for the operator, where the operator may be exposed to the hazard of flying or intruding objects.
- 59** An employer shall ensure that a hoist or powered mobile equipment that is equipped with stabilizers is operated with stabilizers engaged, unless the manufacturer's specifications permit otherwise.
- 60** An employer shall ensure that a hoist, industrial lift truck or powered mobile equipment is not altered in such a way as to render ineffective a safety device or control designed and installed by the manufacturer, except where the change has been certified in writing by the manufacturer or an engineer to afford protection equal to or greater than the protection afforded by the original safety device or control.
- 61** An employer shall take adequate precautions to ensure that a hoist, industrial lift truck or powered mobile equipment does not tip or roll over.

Overhead protection

- 62 (1)** Where the operator of powered mobile equipment is exposed to a hazard from falling objects, an employer shall ensure that the powered mobile equipment is equipped with a protective structure adequate for the conditions in which the equipment is being used and that meets the requirements of the applicable SAE standard listed below or that is certified by an engineer or the manufacturer to provide equivalent or better protection:
- (a) SAE J167 APR92, "Overhead Protection for Agricultural Tractors - Test Procedures and Performance Requirements";

- (b) SAE J231 JAN81, "Minimum Performance Criteria for Falling Object Protective Structures (FOPS)";
 - (c) SAE J397 OCT95, "Deflection Limiting Volume - Protective Structures Laboratory Evaluation";
 - (d) SAE J1042 JUN93, "Operator Protection for General-Purpose Industrial Machines";
 - (e) SAE J1043 SEP87, "Performance Criteria for Falling Object Protective Structures (FOPS) for Industrial Machines"; or
 - (f) SAE J1084 APR80, "Operator Protective Structure Performance Criteria for Certain Forestry Equipment".
- (2) An employer shall ensure that modifications, alterations or repairs made to a falling objects protective structure that affect the structural integrity of the structure meet the requirements of this Section and that the designing agency, the installing agency or an engineer certifies that modifications, alterations or repairs meet the requirements of this Section.
- (3) An employer shall ensure that welding on a falling objects protective structure that affects the structural integrity of the structure is performed by a designated competent person.

Rollover protection

- 63 (1) An employer shall ensure that, where reasonably practicable, powered mobile equipment manufactured on or after January 1, 1974 is equipped with a rollover protective structure that meets the minimum safety requirements of CSA standard B352.0-95, "Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines - Part 1: General Requirements" or is certified by an engineer or the manufacturer to provide equivalent or better protection than the standard.
- (2) Where reasonably practicable, an employer shall ensure that powered mobile equipment or an industrial lift truck manufactured before January 1, 1974 is equipped with a rollover protective structure that meets the requirements of subsection (1) or
- (a) a rollover protective structure and supporting attachments are designed, fabricated and installed in such a manner to support not less than twice the weight of the equipment, based on the ultimate strength of the material and integrated loading of the supporting members with the resultant load applied at the point of impact;
 - (b) there is a vertical clearance of 1320 mm between the deck and the rollover protective structure at the access openings; and

- (c) the rollover protective structure and supporting attachments referred to in clause (a) are certified as meeting the requirements of clause (a) by the manufacturer of the rollover protective structure, the installing agency or an engineer.
- (3) An employer shall ensure that modifications, alterations or repairs made to a rollover protective structure that affect the structural integrity of the structure meet the requirements of this Section and that the designing agency, the installing agency or an engineer certifies that modifications, alterations or repairs meet the requirements of this Section.
- 64 An employer shall ensure that welding on a rollover protective structure that affects the structural integrity of the structure is performed by a designated competent person.
- 65 (1) An employer shall ensure that powered mobile equipment that has been fitted with a rollover protective structure has
- (a) seat belts for the operator and passengers that comply with or exceed the applicable SAE standard listed below:
 - (i) SAE J386 JUN93, "Operator Restraint System for Off-Road Work Machines", or
 - (ii) SAE J800 JUN94, "Motor Vehicle Seat Belt Assembly Installation"; or
 - (b) where the wearing of seat belts is not reasonably practicable, restraining devices such as shoulder belts, bars, gates, screens or other similar devices designed to prevent the operator and passengers from being thrown outside the rollover protective structure.
- (2) An operator of and passengers on powered mobile equipment shall use the seat belts or restraining devices referred to in subsection (1) while the equipment is in motion.

Glass

- 66 An employer shall ensure that glazing or rigid plastic materials used as part of an enclosure for a cab, canopy or rollover protective structure on a hoist, industrial lift truck or powered mobile equipment is adequate in the circumstances where it is used, and is immediately replaced if it presents a hazard, including permanent interference with visibility.

Precautionary arrangements

- 67 (1) Unless otherwise authorized by an enactment, no person shall operate an industrial lift truck or powered mobile equipment with passengers on the truck or equipment, unless the truck or equipment is designed to accommodate them safely.

- (2) An employer shall ensure that powered mobile equipment that has an internal combustion engine is provided with fire protection equipment adequate for the hazards of the vehicle or equipment.
- (3) An employer shall
 - (a) ensure that mirrors or other devices are installed and maintained at blind intersections where there may be a danger of a collision between an industrial lift truck or powered mobile equipment and another object or a person; or
 - (b) adopt a written procedure that provides an equivalent level of safety.

Visibility

68 Where work with a hoist, industrial lift truck or powered mobile equipment is carried out in an area where dust may create a hazard to a person in the workplace because of poor visibility, an employer shall take steps to reduce the amount of dust in the air so as to protect a person from the risk of injury.

Operating precautions

- 69** An operator of an industrial lift truck or powered mobile equipment shall
- (a) not set equipment in motion until all air and hydraulic pressures are fully built up at specified operating pressures;
 - (b) when leaving the equipment unattended
 - (i) park it on level ground, if reasonably practicable,
 - (ii) set the parking brake,
 - (iii) lower the blades, bucket or other attachment or safely block the attachment,
 - (iv) where applicable, disengage the master clutch, and
 - (v) shut off the engine or take other precautions to ensure the equipment is not inadvertently set in motion;
 - (c) not carry containers of gasoline, diesel oil or other flammable substances, classified as Class B substances under the *Hazardous Products Act* (Canada), in the part of the equipment where a person rides; and
 - (d) ensure that there are no loose articles that may present a hazard in the part of the equipment where a person rides.
- 70** (1) An employer shall ensure that a hoist, industrial lift truck or powered mobile equipment that has wire ropes, drums and sheaves is inspected

- (a) visually on a daily basis by the operator of the equipment; and
 - (b) visually and manually by a designated competent person on a weekly basis.
- (2) An employer shall ensure that, where a person works under a hoist, industrial lift truck, or powered mobile equipment that is raised from the ground, the equipment is provided with blocking or other adequate means of support in case the means of lifting the equipment fails.
- 71 Where repair or maintenance work is carried out at the point of articulation on an articulated truck, front end loader or other articulated equipment, an employer shall ensure that lock bars or an equivalent measure is used to prevent movement of either end of the truck, loader or equipment.

Hoists

- 72 An employer shall ensure that a hoist is designed, installed, erected, examined, inspected, tested, operated and maintained in accordance with the applicable CSA or ANSI standard listed below:
- (a) CSA standard B167-96, "Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists, and Trolleys";
 - (b) CSA standard C22.2 No. 33-M1984, "Construction and Test of Electric Cranes and Hoists";
 - (c) CSA standard Z150-1998, "Safety Code for Mobile Cranes";
 - (d) CSA Standard Z248-1975, "Code for Tower Cranes";
 - (e) ANSI standard ANSI/ALI B153.1-1990, "American National Standard For Automotive Lifts - Safety Requirements for the Construction, Care, and Use"; or
 - (f) ANSI standard ANSI/ALI ALOIM-1994, "American National Standard for Automotive Lifts - Safety Requirements for Operation, Inspection and Maintenance".
- 73 (1) In this Section and Sections 74 and 80, "safe working load" means the maximum load that a hoist is designed to lift or the reduced maximum load that a hoist shall lift in accordance with this Section.
- (2) Subject to subsections (3), (9) and (10), an employer shall obtain a statement of the safe working load of a hoist from the manufacturer of the hoist.
 - (3) Where the statement referred to in subsection (2) cannot be obtained, an employer shall obtain a statement of the safe working load of the hoist from an engineer.

- (4) In addition to any inspection under Section 72, an employer shall ensure that
- (a) a competent person inspects a hoist at least once a year;
 - (b) where the hoist is a mobile or overhead crane with a capacity of greater than 5 t, a certificate from an engineer is obtained on an annual basis with respect to the mobile or overhead crane; or
 - (c) where the hoist is a tower crane, a certificate from an engineer is obtained with respect to the tower crane
 - (i) prior to the tower crane being put into service and each time it is erected, and
 - (ii) once during each year of operation.
- (5) An inspection or a certification required by subsection (4) shall confirm that a hoist has a safe working load identified and all of its components are able to operate safely within its safe working load.
- (6) The competent person inspecting a hoist under clause (4)(a) and an engineer certifying a mobile or overhead crane under clause (4)(b) or a tower crane under clause (4)(c) shall perform the appropriate tests to ensure that the hoist is capable of lifting its safe working load, including, where appropriate, a running test, load test, deflection test and brake test.
- (7) An employer shall post a legible statement of the safe working load referred to in subsection (2) or (3) on a hoist so that the operator of the hoist is able to see it when operating the hoist.
- (8) The employer shall ensure that an operator of a hoist has sufficient information to determine the load that the hoist is capable of hoisting safely under any operating condition.
- (9) Where part of a hoist is modified, extended, altered or repaired so as to potentially affect the safe working load of the hoist, an employer shall obtain a revised statement of the safe working load of the hoist from the manufacturer, if the manufacturer performed the work, otherwise from an engineer, and post it on the hoist in the manner described in subsection (7).
- (10) Where an employer believes that a reduction in the safe working load is warranted or has been informed by the manufacturer of the hoist or an engineer that a reduction in the safe working load is warranted, the employer shall
- (a) obtain a revised statement of the safe working load of the hoist from the manufacturer or an engineer;

- (b) reduce the safe working load of the hoist to a revised level certified as adequate by the manufacturer or an engineer; and
 - (c) remove the statement of safe working load from the hoist and post the revised statement of safe working load on the hoist in the manner described in subsection (7).
 - (11)** Where the employer has obtained a revised statement of the safe working load of a hoist pursuant to subsections (9) or (10), the employer shall provide sufficient information to the operator of the hoist to enable the operator to determine the load that the hoist is capable of hoisting safely under any operating condition.
- 74**
- (1)** Subject to subsection (2), the operator of a hoist shall not subject the hoist to a load in excess of its safe working load.
 - (2)** At the time that tests are performed for purposes of an inspection or certification, the person inspecting the hoist may cause the hoist to be subject to a load in excess of its safe working load, but not in excess of the safety factor identified by
 - (a) the applicable standard in Section 72 or the manufacturer's specifications; or
 - (b) where there is no standard or manufacturer's specifications, the specifications certified by an engineer.
- 75**
- (1)** In addition to any inspections referred to in Sections 72 or 73, an employer shall ensure that a competent person visually inspects a hoist, including any safety devices, for defects that may affect the structural integrity of the hoist
 - (a) before it is put into service initially or after 1 month or more of disuse;
 - (b) once during every month of operation; and
 - (c) after any incident or repair, including contact with an energized utility line or equipment that may have damaged some part of the hoist or endangered any person.
 - (2)** Where an inspection identifies a defect in a hoist that affects the safe operation of the hoist, an employer shall remove the hoist from service and repair it before it is put back into service.
 - (3)** An employer shall maintain a record of
 - (a) each inspection of a hoist required by these regulations; and

- (b) each repair potentially affecting the structural integrity of a component of a hoist that supports a load,

including the date, time, nature and results of the inspection or repair and the name of the person who performed the inspection or repair to a hoist.

- (4) Where limit switches and safety devices are installed on a hoist by the manufacturer, an employer shall ensure that these switches and devices are maintained in adequate condition.

76 An operator of a hoist shall

- (a) visually inspect the hoist on a daily basis before use to verify that it is in adequate working order;
- (b) not carry a load over any person, except where
 - (i) it is not reasonably practicable to divert the traffic route of persons or use another lifting route, and
 - (ii) the employer has developed a written work procedure to provide adequate warning or information about the hazard to people at or near the work place;
- (c) not leave a suspended load unattended; and
- (d) where an uncontrolled swing or uncontrolled rotation of a load may endanger the health or safety of a person, ensure that a guide rope or other adequate means is used to stabilize the load.

Mobile cranes

77 (1) In this Section and Sections 78 and 79, "mobile crane" means a hoist that is self-propelled and mounted on wheels or tracks.

(2) An employer shall ensure that a mobile crane

- (a) has installed and maintained in a safe condition a device that warns the operator when continued movement may cause the load attached to a hoist to strike the upper sheaves of the hoist; and
- (b) if equipped with a boom, has a boom angle indicator.

78 An employer shall ensure that barriers or equivalent means are used to prevent a person from entering within the swing radius of the body of the mobile crane where a mobile crane is being operated in an area where the clearance between any obstruction and the swing radius of the body of the mobile crane creates a hazard.

79 While a mobile crane is moving from one location to another under its own power, no operator shall permit the boom to swing in an uncontrolled manner.

Rigging hardware

80 (1) In this Section, “rigging hardware” means a chain, cable, webbing, bucket, grapple, hook, ring, sling or other device used to attach a load to a hoist.

- (2) An employer shall ensure that rigging hardware is constructed, installed, operated, inspected and maintained in accordance with the applicable ASME standard listed below:
- (a) ASME B30.9-1996, “Slings”;
 - (b) ASME B30.10-1993, “Hooks”; or
 - (c) ASME B30.20-1993, “Below-the-Hook Lifting Devices”.
- (3) Where none of the standards referred to in subsection (2) applies, an employer shall ensure that the rigging hardware complies with an adequate design certified by an engineer.
- (4) Where rigging hardware is commercially manufactured, an employer shall assemble, use, maintain and inspect it in accordance with the manufacturer's specifications.
- (5) Where one or more components of rigging hardware are not commercially manufactured, a competent person shall adequately design the component.
- (6) In addition to any inspection referred to in subsection (4), a designated competent person shall inspect the rigging hardware prior to each use to ensure that no defect exists that may affect its structural integrity.
- (7) In addition to the requirements of subsection (6), the employer shall ensure that a designated competent person inspects the rigging hardware to ensure that the rigging hardware is able to operate safely within the safe working load of the hoist to which it is attached
- (a) prior to being put into initial service or after 1 month or more of disuse; and
 - (b) once during every year that it is in operation.
- (8) Where the competent person conducting an inspection identifies a defect that may affect the structural integrity of the rigging hardware, an employer shall ensure that the rigging hardware is removed from service until it is repaired.
- (9) An employer shall maintain a record of
- (a) inspections referred to in subsections (4), (6) and (7); and
 - (b) repairs to rigging hardware,

including the date, time, nature and results of the inspection or repair and the name of the person who performed the inspection or repair.

- (10) An employer shall identify the safe lifting capacity of rigging hardware
- (a) on the device in a permanent and clearly legible manner; or
 - (b) to the persons who are to use the rigging hardware, by means of adequate training and other information sufficient to ensure that each such person is knowledgeable about the capacity of the rigging hardware.
- (11) An employer shall designate a competent person to use rigging hardware.
- (12) Before a load is raised by a hoist, a competent person shall ensure that the load is secured to the hoist in an adequate manner by means of appropriate rigging hardware.

Industrial lift trucks

81 An employer shall ensure that an industrial lift truck

- (a) is designed, installed, erected, examined, inspected, operated and maintained in accordance with the applicable ASME standard listed below, where applicable,
 - (i) ASME B56.1-1993, "Safety Standard for Low Lift and High Lift Trucks", or
 - (ii) ASME B56.6-1992, "Safety Standard for Rough Terrain Forklift Trucks";
- (b) in addition to any inspection required by clause (a), is inspected at the beginning of each shift in which it is used to ensure it is in a safe working condition.

82 (1) An employer shall ensure that an industrial lift truck is not operated

- (a) where propelled by an internal combustion engine, in a building or other enclosed structure where adequate ventilation, monitoring and record keeping practices are not carried out so as to eliminate the hazards from exhaust gases; and
- (b) near an area containing airborne dust or flammable vapour in a concentration that may cause an explosion; or
- (c) in a manner that may endanger a person.

(2) An employer shall ensure that where an industrial lift truck is operated

- (a) in a one-way aisle, the width of the aisle equals at least the width of the vehicle or load being carried, whichever is wider, plus 600 mm; and

- (b) in a two-way aisle, the width of the aisle equals at least twice the width of the vehicle or load being carried, whichever is wider, plus 900 mm.
- (3) An employer shall ensure that an industrial lift truck that is propelled by propane
 - (a) has all engine and fuel components designed, assembled, examined, inspected, operated and maintained in accordance with Part 13 of the Canadian Gas Association standard CAN/CGA - B149.2 - M95, "Propane Installation Code"; and
 - (b) has the components that are propane appliances and equipment repaired and maintained by a designated competent person.
- 83 Where an industrial lift truck is used with a fork lift platform for lifting a person, the employer shall ensure that
 - (a) the industrial lift truck is inspected by an engineer at least once in the preceding 12 months to determine its adequacy for the purpose; and
 - (b) the engineer provides a written report certifying the results of the inspection.

Part 8 - Mechanical Safety

General provisions

- 84 (1) An employer shall ensure that a machine is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, maintained, repaired and dismantled in accordance with the manufacturer's specifications, or, where there are no manufacturer's specifications, the specifications certified by an engineer.
- (2) An employer shall ensure that the maximum capacity, speed, load, depth of operation or working pressure or any other limitation set out in the manufacturer's specifications or in an engineer's specifications, for the operation of a machine, tool or equipment under the circumstances prevailing at the time of operation, shall not be exceeded.
- (3) Where a defect is identified with a machine or supplies that affects the safe operation of the machine, an employer shall ensure that
 - (a) the machine is not operated until repaired; and
 - (b) until repaired or replaced, the machine and supplies are clearly identified as defective.
- 85 (1) An employer shall ensure that an operator of a machine or tool is a competent person.

- (2) An employer shall ensure that a person responsible for maintaining a machine or tool is a competent person.

Contact with machines

- 86 (1)** An employer shall ensure that adequate space is provided around a machine to ensure the safety of a person while the machine is being
- (a) operated; or
 - (b) cleaned, adjusted, repaired or otherwise maintained.
- (2) No person shall be near a rotating shaft, spindle, gear, belt or other possible source of entanglement
- (a) while wearing any article of clothing or jewellery that in the circumstances presents a hazard to a person in the workplace; or
 - (b) with hair that is not confined closely to the head by suitable headwear.

Safeguards

- 87 (1)** In this Section “safeguard” means a guard, shield, guardrail, fence, gate, barrier, safety net, wire mesh or other protective enclosure, handrail or other similar device designed to protect the safety of the person, but does not include personal protective equipment.
- (2) Where a person may come in contact with a moving part of a machine or tool that may present a hazard to a person, an employer shall ensure that an adequate safeguard has been installed on the machine or tool to prevent contact.
- (3) Despite subsection (2), an employer is not required to ensure that a safeguard is installed on a machine that is equipped with a device that stops the machine automatically before a person comes into contact with the moving parts.
- (4) Despite subsection (2), where it is not reasonably practicable to use a safeguard on a cutting or shaping machine and there is a possibility of injury to a person, an employer shall
- (a) ensure that a push block, push stick or other adequate protective device is used; and
 - (b) adopt a written procedure to ensure the safety of an operator of the machine.
- (5) No person shall remove or render ineffective a safeguard on a machine, unless
- (a) the removal or rendering is necessary to enable the cleaning, maintenance, adjustment, testing or repair of the machine;

- (b) the machine is locked out; and
 - (c) the person replaces the safeguard and ensures the safeguard is functioning properly before leaving the machine.
- (6) An employer shall ensure that adequate safeguards are installed on a machine where a person may be injured by a flying object from a machine.
- (7) Where an object or material is to be applied to, fed into or supplied to a machine or tool and the object or material may shatter, splinter, vibrate, create a flying projectile or otherwise cause hazardous movement because it is not secure, an employer shall ensure that the object or material is held by a restraining device or other means of providing an equivalent level of safety.
- (8) Where opening an access door exposes the moving parts of a machine or tool, an employer shall ensure that the access door is fitted with interlocks that
- (a) prevent the access door from opening while the moving parts are in motion; or
 - (b) disconnect the power from the driving mechanism, causing the moving parts to stop immediately if the door is opened.

Starting and stopping machines

- 88** (1) An employer shall ensure that the operational controls on a machine are
- (a) located and protected in such a manner as to prevent unintentional activation; and
 - (b) adequately identified so as to indicate the nature of each control mechanism.
- (2) An employer shall ensure that a machine is designed with adequate means to prevent unintentional movements that may present a hazard to a person in the workplace.
- (3) Where there is not a clear view of a machine or parts of it from the control panel or operator's station and the moving parts of the machine may endanger a person at the workplace when the machine is started,
- (a) an employer shall ensure that an alarm system is installed that shall give an effective warning, with an adequate time delay, before the start-up of the machine so that a person at the workplace is made aware of the imminent start-up; and

- (b) where reasonably practicable, the person that is to start the machine or parts of it shall ensure that a visual inspection is done of the complete exterior of the machine or parts of it to ensure no person is endangered by the start-up.
- (4) An employer shall ensure that an operator of a machine has unimpeded access in the operator's immediate work area to the means of stopping the machine.
- 89 Where the continuous operation of a tool or machine, if unattended, creates a hazard to a person in the workplace, an employer shall ensure that the machine or tool is equipped with a device that starts it when the device is held in a set position or stops it when the device is released.

Chain saws

- 90 An employer shall ensure that a chain saw complies with the CSA standard CSA Z62.1-95, "Chain Saws".

Automotive pits

- 91 An employer shall ensure that an automotive pit is designed, installed, operated, inspected and maintained in accordance with the National Fire Protection Association standard NFPA 1, "Fire Prevention Code", 1997 edition, chapter 22-2, "Service Stations, Pits, Below-Grade and Sub-Floor Work Areas" and complies with sections 20-100 to 20-114 of the CSA standard C22.1-98, "Canadian Electrical Code Part 1 (18th edition), Safety Standard for Electrical Installations".

Tire repair and mounting

- 92 (1) Where a split rim or retainer ring type tire is being inflated, to control the hazard of the tire exploding, an employer shall provide and an employee shall use
- (a) a safety cage or restraining device;
 - (b) a clip-on chuck with an adequate length of hose; and
 - (c) an in-line hand-operated valve with a gauge.
- (2) Where a split rim or retainer ring type tire is assembled, an employer shall ensure that the components are assembled in accordance with the manufacturer's specifications, including a multi-piece rim matching chart.

Conveyors

- 93 (1) This Section and Sections 94, 95 and 96 do not apply to any device that is intended for the transport of people and to which the *Elevators and Lifts Act* applies.
- (2) An employer shall ensure that a conveyor is constructed or installed so that
- (a) there is adequate clearance between the material transported on the conveyor and a fixed or moving object;

- (b) shearing points between moving and stationary parts are avoided; and
 - (c) the conveyor cannot feed onto a stopped power-driven conveyor.
- (3) Where a person in the workplace has access to a power-driven conveyor, an employer shall ensure that emergency stop devices are installed at designated work stations and other appropriate locations along the run of the conveyor to ensure the safety of a person in the workplace.
- 94 (1) Where a person is required to cross over a conveyor, an employer shall
- (a) provide an adequate means of crossing the conveyor; and
 - (b) identify the crossing point by adequate means.
- (2) No person in a workplace shall
- (a) ride on a conveyor; or
 - (b) stand on the supporting frame of a conveyor.
- (3) Despite clause (2)(b), a person may stand on the supporting frame of a conveyor if the conveyor has been locked out.
- 95 Where a conveyor is installed at a height that may result in falling objects causing injury to a person, an employer shall ensure that it is equipped with guards or other adequate protection to prevent the material from falling from the conveyor to the workplace below.
- 96 Where the rollback of the load or belt creates a hazard to a person at the workplace, an employer shall ensure that an anti-rollback device is installed on a conveyor that carries a load up an incline to prevent the belt or the load from rolling back.

Abrasive wheels and grinders

- 97 (1) An employer shall legibly post on an abrasive wheel and a grinder the maximum number of revolutions per minute of the wheel and the grinder.
- (2) No person shall operate a grinder with an abrasive wheel unless the grinder is rated to provide a number of revolutions per minute equal to or less than the rating of the abrasive wheel.
- (3) An employer shall ensure that, before the installation of an abrasive wheel, both the abrasive wheel and the grinder are inspected by a designated competent person for flaws, defects or cracks.
- 98 (1) An employer shall ensure that a bench grinder is fitted with a protective hood and side shield of sufficient strength to contain fragments of a ruptured wheel.
- (2) Where a bench or pedestal grinder is used, an employer shall ensure that

- (a) a tool rest is mounted on the grinder not more than 3 mm from the abrasive wheel; and
- (b) the grinder is secured to prevent unintended movement.

99 Where a pneumatic grinder is used, an employer shall ensure that the governors are maintained by a designated competent person.

100 Unless the manufacturer's specifications otherwise specify, an employer shall ensure that no person

- (a) grinds on the side of an abrasive wheel; or
- (b) adjusts a tool rest while the abrasive wheel is in motion.

Compressed air used for cleaning

101 (1) In this Section, "compressed air" means air at an absolute pressure greater than 275 kPa.

- (2) Where compressed air is used to clean a surface or person, an employer shall ensure that the device that is used to deliver the air is
 - (a) commercially manufactured and approved in the manufacturer's specifications for the purpose of cleaning a surface or person with compressed air; or
 - (b) certified by an engineer as adequate for the purpose of cleaning a surface or person with compressed air.

Space heating equipment

102 An employer shall locate, install, operate, inspect and maintain temporary space heating equipment so as to prevent the unintended ignition of any material.

103 Where space heating equipment is powered by a combustible fuel, the employer shall ensure that

- (a) the equipment is located on the ground or above a non-combustible floor of at least 75 mm in thickness; or
- (b) if located above a combustible floor, the equipment is separated from the combustible floor by 75 mm of non-combustible material covered by sheet metal extending 600 mm beyond the heating equipment on all sides.

Part 9 - Tools

General provisions

104 An employer shall ensure that a tool, its accessories and supplies are

- (a) made of good quality material adequate for the work for which they are intended to be used;

- (b) inspected before being used, and, if not in an adequate condition, repaired or replaced before use;
- (c) used only for their intended purpose;
- (d) equipped with a device to ensure a secure hand grip where necessary; and
- (e) installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired and dismantled in accordance with the manufacturer's specifications.

105 (1) No person shall point a tool that ejects pins, nails or other projectiles at another person.

- (2) Where reasonably practicable, an employer shall ensure that where a person works with a tool that is to be struck by a tool used by another person, the tool to be struck is held by an adequate holding device.

Portable power-operated hand tools

106 An employer shall ensure that a portable power-operated hand tool

- (a) is repaired by a designated competent person;
- (b) where powered by electricity, is double insulated or grounded, except where battery operated;
- (c) where lines or hoses are connected to the tool, has a shut-off mechanism installed on the tool so as to be immediately accessible to the operator; and
- (d) is an explosion-proof device where there is a risk of an explosive atmosphere.

107 (1) Where reasonably practicable, an employer shall ensure that hydraulic, pneumatic, chemical and electrical lines and hoses for portable power-operated hand tools do not run across aisles, travel ways or work areas so as to create a tripping hazard.

- (2) This Section does not apply where a firefighter is engaged in structural fire-fighting or rescue.

Powder-actuated tools

108 (1) In this Section, "powder-actuated tool" means a tool that, by means of a powder-generated explosive force, propels or discharges a fastening device for the purpose of impinging it on, affixing it to or causing it to penetrate another object or material.

- (2) An employer shall ensure that a powder-actuated tool is operated by a competent person in accordance with Sections 1 to 9 of ANSI standard A10.3-1995, "American National Standard for Construction and Demolition Operations - Powder-Actuated Fastening Systems - Safety Requirements".
- (3) An employer shall ensure that a powder-actuated tool, the fastener and the powder load complies with the requirements of ANSI standard A10.3-1995, "American National Standard for Construction and Demolition Operations - Powder-Actuated Fastening Systems - Safety Requirements".

Part 10 - Welding, Cutting, Burning and Soldering

General provisions

- 109 (1)** In this Part, "welding or allied process" means any specific type of electric or oxy fuel gas welding or cutting process referred to in Appendix A of CSA standard CSA W117.2 - 94, "Safety in Welding, Cutting, and Allied Processes", and includes
- (a) arc welding, brazing, solid-state welding, soldering, resistance welding, and other welding; and
 - (b) allied processes such as arc cutting, oxygen cutting, thermal spraying, thermal adhesive bonding and other cutting.
- (2) An employer shall comply with the requirements of CSA standard CSA-W 117.2 -94, "Safety in Welding, Cutting and Allied Processes".
- 110 (1)** An employer shall ensure that welding or allied process equipment is erected, installed, assembled, started, operated, used, handled, stored, stopped, inspected, serviced, tested, cleaned, adjusted, carried, maintained, repaired and dismantled in accordance with the manufacturer's specifications.
- (2) An employer shall ensure that a welding or allied process is performed by a designated competent person.
- 111 (1)** An employer shall ensure that, before a welding or allied process is commenced, the person who is to operate the equipment has inspected the area surrounding the operation to ensure that adequate precautions have been taken
- (a) to remove from the area all hazardous material or processes that produce combustible, flammable or explosive material, dust, gas or vapour; and
 - (b) to prevent fire or explosion.

- (2) Where a welding or allied process is performed above an area where a person may be present, an employer shall ensure that adequate means of protection are taken to protect a person below the operation from sparks, debris and other falling hazards.

112 (1) Except where an employer has demonstrated that a person at or near a welding or allied process is not excessively exposed to radiation or reflection, the employer shall provide adequate screens or prevent a person from entering the work area.

- (2) Where screening is used in accordance with subsection (1), the employer shall ensure that the screening is adequate to prevent radiation and reflection from affecting a person at or near the workplace.

Work on containers

113 (1) An employer shall ensure that no person performs a welding or allied process on a container or pipe or a pipe, valve or fitting connected to a container or pipe that

- (a) holds or may have held an explosive, flammable or otherwise hazardous substance; or
- (b) may become pressurized to the point of being a hazard to a person at the workplace,

unless the welding or allied process is performed in accordance with a written work procedure adopted by the employer.

- (2) Where a container or pipe, or a pipe, valve or fitting connected to a container or pipe holds or may have held an explosive, flammable or otherwise hazardous substance, an employer shall include in the written work procedure required in subsection (1), provision
- (a) for disconnecting and blanking off or moving out of alignment pipes or locking out valves in the closed position;
 - (b) that after ventilation, a designated competent person shall
 - (i) examine the area to be welded or processed to ensure that it is free from residue,
 - (ii) test air samples to ensure that explosive, flammable or hazardous amounts of gases or vapours have been reduced to less than 10 % of the lower explosive limit, in the areas to be welded or processed, and
 - (iii) record the results of the examination and test, date and sign the record, and certify that work involving the application of heat can be safely undertaken;

- (c) that no welding or allied process shall be conducted where the tests required by clause (b) indicate the presence of an explosive or flammable substance at levels greater than 10% of the lower explosive limit in the area to be welded or processed.
- (3) An employer shall ensure that no person uses the exhaust of an internal combustion engine as a means of decreasing the concentration of flammable and explosive gases and vapours in the area to be welded or processed.
- 114** An employer shall ensure that a compressed gas hose line or welding cable is adequately protected from damage.
- 115 (1)** No operator of an electric welding machine shall leave the machine unattended without removing the electrode.
- (2) An employer shall ensure that appropriate welding and ground leads are used to fasten the electric supply cable securely so that the inner wires of an electric welding machine are not exposed to damage and the cable cannot be separated from the fittings.

Gas welding and allied process

- 116 (1)** An employer shall ensure that a person performing a gas welding or allied process tests a regulator immediately after it is connected to a gas cylinder, to ensure that there is no leak of the gas supply.
- (2) No person shall perform a test required in subsection (1) with a substance that is oil, fat or grease based.
- (3) Where a leak of the gas supply develops during the performance of a gas welding or allied process
- (a) the person performing the welding or allied process shall cut off the supply of gas; and
 - (b) the employer shall ensure that work is not resumed until the leak is repaired.
- 117** Where a gas welding or allied process is carried on, the employer shall
- (a) provide a flashback arrestor between the torch and the fuel gas and oxygen supply that
 - (i) prevents the reverse flow of fuel, gas, oxygen or air from the torch to the supply lines, and
 - (ii) stops a flame from burning back from a torch into the supply lines;

- (b) ensure that hose lines or pipelines for conveying the gases to the burner and the couplings are legibly marked or identified to ensure the hoses are not interchanged; and
- (c) ensure that the torch is ignited by a lighting device that is designed for that purpose.

Acetylene

118 Where an employer manufactures acetylene in the workplace, the employer shall establish a written procedure to ensure the health and safety of a person in the workplace.

Compressed flammable gas

119 An employer shall ensure that a cylinder of compressed flammable gas is not stored in the same room as a compressed oxygen cylinder, unless the storage arrangements are in accordance with Part 3 of the *National Fire Code of Canada*, 1995.

Part 11 - Electrical Safety**General provisions**

- 120 (1)** An employer shall ensure that an electrical installation is designed, installed, assembled, operated, inspected, serviced, tested, maintained, repaired and dismantled in an adequate manner in accordance with the latest edition of the *Canadian Electrical Code* published by the CSA.
- (2) The employer operating a surface mine shall ensure compliance with CSA standard CAN/CSA-M421-93, "Use of Electricity in Mines".
- 121 (1)** Subject to subsection 120(2) and to the *Underground Mining Regulations*, an employer shall ensure that a power line or power line equipment is designed or constructed to comply with the applicable CSA standard listed below:
- (a) CAN/CSA-C22.3 No.1-M87, "Overhead Systems"; and
 - (b) CAN3-C22.3 No.7-94, "Underground Systems".
- (2) Subject to subsection 120(2) and to the *Underground Mining Regulations*, an employer shall ensure that the voltage and voltage variation of a power line or power line equipment is limited at the service entrance in accordance with CSA standard CSA C235-83-CAN 3, "Preferred Voltage Levels for AC Systems, 0 to 50,000 v".
- 122** An employer shall ensure that a person who works on an electrical installation is a competent person.

Personal protective equipment

123 (1) Where a person is required to work on an energized electrical installation, an employer shall, as necessary in the circumstances, provide a person with all protective equipment and devices

- (a) necessary to work safely on an energized electrical installation; and
 - (b) complying with the applicable CSA or ASTM standard listed below:
 - (i) CSA Z259.4-M1979, "Rubber Insulating Gloves and Mitts",
 - (ii) CSA Z259.5-M1979, "Rubber Insulating Sleeves",
 - (iii) CSA Z259.6-M1981, "Rubber Insulating Blankets",
 - (iv) CSA Z259.7-M1981, "Rubber Insulating Line Hose",
 - (v) CSA Z259.8-M1981, "Rubber Insulating Covers",
 - (vi) ASTM D 178-93, "Standard Specification for Rubber Insulating Matting",
 - (vii) ASTM F 696-97, "Standard Specification for Leather Protectors for Rubber Insulating Gloves and Mittens", and
 - (viii) ASTM F 711-89, "Standard Specification for Fibreglass - Reinforced Plastic (FRP) Rod and Tube Used in Live Line Tools".
- (2)** A person who is required to work on an energized electrical installation shall use the appropriate protective equipment or devices required under subsection (1).
- 124 (1)** An employer shall ensure that a person who handles an energized power line or power line equipment rated at greater than 15 000 v to ground uses hot line tools to do so, in addition to other personal protective equipment required in the circumstances.
- (2)** Subject to subsection (5), a person may use rubber gloves instead of hot line tools to handle energized power lines or power line equipment rated at or below 15 000 v to ground, where a written work procedure has been submitted to the Director by the employer and adopted as a code of practice by order of the Director for use in such circumstances.
- (3)** An employer who has adopted a code of practice under subsection (2) shall
- (a) provide a copy of the code of practice to each person in the workplace who is required to handle energized power lines or power line equipment rated at or below 15 000 v to ground;
 - (b) provide training in the code of practice to each person in the workplace who is required to handle energized power lines or power line equipment or perform other activities in accordance with the code of practice; and

- (c) communicate the details of the code of practice and the reasons for its implementation to all persons at the location where the work is performed,

and, to the extent that it relates to their work, all persons shall adhere strictly to the terms of the code of practice.

- (4) Where an officer determines that a code of practice that is in effect pursuant to subsection (2) has not been strictly adhered to, the officer may make an order suspending the application and use of the code of practice, and the suspension shall remain in place until the Director notifies the employer that the suspension has been lifted.

Hazardous work

125 (1) In this Section

- (a) “switching device” means a device designed for the sole purpose of opening, closing or opening and closing one or more electrical circuits, and includes
 - (i) a circuit breaker capable of making, carrying and breaking currents under normal circuit conditions, and also making, carrying for a specified time, and breaking currents under specified abnormal conditions, such as those of a short circuit,
 - (ii) a cutout assembly of a fuse support with either a fuse holder, fuse carrier or disconnecting blade, and
 - (iii) a disconnecting or isolating device used for isolating a circuit or equipment from a source of power.
- (2) An employer shall ensure that no work is performed on an energized electrical installation rated at greater than 750 v phase to phase unless the competent person performing the work is accompanied by another competent person.
- (3) Subsection (2) does not apply to switching work carried out using a switching device.
- (4) Where compliance with the personal protective equipment requirements and normal work procedures in effect at the workplace is inadequate to control the risk of exposure to an electrical hazard during work on an energized electrical installation due to an unusual factor in the nature of the work, such as the location or condition of the workplace, a competent person not actively engaged in the work shall be designated as a safety watcher to observe a person who is working on or near an energized electrical installation.
- (5) A safety watcher required by subsection (4) shall

- (a) warn all persons working on or near an energized electrical installation of any potential hazards;
- (b) ensure that the requirements of this Part are complied with;
- (c) be a competent person able to evaluate relevant hazards, and competent and equipped to initiate a rescue;
- (d) be free of any other duties that might interfere with the duties outlined in this subsection;
- (e) have the authority to stop work where the task or conditions in the workplace become hazardous; and
- (f) remain in the immediate vicinity of the work.

- 126 (1)** In this Section and in Section 128, “authority” means an electrical utility whose primary business is the generation or distribution of electricity.
- (2)** No person shall carry out work that may bring a person or object closer than 6.0 m to an overhead energized power line or power line equipment where the voltage of the overhead energized power line is not known to the person carrying out the work.
- (3)** Where work is performed in close proximity to an energized overhead power line or power line equipment rated at less than 750 v phase to phase, an employer shall ensure that the work is performed at an adequate distance to ensure the safety of every person in the workplace from the electrical hazard.
- (4)** An employer shall ensure that no work is carried out, and no person shall carry out work that may bring a person or object closer than the distances set out in the following table to an overhead energized power line or power line equipment rated at greater than or equal to 750 v phase to phase:

Phase to Phase Voltage of Energized Electrical Power Line or Power Line Equipment	Distance
750 volts and up to 69 000 volts	3.0 m
greater than 69 000 volts and up to 138 000 volts	5.0 m
greater than 138 000 volts	6.0 m

- (5) Despite subsections (3) and (4), where a person is about to commence work that may bring a person or object closer than a distance specified in subsection (3) or (4) to an overhead energized power line or power line equipment described in subsection (3) or (4), an employer shall not permit the person to commence work until the employer has contacted the authority owning or operating the energized power line or power line equipment and
- (a) ensured that the energized powerline or power line equipment is insulated or guarded in an adequate manner; or
 - (b) provided an alternative means of protection from the electrical hazard that provides an equivalent level of safety.
- (6) This Section does not apply to
- (a) work performed by a competent person employed, contracted or authorized by an authority;
 - (b) equipment owned by an authority or an employer contracted or authorized by the authority, that is used in the installation, operation, maintenance, repair, dismantling or other work performed on the power line or power line equipment; or
 - (c) work performed on an energized power line or power line equipment where the employer has, in advance of the work,
 - (i) determined the degree of electrical insulation on the power line and power line equipment,
 - (ii) determined the level of electricity to which the power line or equipment will or may be energized,
 - (iii) obtained from an engineer, or the manufacturer of the power line and power line equipment, a written certification indicating that a person or object may be brought closer than the distances permitted by this Section, and
 - (iv) ensured that the work is performed by a competent person in an adequate manner consistent with the recommendations of the engineer or manufacturer providing the certification under subclause (iii).

Plan of electrical installation

- 127 (1)** The owner of a building or structure shall create and maintain a plan, including a line diagram, that describes the position and the ratings of the components of the electrical installation and shall update the plan to reflect a repair or alteration to the electrical installation, where an electrical installation utilized in a building or structure

- (a) is rated at greater than 250 v phase to phase;
- (b) is rated at greater than 250 amperes; or
- (c) has multiple service entrances.

Electrical rooms

128 (1) Where a workplace has an electrical room, an employer shall ensure that

- (a) the room is kept clean and orderly;
 - (b) the room is not used for storage of unrelated materials; and
 - (c) where the components are rated at more than 750 v phase to phase, a sign is posted on the outside of the room that legibly states "Danger - High Voltage".
- (2) Despite clause (1)(c), where an electrical room is in a manhole controlled and maintained by an authority, no sign is required.

Part 12 - Confined Space Entry

Application and interpretation

129 (1) In this Part, "confined space" means an enclosed or partially enclosed space

- (a) not designed or intended for regular human occupancy;
 - (b) with restricted access or exit; and
 - (c) that is or may become hazardous to a person entering it because of its design, construction, location, atmosphere or the materials or substances in it or other conditions.
- (2) Sections 130 to 137 do not apply to
- (a) a development heading in an underground mine; and
 - (b) a firefighter engaged in structural fire-fighting or rescue, if the firefighter has been trained adequately for confined space entry.

Assessment and written procedures

130 (1) An employer shall ensure that no person enters a confined space until the employer has fulfilled the requirements of this Section and a competent person has provided a written certificate, in accordance with Section 131.

- (2) Where a workplace includes a confined space, the employer shall ensure that a person who may be required to enter the confined space has the information necessary to identify it as such.
- (3) Where at least one confined space has been identified, an employer shall develop a written confined space entry procedure that includes provision
- (a) that prior to the entry of a person into the confined space, an assessment of the confined space is

- (i) done in accordance with subsection (8), and
 - (ii) recorded by the person conducting the assessment in accordance with Section 131;
- (b) for the training required by a person who may enter a confined space in the course of the person's work, and for the training required by a person who may undertake rescue operations with regard to a confined space, including training on
- (i) proper use of personal protective equipment,
 - (ii) written rescue procedures,
 - (iii) maintaining contact between a person in the confined space and an attendant required under clause 134(2)(a) and the means by which the written rescue procedure is initiated in the event of an emergency in the confined space,
 - (iv) the limitations on the type of work that can be performed in the confined space, and
 - (v) the means of identifying a hazard while in a confined space;
- (c) for the process for notifying a person entering a confined space of the specific type of work that may be performed in the confined space;
- (d) for the method to be followed by a person entering into, exiting from or occupying the confined space;
- (e) for the protective equipment that is to be used by every person entering the confined space;
- (f) for the written emergency procedures to be followed in the event of an accident or other emergency in or near the confined space, including
- (i) immediate evacuation of the confined space when an alarm is activated or there is any significant, unexpected and potentially hazardous change in the concentration, level or percentage referred to in subsection (8), and
 - (ii) a determination as to whether more than one person shall be present outside a confined space during the occupancy of any person;
- (g) for the protective equipment and emergency equipment to be used by a person who undertakes rescue operations in the event of an accident or other emergency;

- (h) for a written procedure for testing the confined space in an adequate manner, at regular intervals and on a continuous basis, if necessary, to ensure the concentration or level of a hazardous substance or physical agent complies with the limits in subsection (8); and
 - (i) for a means of ventilating the confined space to ensure the removal or dilution of all airborne hazardous substances from the confined space.
- (4) An employer shall provide to each person entering the confined space and a person who may undertake rescue operations the protective equipment and emergency equipment referred to in this Section.
- (5) An employer shall ensure that
 - (a) a person who may enter a confined space, or
 - (b) a person who may undertake the rescue operations,is trained at least once every 2 years in accordance with the procedures outlined in clause (3)(b).
- (6) Every person who enters into, exits from or occupies the confined space shall follow the written procedures and use the protective equipment and emergency equipment as required.
- (7) An employer shall review the confined space entry procedure at least once a year and amend it, if necessary.
- (8) An employer shall designate a competent person who shall perform the assessment required in clause (3)(a), which shall include
 - (a) where the level of a chemical substance or a mixture of chemical substances may constitute a hazard, tests to ensure that the concentration of a chemical substance or a mixture of chemical substances in the confined space does not exceed its occupational exposure limit under the *Occupational Health Regulations* or 50% of its lower explosive limit;
 - (b) where the level of a physical agent may constitute a hazard, tests to ensure that the level of the physical agent in the confined space is not hazardous;
 - (c) tests to ensure that the level of oxygen in the atmosphere in the confined space is not less than 19.5 % and not more than 22.5 %, unless the employer can demonstrate that an unsafe oxygen level is not a possibility in the circumstance;
 - (d) a determination of whether the concentrations, levels or percentages referred to in clauses (a), (b) and (c) can be maintained during the period of proposed occupancy of the confined space;

- (e) a confirmation that any liquid in which the person may drown or any free flowing solid in which a person may become entrapped has been removed from the confined space or that work practices have been developed that specifically address the presence of the liquid or solid;
 - (f) a confirmation that entry of any liquid, free flowing solid or hazardous substance into the confined space that could endanger the health or safety of a person has been prevented by a secure means of disconnection, the fitting of blank flanges or the implementation of a double block and bleed written procedure established by the employer or similar positive actions;
 - (g) confirmation that a machine, equipment, tool or electrical installation that presents a hazard to a person entering into, exiting from or occupying the confined space has been locked out; and
 - (h) confirmation that the opening for entry into and exit from the confined space is sufficient to allow safe passage of a person who is using personal protective equipment or emergency equipment.
- (9) Where there is no possibility that a hazard identified in clauses (8)(a), (b) and (c) may occur, the requirements of clause (3)(h) do not apply.
- (10) The competent person referred to in subsection (8) shall, when performing the tests required under clauses (8)(a), (b) and (c), use appropriate and properly calibrated instruments that have been functionally tested and maintain a written record of the functional and calibration tests.
- (11) An employer shall keep the assessment and the confined space entry procedure required under subsection (3) at the place of business of the employer nearest to the workplace at which the confined space is located.
- (12) An employer shall make available a copy of the confined space entry procedure to all persons involved in the entry of a confined space.

Certification of confined space conditions

131 (1) Subsequent to performing the tests required in clauses 130(8)(a), (b) and (c), a designated competent person shall certify, in writing, that the conditions tested in the confined space are likely to be maintained within a predicted and recorded range for the entire time the certification is valid, and the certification shall include

- (a) the signature of the competent person;
- (b) the date and time of when the tests were performed;
- (c) the type of work that
 - (i) can be performed in the confined space, and
 - (ii) is explicitly banned in the confined space;
- (d) the means by which the work is to be performed;

- (e) the expiry date and time of the certification; and
 - (f) a record of the tests performed and of the test results.
- (2) No certification issued under subsection (1) shall be valid for longer than 24 hours after the time the tests required by clause 130(8)(a) and (b) were performed.
- (3) An employer shall post a copy of the currently valid certification required in subsection (1) at the entrance to the confined space for the duration of the confined space occupancy.
- (4) An employer shall maintain a copy of the certification required in subsection (1) for 12 months.

Purging and further testing

132 Where the tests required in clauses 130(8) (a), (b) and (c) indicate that the concentration level or percentage referred to in those clauses cannot be complied with, an employer shall

- (a) ensure that, where reasonably practicable, the confined space is purged at least twice to eliminate the hazards referred to in clauses 130(8)(a) to (d); and
- (b) after the purging, ensure that the tests required under subsection 130(8) are conducted again.

Response to hazardous condition

133 (1) An employer shall ensure that no person enters or remains in a confined space where the tests conducted under clause 130(8)(a) indicate that a concentration of a chemical substance or mixture of chemical substances in the confined space equals or exceeds 50% of the lower explosive limit of the chemical substance or mixture of chemical substances.

- (2) Where the concentration of a chemical substance or mixture of chemical substances may cause a flammable or explosive hazard, and where the tests conducted under clause 130(8)(a) indicate that the concentration of the substance or substances in a confined space is between 10% and 50% of the lower explosive limit, an employer shall
- (a) provide explosion-proof lighting and ensure that it is used where necessary; and
 - (b) ensure that the only work performed in the confined space is cleaning or inspecting and is of such a nature that it does not create any source of ignition.

- (3) Where the level of oxygen in a confined space is more than 22.5% and a person is to work in the confined space, an employer shall ensure that the confined space does not contain any substance which would be classified as flammable and combustible material or as dangerously reactive material under the *Controlled Products Regulations* made under the *Hazardous Products Act* (Canada).
- (4) Despite subsection (1), where the tests conducted under clause 130(8)(a) indicate that the concentration of a chemical substance or mixture of chemical substances in the confined space exceeds, or is likely to exceed, 50% of the lower explosive limit of the chemical substance or mixture of chemical substances and cannot be lowered below that prescribed threshold level, a person may enter the confined space if the employer ensures that
 - (a) the atmosphere in the confined space is inert; and
 - (b) the person is using appropriate protective equipment when working in the confined space.

Protective equipment and security measures

- 134 (1)** An employer shall ensure that all protective equipment and emergency equipment identified under subsection 130(3) is provided as close as reasonably practicable to the entrance to the confined space before a person enters the confined space.
- (2) Where a person enters a confined space, an employer shall ensure that a designated competent person
 - (a) is in attendance in the immediate vicinity of the confined space;
 - (b) has a means of regular communication with a person inside the confined space;
 - (c) is provided with a means of activating the rescue procedure in an emergency; and
 - (d) is trained in the emergency response procedure.
 - (3) An employer shall
 - (a) where reasonably practicable, provide a person entering into and occupying a confined space with a full body harness;
 - (b) ensure that a full body harness provided under clause (a) is worn; and
 - (c) where it does not present a hazard, ensure that an attached life line is
 - (i) securely fastened to an anchor point, and
 - (ii) controlled by the competent person referred to in subsection (2).

- (4) An employer shall ensure that the full body harness referred to in subsection (3) complies with the requirements for Group E harnesses in CSA standard CAN/CSA-259.10-M90, "Full Body Harnesses".

Respiratory protective equipment

135 (1) An employer shall provide

- (a) appropriate respiratory protective equipment to a person who enters a confined space where the concentration of a chemical substance or a mixture of chemical substances in a confined space is hazardous to the health or safety of a person; or
 - (b) positive pressure respiratory protective equipment to a person who enters a confined space where the partial pressure of oxygen is less than 19.5 %.
- (2) An employer shall ensure that the respiratory protective equipment referred to in subsection (1)
- (a) has an air line and an independent 5-minute supply of air; or
 - (b) is self-contained and equipped with an audible alarm that sounds when the air supply has diminished to
 - (i) 20% of the capacity of the unit, or
 - (ii) a 5-minute reserve.

Hazard of electrical shock

136 Where there is a hazard of electrical shock in a confined space, an employer shall ensure that electrical equipment taken into the confined space is

- (a) battery operated;
 - (b) double insulated;
 - (c) bonded to ground and not exceeding 30 v and 100 volt-amperes; or
 - (d) equipped with a ground fault circuit interrupter of the Class A type that complies with CSA standard C22.1-98, "Canadian Electrical Code Part 1 (18th edition), Safety Standard for Electrical Installations" and that is tested before each use.
- 137** An employer shall ensure that adequate warning signs and barricades are installed or erected to protect a person working as part of a confined space entry, if a hazard from any form of traffic exists.

Part 13 - Premises and Building Safety, Construction and Demolition

Walking surfaces

138 In Sections 139 to 152, measurements of lumber are nominal for dressed dimensions.

- 139 (1)** An employer shall ensure that a floor, stairway, passageway or similar walking surface is designed, constructed or maintained so as not to create a hazard to a person in the workplace.
- (2)** Where a floor, stairway, passageway or similar walking surface is slippery because of the work process, an employer shall ensure that devices such as matting or grating are used, where necessary, to prevent slipping and, if such devices are inadequate to prevent slipping, that non-slip footwear is worn.
- (3)** Where a floor, stairway, passageway or similar walking surface at or near a workplace becomes slippery as a result of weather or climatic conditions, an employer shall ensure that the floor, stairway, passageway or similar walking surface is kept free from falling or slipping hazards by removing ice, snow or water, to the extent reasonably practicable, and using materials such as ashes, sand, salt, or other measures where appropriate to prevent slipping or falling.

Access and exit

- 140 (1)** An employer shall provide a safe means of access to and exit from all work areas.
- (2)** An employer shall provide adequate information to ensure that every person in the workplace is able to exit the workplace in a safe manner in the event of an emergency.
- (3)** An employer shall provide overhead protection at every means of access to and exit from a building, structure or project where there is a hazard of falling material that may injure a person at or near the workplace.
- (4)** Subsection (1) does not apply where a firefighter is engaged in structural firefighting or rescue.

Stairways

- 141 (1)** Subject to subsections (2) and (3), an employer shall ensure that a permanent stairway is designed, constructed and maintained in accordance with the *Nova Scotia Building Code* under the *Building Code Act*.
- (2)** Where the *Nova Scotia Building Code* under the *Building Code Act* does not apply to a permanent stairway built after this Section comes into force, an employer shall ensure that the permanent stairway
- (a)** meets or exceeds the requirements of Section 142; or

- (b) is certified by an engineer as having been constructed in accordance with the certified design of an engineer.

(3) Where

- (a) the *Nova Scotia Building Code* under the *Building Code Act* does not apply to a permanent stairway built before this Section comes into force; and
- (b) there is reasonable doubt as to whether the permanent stairway is adequate,

an employer shall ensure that an engineer provides a written assessment of the permanent stairway.

(4) Where a written assessment required under subsection (3) identifies an inadequacy, an employer shall ensure that

- (a) the stairway is removed; or
- (b) modifications are made and are certified by an engineer as having been made in accordance with the certified design of an engineer.

142 (1) An employer shall ensure that a temporary stairway

- (a) is of sufficient strength to withstand 4 times the maximum load likely to be imposed;
- (b) is a minimum of 900 mm in length;
- (c) is pitched not more than 60° from the horizontal;
- (d) has risers constant in height that are not less than 125 mm and not more than 260 mm in height;
- (e) has a maximum height of 4 m between landings;
- (f) has landings, if any, with a minimum clearance of 900 mm measured in the direction of the run;
- (g) has a vertical clearance of 2 m from the top of the tread at all points in the stairway; and
- (h) has treads constant in width and not less than 230 mm in width.

(2) Despite clause (1)(b), an employer shall ensure that a stairway that is commercially manufactured and used as a means of access or exit for a scaffold is at least 450 mm in length.

(3) An employer shall ensure that a temporary stairway having 4 or more risers

- (a) has a handrail on any open side and a railing on any enclosed side, where the risers are 2.2 m or less in length and
 - (b) has a handrail on any open side and in the centre and a railing on any enclosed side, where the risers are more than 2.2 m in length.
- (4) An employer shall ensure that a handrail referred to in subsection (3) is installed
- (a) with posts that
 - (i) are spaced at intervals of not more than 2.4 m, and
 - (ii) are secured against movement by the attachment of the posts to the stairway, or by another means that provides an equivalent level of safety;
 - (b) with a top railing that is between 0.90 and 1.06 m above the stairway and securely fastened to posts secured in compliance with clause (a); and
 - (c) with an intermediate railing on the inner side of the posts midway between the top railing and the midpoint of the tread.
- (5) An employer shall ensure that a wooden supporting structure or wooden railing of a temporary stairway, in addition to the requirements of subsection (4),
- (a) is at least 50 mm thick and 100 mm wide; and
 - (b) is made of No. 1 grade spruce or other lumber that provides an equivalent level of safety.
- (6) An employer shall ensure that a railing of a temporary stairway that is mounted directly on a wall or partition
- (a) is fixed so as not to interfere with the smoothness of the top and side surfaces of the railing;
 - (b) is continuous throughout the flight of stairs and landings;
 - (c) is at least 40 mm in width; and
 - (d) where brackets are used, has brackets to which a railing is fixed spaced not more than 2.4 m apart and has a clearance of at least 40 mm between the railing and any wall or partition or any obstruction on the wall or partition to which the brackets are attached.
- (7) An employer shall ensure that a guardrail consisting of wire rope, in addition to the requirements of subsection (4)

- (a) has wire rope railings that are at least 8 mm thick;
 - (b) is identified with high visibility markings placed at least every 1.5 m on the top railing; and
 - (c) has railings with turnbuckles or other means that provide adequate tension to ensure an equivalent level of protection to that provided by a wooden guardrail.
- (8) An employer may use a manufactured guardrail in place of a wooden or wire rope guardrail if it provides an equivalent level of protection to that provided by a wooden guardrail.
- (9) An employer shall ensure that a detour guardrail is installed when a stairway ends in direct proximity to a hazard or potential hazard.
- 143 (1)** An employer shall ensure that stairs are installed in a building or structure between floors as the building or structure is constructed.
- (2) An employer shall ensure that a skeleton steel stairway with treads that are not completed has temporary wooden treads securely set into the full length and width of the steps and landings.

Ramps

- 144 (1)** Subject to subsections (2) and (3), an employer shall ensure that a permanent ramp is designed, constructed and maintained in accordance with the *Nova Scotia Building Code* under the *Building Code Act*.
- (2) Where the *Nova Scotia Building Code* under the *Building Code Act* does not apply to a permanent ramp built after this Section comes into force, an employer shall ensure that the permanent ramp
- (a) meets or exceeds the requirements of Section 145; or
 - (b) is certified by an engineer as having been constructed in accordance with the certified design of an engineer.
- (3) Where
- (a) the *Nova Scotia Building Code* under the *Building Code Act* does not apply to a permanent ramp built before this Section comes into force; and
 - (b) there is a reasonable doubt as to whether the permanent ramp is adequate,
- an employer shall ensure that an engineer provides a written assessment of the permanent ramp.

- (4) Where a written assessment required under subsection (3) identifies an inadequacy, an employer shall ensure that
- (a) the ramp is removed; or
 - (b) modifications are made and are certified by an engineer as having been made in accordance with the certified design of an engineer.

145 (1) An employer shall ensure that a temporary ramp

- (a) has a maximum slope of 1/6;
 - (b) is equipped with a non-slip surface or cleats;
 - (c) where the ramp is greater than 1.8 m in rise, has a handrail and supporting structure on any open side;
 - (d) where planks are used, has planks securely fastened together;
 - (e) has a minimum width of 450 mm; and
 - (f) is able to withstand 4 times the maximum load likely to be imposed on the ramp.
- (2) An employer shall ensure that a handrail referred to in clause (1)(c) is constructed in accordance with the requirements for a handrail in subsection 142(4).
- (3) Despite clause (1)(c), an employer shall install a handrail on a ramp that is less than 1.8 m in height where an officer so orders.

Catwalks

146 (1) In this Section, “catwalk” means a walkway that is 1.8 m or more above the ground or floor level.

- (2) An employer shall ensure that a catwalk
- (a) meets or exceeds the requirements of subsections (4) and (5); or
 - (b) is certified by an engineer as having been constructed in accordance with the certified design of an engineer.
- (3) Where there is a reasonable doubt as to whether a catwalk is adequate, an employer shall ensure that
- (a) an engineer provides a written assessment of the permanent catwalk; and
 - (b) where the assessment of the engineer required by clause (a) identifies an inadequacy,

- (i) the catwalk is removed, or
 - (ii) modifications are made and are certified by an engineer as having been constructed in accordance with the certified design of an engineer.
- (4) An employer shall ensure that a temporary catwalk
- (a) has a minimum clear width of 450 mm;
 - (b) is equipped with a handrail in accordance with the requirements for a handrail in subsection 142(4); and
 - (c) is able to withstand 4 times the maximum load likely to be imposed on it.
- (5) Despite clause (4)(b), an employer shall install a handrail on a catwalk that is less than 1.8 m in height where an officer so orders.

Ladders

147 An employer shall ensure that a fixed ladder is designed, constructed, installed and maintained in accordance with ANSI standard A14.3 - 1992 "American National Standard for Ladders - Fixed - Safety Requirements".

- 148 (1)** An employer shall ensure that a portable ladder used at a workplace is
- (a) able to withstand 4 times the maximum load likely to be imposed;
 - (b) clean and free of grease, oil or other substances that may cause slipping;
 - (c) maintained in a safe condition;
 - (d) inspected by a competent person before each use to ensure all components are in an adequate condition and the ladder is safe to use; and
 - (e) not used, where the inspection required in clause (d) identifies an inadequate condition with the ladder.
- (2) A person using a ladder shall
- (a) face the ladder when climbing or descending;
 - (b) maintain 3 point contact with the ladder at all times;
 - (c) where the person is standing on a ladder, stand in the centre between the side rails;

- (d) where the ladder is a step ladder, not stand on the material shelf, the top or the top step of the ladder; and
 - (e) where the ladder is not a step ladder, not work from the top three rungs of the ladder.
- (3)** Clauses (2)(b), (c), (d) and (e) do not apply to a firefighter engaged in structural firefighting or rescue.
- (4)** An employer shall remove a ladder from service when it has loose, broken or missing rungs, split side rails or other defects that may be hazardous to the safety of a person at the workplace.
- 149 (1)** An employer shall ensure that a wooden portable ladder that is not commercially manufactured
- (a) is made of No. 1 grade or better spruce;
 - (b) is not painted other than by being preserved with a transparent protective coating;
 - (c) if a single ladder, does not exceed 9 m in length;
 - (d) has rungs that are
 - (i) free of knots,
 - (ii) designed to carry a load of 200 kg placed at the centre,
 - (iii) uniformly spaced with a maximum rise of 300 mm,
 - (iv) secured to each side of the side rail of the ladder by at least 3 screws or barbed nails of adequate length or by attachments giving equivalent or better strength, and
 - (v) subject to subsection (3), cleated to the side rails; and
 - (e) has side rails that
 - (i) are dressed on all sides and without sharp edges,
 - (ii) subject to subsection (3), have a uniform clear width between them of not less than 300 mm for ladders 3 m in length or less, and increasing 1 mm in width for each 100 mm in excess of 3 m,
 - (iii) where the ladder is less than 5.7 m in length, have dimensions of at least 50 mm thick by at least 100 mm wide, and

- (iv) subject to subsection (3), where the ladder is 5.7 m or greater in length, have dimensions of at least 50 mm thick by at least 150 mm wide.
 - (2) An employer shall ensure that a ladder does not sway or sag in an unsafe manner.
 - (3) An employer shall ensure that a portable ladder that is designed specifically for the purpose of harvesting fruit from trees and is used only for that purpose, is erected, constructed, maintained and used so as to be adequate for that purpose.
 - (4) Subclause (1)(d)(v) and subclauses (1)(e)(ii) and (iv) do not apply to a ladder that conforms to the requirements of subsection (3).
- 150 (1)** An employer shall ensure that a portable ladder that is commercially manufactured is designed and manufactured in accordance with CSA standard CAN3-Z11-M81, "Portable Ladders".
- (2) Despite subsection (1), an employer shall ensure that Grade 3 portable ladders, as described in any edition of CSA standard CAN3-Z11, "Portable Ladders", are not used at a workplace.
 - (3) An employer shall ensure that a commercially manufactured portable ladder
 - (a) where it is an extension ladder, maintains an adequate overlap between the sections of the ladder; and
 - (b) has locks engaged before the extension ladder is climbed.
- 151 (1)** An employer shall ensure that when a portable ladder is used
- (a) it is placed on a firm footing;
 - (b) it is adequately secured against movement as soon as reasonably practicable;
 - (c) as a means of access or exit, it
 - (i) has side rails that extend at least 1 m above any platform or landing, and
 - (ii) has a clearance of at least 150 mm between it and the supporting structure, except in the area where the ladder is supported against the structure; and
 - (d) as a step ladder, it has legs securely held in position by means of metal braces or an equivalent rigid support.

- (2) An employer shall ensure that, when a portable ladder is used, it is not
- (a) spliced together with another ladder unless the spliced section is braced so that the spliced side rails are as strong as the original side rails;
 - (b) placed in front of or against a door that can be opened towards the ladder unless the door is blocked in the open position, locked or guarded;
 - (c) used as a scaffold, ramp, or as a support for such flooring;
 - (d) placed on a box, barrel, scaffold, or other unstable base;
 - (e) lashed to another ladder to increase its length; or
 - (f) located in an elevator shaft or hoistway when such space is being used for hoisting.

152 Where a portable ladder is used as a means of access or exit for a height greater than 6 m and for 7 or more persons, an employer shall provide 2 separate lines of ladders.

Underground utility lines

- 153 (1)** Where the location of any underground electrical, gas or other utility line or piping is likely to endanger a person at a workplace, an employer shall ensure that before beginning an excavation or trench the utility that owns or operates the underground electrical, gas or other utility line or pipe is contacted in order to have the utility clearly locate and mark the underground electrical, gas or other utility line.
- (2) Except as provided in subsection (3), an employer shall ensure that no object or person comes in contact with the line located or marked in accordance with subsection (1).
- (3) An object or person may come into contact with an underground electrical, gas or other utility line or piping only
- (a) after it has been located and marked in accordance with subsection (1); and
 - (b) where the work involving the contact is performed by or in accordance with the instructions of a competent person employed, contracted or authorized by the utility that owns or operates the underground electrical, gas or other utility line or pipe.

Bracing and supports

154 (1) An employer at a project shall ensure that

- (a) work is completed on any component designed to support or give added support to a part of the project before proceeding with any work that adds to the load on that part;
 - (b) a free standing wall of brick, concrete blocks or similar materials greater than 2 m in height is braced from both sides until the wall is attached to a rigid structure and the mortar has set adequately;
 - (c) a free standing wall or structure designed to support roof components or any load is braced in an adequate manner to prevent collapse of the wall or structure; and
 - (d) a column is erected in an adequate manner to prevent collapse of the column and, where further support is required to ensure that the column does not collapse, braced in an adequate manner.
- (2)** An employer at a project shall use bracing or shoring for support beneath floor levels where concrete is being poured.
- (3)** An employer at a project shall
- (a) ensure that bracing or shoring is designed by an engineer and is erected, maintained and dismantled in accordance with the engineer's certified specifications; or
 - (b) retain the bracing or shoring at all floor levels beneath the floor where concrete is being poured until the removal of the bracing or shoring is authorized in writing by an engineer.
- (4)** An employer shall ensure that any bracing or shoring referred to in this Section complies with CSA standard CSA S.269.1-1975, "Falsework for Construction Purposes."
- (5)** An employer shall ensure that footings for shoring and bracing are designed to support the maximum load likely to be imposed, without excessive settlement or deformation.

By-stander safety

155 Where a project may cause a hazard to a pedestrian or other person at or near the workplace, an employer shall take adequate precautions to ensure the safety of the pedestrian or other person at or near the workplace.

Construction work in compressed air

156 An employer shall ensure that construction work in compressed air is conducted in accordance with CSA standard CAN/CSA-Z275.3 M-86(R1992), "Occupational Safety Code for Construction Work in Compressed Air".

Demolition

- 157 (1)** No employer shall commence or continue to demolish a project until
- (a) adequate steps have been taken to prevent injury to any person at or near the project or the adjoining property; and
 - (b) existing gas, water, electrical, steam and other services to the project have been disconnected or isolated.
- (2)** An employer shall ensure that
- (a) an assessment of a building or other structure to be demolished is conducted to identify hazardous substances; and
 - (b) so far as is reasonably practicable, hazardous substances are removed prior to the demolition.
- 158 (1)** Where a project being demolished is likely to endanger the safety of a person by its accidental collapse, an employer shall ensure that the project is temporarily shored or braced or other adequate measures are taken to prevent injury to a person at or near the workplace.
- (2)** Where a person may be endangered at or near a demolition project from falling or broken glass, an employer shall ensure that the glass is removed from windows and other locations in the project before demolition commences.
- 159** Where a hoist or powered mobile equipment is used during demolition, an employer shall ensure adequate supports are provided to ensure the stability of the hoist or powered mobile equipment.
- 160** An employer shall ensure that scaffolds are erected independent of that portion of a project that is being demolished.
- 161 (1)** Except for demolition work performed in accordance with Section 165 or a demolition by explosives, an employer shall ensure that a demolition proceeds systematically from the highest to the lowest point of the project.
- (2)** Where a person may be endangered, an employer shall ensure that the work above each tier or floor is completed before the integrity of its supports is impaired by the demolition operations.
- 162** Following the completion of a demolition project, an employer shall ensure that
- (a) the demolition area is fenced or barricaded;
 - (b) an excavation is backfilled to grade level; or
 - (c) an excavation is sloped to its angle of repose that is adequate.
- 163** Except for demolition work performed in accordance with Section 165, an employer at a demolition project shall ensure that

- (a) no person disconnects a truss, girder or other member until it has been relieved of all loads, except its own weight, and given temporary support or lashed ready for lowering; and
 - (b) a hoist or other adequate equipment for the lowering of a truss, girder or beam is provided and used.
- 164 (1)** Except for demolition work performed in accordance with Section 165, an employer at a demolition project shall ensure that masonry walls or any part of them are removed
- (a) in reasonably level courses in any one storey; and
 - (b) so as not to endanger any person on the project.
- (2)** An employer at a demolition project shall ensure that masonry is not loosened or permitted to fall in such masses as to endanger the structural stability of a floor or other support of the project.
- 165 (1)** In this Section, "demolition zone" means
- (a) the area designated as such in writing by an engineer before the demolition begins; or
 - (b) in the absence of a designation under clause (a), the area having its centre at the point of demolition and having a horizontal radius equal to 1 1/2 times the initial height of the project, or portion of the project being demolished.
- (2)** This Section applies to demolition by
- (a) a heavy weight suspended by cable from a crane or other hoist; or
 - (b) a power shovel, bulldozer or other powered mobile equipment.
- (3)** An employer shall ensure that no person, other than persons directly engaged in the demolition, enters or remains within the demolition zone while the project is being demolished.
- (4)** Where a swinging weight is used for demolition, an employer shall ensure that the supporting cable is of such length or so restrained that the weight will not swing against any object other than the project being demolished.
- (5)** Where it is required to prevent the uncontrolled collapse of a project that may endanger a person at or near the workplace, an employer shall ensure that structural components are identified in an adequate manner to ensure the components are not removed inadvertently.
- (6)** Where an operator of equipment referred to in subsection (2) cannot see where the material from the demolition will fall, the employer shall ensure that a signaller guides the operator.

Part 14 - Excavations and Trenches

- 166 (1)** Where it is foreseeable that a person may enter an excavation or trench and a wall of an excavation or trench is greater than 1.2 m in height, an employer shall ensure that the wall is supported by adequate shoring, bracing or caging, except where the employer is able to prove that the excavation or trench
- (a) is cut in sound and stable rock;
 - (b) is sloped
 - (i) to within 1.2 m of the bottom of the excavation or trench, or
 - (ii) where soil overburden is located above an excavation or trench excavated in sound and stable rock, for the entire overburden, and the slope does not exceed 1 m of vertical rise to each 1 m of horizontal run; or
 - (c) is one that a person does not enter within a horizontal distance from the walls of the excavation or trench that is equal to the height of the walls.
- (2)** Where the walls or crests of an excavation or trench are cut in rock, an employer shall ensure that the walls and crests are adequately supported by rock bolts, wire mesh or other means of adequate protection, if necessary, to ensure safe working conditions.
- (3)** Where powered mobile equipment is used near the edge of an excavation or trench, an employer shall ensure that any shoring, bracing or caging for the excavation or trench is adequate to support the increased load.
- (4)** An employer shall ensure that the walls of an excavation or trench are stripped of loose rock or other material that could slide, roll or fall on a person in the excavation or trench and injure that person.
- (5)** Despite clause (1)(b), an employer may slope the walls of an excavation or trench at an angle that exceeds a 1 m vertical rise to each 1 m horizontal run where an engineer has certified in writing that the steeper slope will be stable and is not a hazard to a person in the excavation or trench.
- (6)** An employer shall ensure that a utility pole, building or other structure is adequately supported or removed if the utility pole, building or other structure may become unstable because of excavation or trenching activity.
- 167** No person shall enter an excavation or trench 1.2 m or more in depth unless an employer ensures that a ladder is installed that extends at least 1 m above the excavation or trench or some other adequate means of access and exit is provided

- (a) that is no more than 15 m from where the person is working; or
- (b) where a trench cage is used, within the trench cage.

168 An employer shall ensure that excavated material is

- (a) kept at least 1 m away from the edge of an excavation or trench, unless an engineer certifies a shorter distance as adequate; and
- (b) located a sufficient distance from the face of the excavation or trench to ensure the excavated material does not re-enter the excavation or trench.

169 (1) An employer shall ensure that an excavation or trench in which a person works is kept reasonably free of water.

(2) Where a person may be exposed to a hazardous substance or to an oxygen deficient or an oxygen rich atmosphere in an excavation or trench, an employer shall ensure that

- (a) testing is performed; and
- (b) the necessary precautions are taken to reduce the risk of injury

before the person enters the excavation or trench.

(3) No person shall store hazardous substances in an excavation or trench.

170 (1) Where a trench cage is used in an excavation or trench, an engineer shall certify the design of the cage.

(2) An engineer shall include in the certified design required in subsection (1) information on

- (a) the depth at which the trench cage may be used; and
- (b) the manner in which the trench cage is to be installed, erected, used, maintained and dismantled.

(3) Where a trench cage is altered, repaired or otherwise modified in a manner that may affect the structural integrity of the cage, an employer shall ensure that it meets the requirements of these regulations and is certified by an engineer in accordance with subsections (1) and (2) prior to use after the alteration, repair or modification.

(4) Where the top of a trench cage is below ground level, an employer shall ensure that the soil above the cage is sloped in accordance with clause 166(1)(b).

- 171 (1)** An employer shall ensure that a nameplate is permanently attached to a trench cage, in a location visible for inspection when the cage is in use, identifying the engineer that certified the design of the trench cage and the depth at which the cage may be used.
- (2)** An employer shall designate a competent person to inspect a trench cage before each day it is used to ensure that it does not have any defects or damage that may affect the structural integrity of the cage.
- (3)** Where an inspection required in subsection (2) identifies a defect or damage that affects the structural integrity of the trench cage, an employer shall remove the cage from service until it is repaired and re-certified in accordance with subsection 170(3).

172 An employer shall ensure that, where a trench cage is used, the cage

- (a)** rests as close as possible to the bottom of the excavation or trench; and
- (b)** does not rest above the bottom of the excavation or trench more than the designed maximum height, or 900 mm, whichever is the lesser,

unless an engineer certifying the design of the cage also certifies its use in the specific circumstances.

- 173 (1)** An employer shall ensure that shoring or bracing for an excavation or trench
- (a)** complies with a design certified by an engineer; or
- (b)** is commercially manufactured.
- (2)** An employer shall ensure that any shoring or bracing for an excavation or trench is installed, erected, maintained and dismantled in accordance with the manufacturer's specifications or an engineer's specifications.

Part 15 - Surface Mine Workings

Interpretation

174 In this Part, "working face" means an area in a surface mine where consolidated or unconsolidated material is drilled, blasted or loaded, or other similar work is performed.

Marking location and control of entry

175 An employer shall ensure that a surface mine is

- (a)** marked and identified in an adequate manner; and
- (b)** securely protected from inadvertent entry by a person where
- (i)** the surface mine constitutes a hazard by reason of its depth,

- (ii) the approaches to or openings of the surface mine are not readily visible, or
- (iii) the hazard caused by the surface mine is greater than the hazard caused by natural topographical features within 600 m of the working face.

Roadways and vehicles

176 An employer shall ensure that a roadway at a surface mine used for the purpose of moving material to, from, or within a surface mine is designed, constructed and maintained

- (a) to minimize hazards caused by slipping or skidding of vehicles;
- (b) to enable vehicles to pass each other safely where the vehicles are required to pass each other, and with sufficient width to accommodate the proposed traffic; and
- (c) so that grades do not exceed the design capacity of vehicles that are used on the roadway.

177 Where there is a drop-off greater than 3 m at the edge of a regularly used roadway in a surface mine, an employer shall ensure that an adequate shoulder barrier is designed, constructed and maintained so as to prevent the inadvertent run-off of the vehicles.

178 (1) An employer shall ensure that the grade on roadways in a surface mine does not exceed 5% on a roadway length that exceeds 100 m unless

- (a) a written procedure for handling vehicle runaways has been prepared; and
- (b) where reasonably practicable, runaway lanes, retardation barriers or vehicle modifications are adequately in place; and
- (c) the employer ensures that the vehicle manufacturer's specifications are followed.

(2) Where no manufacturer's specifications are available for a vehicle used on a roadway in a surface mine, an employer shall ensure that the grade on roadways in a surface mine does not exceed 5% on a roadway length that exceeds 100 m.

179 Every person who works in a surface mine or who is a pedestrian on a roadway in an area of operating equipment shall wear high visibility warning clothing to ensure that the person is visible to a person in a vehicle.

180 Where material excavated from a surface mine is dumped from a vehicle onto a stockpile, an employer shall ensure that adequate precautions are taken to ensure that the vehicle does not overturn.

Overburden

181 An employer shall ensure that unconsolidated overburden

- (a) is moved
 - (i) a sufficient distance away from the edge of an excavation to prevent the overburden from falling into the excavation, and
 - (ii) at least 7 m away from the edge of the excavation unless a shorter distance adequate to prevent the overburden from falling into the excavation has been approved by an engineer; and
- (b) is sloped to its natural angle of repose.

Notice of operation

182 When activities in a surface mine are initially started, or when activities are resumed after a cessation of operation of 4 months or more, an employer shall

- (a) notify the Director in writing of the intention to begin or resume operations in the surface mine at least 2 weeks before the operations are to begin or resume;
- (b) specify in the written notice to the Director the geographic location of the surface mine; and
- (c) state the estimated start-up date and period of operation.

Inspections

183 (1) No person shall begin work at or near a working face in a surface mine

- (a) following a blast; or
- (b) at the beginning of each operating shift,

until a designated competent person inspects the working face to ensure that the working face is adequate.

- (2) The competent person referred to in subsection (1) shall record the results of the inspection required by subsection (1) in a daily examination and record book and shall record all unusual occurrences or hazards.
- (3) The competent person referred to in subsection (1) shall read the record in the daily examination and record book made for the previous shift and sign it before work at the face begins on the next shift.
- (4) An employer shall make available the daily examination and record book referred to in subsections (2) and (3) on request to the committee or the representative, if any.

Walls

- 184 (1)** Subject to subsection (3), where a wall of a surface mine is greater than 20 m in height, an employer shall ensure that the surface mine is designed, constructed and maintained with the wall benched so that there is a vertical rise not in excess of 20 m for every horizontal run not less than 8 m.
- (2)** Where a wall of a surface mine is 20 m in height or less and the wall cannot be excavated in a safe manner, an employer shall ensure that the wall is adequately benched to ensure the work can be performed in a safe manner.
- (3)** Where a wall of a surface mine is greater than 20 m in height and it is not benched in accordance with subsection (1), an employer shall ensure that
- (a)** an engineer has certified the wall height as adequate;
 - (b)** material extracted is removed by means of equipment located at the top of the wall; or
 - (c)** no person is present within a radius of 1.3 times the height of the working face from the wall.

Work procedures

185 Where unconsolidated material is being worked or removed and there is a possibility that the material could collapse onto the equipment, an employer shall ensure that the vertical height of the unconsolidated material is not more than 1.5 m above the maximum reach of the equipment, unless the work is done in accordance with specifications and a safe work procedure certified by an engineer.

186 Where material in a surface mine is being extracted by means of powered mobile equipment, an employer shall ensure that

- (a)** the working face is sloped at its angle of repose when it is not being worked;
- (b)** the working face extends not more than 1.5 m above the maximum reach of the equipment in use; or
- (c)** the work is done in accordance with specifications and a written safe work procedure certified by an engineer.

187 Where undercutting is performed at the working face of a surface mine by means of powered mobile equipment, an employer shall ensure that the undercutting is

- (a)** restricted to the depth of the bucket of the powered mobile equipment; and
- (b)** permitted only when

- (i) the approach by the operator of the powered mobile equipment is at a 90° angle to the working face; and
- (ii) the work is done in accordance with specifications and a written safe work procedure certified by an engineer.

188 Where unconsolidated material in a surface mine is being extracted by means other than powered mobile equipment, an employer shall ensure that

- (a) the working face is sloped at its angle of repose;
- (b) the working face is not more than 1.2 m in height; or
- (c) the work is done in accordance with specifications and a written safe work procedure certified by an engineer.

189 Where unconsolidated material is being removed at a working face, the employer shall ensure that no pedestrian comes closer to the working face than 1.3 times the height of the working face, unless the working face is

- (a) sloped at its angle of repose;
- (b) benched to limit the vertical height of the working face to not more than 1.2 m; or
- (c) certified as adequate by an engineer.

Part 16 - Equipment for Firefighters

Application and interpretation

190 (1) This Part does not apply to an underground mine.

- (2) Where there is a conflict between this Part and another Section of these regulations, this Part prevails to the extent of the inconsistency.

Protective headwear

191 (1) When engaged in structural fire-fighting, a firefighter shall use protective headwear that complies with or exceeds NFPA standard NFPA 1971, “Standard on Protective Ensemble for Fire Fighting”, 1997 edition.

- (2) An employer shall ensure that attachments to and on the protective headwear referred to in subsection (1) are made only in the manner specified by the manufacturers of the headwear.

Protective footwear

192 When engaged in structural fire-fighting or rescue, a firefighter shall use protective footwear that

- (a) complies with or exceeds NFPA standard NFPA 1971, “Standard on Protective Ensemble for Fire Fighting”, 1997 edition or the standard for Grade 1 footwear, with sole puncture protection and electric shock resistant soles in CSA standard CAN/CSA-Z195-M92, “Protective Footwear”;

- (b) is water-resistant for at least 12.7 cm above the bottom of the heel;
and
- (c) has a slip-resistant outer sole.

Protective handwear

193 When engaged in structural fire-fighting, a firefighter shall wear protective handwear that complies with or exceeds NFPA standard NFPA 1971, “Standard on Protective Ensemble for Fire Fighting”, 1997 edition.

Protective coat and trousers

194 When engaged in structural fire-fighting, a firefighter shall wear a protective coat and trousers that

- (a) comply with or exceed NFPA standard NFPA 1971, “Standard on Protective Ensemble for Fire Fighting”, 1997 edition or CGSB standard CAN155.1-98, “Fire Fighter’s Protective Clothing for Protection Against Heat and Flame”; and
- (b) fit properly in sleeve length, coat length, chest girth, waist girth, trouser inseam length and crotch rise so as to prevent unsafe situations resulting from the interference of one piece of clothing or equipment with another.

Respiratory protective equipment

195 (1) A firefighter who may be exposed to an oxygen deficient atmosphere or to harmful concentrations of air contaminants when engaged in structural fire-fighting or rescue shall wear positive-pressure self-contained respiratory protective equipment that complies with or exceeds NFPA standard NFPA 1981, “Standard on Open-Circuit Self-Contained Breathing Apparatus for the Fire Service” 1997 edition, together with a protective hood that complies with or exceeds the requirements in NFPA standard NFPA 1971, “Standard for Protective Ensemble for Fire Fighting”, 1997 edition.

- (2) An employer shall ensure that a firefighter who is wearing self-contained respiratory protective equipment when engaged in structural fire-fighting or rescue is accompanied by another firefighter similarly equipped and having the same air capacity.
- (3) An employer shall ensure that self-contained respiratory protective equipment used by a firefighter when engaged in structural fire-fighting or rescue is equipped with a personal distress alarm device that complies with or exceeds NFPA standard NFPA 1982, “Standard on Personal Alert Safety Systems (PASS) for Fire Fighters”, 1993 edition.

196 An employer shall ensure compliance with CSA standard CSA Z94.4-93, “Selection, Use, and Care of Respirators” with respect to

- (a) the training of users of self-contained respiratory protective equipment; and
- (b) the use, maintenance and testing of respiratory protective equipment.

Body harnesses and safety ropes

197 (1) In this Section and Sections 198 and 199,

- (a) “body harness” means a harness consisting of leg and shoulder straps and an upper back suspension unit that will distribute and reduce the impact force of any fall; and
- (b) “confined space” means a confined space as defined in subsection 129(1).

(2) A firefighter entering a confined space for the purposes of rescue shall wear a body harness that complies with or exceeds NFPA standard NFPA 1983, “Standard on Fire Service Life Safety Rope and System Components”, 1995 edition, and self-contained respiratory protective equipment that complies with or exceeds NFPA standard NFPA 1981, “Standard on Open-Circuit Self-Contained Breathing Apparatus for the Fire Service”, 1997 edition.

198 (1) An employer shall ensure that ropes and associated body harnesses and hardware used by a firefighter for structural fire-fighting or rescue purposes comply with or exceed NFPA standard NFPA 1983, “Standard on Fire Service Life Safety Rope and System Components”, 1995 edition.

(2) When working from an aerial device, as defined in subsection 201(1), a firefighter engaged in structural fire-fighting or rescue shall use a body harness that complies with or exceeds NFPA standard NFPA 1983, “Standard on Fire Service Life Safety Rope and System Components”, 1995 edition.

(3) Despite subsection (1) or (2), or any provision of the *Fall Protection and Scaffolding Regulations*, in a situation where those regulations would require the use of a body harness or associated ropes and hardware complying with a different standard, it is permissible to use equipment that meets the requirements of either subsection (1) and (2) or the *Fall Protection and Scaffolding Regulations*.

199 Where a body harness has been used by a firefighter for structural firefighting or rescue, the employer shall ensure that the body harness is not used again until it is inspected by a designated competent person to ensure all components are in an adequate condition.

Portable ladders

200 Where a portable ground ladder is used for structural fire-fighting, an employer shall ensure that it complies with or exceeds NFPA standard NFPA 1931, “Standard on Design of and Design Verification Tests for Fire Department Ground Ladders”, 1994 edition, and is used, maintained and tested in accordance with NFPA standard NFPA 1932, “Standard on Use, Maintenance and Service Testing of Fire Department Ground Ladders”, 1994 edition.

Aerial devices

201 (1) In this Section, “aerial device” includes an aerial bucket, aerial ladder, elevating platform, aerial ladder platform or water tower that is designed to position personnel, handle materials, provide a means of exit or discharge water, as the case may be.

(2) Where an aerial device is used for structural fire-fighting, an employer shall ensure that it

- (a)** complies with or exceeds NFPA standard NFPA 1914, “Standard for Testing Fire Department Aerial Devices”, 1997 edition or Underwriters’ Laboratories of Canada standard CAN/ULC - S515 - 1988, “Automobile Fire Fighting Apparatus”; or
- (b)** is certified in writing by an engineer as being safe to elevate a firefighter to a work site above ground when used for structural fire-fighting purposes.

Battery powered lights

202 An employer shall ensure that each fire truck is equipped with 2 portable hand lights, each of which is powered with at least a 6-volt battery.

Industrial firefighters

203 (1) Where an employer establishes an internal fire-fighting unit at its place of business, the employer shall ensure that industrial firefighters designated to take part in fire-fighting activity have received adequate training.

- (2)** An employer shall ensure that industrial firefighters do not engage in structural fire-fighting beyond the incipient stages unless wearing and using the personal protective equipment required by Sections 191 to 199.
- (3)** An industrial firefighter shall not engage in structural fire-fighting beyond the incipient stages unless wearing and using the personal protective equipment required by Sections 191 to 199.
- (4)** An employer shall ensure that beyond the incipient stages of a fire, fire-fighting by industrial firefighters ~~confirms~~ [conforms] to NFPA standard NFPA 600, “Standard on Industrial Fire Brigades”, 1996 edition.

N.S. Reg. 45/99

Made: April 28, 1999

Filed: April 29, 1999

Proclamation, S. 41(1), S.N.S. 1999, c. 1

Order in Council 1999-198 made April 28, 1999
 Proclamation made by the Governor in Council
 pursuant to Section 41 of
*An Act to Amend Chapter 10 of the Acts of 1994-95,
 the Workers' Compensation Act*

The Governor in Council on the report and recommendation of the Minister of Labour dated April 21, 1999, pursuant to Section 41 of Chapter 1 of the Acts of 1999, *An Act to Amend Chapter 10 of the Acts of 1994-95, the Workers' Compensation Act*, is pleased to order and declare by proclamation that Sections 1, 4, 6, 7 and 10 of Chapter 1 of the Acts of 1999, *An Act to Amend Chapter 10 of the Acts of 1994-95, the Workers' Compensation Act*, come into force on and not before April 28, 1999.

PROVINCE OF NOVA SCOTIA

Sgd: *J. James Kinley*

G/S

ELIZABETH THE SECOND, by the Grace of God,
 of the United Kingdom, Canada and Her
 Other Realms and Territories, Queen, Head
 of the Commonwealth, Defender of the Faith.

TO ALL TO WHOM THESE PRESENTS SHALL COME, OR WHOM THE
 SAME MAY IN ANY WISE CONCERN,

GREETING:

A PROCLAMATION

WHEREAS in and by Section 41 of Chapter 1 of the Acts of 1999, *An Act to Amend Chapter 10 of the Acts of 1994-95, the Workers' Compensation Act*, it is enacted as follows:

- 41 (1)** Sections 1, 4, 6, 7 and 10 come into force on such day as the Governor in Council orders and declares by proclamation.

AND WHEREAS it is deemed expedient that Sections 1, 4, 6, 7 and 10 of Chapter 1 of the Acts of 1999, *An Act to Amend Chapter 10 of the Acts of 1994-95, the Workers' Compensation Act*, come into force on April 28, 1999;

NOW KNOW YE THAT WE, by and with the advice of the Executive Council of Nova Scotia, do by this Our Proclamation order and declare that Sections 1, 4, 6, 7 and 10 of Chapter 1 of the Acts of 1999, *An Act to Amend Chapter 10 of the Acts of 1994-95, the Workers' Compensation Act*, come into force on April 28, 1999, of which all persons concerned are to take notice and govern themselves accordingly.

IN TESTIMONY WHEREOF We have caused these
our Letters to be made Patent and the Great
Seal of Nova Scotia to be hereunto affixed.

WITNESS, Our Trusty and Well Beloved His Honour
the Honourable J. James Kinley, CD, S.M.,
D.Eng., P.Eng., FEIC, Lieutenant Governor
of the Province of Nova Scotia.

AT Our Government House in the Halifax Regional
Municipality, this 28th day of April, in the
year of Our Lord one thousand nine
hundred and ninety-nine and in the forty-
eighth year of Our Reign.

BY COMMAND:

Sgd: *R. S. Harrison*
Provincial Secretary
Attorney General and Minister of Justice

N. S. Reg. 46/99

Made: April 28, 1999

Filed: April 29, 1999

Regulations respecting the reporting form for the Statement
of Estimates for Nova Scotia municipalities

Order in Council 1999-200 made April 28, 1999
Dispensation from publication made by the Governor in Council
pursuant to subsection 4(3)
of the *Regulations Act*

The Governor in Council on the report and recommendation of the Minister of Housing and Municipal Affairs dated April 13, 1999, pursuant to subsection 4(3) of Chapter 393 of the Revised Statutes of Nova Scotia, 1989, the *Regulations Act*, is please to dispense with the publication in the Royal Gazette, Part II, of the regulations respecting the reporting form for the Statement of Estimates for municipalities in Nova Scotia, made by the Minister of Housing and Municipal Affairs on April 13, 1999, pursuant to Section 451 of Chapter 18 of the Statutes of Nova Scotia, 1998, the *Municipal Government Act*, in the form set forth in Schedule "A" attached to and forming part of the report and recommendation.

N.S. Reg. 47/99

Made: April 28, 1999

Filed: April 29, 1999

Proclamation, S. 9, S.N.S. 1998, c. 17

Order in Council 1999-201 made April 28, 1999

Proclamation made by the Governor in Council
pursuant to Section 9
of the *Mi'kmaq Education Act*

The Governor in Council on the report and recommendation of the Minister of Education and Culture dated April 15, 1999, pursuant to Section 9 of Chapter 17 of the Acts of 1998, the *Mi'kmaq Education Act*, is pleased to order and declare by proclamation that Chapter 17 of the Acts of 1998, the *Mi'kmaq Education Act*, come into force on and not before April 22, 1999.

PROVINCE OF NOVA SCOTIA

Sgd: *J. James Kinley*

G/S

ELIZABETH THE SECOND, by the Grace of God,
of the United Kingdom, Canada and Her
Other Realms and Territories, Queen, Head
of the Commonwealth, Defender of the Faith.

TO ALL TO WHOM THESE PRESENTS SHALL COME, OR WHOM THE
SAME MAY IN ANY WISE CONCERN,

GREETING:

A PROCLAMATION

WHEREAS in and by Section 9 of Chapter 17 of the Acts of 1998, the *Mi'kmaq Education Act*, it is enacted as follows:

- 9** This Act comes into force on such day as the Governor in Council orders and declares by proclamation.

AND WHEREAS it is deemed expedient that Chapter 17 of the Acts of 1998, the *Mi'kmaq Education Act*, come into force on April 22, 1999;

NOW KNOW YE THAT WE, by and with the advice of the Executive Council of Nova Scotia, do by this Our Proclamation order and declare that Chapter 17 of the Acts of 1998, the *Mi'kmaq Education Act*, come into force on April 22, 1999, of which all persons concerned are to take notice and govern themselves accordingly.

IN TESTIMONY WHEREOF We have caused these
our Letters to be made Patent and the Great
Seal of Nova Scotia to be hereunto affixed.

WITNESS, Our Trusty and Well Beloved His Honour
the Honourable J. James Kinley, CD, S.M.,
D.Eng., P.Eng., FEIC, Lieutenant Governor
of the Province of Nova Scotia.

AT Our Government House in the Halifax Regional
Municipality, this 28th day of April, in the
year of Our Lord one thousand nine
hundred and ninety-nine and in the forty-
eighth year of Our Reign.

BY COMMAND:

Sgd: *R. S. Harrison*
Provincial Secretary
Attorney General and Minister of Justice

N.S. Reg. 48/99

Made: April 30, 1999

Filed: May 6, 1999

Proclamation, S. 30, S.N.S. 1998, c. 11

Order in Council 1999-204 made April 30, 1999
Proclamation made by the Governor in Council
pursuant to Section 30
of the *Endangered Species Act*

The Governor in Council on the report and recommendation of the Minister of Natural Resources dated April 29, 1999, pursuant to Section 30 of Chapter 11 of the Acts of 1998, the *Endangered Species Act*, is pleased to order and declare by proclamation that Chapter 11 of the Acts of 1998, the *Endangered Species Act*, come into force on and not before May 1, 1999.

PROVINCE OF NOVA SCOTIA

Sgd: *J. James Kinley*

G/S

ELIZABETH THE SECOND, by the Grace of God,
of the United Kingdom, Canada and Her
Other Realms and Territories, Queen, Head
of the Commonwealth, Defender of the Faith.

TO ALL TO WHOM THESE PRESENTS SHALL COME, OR WHOM THE
SAME MAY IN ANY WISE CONCERN,

GREETING:

A PROCLAMATION

WHEREAS in and by Section 30 of Chapter 11 of the Acts of 1998, the *Endangered Species Act*, it is enacted as follows:

- 30** This Act comes into force on such day as the Governor in Council orders and declares by proclamation.

AND WHEREAS it is deemed expedient that Chapter 11 of the Acts of 1998, the *Endangered Species Act*, come into force on and not before May 1, 1999;

NOW KNOW YE THAT WE, by and with the advice of the Executive Council of Nova Scotia, do by this Our Proclamation order and declare that Chapter 11 of the Acts of 1998, the *Endangered Species Act*, come into force on and not before May 1, 1999, of which all persons concerned are to take notice and govern themselves accordingly.

IN TESTIMONY WHEREOF We have caused these
our Letters to be made Patent and the Great
Seal of Nova Scotia to be hereunto affixed.

WITNESS, Our Trusty and Well Beloved His Honour
the Honourable J. James Kinley, CD, S.M.,
D.Eng., P.Eng., FEIC, Lieutenant Governor
of the Province of Nova Scotia.

AT Our Government House in the Halifax Regional
Municipality, this 30th day of April, in the
year of Our Lord one thousand nine
hundred and ninety-nine and in the forty-
eighth year of Our Reign.

BY COMMAND:

Sgd: *R. S. Harrison*
Provincial Secretary
Attorney General and Minister of Justice

N.S. Reg. 49/99

Made: May 5, 1999

Filed: May 11, 1999

Nova Scotia Crop and Livestock Insurance Plan for Tobacco

Order in Council 1999-217 made May 5, 1999
Repeal of regulations approved by the Governor in Council
pursuant to subsection 6(1)
of the *Crop and Livestock Insurance Act*

The Governor in Council on the report and recommendation of the Minister of Agriculture and Marketing dated April 15, 1999, pursuant to subsection 6(1) of Chapter 113 of the Revised Statutes of Nova Scotia, 1989, the *Crop and Livestock Insurance Act*, is pleased to approve the repeal by the Nova Scotia Crop and Livestock Insurance Commission of the Nova Scotia Crop and Livestock Plan for Tobacco approved by Order in Council 95-21 dated January 3, 1995.