NEW BRUNSWICK
REGULATION 91-191
under the
Occupational Health and Safety Act
(O.C. 91-1035)

Filed December 3, 1991

Under section 51 of the *Occupational Health and Safety Act*, the Lieutenant-Governor in Council makes the following Regulation:

Citation

1 This Regulation may be cited as the *General Regulation - Occupational Health and Safety Act*.

INTERPRETATION

Definitions

2 In this Regulation

"ACGIH" means the American Conference of Governmental Industrial Hygienists;

"Act" means the *Occupational Health and Safety Act*;

"adequate" means sufficient to protect a person from the risk of injury or damage to health;

"aerial device" means any vehicle-mounted telescoping or articulating device that is used to position a person by means of a bucket, basket, ladder or platform directly secured to the boom;

"air contaminant" means any gas, fume, smoke, vapour, dust or other airborne concentration of a substance that may be hazardous to the health or safety of a person;

"anchor point" means the part of a permanent or temporary structure or of a component attached to such a structure to which fall-protection components are connected or suspended equipment components are connected;

"angle of repose" means the angle with the horizontal at which material will no longer flow freely;

"ANSI" means the American National Standards Institute;

"arboricultural operation" means work connected with the care and maintenance of trees and includes pruning and tree removal;

"ASHRAE" means the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc

"ASME" means the American Society of Mechanical Engineers;

"blaster" means a person who holds a valid certificate of qualification in the blaster occupation or powderman trade issued under the *Apprenticeship and Occupational Certification Act*;

"blasting area" means an area within a 50 m radius extending from a place where explosives are being prepared, handled or loaded or from a place where an unexploded charge is known or believed to exist;

"blasting operation" means an operation using explosives and extends from the time explosives arrive at a place of employment to the time all explosives are used or removed from the place of employment;

"body belt" means a body support device that encircles the body at the waist and is also known as a safety belt;

"ceiling" means a ceiling as defined in the ACGIH publication entitled "2016 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices"; (*limite maximale d'exposition*)

"CGA" means the Compressed Gas Association, Inc.;

"CGSB" means the Canadian General Standards Board;

"competent" means

(a) qualified, because of such factors as knowledge, training and experience, to do assigned work in a manner that will ensure the health and safety of persons,

(b) knowledgeable about the provisions of the Act and the regulations that apply to the assigned work, and

(c) knowledgeable about potential or actual danger to health or safety connected with the assigned work;

"control zone" means the area between an unguarded edge and a warning line which represents a safe distance from the edge;

"CSA" means the CSA Group;

"danger area" means twice the distance at which there exists a possibility of hazard to a person or property from the effects of a blast;

"dB" means peak sound pressure level in decibels referenced to twenty micropascals;

"dBA" means the sound pressure level in decibels referenced to twenty micropascals measured on the

A scale of a sound level meter;

“de-energized” means isolated and grounded;

“energy absorber” means a component of a fall-arresting system that dissipates kinetic energy by creating or extending the deceleration distance;

“energy absorbing lanyard” means the integral assembly of a lanyard and an energy absorber;

“engineer” means a person who

(a) is registered as a member of the Association of Professional Engineers and Geoscientists of New Brunswick as entitled to engage in the practice of engineering,

(b) has received a licence from the Executive Council of the Association of Professional Engineers and Geoscientists of New Brunswick to engage in engineering, or

(c) is practising as a professional engineer in New Brunswick under subsection 10(7) of the *Engineering and Geoscience Professions Act*;

“explosive” means a substance that is made, manufactured or used to produce an explosion or detonation and includes black powder, propellant powders, blasting agents, dynamite, detonating cord, slurry, watergel and detonators;

“fall-arrester” means a mechanical fall-arrest device that is attached to a life line or rail and locks itself immediately in the event of a fall;

“fall-arresting system” means a permanent or temporary assembly of fall-protection components designed to arrest the fall of one or more employees;

“fall-protection system” means a guardrail, a travel restraint system, a fall-arresting system, a fall restricting system, that is either a personal fall restricting system or a collective fall restricting system that was designed to

(a) prevent or eliminate the risk of falling,

(b) restrain an employee who is at risk of falling, or

(c) stop an employee who has fallen;

“fall restricting system” means a combination of a work positioning system and fall restricting equipment;

“felling” means any part of an operation that severs a tree from its stump and brings it to a horizontal position on the ground or a bed;

“firefighter” means an employee who provides fire protection services to the public from a fire department within a local government or local service district, and includes an industrial

firefighter;

"free fall" means the vertical distance between the onset of a fall to the point where the fall-arresting system begins to apply force to arrest the fall;

"full body harness" means a body-holding device that is designed to transfer to an employee's torso and upper legs the forces experienced during and after the arrest of a fall, and that depending on the classification of the device, a full body harness may also be designed for travel restraint, work positioning or suspension in addition to fall-arrest;

"guardrail" means an assembly of components joined together to form a barrier that is designed to prevent an employee from falling off the edge of a surface, but excludes a permanent guardrail system;

"harassment", in a place of employment, means any objectionable or offensive behaviour that is known or ought reasonably to be known to be unwelcome, including bullying or any other conduct, comment or display made on either a one-time or repeated basis that threatens the health or safety of an employee, and includes sexual harassment, but does not include reasonable conduct of an employer in respect of the management and direction of employees at the place of employment;

"hazardous substance" means a substance that may, because of its harmful nature, cause injury or damage to the health or safety of a person exposed to it;

"hoisting apparatus" means mobile cranes, tower cranes, electric overhead travelling cranes, vehicle hoists, winches, and other similar equipment, but does not include elevators, dumbwaiters, or mine hoists;

"horizontal life line" means a rope made of synthetic fibre or wire, a rail or other similar device that is attached horizontally to a minimum of two anchor points, and to which a fall-arresting system or travel restraint system may be attached;

"individual fall-arresting system" Repealed: 2010-159

"industrial firefighter" means an employee who works at an industrial or commercial place of employment and who is designated by ~~his or her~~ their employer to fight fires at that place of employment;

"industrial lift truck" means a self-propelled vehicle used to carry, lift, stack, tier, push or pull material;

"lanyard" means a flexible line used to attach a full body harness or body belt to an energy absorber, a

vertical life line, a horizontal life line or an anchor point;

"life line" means a manila rope with a minimum diameter of 19 mm or a rope or strap of equivalent strength;

"lock out" means to render a machine or electrical equipment inoperative and prevent it from being activated by using a locking device to isolate the energy source from the machine or equipment;

~~"logging operation" means work connected with the harvesting of trees and includes the felling and transportation of trees;~~

"logging operation" means work connected with the harvesting of trees and includes the transportation, felling, delimbing, cutting to length, processing on site and extraction of trees; (*opération de bûcheronnage*)

"manufacturer's rated capacity" means the maximum capacity, speed, load, depth of operation or working pressure recommended in the manufacturer's specifications for the operation of a machine under the circumstances prevailing at the time of operation;

"manufacturer's specifications" means the written instructions or recommendations of a manufacturer of a machine, materials, tools or equipment that outline the manner in which the machine, materials, tools or equipment is to be erected, installed, assembled, started, operated, used, handled, stored, stopped, adjusted, maintained, repaired or dismantled and includes an instruction, operating or maintenance manual and drawings;

"occupational exposure limit" means

(a) except with respect to lead sulfide, formaldehyde, sulphur dioxide, hydrogen sulphide and nitrogen dioxide and any other contaminant for which the Commission sets an exposure limit, a threshold limit value adopted by the ACGIH and set out in the ACGIH publication entitled "2016 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices",

(b) with respect to lead sulfide, an exposure limit set at 0.15mg/m3 TWA,

(c) with respect to formaldehyde, an exposure limit set at 0.5 ppm TWA and 1.5 ppm - STEL,

(d) with respect to sulphur dioxide, an exposure limit set at 2 ppm (5.2mg/m3)– TWA and 5 ppm (13mg/m3) - STEL,

(e) with respect to hydrogen sulphide, a ceiling of 10 ppm (13.9mg/m3),

(f) with respect to nitrogen dioxide, an exposure limit set at 3 ppm (5.6mg/m3)– TWA and 5 ppm 9.4 mg/m3) – STEL, and

(g) with respect to any other air contaminant for which the Commission sets an exposure limit, the exposure limit set by the Commission; (*limite d'exposition professionnelle*)

"owner of a tool" means a person who has purchased, rented or otherwise obtained a tool and has the tool for use at a place of employment;

"personal fall-protection system" means the components of a fall-protection system for which the employee is responsible and includes a full body harness, a body belt, an energy absorbing lanyard, a fall-arrester, a self-retracting device and the connecting hardware;

"portable compressed gas container" means any container having a water capacity of 450 kg or less that contains or is intended to contain a compressed or liquefied gas;

"portable power-operated hand tool" means a tool held with one or both hands and powered by a hydraulic, pneumatic, electrical or chemical energy source;

"powder actuated tool" means a tool that, by means of an 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;

"powderman" Repealed: 93-8

"powered mobile equipment" means self-propelled off-highway equipment used for construction, mining, agriculture, forestry and other purposes and includes front-end loaders, dozers, backhoes, excavators, skidders, forwarders, tree-harvesters, scrapers, compactors, rollers, graders, agricultural tractors and industrial tractors, but does not include industrial lift trucks or mobile cranes;

"pressure" means gauge pressure in kilopascals;

"physical agent" means any noise, ionizing or non-ionizing radiation, temperature, pressure, vibration or electric or magnetic field that may, if exposed in sufficient quantities and duration, result in illness or injury to human health; (*agent physique*)

"SAE" means the Society of Automotive Engineers;

"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 a person, but does not include protective equipment;

"safety monitor" means a competent person designated to monitor weatherproofing activities in a control zone to ensure that work is done in a manner that minimizes the potential for an employee to

fall;

"service stairway" means a stairway used for access for purposes of maintenance and repair and not used as part of a travelway;

"silviculture operation" means the development and care of trees and includes site preparation, planting, thinning and harvesting;

"Short-term exposure limit or STEL" means a STEL as defined in the ACGIH publication entitled "2016 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices"; (*limite d'exposition à court terme ou LECT*)

"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;

"suspended equipment" means any permanently installed or temporary fixed suspended work platform, swing staging, boatswain's chair or other similar device suspended by support lines or other means, designed to carry employees for the purpose of gaining access to exterior and interior building surfaces and other structures;

"swing staging" means a platform supported at the ends by hangers or stirrups and slings and suspended by ropes attached to hooks or thrust-outs which are attached to fixed supports;

~~"threshold limit value" means~~

~~(a) except with respect to lead sulfide and formaldehyde, a threshold limit value adopted by the ACGIH and set out in the ACGIH publication entitled "1997 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices", and~~

~~(b) with respect to lead sulfide, a threshold limit value adopted by the ACGIH for lead sulfide set out in the ACGIH publication entitled "1991-1992 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices", and~~

~~(c) with respect to formaldehyde, the threshold limit value set out in section 23.1;~~

~~"tool" includes a hand tool, a portable power-operated hand tool and a powder actuated tool;~~

"travel restraint system" means an assembly of components designed to prevent an employee from reaching an unguarded edge or an opening;

"Time weighted average or TWA" means TWA as defined in the ACGIH publication entitled "2016 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices"; (*LMPT, Moyenne pondérée dans le temps ou MPT*)

"underground mine" means an underground mine as defined in the *Underground Mine*

Regulation - Occupational Health and Safety Act;

"vertical life line" means a flexible line or rope made of synthetic fibre or wire or a rail attached to an anchor point to which a fall-arrester is attached;

"violence", in a place of employment, means the attempted or actual use of physical force against an employee, or any threatening statement or behaviour that gives an employee reasonable cause to believe that physical force will be used against the employee, and includes sexual violence, intimate partner violence and domestic violence;

"warning line" means a supported raised line marking the edge of a control zone;

"weatherproofing" means the application of tar, asphalt, gravel, insulation, shingles or membrane material to a roof but does not include the installation of decking material or the stripping of materials from the roof;

"work platform" Repealed: 2001-33

"work positioning system" means a system designed to provide a means of support for an employee at a desired height that allows an employee to have ~~his or her~~ their hands free to perform a task;

"zero energy state" means, with respect to a machine, a state in which all

(a) power sources,

(b) pressurized fluids and air,

(c) potential mechanical energy,

(d) accumulators and air surge tanks,

(e) kinetic energy of machine members,

(f) loose or freely moveable machine members, and

(g) moveable material or work pieces that are supported, retained or controlled by a machine and that could move or cause the machine to move,

are acted upon to render the machine incapable of spontaneous or unexpected action by being locked out, isolated, blocked, supported, retained, controlled, drained to tank, vented to the atmosphere, reduced to atmospheric pressure or otherwise released of potential energy.

93-8; 96-106; 97-121; 2001-33; 2005-80; 2010-159; 2017, c.20, s.122; 2018-82; 2020-35

Inconsistency

3 In the event of an inconsistency between any standard incorporated by reference in this Regulation and any other provision of this Regulation, that other provision shall prevail to the extent of the inconsistency.

Exemptions for ferry, train or vehicle

3.1 The following provisions do not apply to a place of employment that is a ferry, a train or a vehicle used or likely to be used by an employee:

(a) the definition “blasting operation”;

(b) subsections 5(1), (2) and (3);

(c) subsection 10(2);

(d) subsections 12(1), (2), (3) and (4);

(e) subsection 13(1);

(f) subsection 19(1);

(g) subsection 20(1). 2004-70

Part II

SANITATION AND ACCOMMODATION

Drinking Water

Drinking water

4(1) An employer shall ensure that sufficient potable water for drinking is readily available and that it meets the standards set out in the “Guidelines for Canadian Drinking Water Quality”, Sixth Edition, published by authority of the Minister of National Health and Welfare, 1996.

4(2) Where drinking water is not taken directly from a water pipe, an employer shall ensure that it is kept in an adequately covered container and that, if used by more than one employee, the container is equipped with a drain faucet.

4(3) An employer shall ensure that individual sanitary drinking vessels or cups are provided, except where the drinking water is delivered in an upward jet from which an employee may drink.

4(4) Where outlets exist for both drinking water and water not suitable for drinking, an employer shall ensure that the outlets are appropriately and clearly labelled.

2001-33

Toilets

Toilets

5(1) An employer shall provide a minimum number of toilets for each sex determined according to the maximum number of employees of each sex who are normally employed at any one time at the same place of employment as follows:

(a) where the number of such employees does not exceed nine, one toilet;

(b) where the number of such employees exceeds nine but does not exceed twenty-four, two toilets;

(c) where the number of such employees exceeds twenty-four but does not exceed forty-nine, three toilets;

(d) where the number of such employees exceeds forty-nine but does not exceed seventy-four, four toilets;

(e) where the number of such employees exceeds seventy-four but does not exceed one hundred, five toilets; and

(f) where the number of such employees exceeds one hundred, five toilets and one toilet for every thirty such employees in excess of one hundred.

5(2) Where the total number of employees normally employed by an employer in the place of employment at any one time does not exceed nine, the employer may provide only one toilet for both male and female employees if the toilet is situated in a room whose entrance door is fitted on the inside with a locking device.

5(3) Notwithstanding subsection (1), in an underground mine an employer shall provide a minimum number of toilets for each sex determined according to the maximum number of employees of each sex who are normally employed at any one time at the same place of employment as follows:

(a) where the number of such employees does not exceed twenty-five, one toilet;

(b) where the number of such employees exceeds twenty-five but does not exceed fifty, two toilets;

(c) where the number of such employees exceeds fifty but does not exceed seventy-five, three toilets;

(d) where the number of such employees exceeds seventy-five but does not exceed one hundred, four toilets; and

(e) where the number of such employees exceeds one hundred, four toilets and one toilet for every thirty such employees in excess of one hundred.

5(4) Where more than two toilets are required for male employees, an employer may substitute urinals for up to two-thirds of the required number of toilets.

5(5) Where running water and sewage facilities are available, toilets shall be of the water flush type and may be of the chemical, self-contained portable or other similar type if no running water is available.

5(6) As soon as work has started on a project site, the principal contractor or, if there is no principal contractor, the owner shall provide toilets in accordance with subsection (1).

5(7) An employer shall ensure that a toilet facility is

(a) within easy access of an employee's work ~~site,~~ area,

(b) enclosed so that an employee is sheltered from view and protected from the natural elements,

(c) adequately ventilated and illuminated,

(d) where possible, heated,

(e) kept in a clean and sanitary condition,

(f) provided with a sufficient supply of toilet paper and hygiene supplies,

(g) provided with a covered waste receptacle,

(h) maintained in working condition, and

(i) in the case of a self-contained unit, is emptied and serviced at intervals which ensure that the unit does not overflow.

97-121

Washrooms

Washrooms

6(1) An employer shall provide a wash basin or equivalent hand cleaning facility in a room with one toilet and sufficient additional wash basins or equivalent hand cleaning facilities in the room for additional toilets or urinals.

6(2) Where an outdoor privy is provided, an employer shall provide a hand cleaning facility as close to the outdoor privy as is practicable and sufficient additional hand cleaning facilities as close as practicable to additional outdoor privies.

6(3) Where a wash basin is provided, an employer shall provide

(a) hot and cold water,

(b) liquid or powder soap or other appropriate cleansers, and

(c) sufficient sanitary hand drying facilities.

Eating Areas

Eating areas

7(1) Where the possibility of contamination of food exists if there is no eating area separate from a work area, an employer shall provide an eating area for employees separate from that work area.

7(2) An employer shall ensure that the eating area referred to in subsection (1)

(a) is kept in a sanitary condition, and

(b) is adequately provided with

(i) light, heat and ventilation,

(ii) hand cleansing and drying facilities,

(iii) tables and seating sufficient for the number of employees who use the eating area at any one time, and

(iv) garbage receptacles.

7(3) An employer shall ensure that an employee does not convey food or drink into an area where a process is being carried out which may contaminate the food or drink.

7(4) An employee shall not convey food or drink into a area where a process is being carried out which may contaminate the food or drink.

Food and Rest Periods

Food and rest periods

8 An employer shall allow an employee at least one-half hour for food and rest after each five consecutive hours of work.

Work Clothes

Work clothes

9(1) If the nature of an employee's work makes it necessary for the employee to change from street clothes to work clothes to protect the employee's health or safety, an employer shall provide

(a) storage for the employee's street clothes and work clothes that will prevent the clothes from becoming wet or dirty, and

(b) a changing room.

9(2) Where an employee's work clothes are liable to be contaminated by a toxic, noxious, infectious or irritating substance so that the health of the employee or other persons may be adversely affected by exposure to the clothes when contaminated, an employer shall

(a) provide work clothes for the employee's use,

(b) provide storage for the employee's street clothes and work clothes that will prevent the street clothes from becoming contaminated,

(c) provide a changing room, and

(d) ensure that the work clothes are cleaned as necessary.

97-121

Showers

Showers

10(1) Where an employee may be exposed to a toxic, noxious, infectious or irritating substance or may be exposed to high levels of heat or humidity so that the health of the employee may be adversely affected, an employer shall provide a shower facility.

10(2) An employer shall provide a shower facility referred to in subsection (1) as follows:

(a) a number of showers for each sex determined according to the maximum number of employees of each sex who are normally employed at the same place of employment and who are exposed as described in subsection (1) at any one time as follows:

(i) where the number of employees does not exceed ten, one shower, and

(ii) an additional shower for each unit of ten additional employees of each sex;

(b) sufficient water supply which can be manually adjusted to come within a range of 35 °C and 45 °C; and

(c) soap and towels.

Emergency Eyewash and Shower

2001-33

Emergency eyewash and shower

11(1) Where an employee's skin or eyes may be exposed to contamination from materials at a place of employment, an employer shall provide emergency showers or eyewash fountains in the area where the contamination may occur.

11(2) An employer shall ensure that an emergency shower or eyewash fountain provided under subsection (1) complies with the requirements of ANSI standard ANSI Z358.1-1990, "American National Standard for Emergency Eyewash and Shower Equipment".

2001-33

First Aid

Repealed: 2004-130

2004-130

Repealed

12 Repealed: 2004-130

97-121; 2004-130

Repealed

13 Repealed: 2004-130

2004-130

Occupational Health Service

Occupational health service

14(1) Where an occupational health service is required under section 45 of the Act, the occupational health service shall be established and maintained so as to

(a) provide leadership, support and medical and technical services in all areas relating to health in the place of employment,

(b) provide ongoing health assessments and health supervision of each employee,

(c) establish appropriate records, standards, procedures, policies and reporting systems to identify and prevent health and safety hazards in the place of employment,

(d) promote prevention of occupational disease and injury through health education, health counselling and environmental assessment programs,

(e) be able to provide an emergency response to injuries and potential disasters in the place of employment, and

(f) enhance or maintain the health of employees through appropriate follow-up care, rehabilitation services or referrals to community based services.

14(2) An employer shall ensure that an occupational health service is managed by a competent person.

General

Place of employment to be kept clean and in good repair

15 An employer shall ensure that a place of employment is kept in a clean and sanitary condition and in a good state of repair so as not to affect adversely the health and safety of an employee.

Storage of items not to create hazard

16 An employer shall ensure that materials, machines or equipment are not stored or located in a place of employment so as to create a hazard to an employee.

Refuse containers

17 An employer shall ensure that containers used for refuse are emptied at frequent intervals and constructed to withstand the intended use.

PART III

~~AIR QUALITY~~ INDOOR AIR QUALITY

Application

18(1) Sections 19, 20, 21, 24, 24.1 and 25 do not apply to an underground mine.

18(2) Sections 19, 20, 24, 24.1, 25 and 25.2 do not apply to a confined space under Part XVII.

18(3) Sections 19, 20, 24, 24.1 and 25.2 and paragraph 22(a) do not apply where a firefighter is engaged in structural fire-fighting.

96-106; 97-121; 2001-33; 2010-129

Air space requirement per employee

19(1) ~~An employer shall ensure that an area where an employee works contains at least 8.5 m³ of air space for each employee in that area.~~ An employer shall ensue that a work area contains at least 8.5 m3 of air space for each employee who works in that work area.

19(2) When calculating the air space requirement under subsection (1), height above 3 m shall be excluded from the calculation.

Ventilation

Ventilation

20(1) ~~An employer shall ensure that a place of employment is adequately ventilated by~~

~~(a) natural ventilation which introduces outside air provided by openings having a combined area equal to at least 5% of the floor area, or~~

~~(b) mechanical ventilation conforming to ASHRAE standard 62-1989, "Ventilation for Acceptable Indoor Air Quality".~~

20(1) An employer shall ensure that a place of employment is adequately ventilated by

(a) if the place of employment is a health care facility, mechanical ventilation conforming to CSA standard Z317.2-10, "Special requirements for heating, ventilation and air-conditioning (HVAC) systems in health care facilities" (Reaffirmed 2015) or a standard offering equivalent or better protection, and

(b) if the place of employment is not a health care facility and

(i) mechanical ventilation is practical, mechanical ventilation conforming to ANSI/ASHRAE standard 62.1-2010 "Ventilation for Acceptable Indoor Air Quality" or a standard offering equivalent or better protection, and

(ii) mechanical ventilation is not practical, natural ventilation as long as the concentration of air contaminants, ambient temperature and relative humidity do not exceed levels ~~that will affect the health or safety of employees.~~ Stipulated in ANSI/ASHRAE standard 62.1-2010 "Ventilation for Acceptable Indoor Air Quality" or a standard offering equivalent or better protection.

20(2) ~~Where mechanical ventilation is used and the ASHRAE standard referred to in subsection (1) does not specify supply rates of acceptable outside air required, an employer shall ensure that the minimum amount of outside air introduced shall be 8 litres/second/person.~~

20(3) An employer shall ensure that a ventilation system prevents the return of exhausted air through the outside air intake.

20(4) An employer shall ensure that exhausted air is replaced by air that

(a) does not constitute a hazard to the health of employees,

(b) does not contain air contaminants in concentrations that exceed 10% of the ~~threshold limit values,~~ occupational exposure limits,

(c) is heated, when necessary, to maintain the minimum temperature specified in section 21, and

(d) is properly distributed so as not to cause undue drafts or disturbance of conditions.

Temperature

Temperature

21(1) Subject to subsection (2), an employer shall ensure that the temperature of ~~an area where an employee works~~ a work area in an enclosed place of employment is maintained as follows:

(a) where light work is performed while sitting, such as any mental work, precision work, reading or writing, the minimum temperature required is 20 °C;

(b) where light physical work is performed while sitting, such as electric machine sewing or work with small machine tools, the minimum temperature required is 18 °C;

(c) where light or moderate physical work is performed while standing, such as machine tool work, assembly work or trimming, the minimum temperature required is 16 °C; and

(d) where heavy physical work is performed while standing, such as drilling or manual work with heavy tools, the minimum temperature required is 12 °C.

21(2) ~~Where it is impractical to heat an area where an employee works~~ If is not practical to heat a work area to the temperature required by subsection (1), an employer shall provide a suitable place where the employee may go to get warmed.

Extremes of Temperature

Extremes of temperature

22 Where an employee is exposed to work conditions that may present a hazard because of extreme heat or extreme cold, an employer shall ensure that

(a) a competent person measures and records the thermal conditions at frequent intervals and makes the findings available to a committee, if any, and to an officer on request, and

(b) ~~the threshold limit values for protection against heat stress and cold stress are followed as well as the work-rest regimen for heat and the work-warming regimen for cold and other advice found from pages 125 to 140 of the ACGIH publication "1997 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices".~~

(b) the occupational exposure limits for protection against heat stress and cold stress are followed as well as the work-rest regimen for heat, the work-warming regimen for cold and other advice found in the ACGIH publication entitled "2016 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices".

Extremes of temperature

23(1) Where an employee is exposed to work conditions that may present a hazard because of excessive heat, an employer shall ensure that a competent person instructs the employee in the significance of symptoms of heat stress such as heat exhaustion, dehydration, heat cramps, prickly heat and heat stroke and in the precautions to be taken to avoid injury from heat stress.

23(2) Where an employee is exposed to work conditions that may present a hazard because of excessive cold, an employer shall ensure that a competent person instructs the employee in the significance of symptoms of cold stress such as severe shivering, pain in the extremities of the body and reduced mental awareness and in the precautions to be taken to avoid injury from cold stress.

~~Threshold Limit Values for~~

~~Formaldehyde and Lead Sulfide~~

2001-33

~~Threshold limit value for formaldehyde~~

23.1 ~~The threshold limit value for formaldehyde, as adopted by the ACGIH and set out in the ACGIH publication entitled "1997 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" shall be deemed to be and shall be read as follows:~~

~~(a) formaldehyde - 0.5ppm TWA and 1.5 ppm STEL.~~

2001-33

~~Air Contaminants~~ Air Contaminants and Industrial Ventilation

Air contaminants – level of concentration

24(1) ~~An employer shall ensure that an air contaminant is kept at a level of concentration that does not constitute a hazard to the health or safety of an employee exposed to it and, where a threshold limit value exists in respect of an air contaminant, that the exposure of the employee to the air contaminant at no time exceeds the threshold limit value.~~

24(1) An employer shall ensure that an air contaminant is kept at a level of concentration that does not constitute a hazard to the health or safety of an employee exposed to it and, if an occupational exposure limit exists in respect of an air contaminant, that the exposure of the employee to the air contaminant at no time exceeds the occupational exposure limit

24(2) Where the installation of engineering controls is practical, an employer shall install and use appropriate engineering controls to comply with subsection (1).

24(2.1) An employer shall ensure that the engineering controls referred to in subsection (2) are designed, installed and maintained in accordance with good engineering practices.

24(2.11) An employer shall provide a respirator to an employee and the employee shall wear the respirator in the following circumstances:

(a) the installation of engineering controls is not practical; or

(b) engineering controls are in the process of being installed.

24(2.2) An employer shall ensure that if ventilation is used as an engineering control, an air contaminant shall be controlled at the source by an effective local exhaust ventilation system.

24(2.21) If local exhaust ventilation is not practical, an employer shall ensure that general ventilation or a combination of general and local exhaust ventilation is used.

24(2.3) An employer shall ensure that a local exhaust ventilation system is designed so that under normal work conditions an employee's breathing zone is not located between the source of contamination and the exhaust uptake.

24(2.31) An employer shall ensure that a ventilation system is not obstructed by material or equipment ~~is not~~ placed in front of the ventilation openings.

24(2.4) An employer shall ensure that an exhaust ventilation system used to control air contaminants in the work area remains in operation until the operation or work process is completed and the air contaminants generated are kept at a level of concentration that does not constitute a hazard to the health or safety of employees.

24(2.41) An employer shall ensure that an exhaust ventilation system used to control air contaminants in the work area is regularly inspected and monitored to ensure that the system remains effective.

24(2.5) If failure of an exhaust ventilation system could result in a hazard that is not readily apparent to affected employees, an employer shall ensure that the system is equipped with a device or other means

to warn employees in the event of system failure

24(2.51) An employer shall ensure that an adequate supply of makeup air is provided to an exhaust ventilation system

(a) to maintain the effectiveness of the system, and

(b) to prevent an air contaminant from being drawn into the work area from another area.

24(2.6) An employer shall ensure that a ventilation system that discharges air from a work area shall comply with the requirements set out in subsections 20(3) and (4).

24(2.61) If an operation or work process produces a combustible or flammable air contaminant in concentrations that may present a risk of fire or explosion, the employer shall provide a separate exhaust ventilation system for the operation or work process

24(2.7) An employer shall ensure that the electrical components of an exhaust ventilation system comply with the requirements of CSA Standard, C22.1-~~21~~18 "Canadian Electrical Code, Part 1", as amended from time to time, if the components contact with the air flow of the exhaust ventilation system.

24(2.71) On or after April 1, 2024 an employer shall ensure that a dust collector that has an internal volume greater than 0.6 m3 and is used to control combustible dusts is located and constructed so that no employee will be endangered in the event of an explosion inside the collector.

24(2.8) When it is reasonably expected to present a danger to employees, an employer shall ensure that exhaust from any internal combustion engine operated in an enclosed place of employment is vented to the outdoors.

24(2.81) When powered mobile equipment, industrial lift trucks or other equipment powered by internal combustion engines are operated in an enclosed place of employment, an employer shall ensure that

(a) the engine is adequately serviced and maintained to minimize the concentration of air contaminants in the exhaust, and

(b) the place of employment is assessed to determine the potential for exposure of employees to harmful concentration levels of air contaminants in the exhaust.

24(2.9) An employer shall ensure that any powered mobile equipment, industrial lift truck or other equipment powered by internal combustion engines that is manufactured after April 1, 2024, and is regularly operated in an enclosed place of employment is

(a) equipped with an emission control system that includes feedback control for air/fuel ratio and a three-way catalytic converter, or other equivalent measures, if the powered mobile equipment, industrial lift truck or other equipment is powered by gasoline, propane, or natural gas, or

(b) equipped with a scrubber or other emission control system that reduces particulate emissions by at least 70% when tested in accordance with the procedures established by the Mine Safety and Health Administration, US Department of Labour, or a standard offering equivalent or better protection, if the powered mobile equipment, industrial lift truck or other equipment is powered by diesel fuel.

~~**24**(3) Where practical, an employer shall ensure that air contaminants are removed at their source.~~

24(4) Where an employer or an employee has reason to believe that the level of concentration of an air contaminant may be approaching 50% of the ~~threshold limit value~~ occupational exposure limit, the employer shall ensure that the air is tested to determine the level of concentration of the air contaminant.

Exposure to air contaminant other than in standard work week

24.1(1) Where the exposure of an employee to an air contaminant occurs other than during the course of an eight hour work day and forty hour work week, an employer shall use the Brief and Scala model as referenced ~~on page 10 of the ACGIH publication "1997 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" to adjust the threshold limit values.~~ in the ACGIH publication "2016 Threshold Limit Values for Chemical Substances and Physical Agents and Biological Exposure Indices" to adjust the occupational exposure limit.

24.1(2) An employer shall ensure that the exposure of an employee to an air contaminant at no time exceeds the adjusted ~~threshold limit values~~ occupational exposure limits if the exposure of an employee to an air contaminant occurs other than during the course of an eight hour work day and forty hour work week.

24.1(3) An employer shall ensure that there is appropriate medical surveillance of employees exposed to the air contaminants for at least twelve months after the ~~threshold limit values~~ occupational exposure limits for the air contaminants have been adjusted according to the Brief and Scala method.

2001-33

Respiratory protective equipment - when required

25 Where

(a) the level of concentration of an air contaminant may exceed 50% of the ~~threshold limit value~~ occupational exposure limits in conditions that are part of the normal work procedure,

(b) there is the possibility of accidental exposure to a level of concentration of an air contaminant in excess of the ~~threshold limit value~~ occupational exposure limit, or

(c) the oxygen content of the atmosphere is less than or may be less than 19.5% by volume,

an employer shall provide adequate respiratory protective equipment to each employee who may be exposed to the conditions described in paragraphs (*a*) to (*c*).

Diamond drilling on surface and methane

25.1 Where diamond drilling occurs on the surface and there is a possibility of encountering methane, sections 55 to 60 of the *Underground Mine Regulation - Occupational Health and Safety Act* apply with the necessary modifications.

96-106

2001-33

Dust

Hazard from dust

25.2 ~~Where work is carried out in an area where dust may create a hazard to the health of employees, an employer shall take such measures with respect to the dust as are sufficient to protect employees from the risk of damage to health~~.
If work is carried out in a work area where dust may create a hazard to the health or safety of employees, an employer shall ensure that the dust level is controlled so as not to endanger the health or safety of employees.

PART III.1

CODE OF PRACTICE FOR ASBESTOS

Definition of "asbestos"

25.3 In this Part, "asbestos" means any of the following fibrous silicates:

(a) chrysotile;
(b) amosite;
(c) crocidolite;
(d) actinolite;
(e) anthophyllite; and
(f) tremolite.

Code of practice

25.4(1) An owner of a place of employment, an employer and a contractor shall each adopt, for the employees who work with, in proximity to or disturb material containing asbestos, the code of practice entitled "A Code of Practice for Working with Materials Containing Asbestos in New Brunswick" prepared by and amended from time to time by the Commission.

25.4(2) An owner of a place of employment, an employer and a contractor shall each follow the code of practice referred to in subsection (1) and shall ensure that employees follow the code of practice.

Code of practice – employee

25.5 An employee to whom the code of practice referred to in section 25.4(1) applies shall follow the code of practice.

PART IV

ILLUMINATION

Amount and standards

26(1) An employer shall provide lighting sufficient for the type of work being done considering

(a) the quantity of illumination, and

(b) the quality of illumination, including reflectances, direct glare and reflected glare.

26(2) An employer shall use one of the following ANSI standards, where applicable, 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, “Guide for Educational Facilities Lighting”; or

(c) ANSI/IESNA RP-1-1992, “American National Standard Practice for Office Lighting”.

26(3) This section does not apply where a firefighter is engaged in structural fire-fighting.

97-121; 2001-33

Failure of lighting system

27(1) Where failure of the normal lighting system may constitute a danger to an employee’s health or safety, an employer shall ensure that emergency lighting is available that

(a) is independent of the normal lighting source, and

(b) provides a minimum of 50 lux of lighting so as to enable an employee to leave the place of employment safely.

27(2) An employer shall ensure that the emergency lighting referred to in subsection (1) is frequently tested to ensure that it will function in an emergency.

27(3) This section does not apply where a firefighter is engaged in structural fire-fighting.

97-121

Lighting in underground mine

28(1) Notwithstanding sections 26 and 27, in an underground mine an employer shall ensure that adequate illumination by means of stationary lighting is provided

(a) at an active shaft station and conveyance landing,

(b) at any opening or hole that may constitute a hazard to an employee if it is not illuminated, and

(c) in refuge stations.

28(2) Where the failure of the stationary lighting in an underground mine may constitute a danger to an employee's health or safety, an employer shall ensure that adequate alternative lighting sufficient to prevent any such danger is provided and maintained.

PART V

NOISE AND VIBRATION

Measurement of noise level

29(1) Where an employer or an employee has reason to suspect that the noise level in ~~an area where employees work~~ a work area may exceed 80 dBA, an employer shall ensure that

(a) the noise level is measured by a competent person using a sound level meter that conforms as a minimum to the requirements of ANSI standard S1.4-1983, "American National Standard Specification for Sound Level Meters", for a Type 2 sound level meter that is set to use the A-weighted network with slow meter response, and

(b) the amount of time that an employee spends in ~~an area~~ a work area where the noise level exceeds 80 dBA is measured.

29(2) An employer shall ensure that the information obtained under subsection (1) is documented and made available to a ~~joint health and safety~~ committee or health and safety representative, if any, and to an officer on request.

29(3) Where there is reason to suspect that substantial changes in noise levels documented under subsection (1) have occurred, an employer shall ensure that the noise level and employee exposure is re-measured and documented in accordance with the requirements of subsection (1).

Maximum exposure of employee to noise

30(1) An employer shall ensure that the exposure of an employee to noise is kept as low as is practical and does not exceed the following exposures:

Sound level dBA	Duration per day Hours
80	24
82	16
85	8
88	4
91	2
94	1
97	½
100	¼

30(2) An employer shall ensure that when the daily noise exposure is composed of periods of noise exposure at substantially different levels, their combined effect is considered, rather than the individual effect of each, according to the following formula:

If the sum of the following fractions:

$$\frac{C_1}{T_1} + \frac{C_2}{T_2} + \cdots \frac{C_n}{T_n}$$

exceeds unity, then the mixed exposure is considered to exceed the relevant exposure prescribed in subsection (1). C^1 indicates the total duration of exposure at a specific noise level, and T^1 indicates the total duration of exposure permitted at that level. All job noise exposures of 80 dBA or greater shall be used in the above calculations.

30(3) An employer shall ensure that no employee is exposed to continuous, intermittent or impact noise in excess of a peak C-weighted level of 140 dB, using a Type 2 sound level meter that is set to use the A-weighted network with slow meter response.

2001-33

Engineering controls for noise

31 Where the installation of engineering controls is practical, an employer shall install and use appropriate engineering controls to comply with section 30.

Hearing protective equipment

32 Where necessary, an employer shall provide, and an employee shall use, adequate hearing protective equipment so that the exposure of an employee to noise is kept within the limits prescribed by section 30.

Noise level in excess of 85 dBA

33 Where the noise level exceeds 85 dBA in an area, an employer shall ensure that the area is clearly marked by a sign that indicates the range of the noise levels measured and warns of the noise hazard.

Exception for firefighters

33.1(1) Except for a firefighter operating a structural fire-fighting apparatus, this Part does not apply where a firefighter is engaged in structural fire-fighting.

33.1(2) In this section, "structural fire-fighting apparatus" includes pumper units, foam apparatus, aerial ladders, aerial devices and other similar apparatus.

97-121; 2010-159

Vibration

2001-33

Exposure of employee to vibration

33.2 An employer shall ensure that the exposure of an employee to hand-arm vibration is kept as low as is practical and does not exceed the following exposures:

Exposure of the Hand to Vibration in either Up and Down, Sideways or Forward and Back Directions

Total daily exposure duration*	Values of the dominant**, frequency-weighted, root mean square, component acceleration which shall not be exceeded	
	m/s^2	g***
4 hours and less than 8 hours	4	0.40
2 hours and less than 4 hours	6	0.61
1 hour and less than 2 hours	8	0.81
less than one hour	12	1.22

* The total time vibration enters the hand per day, whether continuously or intermittently
** Usually one axis of vibration is dominant over the two remaining axes. If one or more vibration axis exceeds the total daily exposure, then the exposure limit has been exceeded.
*** 1 g = 9.81 m/s^2

2001-33

PART VI

NON-IONIZING RADIATION

Laser Radiation

Laser radiation

34 An employer shall ensure that laser beams are operated and used in accordance with ANSI standard ANSI Z136.1-1993, “American National Standard for Safe Use of Lasers”.

2001-33

Infra-red Radiation

Infra-red radiation

35(1) An employer shall ensure that all sources of intense infra-red radiation are shielded as near the source as possible by heat absorbing screens, water screens or other suitable devices.

35(2) An employer shall ensure that employees are provided with and wear properly fitting goggles, face shields or other adequate eye protective equipment when entering an area where they may be subjected to infra-red radiation liable to injure or irritate the eyes.

35(3) An employee shall wear the eye protective equipment referred to in subsection (2) when entering an area where the employee may be subjected to infra-red radiation liable to injure or irritate the eyes.

Ultraviolet Radiation

Ultraviolet radiation

36 Where emissions of ultraviolet radiation are in the spectral region between 180 nm and 400 nm, an employer shall ensure that

(a) access to areas where equipment emits ultraviolet radiation is limited to those persons directly concerned with its use,

(b) users of such equipment are trained in the hazards and need for precautions,

(c) warning signs or devices are used to indicate the presence of ultraviolet radiation hazard,

(d) protective cabinets or screens are placed around the source of emission, with observation ports made of suitable absorbent materials such as certain grades of acrylics, polyvinyl chloride or window glass,

(e) protective clothing is used by an employee as required,

(f) eye protective equipment such as ultraviolet absorbing goggles, spectacles or face shields are used by an employee whenever there is a potential eye hazard, and

(g) exposure of an employee to ultraviolet radiation does not exceed the ~~threshold limit value~~.occupational exposure limit

97-121; 2001-33

Radiofrequency Radiation

Radiofrequency radiation

37(1) An employer shall ensure that the installation and use of a radiation emitting device in the frequency range 10 kHz to 300 GHz conforms to the requirements of “Limits of Exposure to Radiofrequency Fields at Frequencies from 10 kHz-300 GHz, Safety Code 6”, issued by the Environmental Health Directorate, Health Protection Branch and published by authority of the Minister of National Health and Welfare.

37(2) An employer shall ensure that the exposure of an employee or other person to radiofrequency radiation at frequencies from 10 kHz to 300 GHz does not exceed the limits set out in the safety code referred to in subsection (1).

PART VII

PROTECTIVE EQUIPMENT

General

Duty to supply, train and use

38(1) Where protective equipment is required to be used by an employee under this Regulation, an employer shall provide the protective equipment required and shall ensure that the employee is instructed and trained in the proper use and care of the protective equipment.

38(2) Where protective equipment is required to be used by an employee under this Regulation, an employee shall

(a) use the equipment that is required in accordance with the instruction and training received,

(b) test or visually inspect the equipment before each use as appropriate to the type of equipment to be used,

(c) report any defective equipment to the employer and not use the equipment, and

(d) care for the equipment properly while using it.

Eye, face, ears or neck protection

39 Where an employee is exposed to a hazard that may irritate or injure the eyes, face, ears or front of the neck, the employee shall use protective equipment that is appropriate to the hazard and that conforms to CSA standard CSA Z94.3-15, "Eye and face protectors" ~~or a standard offering equivalent protection.~~or a standard offering equivalent or better protection

2001-33; 2020-35

Head protection

40(1) On a project site, an employee shall use Class E, Type 1 headwear that conforms to CSA standard CSA Z94.1-15, "Industrial protective headwear – Performance, selection, care, and use" or a standard offering equivalent or better protection.

40(2) At a place of employment, other than a project site, where an employee is exposed to a hazard that may injure the employee's head, the employee shall use protective equipment that is appropriate to the hazard and that conforms to CSA standard CSA Z94.1-15, "Industrial protective headwear – Performance, selection, care, and use" or a standard offering equivalent or better protection.

2001-33; 2020-35

Foot protection

41(1) On a project site, an employee shall use Grade 1 footwear with sole protection that conforms to CSA standard CSA Z195:14 (reaffirmed 2019), "Protective Footwear" or a standard offering equivalent protection.

41(2) At a place of employment, other than a project site, where an employee is exposed to a hazard that may injure the employee's foot, the employee shall use protective equipment that is appropriate to the hazard and that conforms to CSA standard CSA Z195:14 (reaffirmed 2019), "Protective Footwear" or a standard offering equivalent protection.

2001-33; 2020-35

Protection for skin

42 Where an employee is exposed to a hazard that may injure the skin, the employee shall use, as necessary,

(a) adequate protective gloves,

(b) adequate protective boots or wooden clogs,

(c) adequate body covering,

(d) adequate eye protection,

(e) a barrier cream or oil to prevent irritation to exposed parts of the body, or

(f) other protective equipment sufficient to provide protection from the hazard.

Protection for hands

43(1) Subject to subsection (2), where an employee is handling objects that may injure the hands, the employee shall use adequate protective gloves or other protective equipment.

43(2) Where an employee is handling wire rope in a logging operation, the employee shall wear adequate double-palmed leather mitts or gloves.

97-121

Protective clothing – extreme temperatures

44 Where an employee is exposed to a hazard from extreme heat or extreme cold, the employee shall use adequate protective clothing.

Respiratory Protective Equipment

Respiratory protective equipment

45(1) Where an employer is required to provide respiratory protective equipment, the employer shall establish a written code of practice covering the proper selection, care, use, maintenance and fitting of the equipment that may be required to be used at that place of employment.

45(2) An employer shall comply with CSA standard Z94.4-93, “Selection, Use, and Care of Respirators” in developing a code of practice.

45(3) An employer shall ensure that the code of practice referred to in subsection (1) is, when followed, sufficient to provide for the health and safety of employees at the place of employment.

45(4) An employer shall consult with the joint health and safety committee or health and safety representative, if any, or with employees if there is no committee or representative, in developing the code of practice.

45(5) An employer shall ensure that a copy of the code of practice is readily available to an officer upon request and to employees in the areas where the respiratory protective equipment may be required to be used.

45(6) An employer shall ensure that the code of practice referred to in subsection (1) is implemented and adhered to at the place of employment.

45(7) An employee shall adhere to a code of practice referred to in subsection (1).

2001-33; 2020-35

Training program for respiratory protective equipment

46(1) An employer shall implement a training program for an employee who may have to use, issue, test or maintain respiratory protective equipment or supervise an employee who may have to use respiratory protective equipment.

46(2) An employer shall use clause 8 of CSA standard Z94.4-93, “Selection, Use, and Care of Respirators” as a guide to the necessary content of the training program required by subsection (1).

2001-33; 2020-35

Effective facial seal when using equipment

47 An employee who may be required to use respiratory protective equipment shall co-operate in attaining an effective fit of the equipment and, in particular, be as clean shaven as is necessary to ensure an effective facial seal.

Hearing Protective Equipment

Hearing protective equipment

48(1) An employer shall ensure that hearing protective equipment conforms to CSA standard CSA Z94.2-14, “Hearing protection devices – Performance, selection, care, and use” or a standard offering equivalent protection.

48(2) An employer shall consult with a joint health and safety committee or health and safety representative, if any, or with employees if there is no committee or representative, concerning the selection of the types of hearing protective equipment to be used by employees.

48(3) Where hearing protective equipment is required, an employer and an employee who uses the equipment shall each ensure that the equipment is kept in a sanitary condition. **2001-33; 2020-35**

Fall-protection system

2010-159

Fall-protection system

49(1) The employer shall provide and the employee shall continually use a fall-protection system when an employee works from

(a) an unguarded work area that is

(i) 3 m or more above water or the nearest permanent safe level,

(ii) above any surface or object that could cause injury to the employee upon contact, or

(iii) above any open top tank, bin, hopper or vat,

(b) a work area that is 3 m or more above a permanent safe level and from which a person may fall if the work area tips or fails, or

(c) a work area where an officer has determined that it is necessary for safety reasons to use a fall-protection system.

49(2) If an employee is required to work from a communication or power transmission tower or other similar structure 3 m or more above a permanent safe level, the employer shall provide and the employee shall continually use a fall-protection system when at rest and at the working level.

49(3) If an employee referred to in subsection (2) is ascending or descending a communication or power transmission tower or other similar structure, the employer shall provide and the employee shall continually use a fall-arresting system.

49(4) If an employee is required to work from a wood pole or other similar wood pole structure 3 m or more above a permanent safe level, the employer shall provide and the employee shall continually use

(a) a fall-arresting system when the employee is ascending, descending or at rest, and

(b) a work positioning system in addition to the fall-arresting system when the employee is performing work at the working level.

49(5) If it is ~~impracticable~~ not practical to use a fall-arresting system and a work positioning system, the employer shall provide and the employee referred to in subsection (4) shall continually use a fall restricting system when ascending or descending and to secure themselves to the wood pole when at rest or at the working level.

49(6) This section does not apply to the following situations:

(a) if the employee will at all times remain further than 3 m from the unguarded edge of a surface with a slope of 3 in 12 or less;

(b) where a firefighter is engaged in structural fire-fighting;

(c) ~~where~~ if an employee is engaged in the installation, maintenance or removal of a fall-protection system and another form of fall-protection is ~~impractical~~ not practical, provided the employee has been fully instructed in work procedures and hazards and in how to protect ~~himself or herself~~ themselves from falling; or

(d) if it is ~~impractical~~ not practical to use a fall-protection system where an employee is engaged in the weatherproofing of a roof that has a total area of less than 23 m2 or of a roof of a canopy or walkway that have slopes of 3 in 12 or less, provided the employee has been fully instructed in work procedures and hazards and in how to ~~protect himself or herself~~ protect themselves from falling.

97-121; 2010-159

Applicable standards

49.1(1) An owner of a place of employment, an employer and a contractor shall each ensure that the components of a fall-protection system

(a) are designed in accordance with good engineering practices,

(b) are erected, installed, assembled, used, handled, stored, adjusted, maintained, repaired and dismantled in accordance with the manufacturer's specifications, and

(c) meet the requirements of the applicable standards.

49.1(2) For the purposes of paragraph (1)(c), the following CSA standards apply:

(a) Z259.1-05, “Body Belts and Saddles for Work Positioning and Travel Restraint” or Z259.1-95, “Safety Belts and Lanyards”;

(b) Z259.2.1-98, “Fall-arresters, Vertical life lines, and Rails” or Z259.2-M1979, “Fall-arresting Devices, Personnel Lowering Devices and Life Lines”, if the fall-arrester complies with Z259.2-M1979 it must be modified to make the fall-arrester panic proof;

(c) Z259.2.2-98, “Self-Retracting Devices for Personal Fall-Arrest Systems”, or equivalent;

(d) Z259.2.3-99, “Descent Control Devices”, or equivalent;

(e) Z259.10-06, “Full Body Harnesses” or Z259.10-M90, “Full Body Harness”;

(f) Z259.11-05, “Energy Absorbers and Lanyards” or Z259.11-M92, “Shock Absorbers for Personal Fall-Arrest Systems”;

(g) Z259.12-01, “Connecting Components for Personal Fall-Arrest Systems”, or equivalent;

(h) Z259.14-01, “Fall Restricting Equipment for Wood Pole Climbing”, or equivalent;

(i) Z259.13-04, “Flexible Horizontal Life Line Systems”; and

(j) Z259.16-04, “Design of Active Fall-Protection Systems”.

2010-159; 2020-35

Fall-arresting system

49.2(1) An owner of a place of employment, an employer and a contractor shall each ensure that any fall-arresting system consists of the following:

(a) a full body harness that is designed and rated by the manufacturer for the employee’s body type and adjusted to fit the employee;

(b) a self-retracting lanyard, an energy absorbing lanyard or a lanyard and energy absorber that is rated by the manufacturer for the employee;

(c) unless it is a horizontal life line, an anchor point that is capable of withstanding a 22 kN force or, if used under the direction of a competent person, four times the maximum load that may be generated in the fall-arresting system.

49.2(2) An owner of a place of employment, an employer and a contractor shall each ensure that a fall-arresting system limits

(a) free falls to the shortest distance possible, which distance cannot exceed 1.8 m or a shock level on the body of 8 kN, and

(b) the total fall distance to an amount less than the distance from the work area to any safe level, water or obstruction below.

49.2(3) Despite subsection (2), if using an energy absorber is hazardous or ~~impractical~~ not practical, the fall-arresting system shall

(a) not include an energy absorber,

(b) not use lanyards made of wire rope or other inelastic material, and

(c) limit free falls to 1.2 m.

49.2(4) Before any use of a fall-arresting system by an employee, an owner of a place of employment, an employer or a contractor shall develop a procedure to be used for rescuing an employee in an emergency.

49.2(5) An owner of a place of employment, an employer and a contractor shall each ensure that an employee is trained to use the procedures referred to in subsection (4) for rescuing another employee in an emergency.

49.2(6) If a fall-arresting system arrests a fall, an owner of a place of employment, an employer and a contractor shall each ensure that all components, including connecting components of a fall-arresting system are

(a) removed from service and inspected by a competent person,

(b) repaired to the designer's or manufacturer's specifications, or

(c) destroyed when a defect is observed.

2010-159

Anchor point in a fall-arresting system

49.3(1) An owner of a place of employment who permits the use of a fall-arresting system shall provide or ensure the use of a permanent or temporary anchor point that meets the requirements of paragraph 49.2(1)(c).

49.3(2) If a permanent anchor point has been provided, an owner of a place of employment shall

(a) prepare sketches showing the anchor point,

(b) provide a copy of the sketches to the employee who is using anchor points before the work begins, and

(c) ensure a copy of the sketches are posted conspicuously near the entrance to the roof.

49.3(3) An owner of a place of employment shall ensure that every anchor point is inspected and certified by a competent person

(a) before being used for the first time,

(b) as recommended by the manufacturer, the installer or an engineer and at least every 12 months,

(c) after any event or maintenance and repairs, and

(d) when the owner of a place of employment is informed under subsection (4) of a defect or inadequacy.

49.3(4) An employer or employee shall inform the owner of a place of employment immediately if they believe that any component of the anchor point is defective or inadequate.

49.3(5) If the inspection under subsection (3) reveals a defect or inadequacy, no one shall use the anchor point and no owner of a place of employment, employer or contractor shall permit its use until the defect or inadequacy has been eliminated.

2010-159

Vertical life lines

49.4(1) A vertical life line in a fall-arresting system shall

(a) extend to a safe level,

(b) be adequately secured or weighted at the base of the life line to prevent tangling or disturbance of the life line,

(c) be securely attached to an anchor point,

(d) be free of imperfections,

(e) be free of knots or splices, except for those that are necessary to connect the life line to an anchor point,

(f) be provided with protective devices at all sharp edges or corners to protect against cuts to or chafing of the life line, and

(g) be clearly identified as a life line by colour or other means.

49.4(2) A vertical life line in a fall-arresting system shall be used for its intended purpose only and shall be used by one employee at a time.

2010-159

Horizontal life lines

49.5(1) In this section “maximum arrest force” means the peak force exerted on an employee when a fall-arresting system stops a fall.

49.5(2) When a horizontal life line system which is engineered to meet CSA standard Z259.16-04, “Design of Active Fall-Protection Systems” is used, an owner of a place of employment, an employer and a contractor shall each ensure

(a) signed and dated drawings and instructions for the life line are readily available at the ~~workplace~~ place of employment, and

(b) that the system has been installed in accordance with the design documents.

49.5(3) The drawings and instructions referred to in paragraph (2)(a) shall contain the following information:

(a) the layout in plan and elevation, including anchor point locations, strengths, installation specifications, anchor point design and detailing; and

(b) the specification of the horizontal life line system, including permissible free fall, the maximum arrest force, clearance to obstructions below, cable size, breaking strength, termination details, initial sag or tension, number of permitted employees, and inspection requirements.

2010-159; 2020-35

Pre-engineered horizontal life line systems

49.6 An owner of a place of employment, an employer and a contractor shall each ensure that a competent person installs a pre-engineered horizontal life line system in accordance with the manufacturer’s specifications.

2010-159

Horizontal life line systems that are not pre-engineered

49.7(1) When a horizontal life line system is used which is neither designed nor certified by an engineer and is not a pre-engineered system, an owner of a place of employment, an employer and a contractor shall each ensure it meets the following requirements:

(a) the wire rope must have a diameter of a minimum of 13 mm with a breaking strength specified by the manufacturer of at least 89 kN;

(b) connecting hardware such as shackles and turnbuckles must have an ultimate load capacity of at least 71 kN;

(c) end anchor points shall have a load capacity of at least 71 kN;

(d) the horizontal life line must be free of splices except at the termination;

(e) the span of the horizontal life line must be at least 6 m and not more than 18 m;

(f) the horizontal life line must have an unloaded sag no greater than 1 in 60;

(g) limit free falls to 1.2 m; and

(h) a minimum of 5.5 m of unobstructed clearance must be available below the horizontal life line.

49.7(2) When a horizontal life line system referred to in subsection (1) is used, no more than three employees may be secured to the horizontal life line and the horizontal life line must be positioned so it does not impede the safe movement of employees.

2010-159

Safety nets

49.8(1) A personal safety net must meet the following requirements:

(a) be installed and maintained so that the maximum deflection when arresting the fall of an employee does not allow the employee to come into contact with another surface,

(b) be connected to any other safety net by splice joints that are equal or greater in strength to the strength of the nets, and

(c) be installed so as to render it impossible for an employee to come into contact with another surface during a fall between the work area and the safety net.

49.8(2) An owner of a place of employment, an employer and a contractor shall each ensure that a safety net is designed, selected, installed, used, stored, tested and maintained in accordance with ANSI standard A10.11-1989, “Personnel and Debris Nets”.

2010-159

Methods of fall-protection system

50(1) An owner of a place of employment, an employer and a contractor shall each ensure that employees use fall-protection systems in following order of precedence:

(a) a guardrail, a travel restraint system or a fall restricting system; or

(b) a fall-arresting system.

50(2) Despite subsection (1), the use of a guardrail is not permitted on a surface that has a slope exceeding 6 in 12.

50(3) Despite subsection (1), where a fall-protection system is ~~impractical~~ not practical an owner of a place of employment, an employer and a contractor shall each ensure an employee uses a control zone.

50(4) Despite subsection (3), use of a control zone is not permitted on a working surface where the slope of the surface exceeds 3 in 12 or for scaffolds.

50(5) This section does not apply where a firefighter is engaged in structural fire-fighting or rescue.

97-121; 2010-159

Work area

50.1 Before an employee is allowed into an area where a risk of falling exists, an employer and a contractor shall each ensure the employee is instructed in the fall-protection system for the area and in the post-fall rescue procedure, if applicable, and that the employee is competent in the procedures to be followed.

2010-159

Fall-protection code of practice

50.2(1) An employer and a contractor shall each ensure that a fall-protection code of practice is written for a workplace if a fall-protection system is required for the ~~workplace~~ place of employment and

(a) the employees are working from a height of 7.5 m or more,

(b) the employer uses a safety monitor and work procedures when weatherproofing as the means of fall-protection, or

(c) an officer requires that the code of practice be written.

50.2(2) The code of practice must be readily available at the ~~workplace~~ place of employment before work begins and employees must have received instruction with regards to the code of practice.

50.2(3) The code of practice shall be developed in consultation with the ~~joint health and safety~~ committee or the health and safety representative, if any, or with the affected employees.

50.2(4) The code of practice shall include the following information:

(a) possible hazardous situations, including a description of the hazards and the possible effects on the health or safety of employees;

(b) the identification of employees at risk;

(c) the location where the code of practice might apply;

(d) the methods and equipment to be used including inspections procedures;

(e) the procedures and equipment which might be required in the event of an emergency;

(f) the times, days, or events during which the code of practice might be applicable;

(g) the identification of training needs;

(h) the identification of the person responsible for implementing the code of practice; and

(i) the name of the safety monitor, if applicable, and the training the safety monitor has received.

2010-159

Training

50.3(1) An employer shall ensure that a competent person trains an employee in the use, maintenance and inspection of a fall-protection system for the task being performed unless the fall-protection system is a guardrail.

50.3(2) The employer shall ensure that the competent person referred to in subsection (1), who provides the training, prepares a written training record which shall include the following information:

(a) the name of the employee who received the training;

(b) the date on which the training took place; and

(c) the name of the competent person and the name of the agency if any.

50.3(3) The training record for each employee shall be made available to an officer upon request.

50.3(4) An employer shall, in consultation with the ~~joint health and safety~~ committee or health and safety representative, if any, review annually or more frequently, if required by a change in work conditions or in the fall protection field, the training provided to employees concerning fall protection to determine if retraining is necessary.

2010-159

Inspections of fall-protection system components

50.4(1) An owner of a place of employment, an employer and a contractor shall each ensure that each component of a fall-protection system is inspected as follows to determine whether there are any defective or inadequate components:

(a) visually by the employee before use during a shift; and

(b) by a competent person before initial use and periodically as recommended by the manufacturer, installer or an engineer.

50.4(2) If the inspection reveals a defect or inadequacy, no one shall use the fall-protection system and no owner of a place of employment, employer or contractor shall permit its use until the defect or inadequacy has been eliminated.

50.4(3) An owner of a place of employment, an employer and a contractor shall each ensure that all components of a fall-protection system are compatible with one another, the work environment and the type of work being done.

2010-159

Inspections of personal fall-protection system components

50.5(1) An employer and an employee shall each ensure that each component of a personal fall-protection system is inspected as follows to determine whether there are any defective or inadequate components:

(a) by the employee prior to each use; and

(b) periodically as recommended by the manufacturer's specifications.

50.5(2) If the inspection reveals a defect or inadequacy, no one shall use the personal fall-protection system and no employer or contractor shall permit its use until the defect or inadequacy has been eliminated.

2010-159

Water Safety Equipment

Water and other liquid safety

51(1) The following definitions apply in this section.

"automatically inflatable personal flotation device" means a device that provides buoyancy through an automatic inflation mechanism with an oral inflation system as a back-up and when worn correctly supports a conscious employee in an upright or backward leaning position, but is not designed to turn an employee from a face-down to a face-up position in the water;

"life jacket" means an inherently buoyant device that when worn correctly supports a conscious or unconscious employee in an upright or backward leaning position and is designed to turn an employee from a face-down to a face-up position in the water;

"personal flotation device" means an inherently buoyant device that when worn correctly supports a conscious employee in an upright or backward leaning position, but is not designed to turn an employee from a face-down to a face-up position in the water, and includes devices that are designed to protect an employee against hypothermia.

51(2) If an employee is exposed to a risk of drowning, an owner of a place of employment, an employer and a contractor shall each ensure the employee uses one of the following:

(a) a fall-protection system;

(b) a life jacket that is approved by Transport Canada or by an agency permitted by Transport Canada to approve it;

(c) a personal flotation device that is approved by Transport Canada or by an agency permitted by Transport Canada to approve it;

(d) an automatically inflatable personal flotation device that is approved by Transport Canada or by an agency permitted by Transport Canada to approve it; or

(e) a personal safety net that conforms to the requirements of section 49.8.

51(3) The shell of a life jacket or flotation device referred to in paragraphs (2)(b) to (d) shall be bright yellow, orange or red and have retro-reflective material fitted on surfaces normally above the surface of the water.

51(4) Despite subsection (2), an employee shall wear a life jacket when

(a) working alone, or

(b) there are insufficient resources to provide a quick and effective rescue.

51(5) An employer and a contractor shall each ensure that an employee wears a life jacket or flotation device referred to in paragraphs (2)(b) to (d) when being transported in a boat.

51(6) If an employee works on ice and the water under the ice is more than 1 m in depth, an employer and a contractor shall each test the ice before beginning any work and after as necessary to ensure that the ice will support any load placed on it.

51(7) If an automatically inflatable personal flotation device is used, the employer and the employee shall each ensure that

(a) the device is inspected and maintained by a competent person in accordance with the manufacturer's specifications, and

(b) the date and details of the inspection and maintenance are recorded.

51(8) If an employee may fall into water or any other liquid and may require assistance to return to a place of safety, an employer and contractor shall each ensure that a copy of emergency procedures is posted at the place of employment, and which copy shall contain

(a) a full description of the emergency procedures, including the responsibilities of all employees granted access to the place of employment; and

(b) the location of any emergency equipment and the name of the employee designated to operate the equipment.

51(9) Emergency procedures shall include the following, as applicable:

(a) with regards to water or another liquid,

(i) its temperature,

(ii) its depth, and

(iii) its flow;

(b) any water traffic;

(c) the distance to the rescue boat;

(d) the distance to reach an employee;

(e) any projections or objects beneath the surface;

(f) any visibility issues;

(g) the time of day; and

(h) any adverse weather conditions.

51(10) If an employee may fall into water or any other liquid and may require assistance to return to a place of safety, an employer and contractor shall each ensure that

(a) appropriate emergency equipment is ready to be used,

(b) a person who is competent to operate the emergency equipment is readily available to provide assistance, and

(c) an alarm system is provided to signal the need for a rescue.

51(11) An employer and a contractor shall each ensure that an employee wears a life jacket or a personal flotation device when participating in a rescue.

51(12) If an employer or contractor provides a boat for use in an emergency, the employer or contractor shall ensure

(a) that the rescue boat is equipped with a life ring or buoy that is attached to 30 m of rope and a boat hook, and

(b) that the rescue boat is motorized if the water is likely to be rough or swift.

97-121; 2001-33; 2010-159; 2020-35

PART VII.1

EQUIPMENT FOR FIREFIGHTERS

97-121

Exemption - underground mine

51.1(1) This Part does not apply to an underground mine.

Inconsistency with other provisions

51.1(2) Where there is a conflict between a provision in this Part and a provision in any other Part, the provision in this Part prevails to the extent of the inconsistency.

Reference to NFPA

51.1(3) In this Part, all references to standards prefaced by "NFPA" are references to standards established by the National Fire Protection Association of Quincy, Massachusetts.

97-121

Protective Headwear

97-121

Protective headwear

51.2(1) When engaged in structural fire-fighting, a firefighter shall use protective headwear that meets or exceeds NFPA 1972, "Standard on Helmets for Structural Fire Fighting", 1992 edition.

51.2(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. 97-121

Protective Footwear

97-121

Protective footwear

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

(a) meets or exceeds NFPA 1974, "Standard on Protective Footwear for Structural Fire Fighting", 1992 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.

97-121; 2020-35

Protective Handwear

97-121

Protective handwear

51.4 When engaged in structural fire-fighting, a firefighter shall wear protective handwear that meets or exceeds NFPA 1973, “Standard on Gloves for Structural Fire Fighting”, 1993 edition.

97-121

Protective Coat and Trousers

97-121

Protective coat and trousers

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

(a) meet or exceed NFPA 1971, “Standard on Protective Clothing for Structural Fire Fighting”, 1991 edition or CGSB standard CAN155.1-M88 (as amended Nov 90), “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 minimize inefficient operations and unsafe situations resulting from the interference of one piece of clothing or equipment with another.

97-121

Respiratory Protective Equipment

97-121

Respiratory protective equipment

51.6(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 meets or exceeds NFPA 1981, “Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire Fighters”, 1992 edition, together with a protective hood that meets or exceeds the requirements in Chapter 6-1 of NFPA 1971, “Standard for Protective Clothing for Structural Fire Fighting”, 1991 edition.

51.6(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.

51.6(3) An employer shall ensure that the compressed breathing air used in self-contained respiratory protective equipment required under subsection (1) meets or exceeds CSA standard CAN3-Z180.1-M85, “Compressed Breathing Air and Systems”.

51.6(4) 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 meets or exceeds NFPA 1982, “Standard on Personal Alert Safety Systems (PASS) for Fire Fighters”, 1993 edition.

51.6(5) An employer shall ensure that CSA standard CAN/CSA Z94.4-93, “Selection, Use, and Care of Respirators” is followed concerning

(a) the training of users of self-contained respiratory protective equipment, and

(b) the use, maintenance and testing of respiratory protective equipment.

97-121; 2020-35

Body Harnesses and Safety Ropes

97-121

Body harnesses and safety ropes

51.7(1) In this section, “confined space” means a confined space as defined in section 262.

51.7(2) A firefighter entering a confined space for the purposes of rescue shall wear a body harness that meets or exceeds NFPA 1983, “Standard on Fire Service Life Safety Rope and System Components”, 1995 edition and self-contained respiratory protective equipment that meets or exceeds NFPA 1981, “Standard on Open-Circuit Self-Contained Breathing Apparatus for Fire Fighters”, 1992 edition.

97-121

Body harnesses and safety ropes

51.8(1) An employer shall ensure that ropes and associated body harnesses and hardware used by a firefighter for structural fire-fighting or rescue purposes meets or exceeds NFPA 1983, “Standard on Fire Service Life Safety Rope and System Components”, 1995 edition.

51.8(2) When working from an aerial device, a firefighter engaged in structural fire-fighting or rescue shall use a body harness that meets or exceeds NFPA 1983, “Standard on Fire Service Life Safety Rope and System Components”, 1995 edition.

51.8(3) In this section, “aerial device” means an aerial device as defined in subsection 51.92(2).

97-121; 2010-159

51.9 An employer shall ensure that a body harness that has been subjected to use is removed from service and is inspected by a competent person before being returned to service.

97-121

Portable Ladders

97-121

Portable ladders

51.91 Where a portable ground ladder is used for structural fire-fighting, an employer shall ensure that it meets or exceeds 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 1932, “Standard on Use, Maintenance and Service Testing of Fire Department Ground Ladders”, 1994 edition.

97-121

Aerial Devices

97-121; 2010-159

Aerial devices

51.92(1) Where an aerial device is used for structural fire-fighting, an employer shall ensure that it

(a) meets or exceeds NFPA 1904, “Standard for Testing Fire Department Aerial Devices”, 1991 edition or Underwriters’ Laboratories of Canada standard CAN/ULC - S515 - M88, “Standard for Automobile Fire Fighting Apparatus”, or

(b) is certified in writing by an engineer as being safe to elevate personnel to a ~~work site~~ work area above ground when used for structural fire-fighting purposes.

51.92(2) 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 egress or discharge water, as the case may be.

97-121; 2010-159

Industrial Firefighters

97-121

Industrial firefighters

51.93(1) Where an employer establishes an internal fire-fighting procedure at an industrial or commercial place of employment, the employer shall ensure that industrial firefighters designated to take part in the fire-fighting procedure have received adequate training.

51.93(2) An employer shall ensure that industrial firefighters do not engage in structural fire-fighting beyond the incipient stages unless wearing and using the protective equipment required under this Part.

51.93(3) An industrial firefighter shall not engage in structural fire-fighting beyond the incipient stages unless wearing and using the protective equipment required under this Part.

51.93(4) An employer shall ensure that beyond the incipient stages of a fire, fire-fighting by industrial firefighters conforms to NFPA 600, “Standard on Industrial Fire Brigades”, 1996 edition.

97-121

Transitional provision for protective equipment

97-121

Transitional provision for protective equipment

51.94(1) This section applies to protective equipment purchased or provided by an employer for use by a firefighter when engaged in structural fire-fighting or rescue, as the case may be, and specified in subsection (2), if the equipment was purchased or provided before the commencement of this section.

51.94(2) Where in a provision specified below, a firefighter is required to use protective equipment of the type specified below, the standard or standards cited in that provision shall be read, with respect to the protective equipment to which this section applies, as follows:

(a) in subsection 52.1(1) with respect to the use of protective headwear - NFPA 1972, “Standard for Helmets for Structural Fire Fighting”, 1985 edition;

(b) in paragraph 51.3(a) with respect to the use of protective footwear - NFPA 1974, “Standard on Protective Footwear for Structural Fire Fighting”, 1986 edition or the standard for Grade 1 footwear, with sole puncture protection and electric shock resistant soles in CSA standard Z195-M1984, “Protective Footwear”;

(c) in section 51.4 with respect to the use of protective handwear - NFPA 1973, “Standard on Gloves for Structural Fire Fighters”, 1988 edition;

(d) in paragraph 51.5(a) with respect to the use of protective coat and trousers - NFPA 1971, “Standard on Protective Clothing for Structural Fire Fighting”, 1986 edition or CGSB standard CAN155.1-M-88, “Fire Fighter’s Protective Clothing Against Heat and Flame”;

(e) in subsection 51.6(4) with respect to the use of a personal distress alarm device - NFPA 1982, “Standard on Personal Alert Safety Systems (PASS) for Fire Fighters”, 1988 edition;

(f) in subsections 51.7(2) and 51.8(2) with respect to the use of body harnesses - NFPA 1983, “Standard on Fire Service Life Ropes, Harnesses and Hardware”,1985 edition;

(g) in subsection 51.8(1) with respect to the use of ropes and associated body harnesses and hardware - NFPA 1983, “Standard on Fire Service Life Safety Ropes, Harnesses and Hardware”,1985 edition.

97-121; 2020-35

Additional Requirements

97-121

Supplies required for fire truck

51.95 An employer shall ensure that each fire truck is equipped with two portable hand lights, each of which is powered with at least a six volt battery.

Jewellery not to be worn

51.96 When engaged in structural fire-fighting, a firefighter shall not wear any jewellery.

97-121; 98-78

PART VIII

HANDLING AND STORAGE OF MATERIALS

General Handling of Objects and Material

Equipment and training

52 Where the health or safety of an employee handling an object or material may be endangered, an employer shall ensure that

(a) adequate and appropriate equipment is provided to the employee and is used by the employee for lifting and moving the object or material, and

(b) the employee is instructed as to the appropriate method of lifting and moving objects and material.

Heavy Objects

Heavy objects on inclines or rollers

53(1) Where a heavy object is handled on an incline, an employer shall ensure that an employee handling the object uses, and the employee handling the object shall use, chocks and ropes or other tackle to control the motion of the object, and both shall ensure that other employees do not stand on the downward side of the incline.

53(2) Where a heavy object is moved by using rollers, an employer shall ensure that an employee moving the object uses, and the employee moving the object shall use, bars or sledges to change the direction of the moving rollers.

Bulk Material in Bins, Hoppers and Process Vessels

Bulk material in bin, hopper or process vessel

54 An employer shall ensure that a bin, hopper or process vessel used to store bulk material

(a) is designed and built for removal of the material from the bottom,

(b) if the material is highly combustible, is provided with a lid and an adequate ventilation system and is fire-resistive, and

(c) where appropriate, is provided on the outside with stairways or fixed ladders with platforms and guardrails.

Bulk material in bin, hopper or process vessel

55(1) An employer shall establish a code of practice for the safe breaking up of clogs in bulk material stored in a bin, hopper or process vessel and shall ensure that a copy of the code of practice is readily available near the bin, hopper or process vessel.

55(2) Where an employee is required to enter a bin, hopper or process vessel used to store bulk material, an employer shall ensure that the provisions of Part XVII are complied with.

Stockpiled Bulk Material

Stockpiled bulk material

56(1) An employer shall ensure that unconsolidated bulk material that is stockpiled is

(a) regularly inspected for hazardous conditions, and

(b) found to be in a safe condition before an employee is permitted to work close to or on top of the pile.

56(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 an angle of repose, or

(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.

56(3) Where the face of unconsolidated bulk material that is stockpiled is undermined by means of powered mobile equipment, an employer and any employee who undermines the material shall each ensure that the undermining

(a) is restricted to the depth of the bucket of the powered mobile equipment, and

(b) is permitted only when the approach by the operator of the powered mobile equipment is at a ninety degree angle to the face of the material.

Piled Solid Material

Piled solid material

57(1) An employer shall ensure that piled solid material is

(a) located so as not to interfere with

(i) illumination,

(ii) ventilation,

(iii) means of access and egress,

(iv) passageways or traffic lanes,

(v) the operation of machines,

(vi) sprinklers and fire fighting equipment, or

(vii) electrical panels or energized electrical lines;

(b) located on a firm foundation strong enough 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 strong enough to support the load;

(d) subject to subsection (2), stacked in a manner to make it stable; and

(e) protected from conditions that may damage the structural integrity of any container used to store the material.

57(2) An employer shall ensure that pipe and bar stock is stacked

(a) on storage racks, or

(b) where storage racks are not practical,

(i) in layers resting on wood strips with stop bars fixed on the ends, or

(ii) on metal bars with upturned ends,

so that the storage or withdrawal of the stock does not create a hazard.

Hazardous Substances

Designation of employee for handling and storage of hazardous substances

58 An employer shall designate one or more competent employees to be responsible for the proper handling and storage of hazardous substances.

Training of employee for handling and storage of hazardous substances

59 An employer shall ensure that an employee involved in the handling, use, storage or disposal of a hazardous substance

(a) is trained in the safe handling, use, storage and disposal of the substance, and

(b) is provided with adequate information concerning the identity, nature and potential hazards of the substance.

Containers used for hazardous substances - requirements

60 An employer shall ensure that a container used for a hazardous substance is

(a) clearly labelled

(i) to identify the substance contained, and

(ii) to provide information for the immediate safe handling of the substance,

(b) appropriate to the substance contained,

(c) of such material, design, construction and condition as to ensure containment of the contents,

(d) kept sealed or covered unless otherwise specified by the supplier, and

(e) is stored in accordance with the specifications of the supplier.

Information on precautions for handling hazardous substances

61 An employer shall ensure that the precautions to be taken in the handling, use, storage and disposal of a hazardous substance are available on the container or on a separate information sheet kept near the container.

Containers for liquid hazardous substances

62 An employer shall ensure that a container used for storing a liquid hazardous substance

(a) is supported so that any leakage from the container is noticeable,

(b) is placed on a foundation which resists the reaction of the contents of the container or the contents of other containers,

(c) is provided with overflow pipes which discharge into a safe area,

(d) is surrounded with pits, catch basins or depressions of sufficient size to hold the entire contents of the largest container in the event of a rupture,

(e) is covered with a protective coating to prevent corrosion if not made of non-corrodible material,

(f) is provided with a means of safe access for employees who perform inspection and maintenance duties with respect to the container, and

(g) is not placed above a passageway.

Where container for liquid hazardous substance in a pit

63(1) Where a container used for storing a liquid hazardous substance is located in a pit below ground level, an employer shall ensure that

(a) the pit

(i) is constructed of concrete, masonry or other impervious material,

(ii) has sufficient space between the walls and the tanks to permit the passage of a person, and

(iii) is kept free of water; and

(b) the container

(i) is provided with a cover and a means of safe access for employees who perform inspection and maintenance duties in respect of the container, and

(ii) is mounted at least 400 mm above the floor of the pit.

63(2) An employer shall ensure that the control valve on a container referred to in subsection (1) is

(a) situated or designed so that it can be turned without any employee entering the pit, and

(b) provided with a locking device operated from outside the pit.

Cleaning of containers that held a liquid hazardous substance

64 An employer shall ensure that a container that has contained or is suspected to have contained a liquid hazardous substance is adequately cleaned unless rendered unusable.

Carboys

65(1) In this section

"carboy" means a bottle or rectangular container for liquids of at least 20 litres capacity and made of glass, plastic or metal.

65(2) An employer shall ensure that a carboy containing a liquid hazardous substance is

(a) individually encased in baskets or boxes cushioned with noncombustible packing,

(b) stored in a separate storage area or building with concrete floors having anti-acid protection or with brick floors that are properly drained to catch basins,

(c) not piled on top of another carboy,

(d) placed in a suitable storage rack or on wooden strips laid on the floor,

(e) not subjected to dampness, extreme heat or sudden changes in temperature,

(f) transported to and from the storage area by equipment designed for the purpose, and

(g) emptied with the use of equipment designed for the purpose.

65(3) An employer shall ensure that a carboy is examined and found to be in good condition before being filled with a liquid hazardous substance.

Storage of hazardous substance and safety data sheet

66 An employer shall ensure that a hazardous substance is stored so as to protect the health and safety of employees, using information available on a safety data sheet or obtained from the supplier or another reliable source.

2016-7

When separate storage of hazardous substances required

67 An employer shall ensure that a substance that may react with other substances to cause a fire or explosion or to liberate a flammable or toxic gas or to create any other hazardous condition is stored separately from such other substances.

Piping and apparatus for hazardous substances

68 An employer shall ensure that piping and apparatus for a hazardous substance is

(a) appropriate for the substance contained,

(b) maintained in safe operating condition and regularly inspected, and

(c) properly identified to indicate the nature of the material contained, direction of flow and other information necessary to the safe operation of that system.

General employer responsibilities for hazardous substances

69 An employer shall ensure that

(a) only working quantities of hazardous substances are kept in areas where employees are working,

(b) emergency equipment appropriate for use in the event of escape of a hazardous substance is readily available,

(c) any spillage of a hazardous substance is immediately and adequately cleaned up, and

(d) a hazardous substance is disposed of so that it will not create a hazard to the health or safety of employees.

Storage Batteries

Storage batteries

70(1) An employer shall ensure that storage batteries that discharge flammable gases are electrically charged only in rooms or areas designed for that purpose.

70(2) An employer shall ensure that the room or area referred to in subsection (1)

(a) is adequately ventilated to prevent the accumulation of flammable gases,

(b) is free from all sources of ignition,

(c) is marked at the entrance with a notice prohibiting smoking or open flames,

(d) has a floor of non-sparking material with adequate drainage,

(e) when 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,

(f) has a sufficient supply of fresh water for flushing and neutralizing spilled or splashed electrolyte,

(g) ~~has wiring and equipment that comply with sections 26-540 to 26-554 of CSA standard C22.1-98, "Canadian Electrical Code - Part I",~~ ~~has wiring and equipment that comply with the requirements of CSA Standard C22.1-21, "Canadian Electrical Code, Part 1", as amended from time to time,~~

(h) has equipment of adequate capacity if equipment is used for hoisting or handling batteries, and

(i) is not used for general storage.

70(3) An employer shall ensure that the floor in a storage battery room or area is washed promptly when electrolyte is spilled.

2001-33; 2020-35

Storage batteries

71(1) An employer shall ensure that only a competent person changes or charges a storage battery.

71(2) An employer shall provide acid resistive gloves, aprons, goggles or face shields and straps for carrying storage batteries to an employee handling storage batteries or electrolyte and shall ensure that the employee handling storage batteries or electrolyte uses the protective equipment provided.

71(3) An employee shall use the protective equipment referred to in subsection (2) when handling storage batteries or electrolyte.

Storage batteries

72 An employer shall ensure that

(a) a storage battery is kept free from dust,

(b) a storage battery in use is adequately secured,

(c) when a storage battery is of no further use, it is disposed of in a manner that prevents spillage of electrolyte, and

(d) ventilation openings in a storage battery are kept clear.

Storage batteries

73 An employee shall

(a) when diluting concentrated sulphuric acid for a storage battery, add the acid to the distilled water, and

(b) keep the charging rate of storage batteries at a rate that will prevent the too rapid generation of hydrogen in the battery.

97-121

Portable Compressed Gas Containers

Portable compressed gas containers

74 An employer shall ensure that a portable compressed gas container for medical use is colour-marked in accordance with the Compressed Gas Association standard CGA C-9-1988 (third edition), “Standard Color Marking of Compressed Gas Containers Intended for Medical Use”.

2001-33

Portable compressed gas containers

75(1) An employer shall ensure that a portable compressed gas container is used, stored and handled so as not to endanger an employee’s health or safety.

75(2) In complying with subsection (1), an employer shall use as a guide

(a) information on a safety data sheet,

(b) the specifications provided by the supplier, and

(c) the safe handling rules in CGA G-P-1-1991, “Safe Handling of Compressed Gases in Containers”.

75(3) An employer shall ensure that the use, storage and handling of a portable compressed gas container used for welding and cutting complies with CSA standard W117.2-94, “Safety in Welding, Cutting, and Allied Processes”.

2001-33; 2016-7; 2020-35

Portable compressed gas containers

76(1) An employer shall ensure that a portable compressed gas container is stored

(a) in a well ventilated and dry storage area where the temperature does not exceed 52 °C,

(b) with containers grouped by types of gas and the groups arranged to take into account the gases contained,

(c) with full and empty containers in separate areas, and

(d) secure and upright.

76(2) An employer and an employee shall each ensure that a portable compressed gas container

(a) is not stored near readily ignitable substances,

(b) is kept at a safe distance from all operations that produce flames, sparks or molten metal or result in excessive heating of the container,

(c) is not exposed to corrosive materials or corrosion-aiding substances, and

(d) is protected from falling and from having heavy objects fall on it.

76(3) An employer shall ensure that a storage area for portable compressed gas containers is prominently posted with the name of the gases stored and with signs prohibiting smoking.

Portable compressed gas containers

77(1) An employer shall ensure that a portable compressed gas container is not

(a) rolled on its side, dragged, slid or subjected to rough handling, or

(b) moved by a lifting magnet.

77(2) Where appropriate lifting mechanisms have not been provided on a portable compressed gas container, an employer shall ensure that suitable cradles or platforms for holding the container are used for lifting.

Portable compressed gas containers

78(1) An employer and an employee shall each ensure that regulators, automatic reducing valves, gauges, hoses and other appliances provided for use with a particular gas or group of gases are not used on a portable compressed gas container containing a gas having different chemical properties unless information obtained from the supplier of the portable compressed gas container states that this can be safely done.

78(2) An employer shall ensure that

(a) connections on a portable compressed gas container to piping, regulators and other appliances are kept tight to prevent leakage,

(b) connections to a portable compressed gas container that do not fit are not forced,

(c) the valves on a portable compressed gas container are kept closed at all times whether the container is charged or empty, except when

(i) gas is flowing from the container,

(ii) the gas in the container is maintaining pressure in a supply line, or

(iii) the container is on stand-by during and between operations using the gas, and

(d) check valves for a portable compressed gas container are installed as close as possible to fuel gas and oxygen regulators.

Portable compressed gas containers

79(1) An employer shall ensure that hose lines for conveying flammable gas or oxygen from supply piping or cylinders to torches have threads designed in accordance with the ANSI and CGA standard ANSI/CGA V-1-1994, “Standard for Compressed Gas Cylinder Valve Outlet and Inlet Connections”.

79(2) An employer and employee shall each ensure that hose lines for conveying flammable gas or oxygen from supply piping or cylinders to torches are spliced if necessary, in accordance with CGA G-P-1-1991, “Safe Handling of Compressed Gases in Containers”.

2001-33

PART IX

TOOLS

General Duties of an Owner

General duties of owner

80 An owner of a tool shall ensure that the tool

(a) is of good quality material appropriate for its intended use,

(b) is inspected before being used and repaired or replaced if necessary,

(c) is maintained in proper working condition,

(d) is tempered, dressed and repaired only by a competent person,

(e) where necessary, is equipped with devices to ensure a secure hand grip,

(f) is of a non-sparking type where there is risk of an explosive atmosphere being ignited by a spark, and

(g) is kept in a proper storage place when not in use.

General Duties of an Employer

General duties of employer

81 An employer shall ensure that

(a) employees are competent in the safe handling and use of tools,

(b) employees are instructed to use tools only for the specific purposes for which they are designed, and

(c) procedures are implemented for safely supplying tools and materials to employees located in hazardous places.

General Duties of a User of a Tool

General duties of user

82(1) An employee who uses a tool shall use, handle and carry the tool in a safe manner.

82(2) Without limiting the duties under subsection (1), an employee who uses a tool shall

(a) inspect the tool before use,

(b) not use a defective tool,

(c) report the existence of a defective tool to the employer,

(d) where competent to do so, maintain the tool in proper working condition,

(e) use the tool only for the specific purpose for which it is designed,

(f) place the tool in a safe and appropriate container or place when not in use,

(g) not leave tools on floors, passageways, stairways or elevations from which they might fall,

(h) use a holding device to hold a tool that is to be struck by another employee, and

(i) not point at any person a tool that ejects pins, nails or any other projectile.

Portable Power-Operated Hand Tools

Portable power-operated hand tools

83 An employer shall ensure that

(a) a portable power-operated hand tool is cleaned with a nonflammable, non-toxic solvent or according to the manufacturer's specifications,

(b) an electric portable power-operated hand tool

(i) is double insulated or bonded to ground or where it is not double insulated and it is not practical to bond to ground, is equipped with a double insulated portable ground fault circuit interrupter of the class A type, and

(ii) is tested for the effectiveness of the double insulation or bonding to ground before each use by a continuity tester or ground fault circuit interrupter,

(c) fittings and couplings appropriate for the intended use and meeting the manufacturer's specifications are used on all hydraulic, pneumatic, chemical and electrical lines and hoses for a portable power-operated hand tool, and

(d) a shut-off that is readily accessible to the user of the tool is installed on all hydraulic, pneumatic, chemical and electrical lines and hoses for a portable power-operated hand tool.

Portable power-operated hand tools

84(1) An employer shall ensure that hydraulic, pneumatic, chemical and electrical lines and hoses for portable power-operated hand tools are not run across aisles, travelways or work areas so as to create a hazard to employees.

84(2) An employee shall not run the hydraulic, pneumatic, chemical and electric lines and hoses for portable power-operated hand tools across aisles, travelways or work areas so as to create a hazard to other employees.

84(3) This section does not apply where a firefighter is engaged in structural fire-fighting or rescue.

97-121

Portable power-operated hand tools

85 An employee who uses a portable power-operated hand tool shall

(a) keep guards on the tool in place while using it,

(b) disconnect the source of power before changing accessories on the tool, and

(c) where the tool has a flexible shaft, hold the end of the tool firmly when starting its motor to prevent whipping.

Chain saw, brush saw or clearing saw

86(1)An employee who uses a chain saw, brush saw or clearing saw other than in a logging operation, silviculture operation or arboricultural operation shall comply with the requirements of sections 347, 349, 350 and 352.

86(1.1) Notwithstanding subsection (1), a firefighter engaged in structural fire-fighting or rescue is exempt from the requirements of section 347 and paragraphs 349(a), (e), (h) and (i).

86(2) Where an employee uses a chain saw, brush saw or clearing saw other than in a logging operation, silviculture operation or arboricultural operation, the employer shall comply with the requirements of sections 346 and 351.

86(2.1) Notwithstanding subsection (2), where a firefighter is engaged in structural fire-fighting or rescue, the employer is exempt from the requirements of section 346.

86(3) An owner of a chain saw used other than in a logging operation, silviculture operation or arboricultural operation shall comply with the requirements of section 348.

97-121

Powder Actuated Tools

Powder actuated tools

87 An owner of a powder actuated tool shall ensure that

(a) the tool, power load and fastener meet the requirements of ANSI standard ANSI A10.3-1995, "American National Standard for Construction and Demolition Operations - Safety Requirements for Powder-Actuated Fastening Systems",

(b) the tool is legibly and durably marked to show the manufacturer's name or trademark and the model and serial number,

(c) guards for the tool are legibly and durably marked to show the manufacturer's name or trademark,

(d) the powder load of each cartridge for the tool is clearly identified,

(e) boxes of fasteners for the tool are legibly and durably marked to show the manufacturer's name or trademark and the type or size of fastener, and

(f) the tool has a storage container at the place of employment.

2001-33

Powder actuated tools

88 An employer shall ensure that

(a) no employee operates a powder actuated tool unless the employee

(i) has been trained in the use of the specific make and model of the tool to be used and is in possession of a valid operator's certificate,

(ii) is competent to use the tool, and

(iii) is authorized to use the tool, and

(b) all powder actuated tools and their explosive charges are kept in a storage area that is accessible only to persons who are authorized to handle them.

Powder actuated tools

89 An employee who uses a powder actuated tool shall

(a) inspect the tool thoroughly before using it, paying particular attention to the cleanliness of the chamber and barrel;

(b) load the tool only after inspection reveals that the breech and barrel are free of foreign matter and only to prepare the tool for immediate use;

(c) use only cartridges and fasteners designed for the tool;

(d) select cartridges of sufficient power to perform the work without the application of excessive force;

(e) not use the tool in the presence of flammable or explosive substances;

(f) not fire a fastener

(i) through an existing hole unless the tool is specifically equipped by the manufacturer for accurate alignment of the barrel with the hole,

(ii) into cast iron, glazed brick or tile, marble, granite, slate, glass or any other unusually hard or brittle material,

(iii) into a steel surface that is of greater hardness than the fastener being used,

(iv) with a high velocity tool into a hollow concrete block, and

(v) until the work area has been checked for employees working in proximity to where the fastener is going to be fired;

(g) when the hardness of a surface is not known, use a hand hammer to drive the point of the fastener into the material and not use the tool on that surface if the fastener does not penetrate the surface;

(h) if a misfire occurs, continue to hold the tool in a firing position for not less than fifteen seconds and then, until the cartridge has been ejected, keep the tool pointed in a direction which will not cause injury to the user or others;

(i) wear suitable eye protective equipment of the close fitting eyecup or cover-goggle type;

(j) return unused cartridges to a proper storage box; and

(k) operate it in accordance with the manufacturer's specifications.

97-121

PART X

CONSTRUCTION, TRAFFIC AND BUILDING SAFETY

2001-33

Construction Work in Compressed Air

Construction work in compressed air

90 An employer and a contractor shall each ensure that construction in compressed air complies with CSA standard CAN/ CSA-Z275.3 M-86, "Occupational Safety Code for Construction Work in Compressed Air".

2020-35

Traffic Safety

When signallers required

91(1) Where construction is being carried out in an area where an employee's safety may be endangered by vehicular traffic, an employer shall provide competent signalers to control the flow of traffic.

91(2) An employer shall provide and all signalers shall wear a reflectorized vest or jacket when controlling the flow of traffic.

91(3) An employer shall provide and all signalers shall use reflectorized paddles to control the flow of traffic.

Construction on highway or bridge

92(1) Where construction is being carried out on a highway or bridge and an employee's safety may be endangered by vehicular traffic, an employer shall ensure that

(a) concrete barriers or material offering equivalent protection is erected at both ends of the construction and as a divider between the traffic and the work area of the highway or bridge, and

(b) appropriate lane control devices and flashing lights or flares are used.

92(2) Paragraph (1)(a) does not apply where the highway or bridge is being paved.

Material along excavation or trench and vehicular traffic

93(1) Where material is piled along the sides of any excavation or trench and interferes with the flow of vehicular traffic, an employer shall ensure that the material is adequately illuminated by warning lights or reflective materials.

93(2) Where work is being carried out and interferes with the flow of vehicular traffic, an employer shall ensure that adequate warning signs are posted in both directions as indicated in the following table and at any intersection between the warning sign and the work area:

Posted speed (km/hr)	Distance of Warning Sign from Work Area (m)
0 - 25	25 - 100
26 - 50	101 - 250
51 - 80	251 - 500
over 80	501 - 1000

2001-33

Curbing for truck platform scale

93.1 Where a truck platform scale is elevated from the adjacent terrain, an employer shall ensure that a curbing having a minimum height of 250 mm and of sufficient design to safely guide the truck wheels onto the scale is installed and maintained on each side of the scale.

2001-33

Repealed

94 Repealed: 2001-33

2001-33

Formwork and Shoring

96-61

Formwork and shoring

94.1(1) In this section

“form” means the mould into which concrete is poured;

“formwork” means a system of forms connected together;

“shoring” means the structural supports and bracing used to support all or part of a form.

94.1(2) An employer shall ensure that formwork and shoring are designed by an engineer and are erected in accordance with design drawings prepared by the engineer.

94.1(3) An employer shall ensure that the design drawings referred to in subsection (2)

(a) identify the components, if manufactured formwork and shoring are used,

(b) show the size, grade and specifications of materials to be used, if the formwork and shoring are to be constructed on the project site,

(c) show the design loads for the formwork and shoring and detail the bracing and external ties required to adequately support the design loads,

(d) show the attachment points for rigging and hoisting, if the formwork and shoring are to be moved as a unit,

(e) set out the erection instructions specified by the manufacturer or the engineer,

(f) indicate the method, the sequence and the rate of pouring concrete, and

(g) bear the signature and seal of the engineer.

94.1(4) An employer shall ensure that the design drawings referred to in subsection (2)

(a) are kept on the project site, and

(b) are made available to an officer on request.

94.1(5) An employer shall ensure that the formwork and shoring are erected, supported and braced so that they are capable of withstanding all loads and forces likely to be applied to them

(a) without exceeding the allowable working loads established for any component of the structure, and

(b) without causing uplifting, sliding, overturning or lateral displacement of the system.

94.1(6) The allowable working loads referred to in paragraph (5)(a) shall be established by an engineer in accordance with good engineering practice.

94.1(7) An employer shall ensure, before concrete is poured,

(a) that the formwork and shoring are inspected by an engineer, or a competent person designated by the employer, and

(b) that the engineer, or the competent person designated by the employer, as the case may be, authorizes the pour in writing.

94.1(8) An employer shall ensure that the written authorization referred to in paragraph (7)(b)

(a) is kept on the project site, and

(b) is made available to an officer on request.

94.1(9) An employer shall ensure that the formwork and shoring are not removed unless

(a) the concrete is strong enough to support itself and any loads that may be applied to it, or

(b) the concrete is adequately reshored.

94.1(10) Where concrete is reshored under paragraph (9)(b), subsections (2), (3), (4), (5) and (6) apply, with the necessary modifications, to the reshoring.

94.1(11) Subsections (2), (3), (4), (5), (6), (7), (8), (9) and (10) do not apply where formwork and shoring are used no more than 3 m above the ground level.

94.1(12) Where formwork and shoring are used no more than 3 m above the ground level, an employer shall ensure that the formwork and shoring are erected, supported and braced so that they are capable of withstanding all loads and forces likely to be applied to them.

96-61; 97-121

Structural Framework

96-61

Structural framework

94.2(1) Where structural framework is being erected using structural steel or precast concrete, an employer shall ensure

(a) that drawings for the erection of the structural framework are prepared,

(b) that an engineer

(i) certifies the drawings referred to in paragraph (a), and

(ii) establishes safe procedures for ensuring the stability of the structural framework, and

(c) that a competent person, designated by the employer to supervise the erection of the structural framework,

(i) establishes the sequence for erecting the structural framework,

(ii) ensures the stability of the structural framework during its erection, and

(iii) is present on the project site until the structural framework is stabilized.

94.2(2) If it becomes necessary to modify the procedures referred to in subparagraph (1)(b)(ii), an employer shall ensure that the procedures as modified are certified by an engineer.

94.2(3) An employer shall ensure

(a) that employees engaged in the erection of the structural framework are instructed in the procedures referred to in subparagraph (1)(b)(ii), or as modified under subsection (2), and

(b) that the procedures referred to in subparagraph (1)(b)(ii), or as modified under subsection (2), are followed.

94.2(4) An employer shall ensure that the drawings referred to in paragraph (1)(a) and the procedures referred to in subparagraph (1)(b)(ii), or as modified under subsection (2),

(a) are kept on the project site, and

(b) are made available to an officer on request.

94.2(5) Where structural framework is being erected,

(a) an employer shall ensure that all persons not engaged in the erection of the structural framework are clear of the immediate work area and have been instructed to remain clear until the structural framework is stabilized, and

(b) any person not engaged in the erection of the structural framework shall remain clear of the immediate work area until the structural framework is stabilized,

unless adequate precautions have been taken to ensure the safety of all persons in the immediate work area.

96-61

Buildings and Structures

Construction of buildings and structures

95(1) Where a building or structure is being constructed, an employer and a contractor shall each ensure that

(a) work is completed on any component designed to support or give added support to a part of the building or structure 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 is braced from both sides until the wall is attached to a rigid structure and the mortar has set adequately, and

(c) a free standing wall or structure designed to support roof components or any load is braced from both sides until the free standing wall or structure is stabilized.

95(2) Where the framework of a building or structure is erected in advance of the outer walls, an employer and a contractor shall each ensure that a fall-protection system is used at the perimeter of each floor.

2010-159

Construction of buildings and structures

96(1) Where a building or structure is being constructed, an employer and a contractor shall each ensure that bracing or shoring is retained at all floor levels beneath the floor where concrete is being poured until the removal of the bracing or shoring is authorized by an engineer.

96(2) An employer and a contractor shall each provide, if requested by an officer, certification by an engineer that the forms, bracing, shoring and supports for concrete to be used in construction will safely support the intended load.

Wooden Trusses

96-61

Wooden trusses

96.1(1) An employer shall ensure

(a) that wooden trusses are not erected unless the manufacturer's specifications for the safe erection of the wooden trusses are readily available on the project site, and

(b) that wooden trusses are erected in accordance with the manufacturer's specifications referred to in paragraph (a).

96.1(2) An employer shall ensure that the manufacturer's specifications referred to in paragraph (1)(a)

(a) are kept on the project site, and

(b) are made available to an officer on request.

96-61; 2010-159

Guardrails

Guardrail materials

97(1) A guardrail shall

(a) be made of one of the following materials:

(i) if made of wood,

(A) the top rail, vertical supporting posts and intermediate rail shall be constructed of at least 50 mm × 100 mm No. 2 grade or better SPF, these measures being nominal, and

(B) shall not be painted other than by a transparent protective coating,

(ii) if made of metal pipe,

(A) the top rail and vertical supporting posts shall be at least 40 mm in diameter, and

(B) the intermediate rail shall be at least 25 mm diameter,

(iii) if made of angle iron,

(A) the top rail and vertical supporting posts shall be at least 40 mm × 40 mm by 5 mm, and

(B) the intermediate rail shall be at least 32 mm × 32 mm × 3 mm, or

(iv) if made of wire rope,

(A) the vertical supporting posts shall be made of steel of at least 40 mm in diameter or of a material of equivalent strength, and

(B) the top rail and intermediate rail shall be at least 10 mm in diameter, be attached to a welded fastening on the vertical supporting posts with metal clips to prevent unnecessary sagging and be easily distinguishable from the background; or

(b) be pre-engineered.

97(2) A guardrail shall

(a) have a height of not less than 900 mm or more than 1.07 m from the floor level,

(b) have a toeboard which

(i) is at least 127 mm high,

(ii) is fastened to the inside of the vertical supporting posts, and

(iii) has a space of not more than 6 mm between the bottom of the toeboard and the floor,

(c) have vertical supporting posts not more than 2.4 m apart along its entire length unless otherwise specified in manufacturer's specifications, and

(d) have vertical supporting posts not more than 3 m apart along its entire length if the guardrail is used on scaffolding.

97(3) The vertical supporting posts referred to in paragraphs 2(c) and (d) shall be adequately fastened to the structure to support the loads imposed upon it.

97(4) Unless the guardrail is a pre-engineered guardrail, the top rail shall be fastened to the top or inside of the vertical supporting posts and the intermediate rail shall be fastened to the inside of the vertical supporting posts midway between the top rail and the floor level.

97(5) A guardrail shall be made of materials with sufficient strength and rigidity to support loads with the following minimums:

(a) 675 N in any direction, at any point along the top rail;

(b) 450 N in any direction, at any point along the intermediate rail; and

(c) 900 N in any direction, at any point along the top rail, intermediate rail and toeboard if the guardrail is used on a surface that is sloped more than 3 in 12 and less than 6 in 12.

2001-33; 2010-159

Repealed

98 Repealed: 2010-159

2010-159

Opening for guardrail

99 An owner of a place of employment, an employer and a contractor shall each ensure that an opening for passage through a guardrail is equipped with a barrier or gate that may be removed temporarily to permit passage.

2010-159

Removal and replacement of guardrails

100(1) Where a guardrail is removed in order for work to be done, an employer and a contractor shall each ensure that

(a) adequate precautions are taken to ensure the safety of the employee doing the work and any other employee, and

(b) the area is not left unguarded.

100(2) An employee who removes a guardrail in order to do work shall replace the guardrail before leaving the area.

Allowable Unit Stresses

Allowable unit stresses

101(1) An employer, a contractor and an owner of a place of employment shall each ensure that the floor, roof or other part of a building or structure that is a place of employment is not subjected to a load that exceeds the allowable unit stresses for the materials used as established in the "National Building Code of Canada, 1995", issued by the Canadian Commission on Building and Fire Codes, National Research Council of Canada.

101(2) An employer, a contractor and an owner of a place of employment shall each provide, if requested by an officer, an engineer's certification of the load that the floor, roof or other part of a building or structure that is a place of employment can support without exceeding the allowable unit stresses referred to in subsection (1).

2001-33

Walking Surfaces

Walking surfaces - general

102(1) An employer and a contractor shall each ensure that a surface on which an employee walks is free from structural defects, projections, openings, scrap waste, loose material, stored material, equipment or other obstructions which may create a hazard to the employee.

Walking surfaces - general

102(2) Subject to subsection (6), an employer and a contractor shall each ensure that a guardrail which meets the requirements of section 97 is provided at the open sides and open ends of

(a) a floor, mezzanine, balcony, walkway or platform,

(b) the surface of a bridge or overpass, and

(c) a concrete roof while the formwork remains in place,

to which an employee has access and from which the employee may fall a vertical distance of 1.2 m or more.

Walking surfaces - underground mine

102(3) Notwithstanding subsection (2), where a walkway or platform in an underground mine was constructed before the commencement of this section and is more than 1.5 m above the ground or floor level, an employer shall ensure that the walkway or platform is provided with handrails and toeboards in accordance with subsections (4) and (5).

Walking surfaces - underground mine

102(4) The top rail of a handrail for a walkway or platform referred to in subsection (3) shall not be less than 900 mm and not more than 1.07 m above the floor level of the walkway or platform and a second rail shall be placed at the midpoint between the top rail and the floor level of the walkway or platform, unless the intervening space is closed by a screen or other suitable means, and the handrail shall be capable of withstanding a load applied to the rail of at least 90 kg applied in any direction.

Walking surfaces - underground mine

102(5) A toeboard for a walkway or platform referred to in subsection (3) shall extend from the floor of the walkway or platform to not less than 120 mm in height.

Walking surfaces - underground mine

102(6) Subsection (2) does not apply to a walkway or platform in an underground mine that was constructed before the commencement of this section and that is not more than 1.5 m above the ground or floor level.

Wet floors

102(7) Where a floor is wet because of the work process, an employer and a contractor shall each use such devices as matting or grating where necessary on the floor to eliminate the hazard of slipping and where such devices are used and are insufficient to eliminate the hazard of slipping, the employer and the contractor shall provide non-slip footwear to employees who are required to walk on the floor and shall ensure that such employees wear the non-slip footwear.

Outdoor passageways

102(8) An employer and a contractor shall each keep outdoor passageways from becoming slippery by removing ice or snow and using materials such as ashes, sand or salt where necessary.

2001-33

Floor area during construction

103 An employer and a contractor shall each ensure during the construction of a building or structure that a floor area in the building or structure is adequately closed in, except for necessary openings, before the floor above is started.

Temporary working floor

104(1) An employer and a contractor shall each ensure that a temporary working floor

(a) will support a minimum live load of 2.4 kPa,

(b) has planks that are securely fastened and supported on each end 300 mm beyond the opening that is being covered, and

(c) has no unsupported projection of a length that would be unstable if an employee were to stand on the projection or that exceeds 450 mm, whichever is the lesser.

104(2) If it is ~~impracticable~~ not practical to install a temporary working floor, an employer and a contractor shall each ensure that a safety net that meets the requirements of subsection 49.8(2) is installed under the area where an employee is working or a that a travel restraint system or fall-arresting system is used by the employee.

2010-159

Roofs

Weatherproofing of roof

105(1) An employer and a contractor shall each ensure that a warning line is

(a) not less than 2 m from the unguarded edge,

(b) has a minimum diameter of 10 mm,

(c) is suspended at a height of not less than 750 mm and not more than 900 mm,

(d) is supported by corner and intermediate posts sufficient to keep the line taut, and

(e) has readily visible markers placed every 1.5 m along the length of the line.

105(2) Despite paragraph (1)(a), a warning line may be 1 m from an unguarded edge at the dump point for snow removal or when an employee is engaged in weatherproofing, provided adequate precautions are taken to ensure the safety of the employee.

105(3) An employer shall ensure that an employee who is working in the control zone uses another method of fall-protection in addition to the warning line.

105(4) When employees are engaged in weatherproofing, a safety monitor may be used as the means of fall-protection for employees working in the control zone.

105(5) The safety monitor referred to in subsection (4) shall ensure that tasks being performed in the control zone are performed in accordance with the fall-protection code of practice and in a manner that minimizes the potential for an employee to fall.

105(6) A safety monitor referred in subsection (4) shall

(a) be experienced in the work overseen and trained in the role of safety monitor,

(b) be present at all times when an employee is in the control zone,

(c) have complete authority over the work as it relates to the prevention of falls,

(d) be located so as to have a clear view of the work being performed by the employee,

(e) be able to communicate with the employees being protected without needing to yell,

(f) be instantly distinguishable from other workers,

(g) engage in no other duties while acting as the safety monitor, and

(h) monitor a maximum of eight workers.

105(7) An employer shall ensure that no employee enters the control zone unless the employee is required to do so by reason of the employee's work duties.

105(8) The owner of a place of employment, employer and contractor shall each ensure a travel restraint system

(a) is rigged to prevent the employee from reaching an unguarded edge,

(b) is, subject to paragraph (c), attached to an anchor point capable of supporting two times the maximum load likely to be applied to it, or

(c) when it is used on a roof with a slope greater than 3 in 12, is attached to an anchor point that is capable of withstanding a 22 kN force or, if used under the direction of a competent person, four times the maximum load that may be generated in the fall-arresting system.

96-60; 2010-159

Weatherproofing of roof

106 An employer shall ensure that an employee who is engaged in the weatherproofing of a roof that

(a) is 3 m or more above the ground or other safe working level,

(b) has a slope exceeding 4 in 12, and

(c) has an unguarded edge,

uses an individual fall-arresting system and the employee shall use the individual fall-arresting system.

96-60

Weatherproofing of roof

106.1(1) In this section “perimeter work” means the work that must be performed at the edge of the roof.

106.1(2) Despite paragraph 97(2)(b), where an employee is engaged in perimeter work and a guardrail is used as the method of fall-protection, a toeboard is not required.

96-60; 2010-159

Repealed

107 Repealed: 96-60

96-60

Repealed

108 Repealed: 96-60

96-60

Hoist used to raise materials to roof

109(1) An employer shall ensure that a hoist used to raise materials to a roof is

(a) sufficiently strong and stable, and

(b) equipped with suitable ropes, chains, slings, hooks and other fittings,

so as to ensure the safety of the person who uses the hoist or works in its vicinity.

109(2) An employer shall ensure that the weights used to counterbalance a hoist used to raise materials to a roof are

(a) adequate for the equipment used, and

(b) secured to the hoist to prevent their premature removal.

Hoist used to raise materials to roof

110 An employer shall ensure that guardrails, or a safety fence manufactured as part of a hoist, are installed in perimeter travel areas on a roof near the hoist areas and the dumping areas.

96-60

Openings

Openings and fall prevention

111(1) An owner of a place of employment, an employer and a contractor shall each ensure that an opening on a work surface into which an employee may fall is guarded as follows:

(a) on all exposed sides by a guardrail; or

(b) by a protective covering that

(i) completely covers the opening,

(ii) is securely fastened,

(iii) is made from material adequate to support all loads to which the covering may be subjected, and

(iv) is marked as covering an opening.

111(2) Despite subsection (1), if an opening is a hatchway, chute, pit or trap-door the owner of the place of employment, an employer and the contractor shall each ensure that openings are guarded as follows:

(a) on all exposed sides by guardrails that are removable on not more than two sides and that are fixed on the other exposed sides; or

(b) by a flush hinged protective covering that

(i) completely covers the opening,

(ii) is securely fastened,

(iii) is of adequate strength,

(iv) is marked as covering an opening, and

(v) is adequately supported with attached railings so as to leave only one side of the opening exposed when the cover is open.

111(3) Despite subsections (1) and (2), if an opening leads to a stairway or ladder, an owner of a place of employment, an employer and a contractor shall each ensure that the opening is guarded by guardrails on all exposed sides, except for the side leading to the entrance to the stairway or ladder.

111(4) If a protective covering is used over an opening but is not in place, an owner of a place of employment, an employer and a contractor shall each ensure that the opening is constantly attended by an employee or is guarded by a guardrail on all exposed sides.

2010-159

Repealed

112 Repealed: 2010-159

2001-33; 2010-159

Access and Egress

Access to and egress from work area

113(1) An employer shall provide a safe means of access to and egress from all areas where work is performed.

113(2) An employer shall ensure that an emergency means of escape is provided from any area where the normal means of escape may be rendered dangerous or unusable.

113(2.1) This section does not apply where a firefighter is engaged in structural fire-fighting or rescue.

113(3) Repealed: 96-106

96-106; 97-121

Installation of door

114(1) Where a door is installed, an employer shall ensure that the door is installed and maintained according to the manufacturer's specifications and is working properly.

Where door may be a hazard

114(2) Where a door stored above the door opening is spring-loaded or presents a hazard in some other way by its mechanism, an employer shall ensure that the door is

(a) inspected at regular intervals by a competent person, and

(b) where necessary, repaired by a competent person.

97-121

Stairways

Stairways

115(1) An employer shall ensure that a stairway

(a) is of sufficient strength to sustain a live load of 4.8 kPa,

(b) is a minimum of 1.12 m in width,

(c) is pitched not less than 20 degrees and not more than 35 degrees from the horizontal,

(d) has risers constant in height that are not less than 127 mm and not more than 200 mm,

(e) has a maximum height of 3.7 m between landings,

(f) has landings, if any, with a minimum clearance of 1.12 m measured in the direction of the run,

(g) has a vertical clearance of 2.05 m from the top of the tread at all points in the stairway,

(h) has treads constant in width and not less than 225 mm in width, and

(i) has a non-slip nosing or a strip of non-slip material not less than 50 mm in width and installed 25 mm from the front edge of the tread on all treads where there may be a hazard of slipping due to the material of the tread.

115(2) Paragraphs (1)(b), (c) and (h) do not apply to a service stairway.

115(3) An employer shall ensure that a service stairway

(a) is a minimum of 900 mm in width,

(b) is pitched not less than 20 degrees and not more than 50 degrees from the horizontal, and

(c) has treads constant in width and not less than 150 mm in width.

115(4) An employer shall ensure that a stairway having four or more risers

(a) that are 2.24 m or less in width, has a handrail and supporting structure on any open side and a handrail on any enclosed side, and

(b) that are more than 2.24 m in width, has a handrail and supporting structure on any open side and in the centre and a handrail on any enclosed side.

115(5) An employer shall ensure that a handrail and supporting structure referred to in subsection (4) is constructed so that

(a) the height of the handrail and supporting structure from the upper surface of the handrail to the surface of the tread in line with the face of the riser at the forward edge of the tread is not less than 750 mm and not more than 900 mm,

(b) the supporting structure is capable of withstanding a load of 100 kg applied in any direction,

(c) the handrail is

(i) continuous throughout the flight of stairs and landings,

(ii) capable of withstanding a load of 100 kg applied in any direction, and

(iii) at least 40 mm wide,

(d) a handrail mounted directly on a wall or partition is fixed so as not to interfere with the smoothness of the top and side surfaces, and

(e) if brackets are used, the brackets to which a handrail is fixed are spaced not more than 2.4 m apart and have a clearance of at least 40 mm between the handrail and any wall or partition or any obstruction on the wall or partition to which the brackets are attached.

115(6) Notwithstanding subsections (1) to (5), where a stairway was installed in an underground mine before the commencement of this section, an employer shall ensure that the stairway

(a) is installed at an angle not greater than 50 degrees,

(b) has a rise or vertical distance between landings of a flight that does not exceed 3.5 m,

(c) has treads and risers of uniform width and height in any one flight, and

(d) has guardrails and handrails of adequate strength that are not less than 900 mm and not more than 1.2 m in height above the treads of the stairs.

Stairways

116 Where a stairway has treads or landings made of perforated material, an employer shall ensure that the perforated material does not have openings larger than 11 mm.

Stairways

117(1) Where work on a building or structure progresses to one storey or 4.5 m above the lowest floor level, whichever is the lower, an employer shall ensure that permanent stairs or temporary stairs are installed in the building or structure leading from the lowest floor level to all the floors above.

117(2) An employer may use guardrails for temporary stairs and landings in place of the handrails and supporting structures required under subsections 115(4) and (5).

Stairways

118 An employer shall ensure that a skeleton steel stairway with treads that are not completed during the construction stages has temporary wooden treads set into the full length and width of the steps and landings.

Ramps

Ramps

119(1) Repealed: 96-106

119(2) Where the pitch of a stairway would be less than 20 degrees from the horizontal, an employer shall provide a ramp.

119(3) An employer shall ensure that a ramp

(a) has a maximum slope of 20 degrees from the horizontal,

(b) is equipped with a non-slip surface or cleats spaced 400 mm apart where the slope is greater than five degrees,

(c) that is 2.24 m or less in width, has a handrail and supporting structure on any side and a handrail on any enclosed side, and

(d) that is more than 2.24 m in width, has a handrail and supporting structure on any open side and in the centre and a handrail on any enclosed side.

119(4) An employer shall ensure that a handrail and supporting structure referred to in subsection (3) are constructed so that

(a) the height of the handrail and supporting structure from the upper surface of the handrail to the surface of the ramp is not less than 750 mm and not more than 900 mm,

(b) the supporting structure is capable of withstanding a load of 100 kg applied in any direction,

(c) the handrail is

(i) continuous throughout the slope and landings of the ramp,

(ii) capable of withstanding a load of 100 kg applied in any direction, and

(iii) at least 40 mm wide,

(d) a handrail mounted directly to the wall or partition is fixed so as not to interfere with the smoothness of the top and side surfaces, and

(e) if brackets are used, the brackets to which a handrail is fixed are spaced not more than 2.4 m apart, and have a clearance of at least 40 mm between the handrail and any wall or partition or any obstruction on the wall or partition to which the brackets are attached.

96-106

Catwalks

Catwalks

120(1) An employer shall ensure that a catwalk that is 1.2 m or more above the ground or floor level has a minimum clear width of 500 mm and is equipped with guardrails.

120(2) Notwithstanding subsection (1), where a catwalk was constructed before the commencement of this section, an employer shall ensure that the catwalk has a minimum clear width of 450 mm and is equipped with guardrails.

120(3) Notwithstanding subsections (1) and (2), where a catwalk in an underground mine was constructed before the commencement of this section and is more than 1.5 m above the ground or floor level, an employer shall ensure that the catwalk is provided with handrails and a toeboard in accordance with subsections (4) and (5).

120(4) The top rail of a handrail for a catwalk referred to in subsection (3) shall be not less than 900 mm and not more than 1.07 m above the floor level of the catwalk and a second rail shall be placed at the midpoint between the top rail and the floor level of the catwalk, unless the intervening space is closed by a screen or other suitable means and the handrail shall be capable of withstanding a load applied to the rail of at least 90 kg applied in any direction.

120(5) A toeboard for a catwalk referred to in subsection (3) shall extend from the floor of the catwalk to not less than 120 mm in height.

120(6) Sections (1) and (2) do not apply to a catwalk in an underground mine that was constructed before the commencement of this section and that is not more than 1.5 m above the ground or floor level.

2001-33

Fixed Ladders

Fixed ladders

121(1) An employer shall ensure that a fixed ladder

(a) is of adequate strength and length,

(b) is clean and free from grease,

(c) is maintained in a safe condition,

(d) is securely held in place at the top and bottom and at such intermediate points as are required to prevent sway,

(e) has a clearance of at least 165 mm maintained between the rungs and the structure to which the ladder is affixed,

(f) does not have any rungs that extend above a landing,

(g) has side rails or other secure hand holds that extend at least 1.07 m above the landing and are spaced not less than 685 mm apart, and

(h) is removed from service when it has loose, broken or missing rungs, split side rails or other defects that may be hazardous to an employee.

121(2) An employer shall ensure that a fixed ladder that is more than 6 m in height is equipped with ladder cages.

121(3) Subsection (2) does not apply where an employee on the ladder uses a fall-arresting system.

121(4) Where a ladder cage is used on a fixed ladder, an employer shall ensure that

(a) the cage is provided with metal hoops spaced to prevent an employee from falling away from the ladder and to contain an employee who may lean or fall against the cage,

(b) the cage extends not less than 685 mm and not more than 725 mm from the centre line of the rungs of the ladder,

(c) the cage is not less than 685 mm wide where it attaches to the ladder,

(d) the cage extends from a point 2.5 m from the base of the ladder to the top of the ladder,

(e) the inside of the cage is free of projections, and

(f) if the fixed ladder is more than 9 m in height, it is equipped with a rest platform at intervals of no more than 9 m.

96-106; 2010-159

PART XI

TEMPORARY STRUCTURES

Portable Ladders

Portable ladder - general requirements

122(1) An employer shall ensure that a portable ladder used at a place of employment is

(a) of adequate strength and length,

(b) clean and free of grease, and

(c) maintained in a safe condition.

Defects in portable ladder

122(2) An employer shall ensure that a portable ladder is removed from service when it has loose, broken or missing rungs, split side rails or other defects that may be hazardous to the safety of an employee.

Wooden portable ladder

123 An employer shall ensure that a wooden portable ladder

(a) is made of No. 1 grade or better spruce or fir,

(b) is not painted other than by being preserved with a transparent protective coating,

(c) if a single ladder, does not exceed 6 m in length,

(d) has rungs

(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 three screws or barbed nails of adequate length or by attachments giving equivalent or better strength, and

(v) notched into the side rails of the ladder at least 13 mm on the lower side or with fillers installed between the rungs, and

(e) has side rails

(i) dressed on all sides and without sharp edges, and

(ii) with 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.

2001-33

Standard for and use of portable ladder

124(1) An employer shall ensure that a portable ladder complies with and is used in accordance with CSA standard CAN 3-Z11-M81, “Portable Ladders”.

Portable extension ladder

124(2) An employer shall ensure that a portable extension ladder

(a) has no more than three sections,

(b) has locks that securely hold the sections of the ladder in an extended position, and

(c) when extended, maintains a minimum overlap as follows:

(i) where the ladder is 11 m or less, the overlap shall be 1 m;

(ii) where the ladder exceeds 11 m and is 15 m or less, the overlap shall be 1.25 m; and

(iii) where the ladder exceeds 15 m and is 22 m or less, the overlap shall be 1.5 m.

Exemption from use of a fall-protection system

124(3) An employee working 3 m or more above the ground or floor level on a portable ladder may work without a fall-protection system if

(a) the work is a light duty task of short duration at each location,

(b) the employee's centre of gravity is maintained between the two ladder side rails,

(c) the employee will generally have one hand available to hold on to the ladder or another support, and

(d) the ladder is not positioned near an edge or floor opening that would significantly increase the potential fall distance.

2010-159; 2020-35

Employee responsibilities – use of portable ladder

125(1) An employee who uses a portable ladder shall

(a) inspect the ladder before use,

(b) report any unsafe condition of the ladder to the employer,

(c) face the ladder and use both hands when climbing or descending, and

(d) when standing on a ladder, stand in the centre between the side rails.

125(2) An employee who uses a portable ladder shall ensure that

(a) the ladder is secured against movement,

(b) the side rails of the ladder extend at least 1 m above any platform or landing to which the ladder is a means of access, and

(c) if a step ladder, the legs are securely held in position by means of metal braces or an equivalent rigid support.

125(3) An employee who uses a portable ladder shall not

(a) splice ladders together unless the spliced section is braced so that the spliced side rails are as strong as the original side rails,

(b) place a ladder in front of or against a door unless the door is blocked in the open position, locked or guarded,

(c) use a ladder as scaffold flooring or as support for scaffold flooring,

(d) stand on the material shelf, the top or the top step of a portable step ladder, or

(e) work from the top three rungs of a portable single or extension ladder.

125(4) Paragraphs (1)(d) and (3)(c) and (e) do not apply to a firefighter engaged in structural fire-fighting or rescue.

97-121

Use of portable ladder near energized electrical source

126 Where an employee is using a portable ladder and is working close to an energized electrical utility line or utility line equipment, the employer and the employee shall each comply with the appropriate provisions of Part XIX.

Work Platforms

Measurements of lumber

127 Measurements of lumber in sections 128 to 142, other than measurements for wood planks, are nominal.

Wood used in work platforms

128 An employer shall ensure that all wood used in a work platform is

(a) made of No. 1 grade or better spruce or fir, and

(b) not painted other than by being preserved with a transparent protective coating.

Repealed

129 Repealed: 2001-33

2001-33

Forklift Platforms

2001-33

Forklift platforms

129.1(1) In this section,

"forklift platform" means a work platform that is supported on the forks of an industrial lift truck.

129.1(2) An employer shall ensure that a forklift platform

(a) is securely attached to the lift truck so as to prevent accidental movement of the platform or the tipping of the forklift,

(b) is designed and constructed of material of sufficient strength to support safely the loads to which it may be subjected, and

(c) if a manufactured platform, is erected, used, maintained and dismantled in accordance with the manufacturer's specifications.

129.1(3) An employer shall ensure that an industrial lift truck supporting a forklift platform

(a) is on a firm flat surface to ensure the truck's stability, and

(b) is operated by a competent person.

129.1(4) An employer shall ensure that a forklift platform is equipped with guardrails.

129.1(5) Despite subsection (4), if it is ~~impracticable~~ not practical to install guardrails when an employee is required to work from a moving forklift platform, the employer shall provide and the employee shall use a travel restraint system or fall-arresting system attached to an anchor point provided by the manufacturer or approved by an engineer.

129.1(6) When a fall-arresting system is used, the employer shall ensure that the fall-arresting system does not interfere with the raising and lowering of the platform.

2001-33; 2010-159

Forklift platforms

129.2 A person who operates an industrial lift truck with a forklift platform shall, if the platform is elevated more than 1.2 m and there is a person on the platform,

(a) not move the truck, and

(b) remain at the controls of the truck.

2001-33

Forklift platforms

129.3(1) An employee shall not work on a forklift platform unless

(a) the industrial lift truck is on a firm flat surface, and

(b) the platform is equipped with guardrails or a travel restraint system or fall-arresting system.

129.3(2) Repealed: 2010-159

2001-33; 2010-159

Elevating Work Platforms

2001-33

Elevating work platforms

130(1) An employer shall ensure that an elevating work platform is designed, constructed, erected, maintained, inspected, monitored and used in accordance with the following CSA standards, where applicable:

(a) CAN3-B354.1-M82, “Elevating Rolling Work Platforms”;

(b) CAN3-B354.2-M82, “Self-Propelled Elevating Work Platforms for Use on Paved/Slab Surfaces”;

(c) CAN3-B354.3-M82, “Self-Propelled Elevating Work Platforms for Use as ‘Off-Slab’ Units”; and

(d) CAN3-B354.4-M82, “Boom-Type Elevating Work Platforms”.

130(2) If an employee is required to work from an elevating work platform described in paragraph (1)(*a*), (*b*) or (*c*), the employer shall provide and the employee shall continually use a travel restraint system or fall-arresting system attached to an anchor point on the elevating work platform.

130(3) Despite subsection (2), an employee is not required to continually use a travel restraint system or fall-arresting system when an elevating work platform

(a) is on a firm and flat surface,

(b) has all the manufacturer’s guardrails and chains in place, and

(c) is not moving horizontally or vertically.

2010-159; 2020-35

General Provisions Applicable to Scaffolds

2001-33

Scaffolds – specifications

131(1) An employer and a contractor shall each ensure that a scaffold

(a) is capable of sustaining a minimum uniformly distributed load of 1.4 kPa,

(b) is at no time subjected to a load that exceeds the equivalent of one-quarter of the load for which it is designed,

(c) is designed and constructed to support at least four times the load that may be imposed on it,

(d) if over 3 m, has a guardrail that meets the requirements of section 97.

(e) is erected plumb and level,

(f) has vertical supports resting upon a firm foundation or sills,

(g) is adequately secured at vertical intervals not exceeding three times the least lateral dimension of the scaffold, measured at the base, to prevent lateral movement,

(h) has a platform that is at least 500 mm wide.

131(2) Paragraph (1)(*d*) does not apply to a mobile rolling scaffold.

131(3) Subject to subsection (4), an employer shall ensure that the spacing of vertical supports and bearers of a scaffold does not exceed 3 m on centres.

131(4) Where a scaffold is to be used for bricklaying, masonry or other heavy work, an employer shall ensure that the spacing of vertical supports and bearers of a scaffold does not exceed 2.1 m on centres.

2001-33; 2010-159

Wood planks on scaffolds

132 An employer shall ensure that a wood plank in a scaffold

(a) is at least 50 mm thick by 250 mm wide,

(b) has a span not longer than 3 m,

(c) extends at least 150 mm and not more than 300 mm beyond a supporting member,

(d) is laid flat with an overlap of 300 mm with another plank, with the centre of the overlap directly over a bearer, and

(e) is secured to prevent movement in any direction that may create a danger to an employee.

Scaffolds – miscellaneous requirements

133(1) An employer shall ensure that

(a) lean-to scaffolds on wall brackets are not used,

(b) the inner supports of the supporting members on a single pole scaffold are of adequate construction and securely fastened to a wall,

(c) a safe means of access is provided to all working levels of a scaffold, and

(d) no person uses cross-bracing or diagonal bracing on a scaffold for climbing.

Protection of employee working below scaffold

133(2) Where an employee is working on a scaffold above another employee, the employee working above shall ensure that the employee below is protected from the hazard of objects falling from the higher level by overhead protection or by such means as tying off tools and other unsecured objects on the higher level.

Working on a scaffold

134 An employee who works on a scaffold and an employer shall each ensure that

(a) only materials for current use are kept on the scaffold,

(b) the scaffold is not moved with employees or unsecured tools, materials or equipment on the scaffold, and

(c) a diagonal supporting brace is removed at the working face level only for access and only if precautions are taken to ensure that the strength of the scaffold is not weakened and the brace is replaced after the work is completed.

Wood Scaffolds

2001-33

Wood scaffolds

135(1) An employer shall ensure that the wooden vertical supports of a wood scaffold

(a) when 6 m or less in height, are not less than 50 mm thick by 100 mm wide, and

(b) when greater than 6 m in height, are not less than

(i) 100 mm thick by 100 mm wide, or

(ii) two 50 mm thick by 125 mm wide pieces laminated together.

135(2) An employer shall ensure that single wooden vertical supports of a wood scaffold are extended by means of a butt joint that has been strengthened by four pieces of material at least 25 mm thick and of the same width as the vertical supports and extending at least 740 mm on both sides of the butt joint.

135(3) An employer shall ensure that the distance between the joints of laminated vertical supports of a wood scaffold is not less than 1.2 m.

135(4) An employer shall ensure that the minimum size of a bearer on a wood scaffold is 50 mm thick by 125 mm wide.

97-121

Metal Scaffolds

2001-33

Metal scaffolds

136(1) 4An employer shall ensure that a metal scaffold

(a) is erected, used, maintained and dismantled in accordance with the manufacturer's specifications,

(b) if less than 6 m in height, is equipped with a continuous access ladder or stairway commencing at ground level, and

(c) if 6 m or greater in height, is equipped with a continuous access stairway commencing at ground level.

136(2) An employer shall ensure that

(a) a metal scaffold is regularly inspected for any damage, deterioration or loosening of the connections of its structural members that may affect its strength and if such damage, deterioration or loosening is found, that the scaffold is removed from use until repaired,

(b) cross-bracing and diagonal bracing is installed at each level of a metal scaffold as the erection of the scaffold progresses, and

(c) no person works on a metal scaffold before the cross-bracing and diagonal bracing is in place, except to erect the scaffold.

2001-33

Horse Scaffolds

2001-33

Horse scaffolds

137(1) Where the horses for a horse scaffold are constructed of wood, an employer shall ensure that

(a) the horizontal members of bearers are not smaller than 50 mm thick by 125 mm wide,

(b) the legs are not smaller than 50 mm thick by 100 mm wide,

(c) the longitudinal braces between legs are not smaller than 25 mm thick by 150 mm wide,

(d) the gusset braces at the top of the legs are not smaller than 25 mm thick by 200 mm wide, and

(e) the half diagonal braces are not smaller than 25 mm thick by 100 mm wide.

137(2) An employer shall ensure that the horses for a horse scaffold are

(a) placed on a secure footing and not raised in height by blocking or extensions,

(b) spaced not more than

(i) 1.5 m apart for a scaffold supporting 3.6 kPa or more,

(ii) 2.3 m apart for a scaffold supporting 1.2 kPa to 3.5 kPa, and

(iii) 3 m apart for a scaffold supporting less than 1.2 kPa, and

(c) placed directly over one another and, if more than two tiers high, each tier is secured to a building or structure.

137(3) An employer shall ensure that a platform of a horse scaffold

(a) if supported by single tier horses, does not exceed 5 m in height,

(b) if supported by tiered horses, does not exceed three tiers or 3.7 m in height, whichever is the lower, and

(c) is secured to the legs of the horses to prevent movement.

Ladderjack Scaffolds

2001-33

Ladderjack scaffolds

138(1) An employer shall ensure that a ladder-jack scaffold

(a) is not more than 5 m in height,

(b) has supporting ladders properly secured against displacement,

(c) is used only for operations where the work period between changes of scaffold position is of short duration and the load on the scaffold does not exceed 1.2 kPa, and

(d) is not used by more than two employees at any one time.

138(2) An employer shall ensure that a ladder-jack assembly is securely fastened to the ladder so that it bears on the side rails.

138(3) Where a manufactured platform is used on a ladder-jack scaffold, an employer shall ensure that the platform is a minimum of 500 mm in width and is supported at intervals not exceeding 3 m.

2001-03

Pump-jack Scaffolds

2001-03

Pump-jack scaffolds

139 An employer shall ensure that a pump-jack scaffold

(a) if made of metal, is not more than 15 m in height and is erected, installed and used according to the manufacturer's specifications, and

(b) if made of wood, is not more than 9 m in height.

Mobile Rolling Scaffolds

2001-03

Mobile rolling scaffolds

140(1) An employer shall ensure that a mobile rolling scaffold

(a) is not higher than four times the width of the smallest base dimension, unless it is guyed or otherwise secured at the top,

(b) has diagonal and horizontal cross-bracing installed at every level,

(c) has a solid platform covering the entire area from which an employee works,

(d) has lockable wheels, and

(e) has guardrails.

140(2) Where a mobile rolling scaffold is equipped with pneumatic tires, an employer and any person who uses the scaffold shall each ensure that the wheels are blocked separately in such a way as to raise the wheels off the ground or floor before the scaffold is used.

140(3) An employer and any person who uses a mobile rolling scaffold shall each ensure that the scaffold is not used until inspected before each day's use by a competent person and by the person who is to use the scaffold.

Suspended Equipment

2010-159

Suspended equipment

140.1(1) An owner of a place of employment, an employer and a contractor shall each ensure that every employee who works on or from suspended equipment shall

(a) have an effective means of summoning assistance,

(b) be protected from falling while getting on or off the suspended equipment, and

(c) use a vertical life line that is

(i) suspended independently from the suspended equipment, and

(ii) securely attached to an anchor point so that the failure of one means of support will not cause the life line to fail.

140.1(2) An employer and a contractor shall each ensure that each component of the suspended equipment is inspected by a competent person

(a) visually at least once daily,

(b) before being used for the first time,

(c) as recommended by manufacturer, installer or designer and at least every 12 months, and

(d) after an event or after maintenance and repairs.

140.1(3) If an inspection referred to in subsection (2) reveals a defect or inadequacy, no one shall use the suspended equipment and no employer shall permit its use until the defect or hazard has been eliminated.

140.1(4) An employer and contractor shall each ensure

(a) that if the owner of a place of employment has provided the permanent or temporary anchor point that the anchor point complies with subsection 145.2(3), and

(b) that all components of suspended equipment are compatible with one another, the work environment and the type of work being performed.

2010-159

Fixed Suspended Work Platform

2001-33; 2010-159

Suspended work platform

141(1) An owner of a place of employment, an employer and a contractor shall each ensure that a fixed suspended work platform

(a) is designed and certified by an engineer as being

(i) able to withstand the stresses that are to be imposed upon it, and

(ii) fixed in such a way that the failure of one means of support or suspension will not upset the work platform,

(b) is equipped with guardrails,

(c) is provided with a safe means of access and egress for the employees using the platform,

(d) is suspended in a fixed position by adequate means securely anchored to the platform and to the overhead supporting structure, and

(e) when in use, is inspected daily by a competent person.

141(1.1) The design referred to in paragraph (1)(a) shall

(a) set out the size and specifications of all components of the platform, including the type and grade of all materials to be used, and

(b) state the maximum live load of the platform.

141(2) Despite subsection (1)(b), if it is not practical to install guardrails when an employee is required to work from a fixed suspended work platform, the employer shall provide and the employee shall use a travel restraint system, a fall-arresting system or a safety net or make use of the control zone.

141(3) An employer shall ensure that the planks of a fixed suspended work platform

(a) if made of wood, are of a minimum of 50 mm thick by 250 mm wide supported at intervals not exceeding 3 m,

(b) overlap the supporting ledgers at each end by at least 300 mm, and

(c) are laid tightly together and secured to prevent movement in any direction.

2010-159

Swing Staging and Boatswain's Chair

2001-33; 2010-159

Fixed support

142(1) An employer shall ensure that swing staging and boatswain's chair, when attached to a fixed support, are capable of supporting at least four times the maximum load to which the fixed support is likely to be subjected

(a) without overturning, and

(b) without exceeding the allowable unit stresses for the material used in the fixed support.

Hook and thrust-out

142(2) An employer shall ensure that

(a) a hook used to suspend swing staging or boatswain's chair

(i) has safety devices to prevent dislodgement, and

(ii) is securely tied back to an anchor point capable of preventing the movement of the suspended equipment, and

(b) a thrust-out used to suspend swing staging or boatswain's chair

(i) is rigidly fastened to another thrust-out,

(ii) is securely tied back to an anchor point capable of preventing the movement of the suspended equipment,

(iii) is counter-balanced with sufficient solid material to ensure stability, and

(iv) has cleats or bolts fastened at the outer ends of the thrust-out to act as safety stops.

Rope

142(3) An employer shall ensure that rope made of synthetic fibre or wire used to suspend swing staging or a boatswain's chair

(a) provides a safety factor of not less than ten, based on the ratio of the manufacturer's rated breaking strength of the rope to the static load,

(b) is securely fastened to the drum of a winch, and is of sufficient length to allow for at least three turns of rope on the drum when the swing staging or a boatswain's chair is in its lowest position or in accordance with the manufacturer's specifications, and

(c) is removed from use in accordance with the manufacturer's specifications.

Materials

142(4) An employer shall ensure the materials used to support swing staging or a boatswain's chair meet the following requirements:

(a) if hangers are used, the hangers are made of wrought iron or mild steel with a cross section equal to 10 mm by 32 mm or a diameter of at least 19 mm and are securely attached to the platform or chair;

(b) if wire rope is used, the wire rope is at least 13 mm in diameter for the swing staging and 9 mm for the boatswain's chair; and

(c) if another material is used, it has been certified by an engineer as being of a strength equivalent to that prescribed in paragraph (a) or (b).

Platform for swing staging

142(5) An employer shall ensure that the platform of swing staging is not less than 500 mm in clear width and is either a ladder type platform or a plank type platform.

Side strings, rungs and tie rods for ladder type platform for swing staging

142(6) An employer shall ensure that the side stringers, rungs and tie rods of a ladder type platform for swing staging conform to the following table:

LADDER TYPE PLATFORMS FOR SWING STAGING

Length of Side Stringers	Width Between Side Stringers	Cross Section of Side Stringers		Rungs		Tie Rods	
		At Ends	At Middle	Total No.	Diameter	Total No.	Diameter
4.6 m	500 mm	50 mm × 70 mm	50 mm × 100 mm	10	30 mm	4	8 mm
4.9 m	500 mm	50 mm × 70 mm	50 mm × 100 mm	11	30 mm	4	8 mm
5.5 m	500 mm	50 mm × 80 mm	50 mm × 100 mm	12	30 mm	4	8 mm
6.1 m	500 mm	50 mm × 80 mm	50 mm × 100 mm	13	30 mm	4	8 mm
7.3 m	500 mm	50 mm × 80 mm	50 mm × 120 mm	16	30 mm	5	8 mm

Flooring of ladder type platform for swing staging

142(7) An employer shall ensure that the flooring of a ladder type platform on swing staging is at least 19 mm thick plywood or another material of equivalent strength.

Planks for plank type platform for swing staging

142(8) An employer shall ensure that the planks in a plank type platform on swing staging

(a) are made of wood and are a uniform thickness of not less than 50 mm,

(b) are tied together on the underside by cleats

(i) a minimum size of 25 mm by 150 mm,

(ii) securely fastened, and

(iii) spaced at intervals of not more than 1.2 m,

(c) do not exceed 3.7 m in length, and

(d) are located so that the span does not exceed 3 m between the fixed supports.

Other employer responsibilities – swing staging

142(9) An employer shall ensure that

(a) swing staging is equipped with a guardrail,

(b) two or more pieces of swing staging are not joined together, and

(c) swing staging is lowered to the ground or lashed to the building to which it is attached when employees leave the building.

97-121; 2001-33; 2010-159

Winches

143(1) An employer shall ensure that the winches used for hoisting and lowering swing staging or a boatswain's chair have a ratchet device, a worm and gear mechanism and a locking key or a similar device for preventing the slipping or free running of the winch.

Release mechanism for swing staging

143(2) An employer shall ensure that the tools used to operate the release mechanism on the drive units of powered swing staging are kept at all times on the platform and are readily available to an employee.

2010-159

Securing tools and other objects

144 Where an employee is working on swing staging or a boatswain's chair above another employee, the employee working above shall ensure that the employee below is protected from the hazards of objects falling from the higher level by tying off tools and other unsecured objects on the higher level.

2010-159

Obligation to use a fall-arresting system

144.1 An employer shall ensure and an employee shall continually use a fall-arresting system that meets the requirements of section 49.2 while on the swing staging.

2010-159

Anchor points on a swing staging

144.2 The personal fall-protection system may only be attached to an anchor point on a swing staging when

(a) there are at least two independent means of support or suspension, and

(b) it is designed, constructed and maintained so that the failure of one means of support or suspension will not upset the swing staging.

2010-159

Boatswain's chair

145 An employer shall ensure that a boatswain's chair has a seat at least 600 mm long and 250 mm wide that is of one piece construction capable of supporting 224 kg that

(a) is supported by a sling that crosses underneath the seat, in accordance with paragraph 142(4)(b), or

(b) is a manufactured system providing equivalent protection.

2010-159

Boatswain's chair

145.1(1) The boatswain's chair shall only be used to work within arm's reach of the employee who is freely suspended.

145.1(2) An employer shall ensure that an employee in a boatswain's chair uses:

(a) a fall-arresting system that meets the requirements of section 49.2; and

(b) a descent control that

(i) is classified as type 2W or 3W as per CSA standard Z259.2.3-99 "Descent Control Devices" or equivalent, and

(ii) is used in accordance with the manufacturer's specifications regarding installation, operating and maintenance.

2010-159; 2020-35

Duties of an owner of a place of employment

145.2(1) Every owner of a place of employment who allows suspended equipment operations on a place of employment shall provide or ensure the use of permanent or temporary anchor points that meet the requirements of subsection 142(2).

145.2(2) If a permanent anchor point has been provided, the owner of a place of employment shall

(a) prepare sketches showing the anchor point and related structures,

(b) provide a copy of the sketches to the employee who is to work from suspended equipment before the work begins, and

(c) ensure a copy of the sketches are posted conspicuously near the entrance to the roof.

145.2(3) If a permanent or temporary anchor point has been provided, the owner of a place of employment shall ensure that the anchor point as well as the permanently installed suspended equipment are inspected and certified by a competent person

(a) before being used for the first time,

(b) as recommended by manufacturer, installer or designer and at least every 12 months,

(c) after an event or after maintenance and repairs, and

(d) when the owner of a place of employment is informed under subsection (4) of a defect or inadequacy.

145.2(4) An employer or employee shall inform the owner of a place of employment immediately if they believe that the anchor point or any component of the permanently installed suspended equipment is defective or inadequate.

145.2(5) If the inspection under subsection (3) reveals a defect or inadequacy, no one shall use the anchor point or the permanently installed suspended equipment and no owner of a place of employment, employer or contractor shall permit their use until the defect or inadequacy has been eliminated.

2010-159

PART XII

EXPLOSIVES

Exemption - underground mine

146 This Part does not apply to an underground mine.

Control of Blasting Operation

Blasting operation to be conducted by blaster

147(1) Subject to subsection 148(2), an employer shall ensure that a blasting operation is conducted by a blaster who holds an appropriate certificate of qualification issued under the *Apprenticeship and Occupational Certification Act* for the work involved.

Where more than one blaster

147(2) Where more than one blaster is involved in a blasting operation, an employer shall designate one of the blasters to supervise the blasting operation.

93-8

Prohibition respecting blasting operation

148(1) No person other than a blaster with the appropriate certificate of qualification shall conduct or supervise a blasting operation.

148(2) Notwithstanding subsection (1), a person who, as of December 31, 1991, has conducted or supervised blasting operations for a period of not less than six months in the open pit mining industry may continue to do such work until June 1, 1993 without holding a certificate of qualification as a blaster issued under the *Apprenticeship and Occupational Certification Act*.

148(3) The provisions of this Part that apply to a blaster apply to a person referred to in subsection (2) with the necessary modifications.

93-8

Safety of persons in and near blasting area

149(1) A blaster who conducts a blasting operation or, where there is more than one blaster involved, the blaster who supervises the blasting operation, shall ensure the safety of all persons within and adjacent to the blasting area.

149(2) All persons within or adjacent to a blasting area shall comply with the directions or instructions given by the blaster responsible for ensuring the safety of persons within or adjacent to the blasting area.

93-8

Assisting in a blasting operation

150(1) A person who is not a blaster or a blaster who does not hold the appropriate certificate of qualification may assist in a blasting operation.

150(2) A blaster conducting or supervising a blasting operation shall exercise continuous visual supervision over a person or blaster referred to in subsection (1).

93-8

General Safety

Safety respecting explosives

151 An employer shall ensure that

(a) only an authorized employee has access to explosives,

(b) no person carries explosives in clothing,

(c) no smoking or open flame is permitted

(i) within 30 m of any place where an explosive is stored, or

(ii) within 15 m of any place where an explosive is being handled, used or transported, and

(d) primed explosives are not transported, stored or handled inside a vehicle or near any electrical equipment.

Transporting electrical detonators

152 Where it is necessary to transport electrical detonators in a vehicle equipped with a radio transmitter, an employer shall ensure that

(a) the detonators are transported in a resilient rubber-lined or felt-lined closed metal container, electrically bonded to the vehicle,

(b) the radio transmitter is switched off whenever the box is open, and

(c) the detonators are transported in their original containers with their leg wires folded and shunted, as shipped by the supplier.

Precautions respecting explosives and detonators to be used the same day

153(1) Where explosives are unloaded from a transport vehicle and are to be used the same day, an employer shall ensure that blasting explosives and detonator products are placed at least 50 m apart where possible and are

(a) under visual observation at all times, or

(b) locked in separate dayboxes that meet the standards set out in “Magazine Standards for Blasting Explosives and Detonators”, revised in 1982 and published by the federal Department of Energy, Mines and Resources.

Storage of explosive and detonators overnight

153(2) Where blasting explosives or detonator products are to be stored overnight, an employer shall ensure that they are stored in accordance with the requirements of the *Explosives Act* (Canada).

Precautions respecting ignition and sparks

154 An employer shall ensure that

(a) no article or thing liable to ignite spontaneously or likely to cause an explosion or fire is taken into or stored beside a magazine used to keep or store explosives, and

(b) tools and implements used to open containers of explosives are made only of non-sparking materials.

Inspection of blasting machine

155 An employer shall ensure that a blasting machine is inspected at least annually by a competent person and that the blasting machine is maintained in good working condition.

Handling

Handling of explosives and related matters

156 A blaster shall ensure that

(a) blasting explosives and detonator products are kept and handled separately until the last practicable moment when the blaster primes the explosive;

(b) no explosive is primed in any place where explosives are stored;

(c) primed explosives are not slit or tamped;

(d) the wrapping is not removed from nitroglycerine-based products;

(e) only commercially manufactured safety fuse assemblies are used;

(f) safety fuse assemblies are not less than 1 m in length;

(g) time expired, deteriorated or damaged explosives are not used;

(h) where more than one drill hole is fired in any one round using safety fuses, the holes are fired by means of one igniter cord;

(i) where there is any danger to property or persons from flyrock from a blast, blasting mats of adequate size and strength are used;

(j) frozen explosives are used in accordance with the manufacturer's recommended procedure;

(k) drill holes are of sufficient size to admit the free insertion to the bottom of the hole of the explosive to be used without ramming, pounding or undue pressure;

(l) only tamping rods of wood or other non-metallic, non-sparking material are used;

(m) drill holes are not tied in until the last practicable moment before firing and are fired in a single operation;

(n) no drilling is done in a previously blasted area until the surface to be drilled is exposed and carefully examined for remnants of explosives or holes containing explosives; and

(o) where remnants of explosives or holes containing explosives are found, the explosives are detonated or removed before drilling commences.

93-8

Electrical storms

157 At the approach of an electrical storm and until the electrical storm has passed, a blaster shall ensure that

(a) blasting operations cease,

(b) if an electric means of initiation is being used, lead wires are short-circuited, and

(c) all persons leave the danger area and no one enters the danger area.

93-8

Drill holes

158(1) An employer and a blaster shall each ensure that no drilling is done within a distance equal to one and one-half times the depth of the drill hole to any drill hole containing explosives and that notwithstanding the depth of the drill hole, a minimum distance of 6.5 m is maintained at all times.

158(2) Where, due to the nature of the ground being drilled, it is necessary to load a drill hole immediately after drilling is complete and subsequently to drill adjacent holes, an employer shall establish a code of practice detailing the procedure to be followed in such a situation to ensure employee safety.

93-8

Identification of loaded drill holes

159 An employer and a blaster shall each ensure that loaded drill holes are clearly identified and secured and are protected from the passage of machines or equipment over them.

93-8

Work in blasting area

160(1) No person shall conduct or direct any work in a blasting area without the approval of the blaster conducting the blasting operation or, where there is more than one blaster involved, the blaster supervising the blasting operation.

Tools and equipment in blasting area

160(2) Except for the tools and equipment used by a person who has obtained the approval required under subsection (1), a blaster shall ensure that only tools and equipment necessary to the blasting operation are brought into a blasting area.

93-8

Firing of charge

161 An employer shall ensure that

(a) no person other than a blaster with the appropriate certificate of qualification, a person referred to in subsection 148(2) or a person referred to in subsection 150(1) fires a charge, and

(b) a blaster, a person referred to in subsection 148(2) or a person referred to in subsection 150(1) who fires a charge by lighting a safety fuse is accompanied by another person.

93-8

Prohibition respecting priming and firing of charge

162 No person other than a blaster with the appropriate certificate of qualification, a person referred to in subsection 148(2) or a person referred to in subsection 150(1) shall

(a) prime an explosive,

(b) make any connection that leads or will lead from the primed charge to an initiating device,

(c) connect any delay or sequencing device or program the delay or sequence for the blast, or

(d) fire a charge.

93-8

Before Firing

Testing of detonators before firing

163 Before firing a charge, a blaster shall ensure that electric detonators are

(a) tested for continuity with a blasting meter before being used, and

(b) shunted or short-circuited after being tested until they are connected in circuits.

93-8

Testing of electric blasting circuit

164 Before connecting an electric blasting circuit to the lead wires and before connecting the lead wires to the power source, a blaster shall ensure that the electric blasting circuit is tested with a blasting meter for continuity and resistance as calculated.

93-8

Connection of lead wires to power source

165 Before making the final connection of lead wires to the power source when using an electric initiation of blasting or before firing when using any other initiation method, a blaster conducting the firing of a charge shall ensure that

(a) sufficient audible warning is given to all persons in the danger area,

(b) all persons have moved out of the danger area,

(c) all roads and approaches to the danger area are guarded in order to prevent anyone from entering, and

(d) all machines and equipment are clear of the effects of the blast.

93-8

Electric initiation of blasting

166(1) Where an electric initiation of blasting is used, a blaster shall ensure that

(a) only a blasting machine or a safety switch box referred to in subsection (2) is used, and

(b) the blasting machine does not exceed the manufacturer's rated capacity.

166(2) Where firing of a charge is done from power lines, an employer shall ensure that a safety switch box

(a) is provided to the blaster and is constructed so that the door may be closed and locked only in the "OFF" position, and

(b) is kept locked and is not accessible to anyone other than the blaster responsible for firing the charge.

93-8

Extraneous electricity

167(1) In this section

"extraneous electricity" means unwanted electrical energy greater than 50 mA that is present at a blasting area and that may enter an electric blasting circuit, and includes stray electrical current, static electricity, radio frequency energy and time-varying electric and magnetic fields.

167(2) Where an electric initiation of blasting is used, a blaster shall ensure that electric blasting circuits are kept on the ground, except that bare connections may be elevated to prevent current leakage.

167(3) A blaster shall ensure that electric initiation of blasting is not used

(a) where there is a danger from extraneous electricity, or

(b) when blasting within 100 m of electric power lines.

93-8; 97-121

Electric initiation of blasting and distance from transmitter

168 An employer and a blaster shall each ensure that electric initiation of blasting is not carried out at a distance from any transmitter less than the minimum distances shown in the following tables:

MINIMUM DISTANCES FROM COMMERCIAL AM BROADCAST TRANSMITTERS (0.535 to 1.705 MHz)

TRANSMITTER POWER (1) (Watts)	MINIMUM DISTANCE (Metres)
Up to 4,000	245
4,001 - 5,000	275
5,001 - 10,000	395
10,001 - 25,000	610
25,001 - 50,000	885
50,001 - 100,000	1,250

(1) Power delivered to antenna.

MINIMUM DISTANCES FROM TRANSMITTERS UP TO 50 MHz (excluding Commercial AM Broadcast Transmitters)

CALCULATED FOR A SPECIFIC LOOP PICKUP CONFIGURATION

TRANSMITTER POWER (1) (Watts)	MINIMUM DISTANCE (Metres)
Up to 100	245
101 - 500	520
501 - 1,000	760
1,001 - 5,000	5,185
5,001 - 50,000	1,680
50,001 - 500,000	16,770

(1) Power delivered to antenna.

MINIMUM DISTANCES FROM MOBILE TRANSMITTERS INCLUDING AMATEUR AND CITIZEN'S BAND TRANSMISSION FREQUENCY IN MHz

TRANSMITTER POWER (Watts)	MF 1.6-3.4 (Metres)	HF 28-29.7 (Metres)	VHF 35-36 42-44 50-54 (Metres)	VHF 144-148 150.8-161.6 (Metres)	UHF 450-470 (Metres)
0 - 5	10	20	20	6	3
6 - 10	15	30	25	9	6
11 - 30	20	55	45	16	10
31 - 50	25	70	55	21	12
51 - 60	30	75	60	23	13
61 - 100	35	100	80	30	18
101 - 180	50	130	110	40	25
181 - 250	60	150	125	50	30
251 - 350	70	180	150	60	35
351 - 500	85	220	180	70	40
501 - 600	90	240	195	75	45
601 - 1000	125	310	250	95	55
1001 - 1500	135	345	280	110	65
1501 - 10000	380	975	795	305	175

MINIMUM DISTANCES FROM CITIZEN'S BAND CLASS D TRANSMITTERS (26.96 - 27.41 MHz)

TYPE	MINIMUM DISTANCE (Metres)
Double Sideband (hand-held) (4 watts max.)	1.5
Double Sideband (vehicle-mounted) (4 watts max.)	20.0
Side Sideband (hand-held) (12 watts peak)	6.0
Side Sideband (vehicle-mounted) (12 watts peak)	34.0

MINIMUM DISTANCES FROM VHF TV AND FM BROADCASTING TRANSMITTERS

EFFECTIVE RADIATED POWER (Watts)	CHANNEL S 2 to 6 (Metres)	CHANNEL S 7 to 13 (Metres)	FM RADIO (Metres)
Up to 1,000	305	185	245
1,001 - 10,000	550	305	430
10,001 - 100,000	980	580	795
100,001 - 325,000	1,315	765	1,040
325,001 - 1,000,000	1,770	915	1,405

MINIMUM DISTANCES FROM UHF TV TRANSMITTERS

EFFECTIVE RADIATED POWER (Watts)	MINIMUM DISTANCE (Metres)
Up to 10,000	185
10,001 - 1,000,000	610
1,000,001 - 5,000,000	915
5,000,001 - 100,000,000	1,830

MINIMUM DISTANCES FROM MARITIME RADIONAVIGATIONAL RADAR

TYPE OF VESSEL	EFFECTIVE RADIATED POWER (Watts)	MINIMUM DISTANCE (Metres)
Small Pleasure Craft	Up to 500 (1)	10
Harbour/River Craft	501 - 5,000 (1)	15
Large Commercial Ships	5,001 - 50,000 (2)	95

(1) 3 cm (9000 MHz) frequency

(2) 3 cm (9000 MHz) frequency10 cm (3000 MHz) frequency

NOTE: Department of National Defence and Coast Guard operate at a much higher frequency (200,000,000 watts)

93-8; 97-121

After Firing

Inspection of site after firing of charge

169(1) A blaster who fires a charge shall ensure that no person other than the blaster enters a danger area where the charge has been fired until the blaster makes a thorough inspection of the site after the charge has been fired and approves the danger area as safe.

169(2) A blaster who fires a charge by an electric means of initiation shall ensure that no person enters a danger area where the charge has been fired until the blaster disconnects the lead wires from the power source, short-circuits the leads and, where applicable, locks the safety switch box.

169(3) Notwithstanding subsection (1), a blaster may be accompanied by an assistant when making an inspection under subsection (1).

93-8

Misfires

Misfires

170(1) Where a charge has misfired or is suspected of having misfired, the blaster who fired the charge shall remain outside the danger area until

(a) thirty minutes after the last charge was due to explode if a safety fuse was used, and

(b) ten minutes after the last charge was due to explode for all other means of initiation.

170(2) On expiration of the time referred to in subsection (1), the blaster who fired the charge shall enter the danger area, make a thorough inspection of the site and approach the misfired or suspected misfired charge to assess the situation or potential hazard.

170(3) Where no misfired charge is found, the blaster who fired the charge may approve the danger area as safe and shall cause an all clear signal to be sounded.

170(4) Where one or more misfired charges are found, the blaster who fired the charge

(a) shall readjust the danger area boundary if required,

(b) shall inform the employer of the situation,

(c) shall conspicuously mark all misfired charges, and

(d) notwithstanding subsection 169(1), may allow sufficient personnel to enter the danger area to assist in treating the misfire.

93-8

Code of practice for misfires

171(1) An employer shall establish a code of practice for the safe handling of misfired charges and shall have the code of practice available for inspection by an officer.

171(2) A blaster shall follow the code of practice referred to in subsection (1).

93-8

Corrective action to prevent misfires

172 An employer shall, as far as practicable, ensure that the cause of a misfired charge is established and that corrective action is taken to prevent recurrence.

Records

Records to be kept

173(1) A blaster who conducts or supervises a blast shall maintain a log book recording the following:

(a) before the blast:

(i) job location;

(ii) names of blaster and assistants;

(iii) diagram of blasting pattern and sequence of firing;

(iv) type and the amount of blasting explosives and detonators;

(v) number, depth and placement of charges in each hole;

(vi) resistance calculations for each series and circuit when using an electric means of initiation;

(vii) precautions taken to control fly rock, air blast and ground vibrations;

(viii) placement of persons to guard the danger area; and

(ix) reason for any delay in blasting; and

(b) after the blast:

(i) date and time of blast;

(ii) weather conditions at time of blast; and

(iii) results of post-blast examination for misfires and other dangers.

173(2) A blaster shall keep a log book referred to in subsection (1) for three years after the last blast recorded in the log book and shall make the log book available for inspection by an officer.

93-8; 97-121

Production of certificate of qualification

174 A blaster who conducts, supervises or participates in a blasting operation shall keep the certificate of qualification referred to in subsection 147(1) in a safe place at the place of employment and make it available for inspection by an officer.

93-8

Log book for magazine

175(1) An employer shall ensure that an employee in charge of a magazine maintains a log book for the magazine and records the amount of blasting explosives by type, detonators by period, leg wire length and series that are or have been stored in the magazine from the time the magazine was first used or for the three years previous to the date of the most recent entry, whichever is the shorter period.

175(2) An employer shall ensure that the log book referred to in subsection (1) is not kept in the magazine and that it is made available for inspection by an officer.

Warning Signs

Warning signs for blasting operation

176(1) Where a blasting operation by an electric means of initiation is about to commence and while it is in progress, an employer shall ensure that signs bearing the words “Blasting Operations - Turn Off Radio Transmitters” and “Opérations de sautage - éteindre les émetteurs radio” in letters of luminous paint not less than 150 mm high on a contrasting background are posted on all roads within 100 m of the blasting area.

176(2) An employer shall ensure that signs bearing the words “End of Blasting” and “Fin de sautage” indicate to drivers of vehicles when they are leaving the area referred to in subsection (1).

176(3) An employer shall ensure that the signs described in subsections (1) and (2) are removed or covered after each blast is completed.

97-121

Housekeeping

Empty explosives cartons and wrappings

177(1) An employer shall ensure that empty explosives cartons and wrappings are

(a) collected from the site before blasting, and

(b) disposed of after the blast is completed.

Expired, surplus or damaged explosives

177(2) An employer shall ensure that time-expired, surplus or damaged explosives are destroyed only by a blaster or other qualified person using methods approved by the supplier.

93-8; 97-121

Blasting mats and loose rocks

178 An employer shall ensure that

(a) blasting mats are used where there may be a hazard to persons or property from flying debris, and

(b) loose rocks are scaled off the sides of excavations and removed from the crest after blasting and before any work is resumed.

Code of Practice

Code of practice for use of explosives

179(1) Where black powder is to be used, an employer shall establish a code of practice for the safe use of the black powder.

179(2) Where any explosive other than black powder is to be used

(a) in a confined space,

(b) underwater,

(c) for demolition of buildings and other structures,

(d) for river ice control,

(e) in theatrical applications where the special effects includes explosives used alone or in conjunction with fireworks,

(f) for oil well or wild gas well control,

(g) for seismic operations, or

(h) for any other unusual use as determined by the Chief Compliance Officer,

an employer shall establish a code of practice for the safe use of the explosive.

2001-33

PART XIII

EXCAVATIONS AND TRENCHES

Underground utility lines or piping and utility poles

180(1) Before beginning an excavation or trench, an employer shall ensure that the location of any underground utility line or piping is determined.

180(2) Where employees are working within 600 mm of underground utility line or piping, an employer shall ensure that

(a) the authority operating the utility line or piping has been notified of the operation,

(b) the utility line has been de-energized, and

(c) an adequate operating procedure is used by the employees.

180(3) An employer shall ensure that utility poles, posts and similar structures are supported or removed if they are within 3 m of an excavation or trench that is more than 1.2 m deep.

Shoring, bracing or caging of walls

181(1) An employer shall ensure that the walls of an excavation or trench are supported by shoring, bracing or caging except when the excavation or trench

(a) is less than 1.2 m deep,

(b) subject to subsection (2), is cut in solid rock,

(c) is sloped or benched to within 1.2 m of the bottom of the excavation or trench with the slope or bench not exceeding 1 m of vertical rise to each 1 m of horizontal run, or

(d) is one that an employee is not required to enter.

Support of unstable walls cut in solid rock

181(2) Where the walls or crests of an excavation or trench are cut in solid rock and are not stable, an employer shall ensure that the walls and crests are adequately supported by rock bolts, wire mesh, shoring or a method that provides equivalent support.

Support where heavy equipment used near edge

181(3) Where powered mobile equipment or a mobile crane 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 pressure.

Certificate of engineer respecting support

181(4) An employer shall ensure that shoring, bracing or caging for an excavation or trench is certified as adequate by an engineer and shall make the proof of the certification available to an officer on request.

2001-33

Entering excavation or trench

182(1) An employer shall ensure that an employee does not, and no employee shall, enter an excavation or trench 1.2 m or more in depth unless

(a) the walls of the excavation or trench are supported by shoring, bracing or caging, the excavation or trench is cut in solid rock or the excavation or trench is sloped or benched to within 1.2 m of the bottom of the excavation or trench with the slope not exceeding 1 m of vertical rise to each 1 m of horizontal run,

(b) subsections 181(2), (3) and (4) have been complied with,

(c) loose material that may fall into the excavation or trench has been removed, and

(d) a ladder that extends at least 1 m above the excavation or trench is installed no more than 15 m from where the employee is working or some other safe means of access and egress is provided.

182(2) Notwithstanding subsection (1), an employee may enter an excavation 1.2 m or more in depth to install bracing if the employee remains a distance from the face of the excavation equal to or greater than the depth of the excavation.

182(3) Notwithstanding subsection (1), an employer shall ensure that an employee does not, and no employee shall, enter an excavation or trench 1.2 m or more in depth to install or remove shoring or caging from a position inside an excavation or a trench.

2001-33

Location of excavated material

183(1) Subject to subsection (2), an employer shall ensure that excavated material is kept at least 1.2 m away from the edge of an excavation or trench.

183(2) Where an excavation or trench is more than 1.8 m deep in rock, an employer shall ensure that

(a) excavated material is located back from the face of the excavation or trench a distance equal to at least the height of the excavated material, or

(b) a fence that is adequate to support the excavated material is erected at a minimum distance of 1 m from the face of the excavation or trench.

Water

184(1) An employer shall ensure that an excavation or trench in which an employee works is kept reasonably free of water.

Testing for hazardous gas or oxygen deficiency

184(2) Where an employee may be exposed to a hazardous gas or to an oxygen deficient or oxygen rich atmosphere in an excavation or trench, an employer shall ensure that testing is carried out in accordance with section 263 before the employee enters the excavation or trench.

Storage of hazardous substance prohibited

184(3) An employer shall ensure that no hazardous substance is stored in an excavation or trench.

Hazardous gases and adequacy of ventilation

184(4) An employer shall ensure that precautions are taken to prevent the accumulation of hazardous gases in an excavation or trench and that adequate ventilation is provided in the excavation or trench.

Observation of employee working in excavation or trench

185 Where an employee is working in an excavation or trench, an employer shall ensure that there is an employee working on the surface who is able to observe the employee working in the excavation or trench.

Material lowered into excavation or trench

186 An employer shall ensure that an operator of powered mobile equipment or a mobile crane does not lower material into an excavation or trench, and no such operator shall lower material into an excavation or trench, unless

(a) the operator has unrestricted visibility, or

(b) a signaller is used to direct the movement of the material.

2001-33

Material lowered into excavation or trench

187 An employee shall not move under or stay under any material being lowered into an excavation or trench.

Illumination to prevent inadvertent entry

188(1) An employer shall ensure that an excavation or trench is adequately illuminated

(a) when work is being carried out in or near the excavation or trench, and

(b) by warning lights or reflective materials to prevent inadvertent entry.

Barrier to protect workers

188(2) An employer shall ensure that an adequate barrier is set up around the excavation or trench so as to protect employees working in the excavation or trench from vehicular traffic.

97-121

PART XIV

PITS AND QUARRIES

Definitions

189 In this Part

"pit" means a work or undertaking for the purpose of opening up, proving, removing or extracting any unconsolidated metallic or non-metallic mineral or mineral bearing substance, rock, earth, clay, sand or gravel by means of an open excavation in order to supply it for construction, industrial or manufacturing purposes;

"quarry" means a work or undertaking for the purpose of opening up, proving, removing or extracting consolidated rock by means of an open excavation in order to supply it for construction, industrial or manufacturing purposes and includes an open pit mine.

Drawings and specifications

190 Where required to do so by the Chief Compliance Officer, an owner of a pit or quarry and an employer shall submit detailed drawings with specifications for the development of the pit or quarry to the Chief Compliance Officer.

Haulage road

191 An owner of a pit or quarry and an employer shall each ensure that a haulage road in a pit or quarry is designed, constructed and maintained

(a) to minimize hazards from the slipping or skidding of vehicles,

(b) to enable vehicles to pass each other safely, and

(c) so that grades do not exceed the design capacity of vehicles that are used in the pit or quarry.

Walkway from working level to surface

192(1) Where an employee is required to walk from the working level of a pit or quarry to the surface, an employer shall provide a walkway from the working level to the surface for the employee.

192(2) Where a walkway under subsection (1) is inclined at more than 20 degrees and less than 50 degrees to the horizontal, an employer shall provide stairways or ladderways.

192(3) Where a walkway under subsection (1) is inclined at more than 50 degrees to the horizontal, an employer shall provide ladderways.

Excavated material

193(1) An employer shall ensure that material excavated from a pit or quarry is piled at a distance from the edge of the pit or quarry so that the material does not subside into the pit or quarry or cause ground failure.

193(2) Where material excavated from a pit or quarry is dumped from a vehicle to a stockpile, an employer shall ensure that precautions are taken to keep the vehicle at a safe distance from the edge of the stockpile.

97-121

Unconsolidated overburden

194 An employer shall ensure that unconsolidated overburden

(a) is moved from the edge of a pit or quarry a sufficient distance to prevent the overburden from falling into the pit or quarry,

(b) is at least 7 m from the edge of the pit or quarry, and

(c) is sloped to its natural angle of repose.

Support of utility poles, etc.

195 An employer shall ensure that utility poles, posts and similar structures are supported or removed if they are within 3 m of a pit that is more than 1.2 m deep.

Work Procedures for Quarries

Notification respecting work in quarry

196 Where quarrying activities are initially started or where activities are resumed after a cessation of production of four months or more, the owner of the quarry or the employer shall notify the Chief Compliance Officer of the intention to begin or resume operations in the quarry at least two weeks before the operations are to begin or resume.

Examination of work faces of quarry

197(1) An employer shall ensure that an examination of all work faces in a quarry is made at the beginning of each operating shift and the results are recorded by the person in charge of the shift in a daily examination and record book together with a daily recording of all areas worked and of all unusual occurrences or hazardous conditions.

197(2) The person in charge of a shift shall read the record in the daily examination and record book made by the person in charge of the previous shift and sign it before assigning work for the shift about to begin.

197(3) An employer shall ensure that the daily examination and record book referred to in subsection (1) is available on request to a ~~joint health and safety~~ committee or health and safety representative, if any, and to an officer on request.

197(4) An employer shall ensure that no employee works close to a face of a quarry until the face has been examined and declared safe before the start of each shift by the person in charge of the shift.

When quarry to be worked in benches

198(1) An employer shall ensure that a quarry 20 m or over in depth is worked in benches that are not more than 20 m high.

198(2) Subsection (1) does not apply when the side cast method of stripping is used.

198(3) Where the walls of a quarry under 20 m cannot be excavated safely, an employer shall ensure that the quarry is worked in benches.

Berm or ledge in a quarry

199(1) An employer shall ensure that a berm or ledge in a quarry is constructed of sufficient width to catch and retain rocks that fall from the bench or face above.

199(2) An employer shall ensure that loose material that may endanger a person on a lower bench in a quarry is not permitted to accumulate on a berm or ledge in the quarry.

97-121

Undercutting and tunnelling in a quarry

200(1) An employer shall ensure that there is no undercutting of the working face of a quarry except where a tunnelling method is used to remove rock.

200(2) Where a tunnelling method is used to remove rock in a quarry and the enclosing ground is not secure, an employer shall ensure that

(a) every tunnel in which work is being carried on or through which persons pass is securely cased, lined, timbered, screened, rockbolted or otherwise made secure, and

(b) no person is allowed to go beyond a cased, lined, timbered, screened, rockbolted or otherwise secured ground.

97-121

Protection of adits, declines and tunnel openings in a quarry

201 Where the wall of the quarry exceeds 37.5 degrees from the horizontal, an employer shall ensure that all adits, declines and tunnel openings collared within the wall are protected against slides or other runs of material and that such protection is established once the distance of the adits, declines and tunnel openings from the collar have reached 20 m.

97-121; 2001-33

Work Procedures for Pits

Removal of material from pit by powered mobile equipment

202 Where material in a pit is being removed by means of powered mobile equipment, an employer shall ensure that the working face of the pit is

(a) sloped at its angle of repose, or

(b) benched to limit the vertical height to not more than 1.5 m above the maximum reach of the equipment in use.

Removal of material from pit by other means

203 Where material in a pit is being removed by means other than powered mobile equipment, an employer shall ensure that the working face of the pit is

(a) sloped at its angle of repose, or

(b) benched to limit the vertical height of the working face to not more than 1.2 m.

Undercutting at face of pit by powered mobile equipment

204 An employer shall ensure that undercutting by means of powered mobile equipment at the face of a pit is

(a) restricted to the depth of the bucket of the powered mobile equipment in use, and

(b) permitted only when the approach by the operator of the powered mobile equipment is at a 90 degree angle to the face.

Approach by employee to working face of pit

205 An employer shall ensure that an employee on foot comes no closer to the working face of a pit than 1.3 times the height of the working face unless the working face is sloped at its angle of repose or is benched to limit the vertical height of the working face to not more than 1.2 m.

Marking of top of pit

206 An owner of a pit and an employer shall each ensure that the top of a pit is adequately marked to indicate the existence of the pit.

2001-33

PART XV

MATERIALS HANDLING EQUIPMENT AND PERSONNEL CARRYING EQUIPMENT

Hoisting Apparatus

General requirements

207(1) An employer shall ensure that a hoisting apparatus is

(a) sufficiently strong and stable for the intended lift, and

(b) equipped with suitable ropes, chains, slings, hooks and other fittings,

so as to ensure the safety of a person who uses the apparatus or works in its vicinity.

Standards

207(2) An employer shall ensure that hoisting apparatus is designed, installed, erected, checked, examined, inspected, operated and maintained in accordance with the appropriate following CSA standards:

(a) B167-1964, “General Purpose Electric Overhead Travelling Cranes”;

(b) B167-96, “Safety Standard for Maintenance and Inspection of Overhead Cranes, Gantry Cranes, Monorails, Hoists, and Trolleys”;

(c) C22.2 No. 33-M1984, “Construction and Test of Electric Cranes and Hoists”;

(d) Z248-1975, “Code for Tower Cranes”;

(e) Z150-98, “Safety Code on Mobile Cranes”.

Application to owner

207(3) Subsection (2) applies with the necessary modifications to a person who owns a hoisting apparatus. 97-121; 98-78; 2001-33; 2020-35

Inspection of telescopic boom of mobile crane manufactured before 1995

207.1(1) This section applies to a mobile crane manufactured before 1995 that, before the commencement of this subsection, has not undergone a complete structural inspection of its telescopic boom in accordance with CSA standard Z150-98, “Safety Code on Mobile Cranes”.

207.1(2) Notwithstanding the time frame specified in clause 4.3.2.2(d) of CSA standard Z150-98, “Safety Code on Mobile Cranes” for an inspection of a telescopic boom, an employer and an owner of a mobile crane shall each ensure that a mobile crane undergoes a complete structural inspection of its telescopic boom in accordance with CSA standard Z150-98, “Safety Code on Mobile Cranes” in accordance with the following time frame:

(a) when the boom is disassembled, if it is disassembled before the date specified in paragraph (b) applicable to the year of manufacture of the crane; or

(b) no later than December 31st of the year

(i) 2001, if the crane was manufactured before 1970,

(ii) 2002, if the crane was manufactured after 1970 and before 1973,

(iii) 2003, if the crane was manufactured after 1973 and before 1977,

(iv) 2004, if the crane was manufactured after 1977 and before 1980,

(v) 2005, if the crane was manufactured after 1980 and before 1990, and

(vi) 2006, if the crane was manufactured after 1990 and before 1995.

207.1(3) After an inspection under this section, an employer and an owner of a mobile crane shall ensure that subsequent inspections comply with the requirements of CSA standard Z150-98, “Safety Code on Mobile Cranes”.

2001-33; 2020-35

Inspection of swivel, hook and block assembly and hooknut of mobile crane manufactured before 2000

207.2(1) This section applies to a mobile crane manufactured before 2000 that, before the commencement of this subsection, has not undergone an inspection of its swivel, hook and block assembly and hooknut in accordance with CSA standard Z150-98, “Safety Code on Mobile Cranes”.

207.2(2) Notwithstanding the time frame specified by clause 4.3.5.2 of CSA standard Z150-98, “Safety Code on Mobile Cranes” for an inspection of a swivel, hook and block assembly and hooknut, an employer and an owner of a mobile crane shall each ensure that a mobile crane undergoes an inspection in accordance with clause 4.3.5.2 of CSA standard Z150-98, “Safety Code on Mobile Cranes” no later than December 31st of the year

(a) 2001, if the crane was manufactured before 1970,

(b) 2002, if the crane was manufactured after 1970 and before 1980,

(c) 2003, if the crane was manufactured after 1980 and before 1990, and

(d) 2004, if the crane was manufactured after 1990 and before 2000.

207.2(3) After an inspection under this section, an employer and an owner of a mobile crane shall ensure that subsequent inspections of its swivel, hook and block assembly and hooknut comply with the requirements of CSA standard Z150-98, “Safety Code on Mobile Cranes”.

2001-33; 2020-35

Safe working load

208(1) Subject to subsection (2), an employer shall obtain a statement of the safe working load of a hoisting apparatus from the manufacturer of the hoisting apparatus.

208(2) Where an employer is unable to obtain the statement referred to in subsection (1), the employer shall obtain a statement of the safe working load of the hoisting apparatus from an engineer.

208(3) An employer shall ensure that the statement of the safe working load referred to in subsection (1) or (2) is posted legibly on the hoisting apparatus so that the operator of the apparatus is able to see it when operating the apparatus.

208(4) An employer shall ensure that an operator of a hoisting apparatus has sufficient information to enable the operator to determine the load that the hoisting apparatus is capable of hoisting safely under any operating condition.

208(5) If the boom, counterweight or another part of a hoisting apparatus is modified, extended, altered or repaired so as to affect the safe working load of the hoisting apparatus, an employer shall obtain a statement of the revised safe working load of the hoisting apparatus from an engineer and post it in accordance with subsection (3).

208(6) Subsections (1) to (4) do not apply to mobile cranes.

97-121; 2001-33; 2010-159

Prohibition respecting safe working load

209(1) An employer shall ensure that a hoisting apparatus is not subjected to a load in excess of its safe working load.

209(2) An operator of a hoisting apparatus shall not subject the hoisting apparatus to a load in excess of its safe working load.

Maintenance

210(1) An employer shall ensure that a hoisting apparatus is maintained in accordance with the manufacturer's specifications.

Inspection before use and after possible damage

210(2) An employer shall ensure that a competent person thoroughly inspects and tests a hoisting apparatus, including any safety devices,

(a) before it is first put into use, and

(b) after any incident that may have damaged some part of the hoisting apparatus.

Log book

210(3) An employer shall ensure that a log book recording inspections and repairs to a hoisting apparatus is maintained and made available to an officer on request.

Application

210(4) Subsection (3)

(a) applies only to hoisting apparatus with a lifting capacity of 1815 kg or greater, and

(b) does not apply to a mobile crane.

Application

210(5) Subsections (1) and (2) apply with the necessary modifications to a person who owns a hoisting apparatus.

2001-33

Annual inspection

210.01(1) An employer shall ensure that a hoisting apparatus is inspected every twelve months by a competent person to ensure that the apparatus meets the manufacturer's specifications.

210.01(2) A person who inspects a hoisting apparatus under this section shall certify in writing that the apparatus meets the manufacturer's specifications.

210.01(3) A certificate referred to in subsection (2) shall provide details on the conditions under which the hoisting apparatus was inspected.

210.01(4) Subsections (1) and (2) do not apply to a mobile crane.

210.01(5) Subsection (1) applies with the necessary modifications to an owner of a hoisting apparatus.

2001-33

Competency of operator

210.1(1) An employer shall ensure that a person who operates a hoisting apparatus is competent or is under the direct supervision of a competent person.

210.1(2) No person shall operate a hoisting apparatus unless the person is competent or is under the direct supervision of a competent person.

98-78

Procedures respecting operation

211(1) An employer shall ensure that an operator of a hoisting apparatus follows the procedures prescribed in subsection (2).

211(2) An operator of a hoisting apparatus shall

(a) visually inspect the hoisting apparatus before use to verify that it is in safe working order,

(b) where the operator has restricted vision, including restricted vision of electrical utility lines, move a load only on a signal from a signaller designated under section 212,

(c) raise a load vertically unless it is necessary to raise a load obliquely,

(d) when raising a load obliquely, ensure that the hoisting apparatus is suitable for lifting a load at an oblique angle and that any pendulum effect does not constitute a hazard to persons working in the vicinity,

(e) not carry a load over any person,

(f) not leave a suspended load unattended if a person may be in the area under the load, and

(g) ensure that where a pendulum effect may constitute a hazard to persons working in the vicinity, one or more guide ropes are used to control the load,

2001-33

Signaller and direction of operation

212 An employer shall designate a competent employee to be a signaller to direct, by means of visual or auditory signals, the safe movement and operation of a hoisting apparatus by an operator, and shall ensure that the signaller

(a) is readily identifiable by the operator,

(b) governs the movement of a load by a well understood distinctive code of signals or another effective communication system,

(c) obtains the assistance of another signaller if part of the view of the load is obstructed from both the signaller and the operator, and

(d) verifies that all ropes, chains, slings or other attachments are properly applied to the load and secured to the hooks of the hoisting apparatus and that the area is clear before signalling to move the load.

Cable Logging Systems Recommend move to PART XXI, to the logging and silviculture operation.

Application of other provisions

212.1 Paragraphs 207(1)(a) and (b), sections 208, 209, 210 and 210.01, subsection 211(1), paragraphs 211(2)(a) to (f) and paragraphs 212(a), (b) and (d) apply, with the necessary modifications, to a cable logging system.

General requirements

212.1 An employer and an owner a cable logging system shall each ensure that the cable logging system is installed, erected, inspected, operated and maintained in accordance with section 7-2.4 of ASME Standard B30.7-2011, “Winches” or a standard offering equivalent or better protection.

Remote control devices

212.3(1) An employer shall ensure that a cable logging system is equipped with remote controls that have

a fail- safe mechanism to prevent the simultaneous operation of two or more remote controls.

212.3(2) An employer shall ensure that employees are trained to use the remote controls of a cable logging system.

Mobile Cranes

Safety features

213(1) An employer shall ensure that a mobile crane

(a) has a cab, screen, canopy guard or other adequate protection for the operator of the crane if the operator may be exposed to the hazard of falling material,

(b) is equipped with load limit brakes capable of effectively braking the load being lifted,

(b.1) has a two-blocking damage prevention mechanism or an audible device that warns the operator of an impending two-block condition,

(c) has safety devices and limit switches installed and used as specified by the manufacturer, and

(d) has a boom angle indicator clearly visible to the operator.

Exception

213(1.1) Paragraph (1)(a) does not apply to mobile cranes with controls that are externally mounted outside the cab.

When barriers required for operation

213(2) Where a mobile crane is being operated in an area where the swing clearance of any obstruction is less than 600 mm, an employer shall ensure that barriers are installed to prevent a person from entering the area.

97-121; 2001-33

Load chart to be kept with mobile crane

213.1 An employer shall ensure that a load chart from the manufacturer of a mobile crane is kept with the crane and is accessible to the operator when operating the crane.

2001-33

Use, operation and equipment

213.11 An employer shall ensure that a mobile crane

(a) is used only for the purposes for which it is designed and equipped,

(b) is operated by a competent person,

(c) is equipped with adequate chassis brakes,

(d) is equipped with a manually operated horn,

(e) has a rear-view mirror or other means of ensuring that the equipment can be safely manoeuvred back and forth,

(f) when wheel mounted, is equipped with an audible back-up alarm that operates automatically when the equipment is in reverse and that is clearly audible above the background noise,

(g) when crawler mounted, is equipped with an audible motion detector that operates automatically when the crane is in motion and that is clearly audible above the background noise,

(h) is equipped with adequate headlights and tail lights when used after dark or in dimly lit areas,

(i) has gears and moving parts adequately guarded,

(j) has controls that cannot be operated from outside the cab unless the controls are designed to be operated from outside the cab,

(k) has any load on it adequately secured, and

(l) is provided with a three point contact to access the operator's cab.

2001-33

Duty of operator

213.2(1) An operator of a mobile crane shall

(a) ensure that a person does not ride on any part of the crane not designed to carry passengers,

(b) not set a crane in motion until all air and hydraulic pressures are fully built up to specified operating pressures,

(c) follow a safe refueling procedure,

(d) not store containers of gasoline, diesel oil or other flammable substances in the cab,

(e) not carry loose articles in the cab that would pose a hazard to the safe operation of the crane, and

(f) keep the crane in gear when going downhill.

213.2(2) An operator of a mobile crane shall, when leaving the crane unattended,

(a) secure it against movement,

(b) set the brake,

(c) not leave a load suspended,

(d) engage the swing lock and swing brake,

(e) leave the controls in neutral,

(f) disengage the master clutch,

(g) stop the engine, and

(h) remove the key.

2001-33

Inspection and certification

213.21(1) An employer shall ensure that a mobile crane is inspected every twelve months by an engineer or a competent person who is supervised by an engineer.

213.21(2) An engineer referred to in subsection (1) shall certify in writing that the inspection complies with the requirements of subsection (4) and that the crane is in safe working order.

213.21(3) A certification under subsection (2) shall provide details on the conditions under which the mobile crane was inspected.

213.21(4) An engineer referred to in subsection (1) shall ensure that the inspection under subsection (1), including a visual weld inspection, is conducted in accordance with the requirements of clause 4.3.5.1 of CSA standard Z150-98, “Safety Code on Mobile Cranes”.

213.21(5) An employer may accept a certification from an engineer in another jurisdiction with respect to a mobile crane if the crane has been inspected and certified in that jurisdiction in accordance with subsection (2) and the certification would otherwise be valid under this section.

213.21(6) An employer shall ensure that a copy of the certification provided under this section is accessible to the operator when in the cab and is available to an officer on request.

213.21(7) An employer shall ensure that a mobile crane that

(a) does not have a certification that meets the requirements of subsection (2), is inspected and certified under this section no later than twelve months after the commencement of this provision, and

(b) has a certification that meets the requirements of subsection (2), is inspected and certified no later than twelve months after the date of the certification.

2001-33; 2020-35

Provisions applicable to owner

213.3 Section 213.1 and subsections 213.21(1), (5), (6) and (7) apply with the necessary modifications to a person who owns a mobile crane.

2001-33

Visual inspection by operator

213.31(1) An operator of a mobile crane shall visually inspect the mobile crane daily before commencing work with the crane.

Visual inspection by operator

213.31(2) If more than one operator uses a mobile crane in the course of a day or if the crane is used on more than one shift, each operator shall visually inspect the crane before commencing work with the crane.

Visual inspection by operator

213.31(3) A visual inspection under this section shall be of all components that have a direct bearing on the safe operation of the crane and whose status may change from day to day with use and shall include, but is not limited to,

(a) where practicable, all rope reeving, including load lines, jib suspension, boom hoist and mid-point suspension, for compliance with the crane and wire rope manufacturer's specifications,

(b) all control mechanisms, before operation, for maladjustments or malfunctions interfering with proper operation,

(c) all control mechanisms for excessive wear of components and contamination by lubricants or other foreign matter,

(d) all safety devices for malfunction,

(e) all air, hydraulic, lubricating and cooling systems for deterioration or leakage,

(f) electrical apparatus for malfunction, signs of excessive deterioration, dirt, icing or moisture accumulation,

(g) all exposed hydraulic hoses, particularly those that flex during the operation of the crane,

(h) hooks and latches, for deformation, chemical and heat damage, cracks and wear,

(i) the hydraulic system for proper oil level,

(j) swivels for freedom of rotation,

(k) clutches, brakes and attachments for malfunctions,

(l) where practicable, outriggers for their ability to retract and extend and to bear the load,

(m) outrigger boxes for structural damage,

(n) tires for recommended pressure,

(o) where practicable, all running ropes for any appreciable loss of original strength as indicated by general corrosion, broken or cut strands and visible broken wiresand for distortion of the rope, such as kinking, crushing, unstranding, birdcaging, main-strand displacement or core protrusion,

(p) where practicable, rotation-resistant ropes and boom-hoist ropes, to ascertain any damage or deterioration, and

(q) where practicable, all points of rapid deterioration, such as flange points, crossover points and repetitive pickup points on drums.

Operator's log

213.31(4) An operator who conducts a visual inspection under this section shall forthwith record the results of the inspection in an operator's log kept for the crane and shall also record any deficiencies in the crane log.

Operator's log

213.31(5) An employer shall ensure that an operator's log is prepared and maintained for each mobile crane so as to provide each operator with the results of previous visual inspections of the crane by an operator, and shall ensure that the log is kept in the cab of the mobile crane.

2001-33

Crane log

213.4(1) An employer shall ensure that a crane log is prepared and maintained for each mobile crane to provide the owner, employer and operator with a complete machine history for the crane.

213.4(2) A crane log referred to in subsection (1)

(a) shall be designed to provide the information in a logical and chronological sequence,

(b) shall show in detail all inspections, tests, maintenance, repairs, revisions and modifications carried out on the crane,

(c) shall show the date on which work was performed on the crane, and by whom, together with the total hours of service recorded on the machine up to that time,

(d) shall have all entries dated and signed by the person carrying out the work on the crane,

(e) shall record in detail all incidents or misadventures, all damage sustained, and subsequent repairs, and

(f) shall include details of boom sections designed and manufactured by someone other than the crane's original equipment manufacturer.

2001-33

Blocking for repairs or maintenance

213.41(1) Where an employee is performing maintenance or repairs on a mobile crane that is raised from the ground by means of jacks or hoists, other than outriggers or stabilizers, an employer shall ensure that the mobile crane is adequately blocked.

213.41(2) An employer shall ensure that an employee does not work under or go under the raised parts of a mobile crane unless the parts are adequately blocked, or the crane is raised by its outriggers or stabilizers, and no employee shall work under or go under such raised parts unless the parts are adequately blocked, or the crane is raised by means of its outriggers or stabilizers.

2001-33

Alteration of safety device or limit switch

213.5(1) No person shall alter a mobile crane in such a way as to render ineffective a safety device or limit switch installed on the crane.

213.5(2) Notwithstanding subsection (1), a person may alter a mobile crane to render ineffective a safety device or limit switch installed on the crane if the alteration is certified in writing by the manufacturer of the device or switch, or an engineer, as affording protection equal to or greater than the protection afforded by the safety device or limit switch.

213.5(3) An operator shall not use, and an employer shall not permit to be used, a mobile crane if the crane has been altered so as to render ineffective a safety device or limit switch installed on the crane.

213.5(4) Subsection (3) does not apply where the alteration has been certified in writing by the manufacturer of the safety device or limit switch, or an engineer, as affording protection equal to or greater than the protection provided by the safety device or limit switch.

2001-33

Stabilizers and rubber tired mobile crane

214(1) An employer shall ensure that a rubber tired mobile crane is equipped with stabilizers and that the operator of the crane has sufficient training and information to be able to determine when stabilizers should be used.

214(2) Subsection (1) does not apply if the mobile crane is designed to be used without stabilizers.

214(3) When operating a rubber tired mobile crane without using stabilizers, an operator shall work in accordance with the load chart designed for operating without stabilizers.

214(4) When operating a rubber tired mobile crane using stabilizers, an operator shall ensure that the stabilizers are extended as required by the manufacturer and placed on pads of sufficient size to prevent movement.

2001-33

Moving crane from location

215 Where a mobile crane is moving from one location to another under its own power, an employer shall

(a) ensure that precautions are taken to prevent the boom from swinging, and

(b) where the operator has restricted vision, have a signaller designated under section 212 guide the movement of the crane.

2001-33

Industrial Lift Trucks

Use, operation and equipment

216(1) An employer shall ensure that an industrial lift truck

(a) is used only for the purposes for which it was designed,

(b) is operated by a competent employee,

(c) is inspected daily and maintained in good operating condition,

(d) is equipped with adequate brakes,

(e) is equipped with a manually operated horn,

(f) is equipped with adequate head and tail lights when used after dark or in dimly lit areas,

(g) is equipped with an audible back-up alarm that operates automatically when the truck is in reverse gear and that is clearly audible above the background noise at the place of employment, or a flashing

light that operates automatically when the truck is in reverse gear and that is clearly visible to persons who may be at risk when the truck backs up,

(h) is equipped with overhead guards that conform to ANSI standard ASME B56.1-1993, “Safety Standard for Low Lift and High Lift Trucks” to protect the operator of the truck from falling material,

(i) has the manufacturer’s rated capacity posted in a conspicuous location on the truck,

(j) is not loaded beyond its capacity, and

(k) has any load on it stabilized and, when necessary, secured.

Prohibitions respecting operation

216(2) An employer shall ensure that an industrial lift truck is not operated

(a) where propelled by an internal combustion engine, near areas containing explosive dusts or flammable vapours or in buildings where the ventilation is not sufficient to eliminate the hazards from exhaust gases,

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

(c) in a two-way aisle, unless the width of the aisle equals at least twice the width of the vehicle or load, whichever is wider, plus 900 mm.

Blind intersections

216(3) An employer shall install mirrors or other similar devices at blind intersections where there may be a danger of a collision between an industrial lift truck and another object or a person.

Rollover protective structure

216(4) Where a hazard exists from rolling over, an employer shall ensure that an industrial lift truck 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 safety requirements that are certified by an engineer to provide equivalent or better protection.

Seats belts or restraining devices

216(5) An employer shall ensure that an industrial lift truck that has been fitted with a rollover protective structure is provided with seat belts or restraining devices that meet the requirements of subsection 221(1).

Seats belts or restraining devices

216(6) An operator of an industrial lift truck shall use the seat belts or restraining devices referred to in subsection (5) while the industrial lift truck is in motion.

2001-33; 2020-35

Alteration of safety device

216.1(1) No person shall alter an industrial lift truck in such a way as to render ineffective a safety device installed on the truck, except where the alteration has been certified in writing by the manufacturer of the device or an engineer as affording protection equal to or greater than the protection afforded by the original device.

216.1(2) An operator shall not use, and an employer shall not permit to be used, an industrial lift truck if the truck has been altered so as to render ineffective a safety device installed on the truck, unless the alteration has been certified in writing by the manufacturer of the device or an engineer as affording protection equal to or greater than the protection provided by the original device.

2001-33

Check for effectiveness of safety devices

216.2(1) An operator of an industrial lift truck shall check for the effectiveness of all safety devices daily before operating the truck.

216.2(2) If more than one operator uses an industrial lift truck in the course of a day or if the industrial lift truck is used on more than one shift, each operator shall check for the effectiveness of all safety devices before operating the truck.

2001-33

Unattended industrial lift truck

217(1) An operator of an industrial lift truck shall not leave the truck unattended unless the operator

(a) stops the engine,

(b) sets the brakes,

(c) parks on a level surface, and

(d) lowers the hoisting mechanism so that the tips of the forks touch the floor.

Passengers

217(2) An operator shall not operate an industrial lift truck with passengers on the truck unless the truck is designed to accommodate them safely.

Powered Mobile Equipment

Application

218 Section 219 does not apply to an underground mine.

96-106

Protection from flying, intruding or falling objects

219(1) An employer shall ensure that powered mobile equipment has a cab, screen, shield, grill, deflector, guard or other adequate protection for the operator if the operator may be exposed to the hazard of flying or intruding objects.

219(2) Where a hazard exists to the operator of powered mobile equipment from falling objects, an employer shall ensure that the powered mobile equipment is equipped with a falling objects protective structure adequate for the conditions in which the equipment is being used and that meets the requirements of the appropriate SAE standard listed below or that is certified by an engineer to provide equivalent or better protection:

(a) SAE J167 DEC86, “Overhead Protection for Agricultural Tractors - Test Procedures and Performance”;

(b) SAE J231 JAN81, “Minimum Performance Criteria for Falling Object Protective Structures (FOPS)”;

(c) SAE J397 APR88, “Deflection Limiting Volume-ROPS/FOPS Laboratory Evaluation”;

(d) SAE J1042 JUN93, “Operator Protection for General Purpose Industrial Machines”;

(e) SAE J1043 APR85, “Performance Criteria for FOPS on General Purpose Industrial Machines”; or

(f) SAE J1084 APR80, “Operator Protective Structure Performance Criteria for Certain Forestry Equipment”.

2001-33

Rollover protective structure

220(1) An employer shall ensure that 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-M1980, “Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial, and Mining Machines”.

220(2) An employer shall ensure that powered mobile equipment manufactured before January 1, 1974 is equipped with a rollover protective structure that meets the requirements of subsection (1) or the following criteria:

(a) the 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 metal and integrated loading of 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 paragraph (a) are certified as meeting the requirements of paragraph (a) by the manufacturer of the rollover protective structure, the installing agency or an engineer.

220(3) Notwithstanding subsections (1) and (2), the Chief Compliance Officer may give permission in writing for a deviation, under such terms and conditions as he considers advisable, for powered mobile equipment to be used without a rollover protective structure if there is no significant chance of upset and

(a) the equipment has a frame that is not capable of supporting the stresses introduced by a rollover protective structure during upset,

(b) the equipment has a low centre of gravity that makes upset unlikely, or

(c) the installation of a rollover protective structure constitutes an operating hazard in the circumstances in which the equipment is operating.

220(4) An employer shall ensure that all modifications or repairs to a rollover protective structure meet the requirements of this section and are certified as meeting such requirements by the modification design agency, the installing agency or an engineer and that such certification is made available to an officer on request.

96-106; 2001-33; 2020-35

Seat belts and restraining devices

221(1) An employer shall ensure that powered mobile equipment that has been fitted with a rollover protective structure is provided with

(a) seat belts for the operator and passengers that comply with or exceed whichever of the following Society of Automotive Engineers' Recommended Practices is appropriate:

(i) SAE J386 NOV97, "Operator Restraint Systems for Off-Road Work Machines";

(ii) SAE J117 JAN 1970, "Dynamic Test Procedure - Type 1 and Type 2 Seat Belt Assemblies"; or

(iii) SAE J800 APR 86, "Motor Vehicle Seat Belt Assembly Installations"; or

(b) where the wearing of seat belts is not practical, 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.

221(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.

2001-33

Welding of protective structures

222 An employer shall ensure that welding on a rollover protective structure or a falling objects protective structure is done by a welder who holds at least a Class B welder's certificate of qualification under New Brunswick Regulation 84-174 under the *Boiler and Pressure Vessel Act* or by a welder who is employed by a company certified to CSA standard W47.1-92 (reaffirmed 1998), "Certification of Companies for Fusion Welding of Steel Structures".

2001-33; 2020-35

Glazing used for cab, canopy or rollover protective structure

223(1) An employer shall ensure that glazing used as part of an enclosure for a cab, canopy or rollover protective structure on powered mobile equipment

(a) meets the requirements of SAE standard J674-NOV90, "Safety Glazing Materials - Motor Vehicles", and

(b) is immediately replaced if it presents a hazard to the operator of the equipment.

223(2) Notwithstanding paragraph (1)(a), rigid plastic materials meeting ANSI/SAE standard Z26.1-1996, "American National Standard for Safety Glazing Materials for Glazing Motor Vehicles and Motor Vehicle

Equipment Operating on Land Highways – Safety Standard" may be used in all areas on a rollover protective structure, including the front windshield.

2001-33

Use, operation and equipment

224 An employer shall ensure that powered mobile equipment

(a) is used only for the purposes for which it is designed and equipped,

(b) is operated by a competent employee,

(c) is equipped with adequate brakes,

(d) is equipped with a manually operated horn,

(e) has a rear view mirror or other means of ensuring that the equipment can be safely backed up,

(f) is equipped with an audible back-up alarm that operates automatically when the equipment is in reverse and that is clearly audible above the background noise,

(g) is equipped with adequate headlights and tail lights when used after dark or in dimly lit areas,

(h) has gears and moving parts adequately guarded,

(i) has controls that cannot be operated from outside the cab unless the controls are designed to be operated from outside the cab,

(j) has any load on it adequately secured, and

(k) is provided with a three point contact to access the operator's cab.

2001-33

Skidder or forwarder used in ~~logging operation~~ logging operation or silviculture operation

~~225~~ 345.6 ~~Where~~ If a skidder or forwarder is used in a ~~logging operation~~ logging operation or silviculture operation, an employer shall ensure that the skidder or forwarder is provided with a completely enclosed operator's cab that is designed to prevent objects from intruding into the cab and to prevent the operator and any passengers in the cab from being thrown outside the cab.

2001-33

Powered mobile equipment used in logging operation, silviculture operation or construction of woods roads

~~225.1~~ **345.4**(1) If powered mobile equipment is used in a logging operation, a silviculture operation or in the construction of woods roads, an employer shall ensure that the powered mobile equipment is equipped with at least two safe and unobstructed means of access and egress that are not located on the same side of the cab of the powered mobile equipment.

~~225.1~~ 345.4(2) An employer shall ensure that the means of access and egress is inspected visually at

least daily and tested monthly and, if the inspection reveals a defect or inadequacy, the employer shall ensure that no one uses the powered mobile equipment until the defect or hazard has been eliminated.

~~225.1~~ 345.4(3) An employer shall ensure that powered mobile equipment is equipped with cleats or corks when woods roads are frozen.

When signaller required

226 An employer shall designate an employee to give signals to an operator of powered mobile equipment who is backing up the equipment and who is not able to see clearly behind the equipment and the operator shall back up the equipment only on signals from the designated employee.

Hazard created by dust

227 Where work with powered mobile equipment is carried out in an area where dust may create a hazard to employees because of poor visibility, an employer and a contractor, if any, shall each take such measures with respect to the dust as are sufficient to protect employees from the risk of injury.

2001-33

Transportation of powered mobile equipment

~~227.1~~ 345.5(2) When transporting powered mobile equipment by transport vehicle, an employer and an operator shall each ensure that

(a) accessory equipment and attachments are completely lowered and secured to the transport vehicle,

(b) articulated powered mobile equipment are restrained in a manner that prevents articulation while the transport vehicle is in transit, and

(c) a heavy vehicle with crawler tracks or wheels6 is restrained by at least four tie downs and each tie down has a working load limit of at least 2268 kilograms and is attached, as close as practical, at the front and rear of the transport vehicle or to mounting points on the transport vehicle that are specifically designed for that purpose.

Powered mobile equipment on float

~~227.2~~ 345.5(1)When loading or unloading powered mobile equipment onto a transport, an employer shall ensure that

(a) the manufacturer's specifications for the powered mobile equipment are followed,
(b) the load is parallel to the transport vehicle, and
(c) no person is within the rollover area of the powered mobile equipment.

Duties of operator

228 An operator of powered mobile equipment shall

(a) ensure that a person does not ride on any part of the equipment not designed to carry passengers,

(b) not set equipment in motion until all air and hydraulic pressures are fully built up to specified operating pressures,

(c) when leaving the equipment unattended,

(i) park it on level ground,

(ii) set the brake,

(iii) lower the blades and bucket or safely block them,

(iv) disengage the master clutch,

(v) stop the engine, and

(vi) remove the key,

(d) follow a safe re-fueling procedure,

(e) not store containers of gasoline, diesel oil or other flammable substances in the cab,

(f) not carry loose articles in the cab, and

(g) keep the equipment in gear when going downhill.

Maintenance, repair and inspection

229(1) An employer shall ensure that powered mobile equipment

(a) is maintained in safe working condition,

(b) has defective parts repaired or replaced before being set in motion,

(c) has air and hydraulic lines, hoses and components maintained in safe operating condition,

(d) has wire ropes, drums and sheaves inspected visually on a daily basis by the operator of the equipment and inspected visually and physically by a competent person on a weekly basis, and

(e) is lubricated only when at rest or as the manufacturer directs.

(f) Repealed: 2001-33

Precautions when tire inflated on a rim

229(1.1) An employer shall ensure that when a tire for powered mobile equipment is installed and inflated on a rim, a safety cage or other restraining device is used for the tire and the rim, and that other appropriate precautionary measures are followed to protect employees from the hazard of the tire exploding.

Precautions when jacked or hoisted

229(2) An employer shall ensure that powered mobile equipment and detachments for powered mobile equipment that are raised from the ground by means of jacks or hoists are adequately blocked.

Precautions when jacked or hoisted

229(3) An employer shall ensure that an employee does not work under or go under the raised parts of any powered mobile equipment unless the parts are adequately blocked and no employee shall work under or go under such raised parts unless the parts are adequately blocked.

Precautions respecting work at the point of articulation

229(4) Where repair or maintenance work is carried out at the point of articulation on front end loaders or similar powered mobile equipment, an employer shall ensure that lock bars are used to prevent movement of either end of the loader or similar equipment.

2001-33

Alteration of safety device

229.1(1) No person shall alter any powered mobile equipment in such a way as to render ineffective a safety device installed on the equipment.

229.1(2) Notwithstanding subsection (1), a person may alter powered mobile equipment so as to render ineffective a safety device installed on the equipment if the alteration is certified in writing by the manufacturer of the safety device or an engineer as affording protection equal to or greater than the protection afforded by the safety device.

229.1(3) An operator shall not use, and an employer shall not permit to be used, any powered mobile equipment if the equipment has been altered so as to render ineffective a safety device installed on the equipment.

229.1(4) Subsection (3) does not apply where the alteration has been certified in writing by the manufacturer of the safety device or an engineer as affording protection equal to or greater than the protection provided by the safety device.

2001-33

Check for effectiveness of safety devices

229.2(1) An operator of powered mobile equipment shall check for the effectiveness of all safety devices daily before operating the equipment.

229.2(2) If more than one operator uses powered mobile equipment in the course of a day or if the powered mobile equipment is used on more than one shift, each operator shall check for the effectiveness of all safety devices before operating the equipment.

2001-33

Precautions when operating on a slope or bank

230 Where powered mobile equipment is used on a slope or bank which may give way, an employer shall ensure that adequate precautions are taken to stabilize the bank and to distribute the load of the equipment.

Pushing material into water, pit, etc.

230.1(1) In this section,

"berm" means a mound or pile of material raised above the surrounding surface.

Pushing material into water, pit, etc.

230.1(2) Where powered mobile equipment is used to push material into a body of water, pit, excavation or other cavity, an employer shall ensure that a berm is created between the equipment and the water, pit, excavation or other cavity to indicate to the operator the safe limit to which the powered mobile equipment may advance, and an operator of powered mobile equipment shall not advance the equipment past the berm.

Pushing material into frozen water

230.1(3) Where powered mobile equipment is used to push material into a frozen body of water, an employer and an operator shall each ensure that the ice is broken before any material is pushed into the water.

2001-33

Vehicles

2001-33

Definition of vehicle

230.2 In sections 230.21 to 230.5,

"vehicle" means every device in, upon or by which any person or property is or may be transported or drawn, but does not include devices moved by human power, devices used exclusively upon water or stationary rails or tracks, powered mobile equipment, hoisting apparatus or industrial lift trucks.

2001-33

Use, operation and equipment

230.21(1) An employer shall ensure that a vehicle with a capacity of one tonne or more that is operated off-highway

(a) is used only for the purposes for which it is designed and equipped,

(b) is operated by a competent employee,

(c) is equipped with adequate brakes,

(d) is equipped with a manually operated horn,

(e) has a rear-view mirror or other means of ensuring that the equipment can be safely backed up,

(f) is equipped with an audible back-up alarm that operates automatically when the equipment is in reverse and that is clearly audible above the background noise,

(g) is equipped with adequate headlights and tail lights when used after dark or in dimly lit areas,

(h) has gears and moving parts adequately guarded,

(i) has controls that cannot be operated from outside the cab unless the controls are designed to be operated from outside the cab,

(j) has any load on it adequately secured, and

(k) is provided with a three point contact to access the operator's cab.

Maintenance and repair

230.21(2) An employer shall ensure that a vehicle with a capacity of one tonne or more that is operated off-highway

(a) is maintained in safe working condition,

(b) has defective parts repaired or replaced before being set in motion,

(c) has air and hydraulic lines, hoses and components maintained in safe operating condition, and

(d) is lubricated only when at rest or as the manufacturer directs.

2001-33

Manufacturer's specifications

230.22 An employer and an employee shall each ensure that a vehicle is erected, installed, assembled, started, operated, used, handled, stored, stopped, serviced, tested, cleaned, adjusted, maintained, repaired, inspected and dismantled in accordance with the manufacturer's specifications.

Precautions when tire inflated on a rim

230.3(1) An employer shall ensure that when a tire for a vehicle is installed and inflated on a rim, a safety cage or other restraining device is used for the tire and the rim, and that other appropriate precautionary measures are followed to protect employees from the hazard of the tire exploding.

Precautions when jacked or hoisted

230.3(2) An employer shall ensure that a vehicle that is raised from the ground by means of jacks or hoists is adequately blocked.

Precautions when jacked or hoisted

230.3(3) An employer shall ensure that an employee does not work under or go under the raised parts of any vehicle unless the parts are adequately blocked, and no employee shall work under or go under such raised parts unless the parts are adequately blocked.

2001-33

When signaller required

230.31(1) An employer shall designate an employee to give signals to an operator of a vehicle who is backing up the vehicle and who is not able to see clearly behind the vehicle, and the operator shall back up the vehicle only on signals from the designated employee.

Precautions when operated on a slope or bank

230.31(2) Where a vehicle is operated on a slope or bank that may give way, an employer shall ensure that adequate precautions are taken to stabilize the bank and to distribute the load of the vehicle.

Hazard created by dust

230.31(3) Where a vehicle is operated in an area where dust may create a hazard to employees because of poor visibility, an employer and a contractor, if any, shall each take such measures with respect to the dust as are sufficient to protect employees from the risk of injury.

2001-33

Duties of operator

230.4(1) An operator of a vehicle shall

(a) ensure that a person does not ride on any part of the vehicle not designed to carry passengers, and

(b) not store containers of gasoline, diesel oil or other flammable substances in the cab.

230.4(2) An operator of a vehicle shall, when leaving the vehicle unattended, park it on level ground and set the brake.

2001-33

Alteration of safety device

230.41(1) No person shall alter a vehicle in such a way as to render ineffective a safety device installed on the vehicle.

230.41(2) Notwithstanding subsection (1), a person may alter a vehicle so as to render ineffective a safety device installed on the vehicle if the alteration is certified in writing by the manufacturer of the safety device or an engineer as affording protection equal to or greater than the protection afforded by the safety device.

230.41(3) An operator shall not use, and an employer shall not permit to be used, a vehicle if the vehicle has been altered so as to render ineffective a safety device installed on the vehicle.

230.41(4) Subsection (3) does not apply where the alteration has been certified in writing by the manufacturer of the safety device or an engineer as affording protection equal to or greater than the protection provided by the safety device.

2001-33

Check for effectiveness of safety devices

230.5(1) An operator of a vehicle shall check daily for the effectiveness of all safety devices before operating the vehicle.

230.5(2) If more than one operator uses a vehicle in the course of a day or if the vehicle is used on more than one shift, each operator shall check for the effectiveness of all safety devices before operating the vehicle.

2001-33

Personnel Carrying Equipment

Definition of personnel carrying device

231(1) In this section

“personnel carrying device” means a cage, basket or similar structure suspended from a hoisting apparatus and designed to transport persons.

When device to be used

231(2) An employer and an operator of a hoisting apparatus shall each ensure that an employee is not lifted or moved by the hoisting apparatus unless a personnel carrying device is attached to the hoisting apparatus.

Attachment of device

231(3) An employer shall ensure that the personnel carrying device referred to in subsection (2) is attached to the hook of the hoisting apparatus and has an auxiliary fastening device attached directly to the hoist line of a single part line or to the sheave block of a multi-part line if the sheave block has a safe place to attach the auxiliary fastening device.

Certification by engineer

231(4) An employer shall ensure that the hoisting apparatus, the personnel carrying device, the primary connection and the auxiliary fastening device are certified in writing by an engineer as being capable of safely lifting or moving any load likely to be imposed on them.

Use of a fall-arresting system

231(5) An employee occupying a personnel carrying device referred to in subsection (2) shall use a fall-arresting system that is securely anchored to the personnel carrying device.

2001-33; 2010-159

Aerial device

232(1) An aerial device shall

(a) conform with CSA standard C225-M88, “Vehicle-Mounted Aerial Devices”, or

(b) be certified in writing by an engineer as being safe to elevate personnel to a work ~~site~~ area above ground level.

232(2) If an employee is required to work from a moving boom supported elevating work platform or a moving aerial device, the employer shall provide and the employee shall continually use a fall-arresting system.

232(3) The fall-arresting system referred to in subsection (2) shall be attached to:

(a) an anchor point provided by the manufacturer; or

(b) an anchor point that is approved by an engineer and secured to the upper boom of the platform or aerial device.

97-121; 2010-159; 2020-35

General

Compliance with Part XIX

233(1) An employer shall ensure that an employee who operates a hoisting apparatus, industrial lift truck, powered mobile equipment or aerial device complies with the appropriate provisions of Part XIX.

233(2) An employee who operates a hoisting apparatus, industrial lift truck, powered mobile equipment or aerial device shall comply with the appropriate provisions of Part XIX.

Compliance with manufacturer's specifications respecting use of stabilizers

234(1) An employer shall ensure that an employee who operates a hoisting apparatus, powered mobile equipment or aerial device equipped with stabilizers complies with the manufacturer's specifications regarding the use of the stabilizers.

234(2) An employee who operates a hoisting apparatus, powered mobile equipment or aerial device equipped with stabilizers shall comply with the manufacturer's specifications regarding the use of the stabilizers.

PART XVI

MECHANICAL SAFETY

Machines and manufacturer's specifications

235(1) An employer shall ensure that a machine is erected, installed, assembled, started, operated, used, handled, stored, stopped, serviced, tested, cleaned, adjusted, maintained, repaired and dismantled in accordance with the manufacturer's specifications.

Manufacturer's rated capacity or other limitations

235(2) An employer shall ensure that the manufacturer's rated capacity or other limitations on the operation of a machine or any part of it, as set out in the manufacturer's specifications or in any relevant specifications certified by an engineer, are not exceeded.

Manufacturer's rated capacity or other limitations

235(3) An operator of a machine shall not exceed the manufacturer's rated capacity or other limitations referred to in subsection (2).

Inspections and defects

236 An employer shall ensure that a machine is regularly inspected for defects and that a defective machine that may cause injury to an employee is removed from service until repaired.

Starting and Stopping Machines

Starting and stopping machines

237(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) suitably identified so as to indicate the nature of each control mechanism.

237(2) Where a pedal is used to activate a control device on a machine, an employer shall ensure that the pedal is guarded so that it cannot be struck accidentally and activate the machinery.

237(3) An employer shall ensure that each pair of active and idler pulleys on a machine is equipped with a permanent belt shifter that has a mechanical means of preventing the belt from creeping from the idler pulley to the active pulley.

237(4) Where there is not a clear view of a machine or parts of it from the control panel or operator's station and moving parts of the machine may endanger an employee when the machine is started, an employer shall ensure that

(a) an alarm system is installed, and

(b) the alarm system gives an effective warning before start-up of the machine so that an employee is made aware of the imminent start-up.

237(5) 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.

237(6) An employer shall ensure that a machine not driven by an individual motor or prime mover is equipped with a clutch, idler pulley or other means of quickly disengaging the power source.

97-121

Starting and stopping machines

238 An operator of a machine shall ensure that the start-up, stopping or operation of the machine does not endanger any person.

Lock out

Lock out procedure

239(1) An employer shall ensure that in addition to the normal control start and stop mechanism, a machine has a means of isolating the energy source to the machine that is

(a) lockable,

(b) in a location familiar to all employees, and

(c) properly identified.

239(2) An employer shall provide a safety lock and key to an employee who may have to lock out a machine.

239(3) An employer shall establish a written lock out procedure for a machine and ensure that an employee who may have to lock out a machine has been adequately trained to lock out the machine.

239(4) Subject to section 240, where a machine is to be cleaned, maintained, adjusted or repaired, an employer shall ensure that no employee works on the machine until

(a) a competent person puts the machine in a zero energy state,

(b) each employee who will be working on the machine

(i) verifies that all potential energy sources have been made inoperative,

(ii) locks out the machine using the safety lock and key provided by the employer, and

(iii) puts on the safety lock a tag that does not conduct electricity and that contains

(A) words directing persons not to start or operate the machine,

(B) the employee's printed name and signature, and

(C) the date and time when the tag was put on the machine.

239(5) No employee shall clean, maintain, adjust or repair a machine until the employee verifies that paragraphs 4(a) and (b) have been complied with and verifies by testing that the machine is inoperative.

2001-33

239(6) No person shall remove a lock out device or tag on a machine except

(a) the person who installed it, or

(b) in an emergency or where attempts made to contact the person referred to in paragraph (a) indicate the person is not available, a competent employee designated by the employer.

Code of practice where lock out procedure not appropriate

240 Where the lock out procedure referred to in section 239 is inappropriate for the cleaning, maintenance, adjustments or repairs to be performed or is inadequate for the protection of an employee, an employer shall

(a) establish a code of practice in consultation with the ~~joint health and safety~~ committee or health and safety representative, if any, specifying personnel responsibilities, personnel training and details of procedure for the neutralization, clearance, release and start up of the machine, and

(b) comply with and enforce the code of practice.

2001-33

Contact with Machines

Contact of employee with machines

241(1) An employer shall ensure that sufficient space is provided around a machine in order to ensure the safety of employees while the machine is being operated or while cleaning, maintenance, adjustments or repairs to the machine are being carried out.

241(2) Where an employee or the employee's clothing may come into contact with moving parts of a machine or a moving machine, the employee shall

(a) wear close fitting clothing,

(b) confine or cut head and facial hair, and

(c) not wear jewellery, rings, dangling neckwear or similar items.

Safeguards

Safeguards

242(1) Where an employee may come into contact with moving drive or idler belts, rollers, gears, driveshafts, keyways, pulleys, sprockets, chains, ropes, spindles, drums, counterweights, flywheels, couplings, pinchpoints, cutting edges or other moving parts on a machine that may be hazardous to the employee, an employer shall provide adequate safeguards to prevent such contact.

242(2) Subsection (1) does not apply to a machine that is equipped with a device that stops the machine automatically before an employee comes into contact with the parts mentioned in subsection (1).

242(3) Where there is a possibility of a failure of a machine that may result in an injury to an employee from a flying object, an employer shall install a safeguard strong enough to contain or deflect any flying object.

242(4) No employer or employee shall alter the design of a machine where it has been designed with a safeguard that interlocks with the machinery control so as to prevent the operation of the machine unless the safeguard is in its proper place.

242(5) Where an employer has determined that an adequate safeguard for a machine cannot be provided, the employer shall ensure that a physical modification of the machine is carried out or a change in work

procedure is put into place to protect employees from being exposed to the hazards associated with the lack of an adequate safeguard.

2010-159

Safeguards

243(1) No person shall remove or render ineffective a safeguard for a machine unless the removal or rendering ineffective is necessary to enable the cleaning, maintenance, adjustment or repair of the machine.

243(2) Where a person removes or renders ineffective a safeguard for a machine, the person shall ensure that the safeguard is replaced and is functioning properly before leaving the machine or that the machine is in a zero energy state.

243(3) Where a safeguard for a machine is to be removed or rendered ineffective and the machine cannot be directly controlled by the person who removes or renders ineffective the safeguard, the person shall put the machine in a zero energy state and lock out the machine in accordance with section 239 or follow the code of practice in section 240 before removing or rendering ineffective the safeguard.

2001-33

Abrasive Wheels and Grinders

Abrasive wheels and grinders

244(1) An employer shall ensure that the maximum number of revolutions per minute

(a) of an abrasive wheel, as recommended for safe use in the manufacturer's specifications, is identified on the wheel, and

(b) of a grinder output shaft is identified on the grinder.

244(2) An employer shall ensure that an abrasive wheel is

(a) checked for flaws before installation,

(b) fitted with a protective hood of sufficient strength to contain fragments of ruptured wheels, and

(c) mounted in accordance with the manufacturer's specifications.

244(3) An employer shall ensure that a tool rest is mounted on a bench grinder as close as is safely possible to the abrasive wheel.

244(4) Before applying any work to an abrasive wheel, an employee shall run the wheel at full operating speed in accordance with the manufacturer's specifications.

244(5) An employee shall not

(a) operate an abrasive wheel at a speed in excess of the speed set out in the manufacturer's specifications,

(b) do grinding on the side of an abrasive wheel unless the wheel has been designed for that purpose, or

(c) adjust a tool rest while the abrasive wheel is in motion.

Cutting or Shaping Machines

Cutting or shaping machines

245(1) In this section

"push block" means a block of wood with a handle similar to that of a hand plane and with a shoulder at the rear, that is used to feed material into a machine and is of sufficient length to protect an employee from coming into contact with the machine;

"push stick" means a narrow strip of wood or other soft material with a notch cut into one end that is used to feed material into a machine and is of sufficient length to protect an employee from coming into contact with the machine.

245(2) Where there may be a danger of injury to an employee's hand from a cutting or shaping machine, an employer shall provide and the employee shall use a push block, push stick or other adequate protective device.

Saws

Saws

246(1) An employer shall ensure that stands for lead sawyers in sawmills are protected by shields that are

(a) at least 1.2 m in height, and

(b) constructed of iron or steel at least 6 mm thick, wooden planks not less than 50 mm thick or other material of equivalent strength.

246(2) An employer shall ensure that wheels on wood-working band saws and the return portion of the blades between the upper and lower wheels are enclosed with guards of sheet metal at least 1 mm thick or other material of equivalent strength.

246(3) An employer shall ensure that wheels on sawmill band saws and the return portion of the blades between the upper and lower wheels are enclosed with guards of metal plate at least 3 mm thick or other material of equivalent strength.

246(4) An employer shall ensure that a circular saw is provided with a hood guard that covers as much as possible of the exposed part of the saw at least to the depth of the teeth.

Tumbler Drums

Tumbler drums

247 An employer shall ensure that the access doors in the guards or enclosures to tumbler drums are, if there is a potential hazard to an employee, fitted with interlocks that will

(a) prevent the access doors from opening while the drums are rotating, or

(b) disconnect the power from the driving mechanism causing the drums to stop if the doors are opened.

Agitators

Agitators

248 Where the top of an open agitator, beater or paddle tank is less than 1 m above a floor, walkway or work area, an employer shall ensure that guardrails are installed on all exposed sides.

Gears and Sprockets

Gears and sprockets

249 An employer shall ensure that all gears and chain-drive sprockets

(a) are completely enclosed, or

(b) where complete enclosure is not practicable,

(i) have band-type guards with flanges extending inward beyond the root of the teeth, and

(ii) are enclosed on exposed sides if there is a hazard from exposed spokes.

Drive Shafts and Pulleys

Drive shafts and pulleys

250(1) An employer shall ensure that exposed parts of permanently installed horizontal shafting within 2.1 m of a floor, walkway or work area are guarded with

(a) casings completely enclosing the shafting,

(b) casings in the form of a trough enclosing either the top and both sides or the bottom and both sides of the shafting as the location requires, or

(c) railings that are placed not less than 300 mm nor more than 500 mm from any moving part.

250(2) An employer shall ensure that exposed parts of permanently installed vertical shafting within 2.1 m of a floor, walkway or work area are enclosed with stationary casings.

250(3) An employer shall ensure that the ends of shafts which project more than half the diameter of the shaft are guarded by non-rotating caps or safety sleeves.

Drive shafts and pulleys

251(1) An employer shall ensure that an exposed pulley, any part of which is located within 2.1 m of a floor, walkway or work area, is guarded with

(a) a complete enclosure when the belt or rope is completely exposed, or

(b) a partial enclosure extending from the bottom to at least the top of the pulley on all unprotected sides when the belt or rope is partially exposed.

251(2) An employer shall ensure that a horizontal belt of a pulley or drive shaft that runs over a floor, walkway or work area is guarded the full length of the belt so as to prevent contact with an employee or an object being carried or moved by an employee.

251(3) Where the lower run of a horizontal belt of a pulley or drive shaft is 2.1 m or less above a floor, walkway or work area, an employer shall ensure that the guard extends to at least 380 mm above the top run of the belt or to a height of 2.1 m, whichever is the lesser.

Drive shafts and pulleys

252(1) An employer shall ensure that an overhead belt guard for a pulley or drive shaft

(a) is at least $1^{1}/_{4}$ times as wide as the belt that it protects,

(b) does not extend more than 150 mm on each side of the belt, and

(c) is sufficiently strong to contain the belt in the event of breakage.

252(2) An employer shall ensure that vertical or inclined belt, rope and link drives for a pulley or drive shaft are enclosed to the upper pulley, sleeve or sprocket guard to a height of at least 2.1 m above a floor, walkway or work area or are guarded with guardrails.

Hoses and Pipes

Hoses and pipes

253(1) An employer shall ensure that a hose or pipe containing a hazardous substance is

(a) shielded to prevent contact with an employee,

(b) protected from damage from falling objects and from chafing,

(c) located so as not to be struck by any material or equipment,

(d) adequately secured, and

(e) marked to indicate the direction of the flow of the product or material.

253(2) Where a pressure hose is hung in a bight, an employer shall ensure that the weight of the bight is relieved by ropes that are anchored so as to support the weight. 2001-33

Hoses and pipes

254(1) Where compressed air is used to clean any surface, an employer shall ensure that

(a) a blowpipe is installed on the end of the hose,

(b) a control valve is part of the blowpipe, and

(c) appropriate protective equipment is worn by an employee using the compressed air.

254(2) Where compressed air is used for blowing dust and other substances from clothing worn by an employee, an employer shall ensure that appropriate protective equipment for eyes is used by an employee and

(a) the compressed air supply is limited to 69 kPa, or

(b) safety nozzles are used that have the same pressure limiting effect.

Conveyors

Conveyers – construction and installation

255(1) An employer shall ensure that a conveyor is constructed and installed so that

(a) sufficient clearance is provided between the material transported and any fixed or moving object,

(b) shearing points between moving and stationary parts are avoided, and

(c) the conveyor is not able to feed onto a stopped conveyor.

Emergency stop devices for power driven conveyor

255(2) An employer shall ensure that a power driven conveyor to which an employee has access is provided with emergency stop devices at

(a) loading and unloading stations,

(b) drive and take up sections, and

(c) other convenient places along the run of the conveyor.

Where fire of conveyor belt poses hazard

256(1) An employer shall ensure that a conveyor installed underground or in any other place where a belt fire of the conveyor may endanger the life of an employee is

(a) made of fire resistive material, or

(b) protected by an adequate automatic fire extinguishing system.

Spiral chute conveyor and fire hazard

256(2) Where it is necessary to maintain a fire separation between parts of a building, an employer shall ensure that a spiral chute conveyor is

(a) enclosed in a shaft made of fire resistive material with doors at each end of the shaft, or

(b) provided with automatic fire doors or draft checks when the chute of the conveyor passes through the parts of the building.

Anti-rollback device for conveyor

257 An employer shall ensure that a conveyor that carries a load up an incline is equipped with an anti-rollback device.

Access to elevated conveyor

258(1) Where employee access to an elevated conveyor is necessary, an employer shall ensure that the elevated conveyor has a walkway along its entire length that is not less than 500 mm wide and is equipped with guardrails.

Crossing over conveyor – safeguards

258(2) Where an employee is required to cross over a conveyor, an employer shall ensure that adequate crossing facilities are provided.

Protection of employee from material falling off conveyor

259(1) Where there is danger of injury to an employee from material falling from a conveyor, an employer shall ensure that sheet metal or screen guards are installed under or along side the conveyor if it is not entirely enclosed so as to prevent the material from falling.

Protection of employee in proximity to conveyor belt

259(2) Where there may be danger of injury to an employee who is in proximity to a belt conveyor, an employer shall ensure that the conveyor is provided with adequate safeguards extending 1 m from the pulleys and along the sides of the conveyor.

Safeguard for inclined bucket conveyor

259(3) An employer shall ensure that an inclined bucket conveyor is enclosed with a solid safeguard that has one or more wire glass windows and that is not less than 2.1 m in height extending to the full height of the conveyor.

Screw conveyor – safety measures

259(4) An employer shall ensure that a screw conveyor is placed in metal troughs fitted with secured covers of not less than 3 mm thick metal plates in removable sections or of other material that provides equivalent protection.

Screw conveyor – safety measures

259(5) An employer shall ensure that when a screw conveyor is fed from the floor level, adequate safeguards are provided around the opening.

Enclosed or pneumatic conveyors

260(1) An employer shall ensure that an enclosed or pneumatic conveyor used for carrying combustible or flammable material of an explosive nature is provided with an adequate explosion prevention system or with safety relief vents leading as directly as possible to the outside air and not connecting with any chimney pipe, vent or flue used for any other purpose.

260(2) Where non-escape of materials being carried on an enclosed conveyor is essential, an employer shall ensure that safety relief vent outlets on the conveyor are provided with counter-balanced relief valves.

260(3) An employer shall ensure that a fan for a pneumatic conveyor is

(a) made of fire resistive material,

(b) secured to a substantial support or foundation,

(c) located, arranged and guarded so as to afford ready and safe access for maintenance, and

(d) provided with remote controls in addition to normal operating controls.

260(4) Where flammable materials are passed through the fan of a pneumatic conveyor, an employer shall ensure that the blades and spiders of the fan are made of non-ferrous material and the casing of the fan is lined with non-ferrous material.

260(5) An employer shall ensure that intake openings of fans for a pneumatic conveyor are protected with metal screens or gratings.

260(6) Where material is fed by hand into a pneumatic conveyor 300 mm in width or larger, an employer shall ensure that precautions are taken to prevent an employee from being drawn into the opening.

Employee responsibilities – conveyors

261(1) An employee shall not

(a) stand on the supporting frame of a conveyor while loading or unloading the conveyor or when clearing blockages on the conveyor unless the conveyor is stopped and locked out, or

(b) ride on a conveyor.

261(2) An employee shall remove heavy or bulky articles by hand from a moving conveyor at designated stations only.

PART XVII

CONFINED SPACE

~~Definitions~~ Definition of "confined space"

262 In this Part "confined space" means an enclosed or partially enclosed space not designed or intended for continuous human occupancy with restricted access or egress and which 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, but does not include a development heading in an underground mine

Application

262.1 This Part does not apply to a firefighter engaged in structural fire-fighting or rescue.

97-121

Testing, protective equipment and entry

263(1) Where an employee is about to enter into a confined space, an employer shall appoint a competent person to verify by tests that

(a) the concentration of airborne chemical agents or airborne dust in the confined space is not hazardous to the health or safety of the employee,

(b) the concentration of an airborne chemical agent or mixture of chemical agents or airborne dust in the confined space does not exceed 50% of its lower explosive limit,

(c) the level of physical agents in the confined space is not hazardous to the health or safety of the employee,

(d) the percentage of oxygen in the atmosphere in the confined space is not less than 19.5% by volume and not more than 23% by volume,

(e) the concentration, level or percentage referred to in paragraphs (a) to (d) is able to be maintained during the period of proposed occupancy of the confined space by the employee,

(f) any liquid in which the employee may drown or any free flowing solid in which the employee may become entrapped has been removed from the confined space,

(g) the entry of any liquid, free flowing solid or any hazardous substance into the confined space in a quantity that could endanger the health or safety of the employee has been prevented by a secure means of disconnection or the fitting of blank flanges,

(h) all electrical equipment and machines that present a hazard to an employee entering into, exiting from or occupying the confined space have been locked out, with the machines being put in a zero energy state and locked out in accordance with sections 239 and 240, and

(i) the opening for entry into and exit from the confined space is sufficient to allow safe passage of an employee who is using protective equipment or emergency equipment.

263(2) The competent person referred to in subsection (1) shall, when performing the tests required under paragraphs (1)(a) to (d), use appropriate and properly calibrated instruments that have been functionally tested.

263(3) The competent person referred to in subsection (1) shall in a written report

(a) set out

(i) the results of the tests made under subsection (1), and

(ii) an evaluation of the hazards of the confined space,

(b) set out the procedures to be followed by an employee entering into, exiting from or occupying the confined space,

(c) identify the protective equipment that is to be used by every employee entering the confined space,

(d) set out the emergency procedures to be followed in the event of an accident or other emergency in or near the confined space, including immediate evacuation of the confined space when an alarm is activated or there is any significant change in the concentration, level or percentage referred to in subsection (1), and

(e) identify the protective equipment and emergency equipment to be used by an employee who undertakes rescue operations in the event of an accident or other emergency.

263(4) An employer shall provide to each employee entering the confined space the protective equipment referred to in paragraph (3)(c) and to each employee who may undertake rescue operations the protective equipment and emergency equipment referred to in paragraph (3)(e).

263(5) An employer shall ensure that the written report referred to in subsection (3) and any procedures set out in the report are explained to an employee who is about to enter into the confined space or who may undertake a rescue operation in the confined space and the employee shall read the report and acknowledge that the report and the procedures were explained to the employee by signing a dated copy of the report.

263(6) An employer shall ensure that an employee who is about to enter into the confined space is instructed and trained in the procedures referred to in subsection (3) and in the use of the protective equipment referred to in paragraph (3)(c) and that an employee who may undertake rescue operations is instructed and trained in the procedures referred to in subsection (3) and in the use of the protective equipment and emergency equipment referred to in paragraph (3)(e).

263(7) Every employee who enters into, exits from or occupies the confined space shall follow the procedures referred to in subsection (3) and use the protective equipment and emergency equipment referred to in subsection (3) as required.

Purging

264(1) Where the tests referred to in subsection 263(1) indicate that paragraphs 263(1)(a) to (d) cannot be complied with, an employer shall, where practicable, purge the confined space to eliminate the hazards referred to in paragraphs 263(1)(a) to (d) and have the competent person re-conduct the tests required under subsection 263(1).

264(2) An employer is not required to purge a confined space more than once.

Monitoring while employee in confined space

265 Where the competent person referred to in subsection 263(1) is unable to ensure that the concentration, level or percentage referred to in paragraphs 263(1)(a) to (d) is able to be maintained or where there is a possibility that a hazard referred to in paragraphs 263(1)(a) to (d) may occur while an employee is in the confined space, the competent person shall ensure that the confined space is continuously monitored for the hazard while the employee is in the confined space.

Duties of employer respecting equipment and personnel

266(1) An employer shall ensure that

(a) all protective equipment and emergency equipment identified under subsection 263(3)

(i) have been inspected by a competent person,

(ii) are in good working order, and

(iii) are at the entrance to the confined space before an employee enters the confined space;

(b) a competent employee trained in the procedures referred to in subsection 263(3) is

(i) in attendance outside the confined space,

(ii) in constant communication with the employee inside the confined space, and

(iii) provided with a suitable alarm for summoning assistance;

(c) the competent employee referred to in paragraph (b)

(i) holds a valid standard-level first aid certificate issued by the Canadian Red Cross Society or St. John Ambulance, and

(ii) is trained in artificial respiration and cardiopulmonary resuscitation;

(d) where required under subsection 263(3), every employee entering into, exiting from and occupying the confined space wears a full body harness attached to a life line that is attached to a secure anchor outside the confined space and is controlled by the competent employee referred to in paragraph (b);

(e) where there is more than one employee in the confined space, steps are taken to ensure that any life lines attached to body harnesses worn by the employees do not become entangled; and

(f) an employee who is trained in the emergency procedures referred to in subsection 263(3) and who is fully informed of the hazards in the confined space is in the immediate vicinity of the confined space to assist in the event of an accident or other emergency.

266(2) An employer shall ensure that the full body harness referred to in paragraph (1)(d) meets the requirements for Group E harnesses in CSA standard CAN/CSA-Z259.10-M90, “Full Body Harness”.

2001-33; 2020-35

Lower explosive limit of substances in confined space

267(1) An employer shall not permit an employee to enter or remain in a confined space where the concentration of an airborne chemical agent or mixture of chemical agents or airborne dust in the confined space exceeds 50% of the lower explosive limit of the chemical agent or mixture of chemical agents or dust.

267(2) Where the concentration of an airborne chemical agent or mixture of chemical agents or airborne dust in a confined space does not exceed 50% of its lower explosive limit, an employer shall ensure that

(a) explosion proof lighting is used, and

(b) the only work performed by the employee in the confined space is that of cleaning or inspecting and is of such a nature that it does not create any source of ignition.

267(3) Where the concentration of an airborne chemical agent or mixture of chemical agents or airborne dust in a confined space does not exceed 10% of its lower explosive limit, an employer shall ensure that

(a) explosion proof lighting is used, and

(b) the only work performed in the confined space is cold work using non-sparking equipment.

Respiratory protective equipment

268 Where the concentration of airborne chemical agents or mixture of chemical agents or airborne dust in a confined space is hazardous to the health or safety of an employee or where the percentage of oxygen in the confined space is less than 19.5% by volume, an employer shall ensure that an employee who enters the confined space uses appropriate respiratory protective equipment capable of providing at least five minutes reserve of unaided life support beyond the time the employee is expected to be in the confined space.

Oxygen content and flammable or reactive material

269 Where the percentage of oxygen in a confined space is more than 23% by volume and an employee is to enter or work in the confined space, an employer shall ensure that the confined space does not contain any substance specified as flammable and combustible material or as dangerously reactive material in the *Hazardous Products Regulations* under the *Hazardous Products Act* (Canada).

2016-7

Electrical equipment and wet or solidly grounded confined space

270 An employer shall ensure that electrical equipment taken into a wet or solidly grounded confined space is

(a) battery operated,

(b) double insulated,

(c) bonded to ground, extra low voltage and not exceeding 30 volts and 100 volt-amps, or

(d) bonded to ground and equipped with a ground fault circuit interrupter of the Class A type, which is tested before each use.

Reports made under section 263

271(1) An employer shall ensure that the written report of a competent person required under subsection 263(3) is kept at the place of business of the employer nearest to the place of employment at which the confined space is located for a period of two years from the date on which the competent employee signed the report.

271(2) An employer shall make the written report referred to in subsection (1) available to an officer on request.

Protection from traffic hazard

272 An employer shall ensure that adequate warning signs and barricades are installed to protect an employee in a confined space if a hazard from any form of traffic exists.

PART XVIII

WELDING, CUTTING, BURNING AND SOLDERING

Protection from fumes and gases

273 An employer shall ensure that an employee is protected from the effects of harmful fumes and gases or particles emitted from welding, cutting, burning or soldering operations by

(a) providing a local exhaust system close to the source of the fumes, gases or particles in an indoor welding, cutting, burning or soldering area, and

(b) monitoring the work areas in proximity to the welding, cutting, burning or soldering area to ensure that the level of concentration of air contaminants does not exceed the levels or values referred to in section 24.

Compliance with standard

274(1) An employer and an employee shall each comply with the requirements of CSA standard W117.2-94, “Safety in Welding, Cutting and Allied Processes”.

274(2) This section does not apply where a firefighter is engaged in a rescue.

97-121; 2001-33; 2020-35

Qualifications of welder

274.1 Where the safety of any person depends on the strength of a weld, an employer shall ensure that the weld is done by a welder who

(a) holds at least a Class B welder's certificate of qualification issued in accordance with New Brunswick Regulation 84-174 under the Boiler and Pressure Vessel Act, or

(b) is employed by a company certified to CSA standard W47.1-92, "Certification of Companies for Fusion Welding of Steel Structures".

2001-33; 2020-35

Inspection before commencement of work

275(1) No employee shall commence a welding, cutting, burning or soldering operation unless the employee has thoroughly inspected the entire area surrounding the area around the operation to ensure that all combustible, flammable or explosive material, dust, gas or vapour has been removed from the area, if possible, or that adequate precautions have been taken to prevent fire or explosion.

Employer's responsibility respecting inspection

275(2) An employer shall not permit any welding, cutting, burning or soldering operation until the precautions required by subsection (1) have been carried out.

Availability of fire extinguishing equipment

275(3) An employer and an employee shall each ensure that suitable fire extinguishing equipment in good working order is readily available where any welding, cutting, burning or soldering operation or any other allied process using heat application is performed.

Clothing Protection

Protective equipment

276 An employer shall ensure that an employee engaged in a welding, cutting, burning or soldering operation wears, and an employee engaged in such an operation shall wear, appropriate protective equipment except that

(a) the protective gloves required by paragraph 42(a) shall be leather gauntlet type gloves with arm protection, and

(b) the adequate body covering required by paragraph 42(c) shall be flame retardant work clothing and an apron of leather or of other material offering equivalent protection.

Screening

277(1) An employer shall ensure that an employee working in the area and not engaged in a welding, cutting, burning or soldering operation is protected from harmful radiation by providing adequate screening around the operation or by preventing the employee's entry to the area where the operation is being conducted.

277(2) This section does not apply where a firefighter is engaged in a rescue.

97-121

Welding on Containers

Containers that hold or have held flammable or explosive substance

278(1) Where a container or pipe, or any pipe, valve or fitting connected to the container or pipe, holds or may have held an explosive or flammable substance, an employer shall ensure that the container or pipe and the pipe, valve or fitting connected to the container or pipe are completely drained, cleaned and ventilated in accordance with subsection (2) before any process involving the application of heat is undertaken.

278(2) To drain, clean and ventilate as required by subsection (1), an employer shall ensure that

(a) inlet pipes are disconnected and blocked off or moved out of alignment or the inlet valves are locked in the closed position;

(b) where residual liquid remains, it is removed by an employee without going inside the container or pipe;

(c) where steam is available, all openings except the vent pipe and steam inlet are closed and the steam is blown into the container or pipe and any pipe, valve or fitting connected to the container or pipe for a period of time suitable for the conditions and the nature of the explosive or flammable substance, with the lids and manhole plates opened during the last one-fifth time of the steaming period;

(d) where steam is not available, the container or pipe and any pipe, valve or fitting connected to the container or pipe is kept filled with running water for a period of at least twenty-four hours;

(e) after cleaning, the container or pipe and any pipe, valve or fitting connected to the container or pipe is thoroughly ventilated with forced or induced draft air for a minimum period of two hours;

(f) after ventilation, a competent person examines the interior of the container or pipe and any pipe, valve or fitting connected to the container or pipe to see that it is free from residue and tests air samples to ascertain that all explosive or flammable vapours have been removed;

(g) a record is made of the procedures and the tests required by paragraph (f) and is dated and signed by the person taking the tests;

(h) the person who takes the tests required by paragraph (f) certifies that work involving the application of heat can be safely undertaken on the container or pipe and any pipe, valve or fitting connected to the container or pipe; and

(i) where the tests required by paragraph (f) indicate the presence of explosive or flammable substances, the steaming or flooding, ventilating and testing operations are repeated.

97-121

Other containers

279(1) An employer shall ensure that a welding, cutting, burning or soldering operation is not undertaken

(a) on a closed container,

(b) on a container or pipe, or any pipe, valve or fitting connected to the container or pipe, containing any amount of an explosive or flammable substance, or

(c) on a container or pipe filled with exhaust from an internal combustion engine.

279(2) An employer shall ensure that equipment and materials to be welded, cut, burned or soldered are free of toxic substances.

General

Work surfaces

280 An employer shall ensure that

(a) tables, jigs or work benches used for support during welding, cutting, burning or soldering operations are made of fire resistive materials, and

(b) all surfaces in welding, cutting, burning or soldering areas are made of non-reflective materials.

Protection of compressed gas hose or welding cable

281 Where in a welding, cutting, burning or soldering operation a compressed gas hose or welding cable is placed over a sharp edge or may be struck by falling objects, an employer shall ensure that suitable protection for the hose or cable is provided.

Inspection of equipment before use

282(1) An employer and employee shall each ensure that welding and cutting torches and their fittings and regulators are inspected before use to ensure they are in a safe working condition.

282(2) Where inspection reveals a defect in the equipment mentioned in subsection (1), an employer shall ensure that the equipment is repaired by a competent person and that replacement parts or fittings meet the manufacturer's specifications.

Leak of gas supply

283 An employer and employee shall each ensure that the supply of gas is cut off to any part of the welding, cutting, burning or soldering operation when a leak of the supply of gas being used develops and that work is not resumed until the leak is repaired.

Electric welding machine

284(1) An employee shall ensure that an electric welding machine is moved only by the means provided for that purpose.

284(2) An employee shall ensure that an electric welding machine is not pulled by its electric cables.

284(3) An employer shall ensure that an electric welding machine is located in a dry area in accordance with ~~CSA standard C22.1-98, "Canadian Electrical Code, Part I".~~ "CSA Standard C22.1-~~21~~18, "Canadian Electrical Code, Part 1", as amended from time to time"

284(4) An employer shall ensure that appropriate fittings 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.

2001-33; 2020-35

Precautions respecting welding or cutting torch

285 An employee shall ensure that a welding or cutting torch

(a) is not left unattended until the gases have been completely shut off, and

(b) is not hung from a regulator or other equipment so as to come into contact with a cylinder.

PART XIX

ELECTRICAL SAFETY

Definitions

286 In this Part

"electrical equipment" means any wiring, apparatus, instrument, fitting, fixture, machinery or device that transforms, transmits, distributes, supplies or utilizes electricity, but does not include energized electrical utility lines or utility line equipment or household appliances;

"qualified person" means*(personne qualifiée)*

(a) when applied to work on electrical equipment, a person who meets the requirements of section 11 or 24 of New Brunswick Regulation 84-165 under the Electrical Installation and Inspection Act;

(b) when applied to work on an energized electrical utility line or utility line equipment,

(i) a person who is the holder of a certificate of qualification issued under the Apprenticeship and Occupational Certification Act for the operating lineman trade, construction lineman trade or distribution construction lineman trade, or

(ii) a person who is registered as an apprentice under the Apprenticeship and Occupational Certification Act for an occupation described in subparagraph (i) and who is working under the supervision of a person described in subparagraph (i),

(c) when applied to work in an arboricultural operation described in section 369 that occurs closer to an energized electrical utility line or utility line equipment than the distances set out in subsection 289(1), an employee who meets the requirements of section 369, and

(d) when applied to any other type of work that occurs closer to an energized electrical utility line or utility line equipment than a distance set out in subsection 289(1), an employee who is trained to use and follows a code of practice established by the employer.

2001-33

Qualifications

2001-33

Qualifications to work on energized electrical equipment, utility line or utility line equipment

287(1) An employer shall ensure that an employee does not work on an energized electrical equipment unless the employee is a qualified person described in paragraph (a) of the definition “qualified person” in section 286.

287(2) An employer shall ensure that an employee does not work on an energized electrical utility line or utility line equipment unless the employee is a qualified person described in paragraph (b) of the definition “qualified person” in section 286.

287(3) Subject to paragraph 289(2)(b), an employer shall ensure that an employee does not work closer to an energized electrical utility line or utility line equipment than the applicable distance set out in subsection 289(1) unless the employee is a qualified person.

2001-33

Electrical Equipment

2001-33

Room containing energized electrical equipment

287.1(1) An employer shall ensure that the entrance to a room containing energized electrical equipment with exposed parts is marked with conspicuous warning signs stating that entry by unauthorized persons is prohibited.

287.1(2) An employer shall ensure that no person other than a qualified person enters or is permitted to enter a room or other enclosure containing exposed parts of energized electrical equipment with potential of greater than 30 volts.

2001-33

Suitability of equipment and manufacturer’s specifications

287.2 An employer shall ensure that electrical equipment and insulating material for electrical equipment is suitable for its use and that it is installed, maintained, modified and operated in accordance with the manufacturer’s specifications.

2001-33

Working on electrical equipment

287.3(1) An employer shall ensure that the power supply to electrical equipment is de-energized, locked out of service and tagged before any work is done on the equipment and while the work is done on the equipment.

287.3(2) Electrical equipment is not required to be locked out if

(a) the equipment is adequately grounded with a visible grounding wire, or

(b) the voltage is less than 300 volts to ground, there is no locking device for circuit breakers and there is a procedure in place to ensure the circuit is not inadvertently energized.

2001-33

Working on electrical equipment

287.4(1) Where it is not practicable to de-energize electrical equipment before working on or near energized exposed parts of the equipment, an employee shall use rubber gloves, mats, shields and other protective equipment to ensure protection from electrical shocks and burns while performing the work.

287.4(2) Subsection (1) does not apply to testing and troubleshooting of electrical equipment.

287.4(3) An employer and an employee shall each ensure that only appropriately rated testing equipment is used when testing and troubleshooting electrical equipment.

2001-33

Main service switches and temporary panel boards

287.5 An employer shall ensure that main service switches and temporary panel boards of electrical equipment

(a) are securely mounted on sufficient supports on an upright position,

(b) are kept clear of any obstructions for one metre in front and two metres headroom,

(c) are within easy reach of and readily accessible to authorized persons,

(d) are adequately protected from weather and the accumulation of water,

(e) have a suitable cover over uninsulated energized parts, and

(f) have a label or other indicator that identifies what equipment is energized by each line.

2001-33

When electrical equipment not in use

287.6 An employer shall ensure that electrical equipment that is not used for the purpose for which it was designed

(a) is de-energized, or

(b) if left in place, is locked out or effectively grounded, and tagged.

2001-33

Protective Equipment

2001-33

When protective equipment required

288 An employer shall ensure that an employee does not work on an energized electrical utility line or utility line equipment or closer to an energized electrical utility line or utility line equipment than the applicable distance set out in subsection 289(1) unless the employee uses rubber gloves, shields, insulated objects or other necessary protective equipment.

2001-33

Utility Lines and Utility Line Equipment

2001-33

Unqualified person and working distances from energized electrical utility line or utility line equipment

289(1) An employer shall ensure that an employee who is not a qualified person does not carry out any work, and no such employee shall carry out any work, that is liable to bring any person or object closer to an energized electrical utility line or utility line equipment than the distances specified in the following table:

Phase to Phase Voltage of Energized Electrical Utility Line or Utility Line Equipment	Distance
Up to 750 v	900 mm
750 v - 100,000 v	3.6 m
100,001 v - 250,000 v	5.2 m
250,001 v - 345,000 v	6.1 m

289(2) Where an employee who is not a qualified person is about to commence work that is liable to bring any person or object closer to an energized electrical utility line or utility line equipment than a distance

specified in subsection (1), an employer shall contact the authority owning or operating the energized electrical utility line or utility line equipment and shall ensure that the utility line or utility line equipment

(a) is de-energized, or

(b) is adequately insulated or guarded

before permitting the employee to commence the work.

Standard for electrical utility and communication lines and equipment

290 An employer shall ensure that electrical utility and communication lines and equipment are installed in conformance with CSA standard CAN/CSA-C22.3 No. 1-M87, “Overhead Systems” and CSA standard C22.3 No. 7-94, “Underground Systems” in order to ensure the safety of employees.

97-121; 2001-33; 2020-35

Electrical switching devices

291 An employer shall ensure that all electrical switching devices

(a) are accessible to employees, and

(b) have a minimum of 450 mm clear of any obstruction around and in front of the device.

Code of practice for work on electrical distribution or transmission system

292(1) Before permitting an employee to commence work on any component of an electrical distribution or transmission system, an employer shall establish a code of practice to be followed by the employee which shall include the following:

(a) the components to be handled in a de-energized state;

(b) method of de-energizing parts of the electrical distribution system;

(c) lock out procedure;

(d) method of de-energizing parts of the electrical distribution or transmission system when the lock out procedure referred to in paragraph (c) cannot be implemented;

(e) method of recording notifications to employees of safe conditions for work;

(f) method of determining that all employees are clear of work areas and have been instructed to remain clear before the electrical distribution or transmission system, or any part of it, is re-energized; and

(g) method of re-energizing the electrical distribution or transmission system.

292(2) An employer shall ensure that the code of practice referred to in subsection (1) is complied with and an employee shall comply with the code of practice.

292(3) An employer shall make a copy of the code of practice available to an officer upon request.

2001-33

Re-energizing of de-energized electrical distribution or transmission system

293 An employer shall ensure that a de-energized electrical distribution or transmission system or any part of it is not re-energized until the employer

(a) determines that all employees are clear of the work areas and have been instructed to remain clear, and

(b) has authorized the re-energizing of the electrical distribution or transmission system or the part in question.

Poles or light standards and energized electrical distribution conductors

294(1) Where an employee is to set or remove poles, light standards or any similar object between energized electrical distribution conductors exceeding 750 volts, an employer shall ensure that the conductors are

(a) covered with adequate protective devices, or

(b) protected by an adequate guard installed on the pole before being lifted.

294(2) An employer shall ensure that an employee required to perform the work described in subsection (1)

(a) wears appropriately rated rubber gloves,

(b) uses cant hooks or other appropriate controlling devices, and

(c) does not get on or off the lifting machine or device until the pole is secured in position.

294(3) An employer shall ensure that a machine or device used for lifting, setting or removing poles, light standards or any similar object between or within 3 m of an energized electrical utility line or utility equipment

(a) is grounded, and

(b) if applicable, has its outriggers extended.

294(4) An employer shall ensure that at least one qualified person is present at all times during the operations described in this section and that the employee described in subsection (1) works under the direct supervision of the qualified person.

Inspection or testing strength of wooden utility pole or post

295 An employer shall ensure that a wooden utility pole, post or similar structure, except where visual inspection shows there is no doubt regarding sufficient strength, is butt tested to determine its strength and,

where necessary, is adequately guyed or supported before an employee climbs or changes the forces on the pole, post or structure.

Energized electrical conductor or equipment in manhole or tunnel

296 An employer shall ensure that no employee in a manhole or tunnel works on an energized electrical conductor or with electrical equipment having a potential in excess of 750 volts.

Use of metal or wire reinforced ladder

297 Where an employee may come closer to an energized electrical utility line or utility line equipment than a distance specified in subsection 289(1), an employer shall ensure that the employee does not use, and an employee shall not use a metal ladder or wire reinforced ladder.

Work on overhead electrical system and safety of employees below

298 Where an employee works on an overhead electrical system where another employee may pass below, an employer shall ensure that a safety procedure is adopted and followed to protect the health and safety of the employee below.

PART XX

UNDERWATER DIVING OPERATIONS

Application

299 This Part applies to an underwater diving operation.

Definitions

300 In this Part

“atmospheric diving system” means a diving system in which the external pressure on the body of the diver using the system is normal atmospheric pressure;

“bail-out system” means an independent breathing-gas supply or breathing mixture carried by a diver that is of sufficient quantity to return the diver to the surface, a diving bell or an emergency breathing-gas supply or breathing mixture in the event of a malfunction of the primary breathing-gas supply or breathing mixture;

“bottom time” means the total elapsed time measured in minutes from the time a descending diver leaves the surface to the time the diver begins final ascent, rounded to the next whole minute;

“compressed air environment” means an environment in which respirable gases are breathed at a pressure above normal atmospheric pressure;

“decompression schedule” means the procedure detailed in an appropriate decompression table to be followed by a diver during ascent from depth in order to minimize the risk of decompression sickness;

“decompression sickness” means an illness caused by the formation of gas bubbles in the blood or body tissues as a result of pressure reduction;

“deep diving” means any mode of diving to a depth greater than 55 m;

“diver” means a person who performs work under water for compensation;

“diving bell” means a surface-tethered structure that can accommodate one or more divers under water;

“diving plant and equipment” means all plant and equipment used in an underwater diving operation that form part of the life-support system of a diver;

“diving supervisor” means a person designated by an employer under section 307;

“dressed-in” means that a diver is fully equipped to dive and is ready to enter the water, with all life-support and communications equipment tested and at hand, but not necessarily with the helmet, face plate or face mask in place;

“hyperbaric chamber” means a pressure vessel with a design pressure of 690 kPa that complies with the requirements of the *Boiler and Pressure Vessel Act* and that is designed for the purpose of subjecting humans to greater than atmospheric pressure, and includes associated equipment;

“lock-out submersible” means a self-propelled submersible compression chamber from which a diving operation can be carried out and that has a separate one-atmosphere chamber from which the submersible compression chamber is piloted;

“mixed gas” means a respirable breathing mixture, other than the normal proportions of respirable air, that provides sufficient oxygen to support life and does not cause detrimental physiological effects such as excessive breathing resistance or impairment of neurological function;

“no decompression limit” means, with respect to a decompression schedule in use for the depth and duration of a dive, that no decompression stop is required during the ascent from depth of a diver;

“open diving bell” means a diving bell designed so as not to be operated with a differential pressure across the hull;

“saturation diving” means a technique of diving in which the decompression schedule used allows a bottom time of unlimited duration;

“SCUBA” means self-contained underwater breathing apparatus with open-circuit compressed air;

“stage” means a cage, basket or platform in which a diver may be lowered to or raised from a ~~work site~~ work area;

“stand-by diver” means a diver who is dressed-in and who is trained and equipped to operate at the depths and the circumstances in which a submerged diver is operating for the purpose of rendering assistance to the submerged diver in the event of an emergency;

“submersible compression chamber” means a hyperbaric chamber designed for transporting a diver at atmospheric pressure or at an elevated pressure from the surface to an underwater work site and from the underwater ~~work site~~ work area to the surface;

“surface-supply diving” means a diving technique in which a diver is supplied from the dive location with a breathing mixture by way of an umbilical;

“tender” means a person who tends a diver;

“therapeutic recompression” means treatment of a diver in a compressed air environment in accordance with CSA approved practice or medical direction to treat decompression symptoms and decompression sickness;

“umbilical” means a composite cable or separate cables that extend from the surface to a diver or to the pressure vessel of occupancy of the diver and that provide a breathing mixture, power, heat or communication as may be required;

“underwater diving operation” means work performed underwater for commercial, industrial, construction or environmental purposes and includes the underwater inspection, alteration, repair or maintenance of equipment, machinery, structures or ships and the salvage of sunken property of a commercial or industrial nature.

2020-35

Medical Requirements

Medical certification of diver

301(1) An employer shall ensure that each diver has a current medical certification from a medical practitioner, before commencing an underwater diving operation.

301(2) A diver shall, before commencing an underwater diving operation, supply a copy of the diver’s current medical certification to the employer.

301(3) A diver shall ensure that the diver’s medical certification

(a) is established before entering into employment as a diver,

(b) is renewed every two years,

(c) is renewed more frequently than required under paragraph (b) if clinically indicated, and

(d) is re-evaluated by a medical practitioner if the diver is subjected to an event or has a physical condition that may affect the diver's medical status.

301(4) An employer shall ensure that a copy of each diver's current medical certification is kept at the dive site.

301(5) A diver shall undergo such medical examinations as an employer or diving supervisor may require for the purpose of ensuring the diver is physically fit to dive.

2001-33

Fitness to dive

302(1) A diving supervisor shall ensure that a diver does not dive when, in the opinion of the diving supervisor, the diver is not capable of functioning safely and effectively under water.

302(2) A diver shall notify the diving supervisor if the diver has reason to believe that the diver is unfit to dive.

Medical alert tag

303(1) A diver shall wear a registered medical alert tag or bracelet to indicate the possibility of decompression sickness or other pressure-related illness for at least twenty-four hours after each dive requiring a decompression stop or where the decompression schedule in use for the depth and duration of a dive has not been followed.

303(2) A medical alert tag or bracelet referred to in subsection (1) shall be registered with an agency that has facilities for twenty-four hour reference and shall bear the name and telephone number of the agency.

Diver Training

Diver training

304(1) An employer shall obtain from a diver and retain during the diver's employment, documentary evidence that the diver has successfully completed an appropriate diver training course or has appropriate training and experience with respect to the dive being contemplated.

304(2) An employer shall ensure that a diver is certified by the Canadian Red Cross Society or St. John Ambulance in standard first aid and by one of those agencies, the New Brunswick Heart and Stroke Foundation or the YMCA-YWCA in cardiopulmonary resuscitation.

2001-33

Diver's Log Book

Diver's log book

305(1) A diver shall maintain, and keep for five years after completion, a log book that records all dives carried out, all therapeutic recompressions and other exposures to a compressed air environment and all medical examinations.

305(2) A diver shall record the following information for each dive carried out:

(a) name of employer;

(b) name of diving supervisor;

(c) type of diving apparatus used;

(d) breathing mixture or breathing gas used;

(e) time left surface;

(f) bottom time;

(g) maximum depth attained;

(h) time left bottom;

(i) time reached surface;

(j) surface interval, if a repeat dive was undertaken;

(k) decompression table used;

(l) date;

(m) name of the tender; and

(n) remarks, if any.

305(3) For dives originating from a diving bell or other submerged base, a diver shall record the time of leaving the bell or base, the greatest depth attained, the time of return to the bell or base and the depth of the bell or base in addition to the information required under subsection (2).

305(4) A diver shall ensure that in the log book referred to in subsection (1)

(a) the entry required for each dive is signed by the diving supervisor,

(b) an entry for therapeutic recompression or other exposure to a compressed air environment is signed by the attending medical practitioner or diving supervisor, and

(c) the entry for a medical examination is supported by a certificate signed by the medical practitioner who performed the examination.

305(5) A diver shall keep in the log book either

(a) a certificate confirming the diver's successful completion of an appropriate diver training course, or

(b) a record of the diver's previous relevant training and experience.

Diving Supervisor's Daily Record

Diving supervisor's daily record

306(1) A diving supervisor shall keep a daily record of each dive separate from the diver's log book.

306(2) A diving supervisor shall record the information required under subsections 305(2) and (3) in the daily record and shall keep a copy of a diver's current medical certification.

306(3) A diving supervisor shall file the daily record with the employer who shall retain the daily record for five years and make it available to an officer on request. 2001-33

Planning a Dive

Planning a dive

307 Unless otherwise provided, an employer shall designate a competent person who meets the qualifications under section 304 and who has a minimum of five years diving experience to supervise an underwater diving operation.

Planning a dive

308 A diving supervisor's duties shall include

(a) planning the dive or dives in detail,

(b) briefing the crew,

(c) ensuring that all necessary equipment is provided and is in good operating condition,

(d) supervising the entire diving operation, and

(e) instructing the crew in emergency procedures.

Planning a dive

309 A diving supervisor shall ensure that a diver

(a) is competent in the use of the diving apparatus to be used, and

(b) understands the signals and procedures to be used.

Planning a dive

310 An employer shall ensure that a plan of an underwater diving operation is discussed and accepted by the diving supervisor, the divers and the employer.

Preparation for a Dive

Preparation for a dive

311 Before commencing an underwater diving operation, a diving supervisor shall ensure that all diving plant and equipment is in good operating condition.

Preparation for a dive

312(1) Immediately before each dive, a diver shall check for all the required equipment and ensure that the equipment is properly fastened in place and is functioning properly.

312(2) Before descent, a diver shall repeat in the water the check required by subsection (1).

Preparation for a dive

313(1) An employer and a diving supervisor shall each ensure that when an underwater diving operation is in progress, warning devices such as buoys, diver's flags, lights, lamps or flares are displayed to define the limits to be kept clear of by any equipment other than that connected with the operation.

313(2) A diving supervisor shall take precautions to prevent a hazard to a diver from a barge, scow or vessel in or near the diving area.

Diving Hazards

Diving hazards

314(1) Immediately before each dive, a diving supervisor shall review the nature of the hazards in the diving area and ensure that each diver fully understands the hazards involved.

314(2) A diving supervisor shall declare underwater approaches to an intake or an exhaust a hazardous area for an underwater diving operation.

314(3) A diving supervisor shall ensure that a diver

(a) in a hazardous area wears at all times a life line tended from a position outside the hazardous area,

(b) required to approach an underwater intake, exhaust, pipe, tunnel or duct is able to differentiate it from any other similar object in the area, and

(c) does not approach an intake or exhaust until the flow through it is, in the case of an intake, arrested and locked out, or, in the case of an exhaust, slowed down, to the extent it is safe for a diver to work near the intake or exhaust and provisions are made so that the flow will not be re-established until the diver leaves the water or is declared by the diving supervisor to be clear of the hazardous area.

314(4) Before a diver approaches an area that may be hazardous because of the operation of a mechanism, a diving supervisor shall ensure that the mechanism is

(a) secured against inadvertent movement before the diver enters the water, and

(b) rendered inoperative and prevented from being activated by isolating the energy source from the mechanism in a manner suitable to the diver and the diving supervisor.

314(5) Where exceptional hazards exist or are predicted, an employer and a diving supervisor shall ensure that a second diving crew with independent diving plant and equipment capable of effecting rescue is on the site of the underwater diving operation.

2001-33

Use of Explosives

Use of explosives

315(1) Where an explosive is used in an underwater diving operation, the provisions of Part XII apply.

315(2) A blaster shall control the initiation of all underwater charges.

315(3) Before an underwater charge is fired, a diving supervisor shall ensure that

(a) the area is cleared,

(b) all divers are out of the water and at a safe distance from the blast, and

(c) the diving boat is moved to a safe distance from the blast area as determined by the blaster supervising the blasting operation.

315(4) Before firing a charge, a blaster shall check with the diving supervisor and obtain the diving supervisor's approval for firing the charge.

93-8

Contingency Planning

Contingency planning

316(1) This section does not apply to an underwater diving operation using SCUBA.

316(2) Before an underwater diving operation begins, an employer shall arrange for a medical practitioner familiar with the medical problems associated with diving to be readily available during the period of the dive and for a twenty-four hour period afterward.

316(3) An employer shall arrange for the use of a back-up hyperbaric chamber suitable for the depth of the underwater diving operation being carried out.

Contingency planning

317 An employer and a diving supervisor shall ensure that a stand-by diver is present at all times while an underwater diving operation is in progress.

Breathing Mixtures

Breathing mixtures

318(1) This section does not apply to a diver using SCUBA.

318(2) A diving supervisor shall ensure that a diver engaged in an underwater diving operation has

(a) a sufficient amount of an appropriate breathing mixture, including a reserve supply two and one-half times greater than that required for the operation,

(b) suitable diving plant and equipment for supplying the breathing mixture to the diver at a proper temperature, pressure and flow rate,

(c) an additional reserve supply of the appropriate breathing mixture sufficient for seventy-two hours duration with necessary diving plant and equipment when a submersible compression chamber is being used, and

(d) an appropriate breathing mixture in the bail-out system carried by the diver.

318(3) An employer shall provide and a diving supervisor shall ensure that there is an appropriate breathing mixture in a quantity sufficient for the time needed by a stand-by diver to reach the submerged diver in the event of an emergency and for them to

(a) return to the surface and carry out the appropriate decompression procedures during the return, or

(b) return to a submersible compression chamber and then to surface in the chamber and start the appropriate decompression procedures at the surface.

318(4) A diving supervisor shall ensure that a breathing mixture meets the air composition and air purity standards prescribed in clause 3.8 of CSA standard CAN/CSA Z275.2-92, “Occupational Safety Code for Diving Operations”.

318(5) A diving supervisor shall ensure that

(a) breathing air supplied to a diver meets the requirements of CSA standard CAN3-Z180.1-M85, “Compressed Breathing Air and Systems”, and

(b) breathing gas or air is discharged through adequate filters into a tank or receiver of suitable volume.

318(6) A diving supervisor shall ensure that when a mixed gas is used, the decompression schedule followed is appropriate for the mixed gas used.

2001-33; 2020-35

Breathing mixtures

319 A diving supervisor and an employer shall ensure that no diver breathes, and no diver shall breathe, pure oxygen while submerged at depths greater than 7.5 m except when following a decompression schedule or for therapeutic purposes.

Decompression

Decompression

320(1) A diving supervisor shall ensure that underwater diving operations, repetitive dives and treatment of divers are carried out in strict accordance with appropriate decompression schedules and decompression tables.

320(2) A diving supervisor shall ensure that a double-lock Class A hyperbaric chamber in operable condition is on site for the exclusive use of divers engaged in an underwater diving operation before the operation begins whenever

(a) a planned dive exceeds the no decompression limit, or

(b) the depth of 40 m is exceeded.

320(3) A diving supervisor shall ensure that the hyperbaric chamber required by subsection (2) conforms to and is operated in accordance with CSA standard Z275.1-93, “Hyperbaric Facilities”.

2001-33; 2020-35

Decompression

321(1) When a diver shows any indication of pressure-related illness, a diving supervisor shall ensure that treatment is initiated and the medical practitioner referred to in subsection 316(2) is alerted immediately.

321(2) A diving supervisor shall ensure that a diver who has suffered a pressure-related illness does not dive unless approval for further diving is given by a medical practitioner.

321(3) A diving supervisor shall ensure that on completion of decompression, a diver remains under observation and in the general area of the hyperbaric chamber for such period of time as the diving supervisor believes is necessary for the diver's welfare.

Diving Equipment

Diving equipment

322(1) An employer and a diving supervisor shall ensure that all diving plant and equipment, including breathing apparatus, compressors, compressed gas cylinders, gas control valves, pressure gauges, reserve gas-supply devices, piping, helmets, winches, cables, diving bells, stages and all accessories necessary for the safe conduct of the underwater diving operation, is

(a) of design meeting the standards of CSA or standards equivalent to those of CSA for the item in question, of sound construction, of adequate strength, free from patent defect and maintained in a condition that will ensure its continuing operating integrity for the purpose and depths for which it was originally designed or subsequently used,

(b) protected against malfunction at low temperatures that may be caused by ambient air or water or the expansion of gas, and

(c) used in an unmodified form unless the modification is specifically certified or approved by the manufacturer.

322(2) A supplier of diving plant and equipment used in an underwater diving operation shall ensure that

(a) the diving plant and equipment is examined, tested, overhauled and repaired in accordance with the manufacturer's recommended procedures,

(b) gauges and metering equipment on diving equipment are checked every six months or whenever a discrepancy is observed, whichever occurs first, and

(c) defective diving equipment is removed from service until repaired.

322(3) An employer and a diving supervisor shall each ensure that defective diving plant and equipment is removed from service until repaired.

2020-35

Diving equipment

323(1) A diving supervisor shall ensure that a compressor used to supply compressed air to a diver

(a) is capable of maintaining a supply of air equal to at least double the volume of air required and at a pressure 25% greater than the maximum pressure in the air tank or receiver,

(b) operates automatically without undue fluctuation of pressure in the air tank or receiver, and

(c) has tanks, fixtures and fittings meeting the appropriate requirements of CSA standard B51-97, "Boiler, Pressure Vessel, and Pressure Piping Code".

323(2) An employer and a diving supervisor shall each ensure that a compressor referred to in subsection (1) is operated by a competent person.

323(3) The competent person referred to in subsection (2) shall ensure that the equipment needed to supply air to the diver is in good working order.

97-121; 2001-33; 2020-35

Diving equipment

324 A diving supervisor shall ensure that there is a second source of power for the diving plant and equipment, in the event of failure of the primary source, capable of

(a) being rapidly brought on line,

(b) operating the handling system for the submersible compression chamber,

(c) heating the diving plant and equipment, including heating for any diver in the water,

(d) sustaining life-support systems for a submersible compression chamber and any diver in the water,

(e) illuminating the ~~work site~~ work area of a diver and the interior of a submersible compression chamber and dive station, and

(f) operating communication and monitoring systems.

Diving equipment

325 Where oxygen is used in diving plant and equipment, a diving supervisor shall ensure that

(a) the use of hoses in place of piping to carry or hold oxygen is kept to a minimum,

(b) hoses and fittings are constructed of material compatible with oxygen at the operating pressure and temperature,

(c) high flow velocities of oxygen through a hose are such that the differential pressure along a hose does not exceed 700 kPa,

(d) quick-opening valves are not used except for emergency shut-off at the point of penetration of a hyperbaric chamber hull, and

(e) portable compressed gas containers containing oxygen are stored, handled and used in accordance with sections 74 to 79.

Diving equipment

326 A diving supervisor shall ensure that a life line used by a diver is

(a) secured at the surface to a safe anchor point,

(b) tended at all times by a tender,

(c) secured in a manner that will prevent loss of contact with the diver,

(d) attached to the diver's safety harness, and

(e) of sufficient length without knots or splices.

2010-159

Diving equipment

327 A diving supervisor shall ensure that a diver wears a diving safety harness complete with lifting ring at all times when diving.

Communication with Diver

Communication with diver

328(1) An employer shall provide, and a diving supervisor shall ensure use of, a means of effective two-way communication between a diver and any person in control of the diving plant and equipment.

328(2) Where two-way voice communication is required, an employer shall provide

(a) a standard of sound reproduction that enables the diver's breathing to be heard clearly,

(b) a suitable means of voice-unscrambling when the breathing mixture used significantly distorts sound transmission, and

(c) a recording system for voice communication for depths exceeding 55 m.

2001-33

Communication with diver

329 A diving supervisor shall ensure that a diver using surface-maintained diving equipment knows and understands the following international hand signals:

(a) from the diver:

(i) 1 pull means “I am all right”;

(ii) 2 pulls mean “Lower or give me slack”;

(iii) 3 pulls mean “I am coming up” or “Take up slack”;

(iv) 4 pulls mean “Haul me up”;

(v) 5 pulls mean “Send me a rope”;

(vi) 2-1 pulls mean “I understand” or “Answer the intercom”; and

(vii) 3-2 pulls mean “More air”;

(b) from the tender:

(i) 1 pull means “Are you all right?” except when the diver is being either raised or lowered when 1 pull means “Stop”;

(ii) 2 pulls mean “You have come too far. Go back down until I stop you”;

(iii) 3 pulls mean “Stand by to come up”;

(iv) 4 pulls mean “Come up, emergency recall”; and

(v) 2-1 pulls mean “I understand” or “Answer the intercom”; and

(c) emergency signals from the diver:

(i) 2 pulls repeated several times indicates that the diver is fouled and a stand-by diver is to be sent down immediately;

(ii) 3 pulls repeated several times indicates that the diver is fouled but is able to clear ~~himself~~ themselves if left alone; and

(iii) 4 pulls repeated several times indicates a serious emergency and the tender is to haul the diver up to the surface.

Equipment for a Diving Base on the Surface

Equipment for a diving base on the surface

330 A diving supervisor shall ensure that when diving is in progress a diving base on the surface is equipped with

(a) if SCUBA is being used, one complete spare set of self-contained underwater breathing apparatus with fully charged cylinders to be used for emergency purposes only,

(b) a shot-line of 19 mm manila or material of equivalent strength, of sufficient length to reach the bottom at the maximum depth of the ~~work site,~~ work area,

(c) a first-aid kit that meets the requirements of section 12,

(d) a stretcher and blankets,

(e) one complete set of decompression tables appropriate for the dive,

(f) a sufficient quantity of hot beverage for the divers, and

(g) such other material or equipment as may be specified by an officer.

Transportation through Air-Water Interface

Transportation through air-water interface

331(1) A diving supervisor shall ensure that diving activities are not carried out from a diving station located more than 5 m above water unless the divers are transported through the air-water interface by a suitable submersible compression chamber, stage or open diving bell.

331(2) A diving supervisor shall ensure that a hoisting device used to raise or lower a diver into the water is not used for any other purpose until after the diver is in position.

331(3) A diving supervisor shall ensure that a hoisting device used to raise or lower a submersible compression chamber, stage or open diving bell is

(a) so constructed that a brake is automatically applied when the control lever, handle or switch is not held in the operating position, and

(b) not fitted with a pawl-and-ratchet gear on which the pawl has to be disengaged before commencing raising or lowering operations.

331(4) A diving supervisor shall ensure that a stage required under subsection (1)

(a) is provided to transport a diver to an underwater ~~worksite~~ work area where the depths are shallower than 55 m,

(b) is large enough to carry at least two divers with their diving equipment and associated equipment in uncramped conditions,

(c) is secure against tipping and spinning,

(d) does not contain any equipment that might interfere with a diver's foothold or handhold, and

(e) is so constructed or equipped that the divers are secure against falling out of the stage.

Open Diving Bells

Open diving bells

332 An employer and a diving supervisor shall each ensure that an open diving bell

(a) is of sufficient size to accommodate all submerged divers,

(b) provides adequate emergency breathing mixture for the safe decompression of divers in an emergency,

(c) contains adequate equipment, protected against inadvertent operation, for supplying the appropriate breathing mixture to persons occupying or working from the chamber,

(d) is equipped with a voice communication system whereby conversation may be maintained with persons at the diving station, with surface supervisory personnel and with divers outside the chamber,

(e) contains equipment for lighting,

(f) contains first-aid equipment that meets the requirements of section 12 and lifting equipment sufficient to enable an unconscious or injured diver to be hoisted into the chamber by a person located in the chamber,

(g) contains a stretcher and blankets,

(h) is used in association with lifting gear that enables the chamber to be lowered to the depth at which the diving operations are to be carried out without excessive lateral, vertical or rotational movement taking place,

(i) is provided with a means whereby in the event of a failure of the main lifting gear, the chamber can be returned to the surface, and

(j) limits the diver's umbilical to 30 m.

Submersible Compression Chambers

Submersible compression chambers

333(1) Where a submersible compression chamber is used, an employer shall ensure that the submersible compression chamber conforms to the requirements of CSA standard Z275.1-93, "Hyperbaric Facilities".

333(2) An employer shall ensure that a submersible compression chamber

(a) is equipped to permit the transfer of personnel under pressure into or from the surface hyperbaric chamber,

(b) is of a design that

(i) enables divers to enter and exit without difficulty, and

(ii) allows at least two divers who are equipped and dressed for the diving operation to be seated within,

(c) is equipped with doors and hatches that act as pressure seals and may be opened from either side, and

(d) is equipped with such valves, gauges and other fittings as necessary to control the internal pressure and to indicate clearly the internal and external pressures inside the chamber and at the diving station.

2001-33; 2020-35

Submersible compression chambers

334 A diving supervisor shall ensure that no underwater diving operation is conducted from a lock-out submersible unless

(a) the submersible is negatively buoyant on the bottom or positively secured to the underwater ~~work site,~~ work area,

(b) there is a stand-by diver monitoring the operation from the lock-out submersible, and

(c) the diver's umbilical is limited to 30 m.

Submersible compression chambers

335 An employer shall ensure that no underwater diving operation is conducted from a lock-out submersible unless the diving supervisor is on board the submersible and present in the one-atmosphere chamber during all external diving operations.

Atmospheric Diving Systems

Atmospheric diving systems

336(1) Where an atmospheric diving system is used, a diving supervisor shall locate the nearest back-up atmospheric diving system unit or other unit with sufficient depth capabilities to effect a rescue and shall arrange for its use in the event of an emergency.

336(2) A diving supervisor shall ensure that an atmospheric diving system is not used unless the on-board reserve life-support system will sustain life for the period of time that would enable the back-up unit required by subsection (1) to reach the site of the underwater diving operation and conduct rescue operations.

336(3) Where an atmospheric diving system is used, an employer and a diving supervisor shall each ensure that a contingency plan is prepared for dealing with

(a) deteriorating weather and ice conditions during a dive,

(b) the inability of surface craft to maintain station,

(c) the failure of any major component of diving plant and equipment, and

(d) any other circumstances that may reasonably be anticipated.

Scuba Diving

Scuba diving

***337**(1) An employer shall not employ a diver using SCUBA

(a) on an underwater construction project,

(b) where diving in a confined space,

(c) where underwater power tools are used,

(d) where water currents, visibility, weather conditions or underwater conditions present hazards to a diver that could be alleviated if the diver were using surface-supplied air,

(e) where the diving environment is contaminated,

(f) where there is danger of entrapment, or

(g) where the depth of the dive may exceed 30 m.

337(2) An employer shall ensure that at least three persons are present on each dive site where a diver is using SCUBA, one of whom is the diver, one a stand-by diver and one a competent person.

337(3) A diving supervisor is not required to be present at a dive site referred to in subsection (2).

Scuba diving

338(1) An employer shall ensure that a diver using SCUBA uses the following equipment appropriate to the conditions:

(a) an open-circuit demand apparatus with quick-release harness, a reserve device or a bail-out system;

(b) a face mask;

(c) swimming fins for the feet;

(d) a snorkle or breathing tube for surface swimming;

(e) a suitable knife;

(f) a weight belt with a quick-release closure;

(g) a submersible pressure gauge;

(h) an exposure suit or protective clothing appropriate for the conditions of work and the temperature of the water;

(i) a manually inflatable buoyancy device;

(j) an underwater watch with elapsed-time indicator; and

(k) a device for summoning aid from the surface while submerged.

338(2) An employer shall ensure that a diver using SCUBA uses

(a) a life line that meets the requirements of section 326, and

(b) a means of effective two-way communication so that the diver is able to summon immediate assistance from the surface and the surface crew can effectively recall a submerged diver at any time.

2001-33

Scuba diving

339 An employer shall ensure that each SCUBA cylinder is

(a) hydrostatically tested and stamped at least every five years by an appropriate agency in accordance with CSA standard CAN/CSA Z275.2-92, “Occupational Safety Code for Diving Operations”,

(b) visually inspected internally and externally at least once every year and labelled with a decal affixed securely to the cylinder stating the month and year of inspection by an appropriate agency in accordance with CSA standard CAN/CSA Z275.2-92, “Occupational Safety Code for Diving Operations”,

(c) not filled unless paragraphs (a) and (b) have been complied with,

(d) when showing visual signs of damage, not filled until it has been tested and inspected in accordance with paragraphs (a) and (b) immediately before being filled,

(e) not filled unless it is securely blocked, lashed and preferably immersed in a protective tank of water,

(f) only filled with air meeting the minimum requirements of the CSA standard CAN3-Z180.1-M85, “Compressed Breathing Air and Systems”,

(g) not subjected to temperatures in excess of 55°C,

(h) equipped with a safety reserve valve or equivalent in the regulator,

(i) transported in an upright position whenever possible,

(j) transported with the valves pointing toward the rear of the vehicle, if it cannot be transported upright, and

(k) securely tied or blocked during transit with the valves protected to prevent shear off.

2001-33; 2020-35

Scuba diving

340 Where SCUBA diving operations are carried on during the hours of darkness, an employer shall provide indicator devices such as rescue beacons or strobes for the diver's use.

Surface-Supply Diving

Surface-supply diving

341(1) This section applies to a surface-supply diving operation.

341(2) Where the planned depth of a dive does not exceed 30 m, an employer shall ensure that a minimum crew of three is present for each surface-supply diving operation consisting of

(a) a diver,

(b) a stand-by diver, and

(c) a tender.

341(3) A diving supervisor is not required for a dive referred to in subsection (2).

341(4) Where the planned depth of a dive exceeds 30 m, an employer shall ensure that a minimum crew of four is present for each surface-supply diving operation consisting of

(a) a diver,

(b) a stand-by diver,

(c) a tender, and

(d) a diving supervisor who does not enter the water.

341(5) An employer shall ensure that a stationary air-line used in a surface-supply diving operation

(a) is properly safeguarded against injury or interference,

(b) has a valve fitted in each diver's air-line that is

(i) readily accessible,

(ii) guarded against interference,

(iii) clearly marked to identify the diver whose air supply it controls, and

(iv) under the care of a competent person,

(c) is fitted with a pressure gauge downstream of the supply valve installed so that the dial figures are in clear and unobstructed view of the tender or diving supervisor, and

(d) is of sufficient length to provide for emergency difficulties of the diver.

341(6) Where surface-supplied equipment is designed to be used with a bail-out system, an employer shall ensure that a diver wears the bail-out system.

341(7) An employer shall ensure that non-return valves are fitted to all diving helmets and surface-supplied masks and the non-return valves are checked before the commencement of diving operations in accordance with the supplier's recommendations.

341(8) An employer shall ensure that a diver's umbilical is taped to a life line at 1 m intervals in such a manner that strain due to tension on the life line does not create tension on the umbilical.

341(9) An employer shall ensure that a surface-supplied diver has effective two-way voice communication with the surface.

341(10) An employer shall ensure that when a diver is in the water, a vessel or platform is anchored at or near the diving operation or that there is a diving platform, skip, pier or facility that is seaworthy and of sufficient size to accommodate safely the diving crew and equipment.

Deep Diving

Deep diving

342(1) This section applies to a deep diving operation.

342(2) An employer shall ensure that a minimum crew of five is present for each diving operation consisting of

(a) a diving supervisor,

(b) two divers, one of whom is a stand-by diver, and,

(c) two tenders.

342(3) An employer shall ensure that there are a sufficient number of competent persons to operate

(a) the diving plant and equipment and other facilities while a diver is under, entering or leaving the water, and

(b) any hyperbaric chamber required and its associated equipment.

342(4) When more than one deep diving operation in a twenty-four hour period is planned, an employer shall ensure that there are a sufficient number of divers and stand-by divers to ensure that a diver or stand-by diver about to commence a dive has not been exposed to abnormal external pressure on the body for the twelve hour period before the dive.

342(5) An employer shall ensure that at least two divers are used when diving from a closed bell, one of whom shall be the stand-by diver and who shall tend the diver from the bell.

342(6) An employer shall ensure that a Class A (double-lock) hyperbaric chamber in operable condition is on site for all deep diving operations.

342(7) An employer shall ensure that an open diving bell, submersible compression chamber or lock-out submersible is provided and used for the transport of the diver to the underwater ~~work site~~ work area whenever pressure dives exceed the following limits:

Bottom Time	Depth
60 minutes	55-68 m
40 minutes	69-75 m
30 minutes	76-90 m

342(8) A diving supervisor shall ensure that a submersible compression chamber or lock-out submersible capable of mating to a Class A (double-lock type) hyperbaric chamber for the transfer of personnel under pressure is used where the bottom time and depth exceeds the limits given in subsection (7) or the depth is in excess of 90 m.

342(9) An employer and a diving supervisor shall each ensure that diving activities are not carried out at water depths greater than 55 m unless

(a) a diver is transported through the air-water interface by a suitable submersible compression chamber, open diving bell or stage,

(b) the stand-by diver referred to in subsection (2) is located at the surface or in the stage,

(c) all divers and stand-by divers are in voice communication with each other and with the attendants at the diving station, and

(d) the attendants at the diving station have a means of monitoring the depth of the diver and the pressures of the breathing medium being supplied to each diver and stand-by diver.

342(10) Where bounce or non-saturation diving techniques are used, an employer and a diving supervisor shall each ensure that no diver remains submerged for a total period of time in excess of three hours in a

twenty-four hour period and that there is a rest period of at least twelve continuous hours after this limit is reached.

342(11) Where saturation diving techniques are used, an employer and a diving supervisor shall each ensure that

(a) where the dive is to a depth of 150 m or less, no diver exceeds four hours in the water and four hours as attendant in the submersible compression chamber,

(b) where the dive is deeper than 150 m, no diver exceeds three hours in the water and three hours as attendant in the submersible compression chamber, and

(c) in any twenty-four hour period, there is a rest period of at least twelve continuous hours after the time limit specified in subsection (a) or (b) is reached.

342(12) A diving supervisor shall ensure that no diver commences another dive within fourteen days after completion of decompression after a saturation dive unless with the approval of a medical practitioner.

342(13) A diving supervisor shall ensure that a diver

(a) is tethered to the work base by a breathing mixture umbilical,

(b) is provided with effective two-way voice communication, and

(c) is tended by

(i) a tender on the surface,

(ii) a tender in a submersible chamber or stage if one is used in the diving operation, or

(iii) another diver in the water who is connected to the diver and is tended.

342(14) Where a submersible compression chamber is used, a diving supervisor shall ensure that at least one diver remains in the chamber to monitor a diver who has left the chamber.

97-121; 2010-159

PART XXI

LOGGING AND SILVICULTURE OPERATIONS

Application

343 This Part applies to logging and silviculture operations.

Supervisors ~~and emergency procedures~~

344 ~~An employer shall ensure that~~

~~(a) at least one supervisor is present in each work area, and~~

~~(b) a procedure is established for responding to an emergency that may occur in a work area and that all employees are informed of such procedure.~~

344 An employer shall ensure that at least one supervisor is present in each work area.

Competency of employees

345 ~~An employer shall ensure that each employee is competent with respect to the tools, equipment, machines, devices and materials that the employee is to use.~~

345 With respect to the tools, equipment, machines, devices and materials that an employee is to use, an employer shall ensure that

(a) each employee is competent to use them, and

(b) each employee has received training that is acceptable to the Commission.

Communication plan - logging operations

345.1 An employer shall ensure that an effective communication plan is in place for employees involved in a logging operation and every employee shall follow the communication plan.

Initial safety meeting

345.2(1) Before employees start work in a new work area, a safety meeting shall be held to inform the employees of any hazards in that area and the actions to be taken to eliminate or minimize the hazards

345.2(2) If an employee fails to attend the safety meeting, the employer shall ensure the employee is informed of any hazards in the work area and the actions to be taken to eliminate or minimize the hazards.

Code of practice - environmental conditions

345.3 An employer shall develop a code of practice to protect employees from possible hazardous situations caused by environmental conditions, including:

(a) weather conditions;
(b) topography;
(c) wildlife contacts; and

(d) biological hazards.

Powered mobile equipment

345.4(1) An employer shall ensure that powered mobile equipment is equipped with at least two safe and unobstructed means of access and egress that are not located on the same side of the cab of the powered mobile equipment.

345.4(2) An employer shall ensure that the means of access and egress is inspected visually at least daily and tested monthly and, if the inspection reveals a defect or hazard, the employer shall ensure that no one uses the powered mobile equipment until the defect or hazard has been eliminated.

345.4(3) An employer shall ensure that powered mobile equipment is equipped with cleats or corks when woods roads are frozen.

Transportation of powered mobile equipment

345.5(1) When loading or unloading powered mobile equipment onto a transport vehicle, an employer shall ensure that

(a) the manufacturer's specifications for the powered mobile equipment and the transport vehicle are followed,
(b) the load is parallel to the transport vehicle, and
(c) no person is within the rollover area of the powered mobile equipment.

345.5(2) When transporting powered mobile equipment by transport vehicle, an employer and an operator shall each ensure that

(a) articulated powered mobile equipment are restrained in a manner that prevents articulation while the transport vehicle is in transit,
(b) accessory equipment and attachments are completely lowered and secured to the transport vehicle, and
(c) a heavy vehicle with crawler tracks or wheels is restrained by at least four tie downs and each tie down has a working load limit of at least 2,268 kilograms and is attached, as close as practicable, at the front and rear of the transport vehicle or to mounting points on the transport vehicle that are specifically designed for that purpose.

Skidder or forwarder

345.6 An employer shall ensure that the skidder or forwarder is provided with a completely enclosed operator's cab that is designed to prevent objects from intruding into the cab and to prevent the operator and any passengers in the cab from being thrown outside the cab.

Protective equipment

346 ~~An employer shall, in addition to complying with the appropriate requirements for protective equipment under Part VII, ensure that an employee who operates a chain saw wears~~

~~(a) safety footwear that meets the requirements of CSA standard CSA Z195:14 (reaffirmed 2019), "Protective Footwear" or a standard offering equivalent protection, has chain saw protection on the top and sides and has non-slip soles, and~~

~~(b) leg protection that~~

~~(i) is of the appropriate size to protect the knee and leg from the top of the safety footwear to the groin, and~~

~~(ii) is made of a minimum of three ply 2108 nylon or a material affording equivalent protection, secured in a manner that allows the leg protection to perform its function.~~

2001-33; 2020-35

346 An employer shall, in addition to complying with the appropriate requirements for protective

equipment under Part VII, ensure that

(a) an employee wears

(i) high visibility safety apparel that meets the requirements of CSA-Z96-15, “High-Visibility Safety Apparel” or a standard offering equivalent or better protection, and

(ii) high visibility safety headgear,

(b) an employee who operates a chain saw wears

(i) safety footwear that meets the requirements of CSA-Z195:14 (Reaffirmed 2019), “Protective Footwear” or a standard offering equivalent or better protection, has chain saw protection on the top and sides and has non-slip soles, and

(ii) leg protection that has a label permanently affixed to the outer surface of the leg protection indicating the standard it meets, and

(c) an employee who is working on a slope that is greater than 30% wears safety footwear that is corked, caulked or spiked.

Protective equipment

347 An employee shall, in addition to complying with the appropriate requirements for protective equipment under Part VII, wear the protective equipment required in section 346.

Chain Saws, Brush Saws and Clearing Saws

Chain saw requirements

348(1) An owner of a chain saw shall ensure that the chain saw meets the applicable requirements of ~~CSA standard Z62.1-95, “Chain Saws” and CSA standard Z62.3-96 “Chain Saw Kickback”.~~ CSA standard Z62.1-11 “Chain Saws” or a standard offering equivalent or better protection and CSA standard Z62.3-11(Reaffirmed 2021)”Chain Saw Kickback” or a standard offering equivalent or better protection.

348(2) An owner of a chain saw shall ensure that the chain saw

(a) is used only with a safety chain that is filed according to the manufacturer’s specifications,

(b) is equipped with an adequate chain brake, and

(c) is fitted only with component parts specified by the manufacturer.

2001-33; 2020-35

Operator of chain saw

349 An employee who operates a chain saw shall

(a) stop the motor before carrying the saw from one location to another,

(b) stop the motor before adjusting the chain,

(c) adjust the saw according to the manufacturer's specifications so that the chain is stopped while the motor is idling,

(d) immediately remove a defective saw from use until repaired,

(e) start the saw when it is cold by holding it against a solid object below waist level,

(f) not start the saw by pulling on the cord while the other hand engages the throttle mechanism,

(g) hold the saw in both hands while operating it,

(h) not operate the saw above shoulder height,

(i) stand on a solid base when operating the saw, and

(j) not climb on or work under a felled tree.

Hydraulically driven chain saw

349.1(1) An employer shall ensure that an employee operates a hydraulically driven chain saw in accordance with the manufacturer's specifications and does not operate the chain saw in a way that the saw bar is directly in line with the cab or other persons.

349.1(2) An employer shall maintain a hydraulically driver chain saw in accordance with the manufacturer's specifications.

Operator of brush saw or clearing saw

350 An employee who operates a brush saw or a clearing saw shall

(a) operate and maintain the saw in accordance with the manufacturer's specifications,

(b) ensure that the saw is equipped with an adequate blade guard,

(c) maintain a minimum 10 m distance from any other person while operating the saw,

(d) regularly inspect the blade and file it when necessary,

(e) replace the blade at the first sign of cracks or fractures,

(f) fit the saw only with blades and component parts as specified by the manufacturer,

(g) use a harness suitable for use with the saw,

(h) ensure that the harness is well maintained and properly adjusted and that the emergency release on the harness functions properly,

(i) stop the engine before any manual adjustment, cleaning, clearing of debris or other work is carried out on the blade or blade guard, and

(j) not start the saw while it is attached to the harness.

Working alone

351(1) ~~An employer shall ensure that an employee who operates a chain saw, brush saw or clearing saw does not work alone.~~ An employer shall ensure that an employee who operates a chain saw, brush saw or clearing saw is knowledgeable of the emergency communication procedure and the transportation procedure set out in New Brunswick Regulation 2004-130 under the Act and is accompanied by a person who holds a valid First Aid Workplace Certification in accordance with that Regulation

Required supplies when operating a saw

351(2) An employer shall ensure that an employee who operates a chain saw, brush saw or clearing saw has

(a) a suitable fire extinguisher or a round point shovel readily available,

(b) suitable first aid supplies readily available, and

(c) a pressure bandage.

Prohibited actions when operating saw

352 An employee who operates a chain saw, brush saw or clearing saw shall

(a) not work alone,

(b) not girdle trees,

(c) not refuel the saw while the engine is operating,

(d) move the saw at least 3 m from where it was refuelled before starting the engine,

(e) refuel only from a non-glass container with spout or funnel,

(f) not refuel the saw near any source of ignition, and

(g) carry or keep close at hand the pressure bandage provided by the employer.

Felling Procedures

Felling procedures

353(1) Before starting to fell a tree, an employee shall ensure that

(a) all standing dead trees and other potential hazards are removed from the work area,

(b) there is a clear path of retreat to safety, and

(c) all other persons have moved at least 40 m from the felling area.

353(2) ~~Notwithstanding paragraph (1)(c), in a trail-cut operation, an employee shall ensure that any person assisting the employee has moved a safe distance away from the tree at a 45 degree angle from the direction in which the tree is intended to fall~~.
353(2) Despite paragraph (1)(c), in a trail-cut operation, an employee shall ensure that, as soon as the tree begins to fall, any person assisting the employee moves at least 3 m away from the tree at a 45° angle from the direction opposite to the planned direction of fall.

Standing dead tree

353.1(1) An employer and an employee shall, whenever possible, operate a powered mobile equipment or chain saw to fell a standing dead tree.

353.1(2) If a standing dead tree cannot be felled by operating a powered mobile equipment, an employee shall operate a chain saw to fell the standing dead tree and shall

(a) comply with sections 353 and 354 except for paragraph 354(2)(b),

(b) stand straight and tall to reduce the exposure of the employee's neck and back, and

(c) use a lever instead of a wedge to avoid hitting the tree.

353.1(3) If a standing dead tree cannot be felled by operating a powered mobile equipment or a chain saw, an employer shall

(a) develop written safe work procedures for hazardous operations caused by a standing dead tree that cannot be felled,

(b) ensure employees receive adequate instruction and training with respect to the safe work procedures for hazardous operations, and

(c) ensure that employees follow the safe work procedures for hazardous operations.

Felling procedures

354(1) In this section
"lodged tree" means a tree that has not fallen to the ground or a bed after being displaced from its natural position;

"spring pole" means a section of tree or bush which is, by virtue of its arrangement in relation to other materials, under compression.

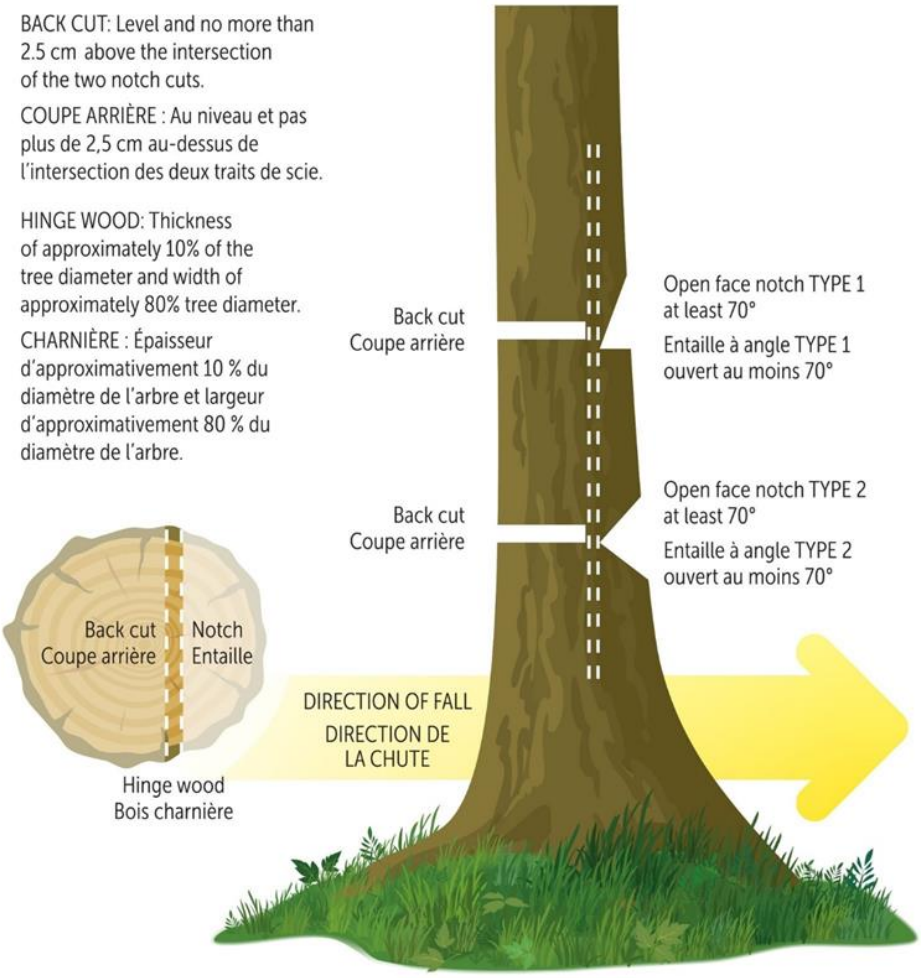
354(1.1) When felling a tree, an employee shall construct a hinge that will safely direct the tree to the ground by completing the following steps:

(a) cut an open face notch of at least 70° where the cut meets clean and even with no by-pass and make a back cut that is level and no more than 2.5 cm above the intersection of the two notch cuts;

(b) construct a uniform hinge that has a thickness of at least 10% of the tree's diameter and a width that is at least 80% of the tree's diameter; and

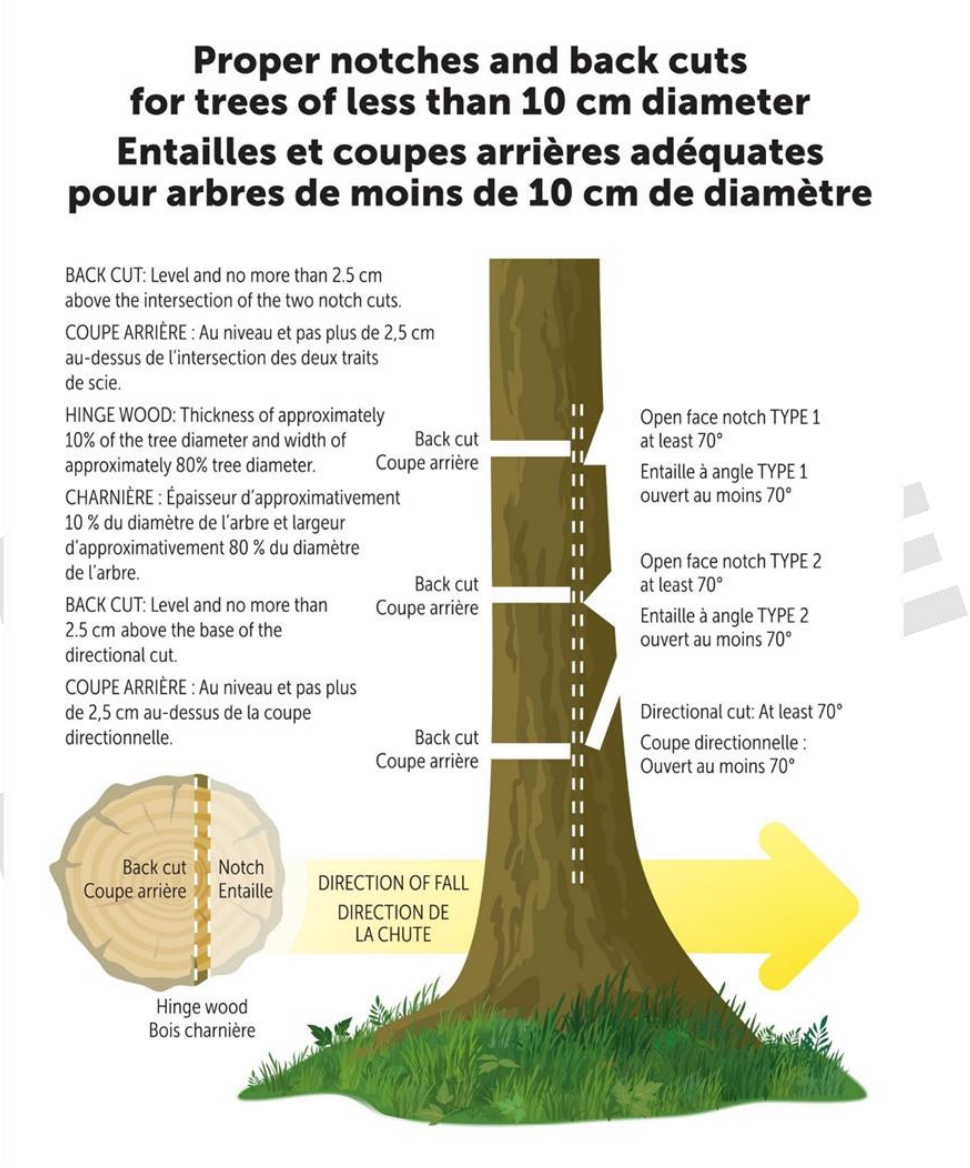
(c) follow the instructions as illustrated below: see illustration provided under the section 354(1.1)c) of the regulation 91-191

Proper notches and back cuts
Entailles et coupes arrières adéquates



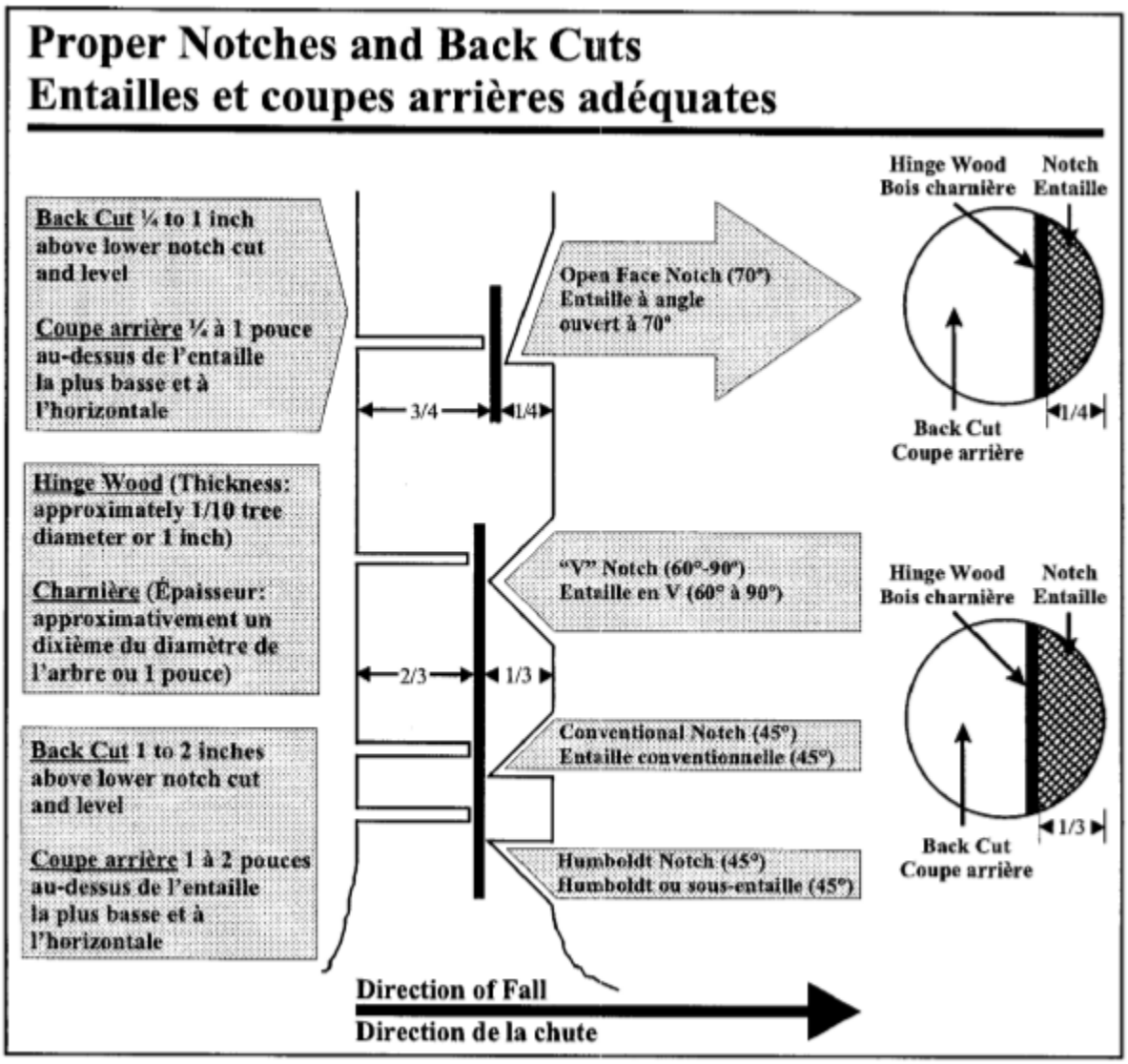
354(1.2) When felling a tree that is less than 10 cm in diameter, an employee shall construct a hinge by using the technique set out in subsection (1.1) or by completing the following steps:

(a)	make a directional cut of at least 70°;
(b)	make a back cut that is level and no more than 2.5 cm above the base of the directional cut;
(c)	leave a hinge that is a thickness of at least 10% of the tree's diameter and a width of at least 80% of the trees diameter
(d)	follow the instructions as illustrated below (this is an updated illustration)



354(2) When felling a tree, an employee shall

~~(a) properly notch and back-cut the tree as illustrated below:~~ This illustration is being removed



(a) use a felling lever or wedge as required;

(b) complete the felling once it has been started; and

~~(d) move a safe distance away from the tree at a 45 degree angle from the direction in which the tree is intended to fall.~~

(c) subject to subsection (2.1), move as soon as the tree begins to fall at least 3 m away from the tree at a 45 degree angle from the direction opposite to the planned direction of fall.

354(2.1) When felling a tree in a slope greater than 30%, an employee may use an escape route that is perpendicular to the slope and not in the direction of the fall.

354(3) Where an employee fells a tree and the tree becomes lodged, the employee shall

(a) stay in the area until the lodged tree is removed or if it is necessary to leave the area to obtain help to remove the tree, ~~clearly mark the area as hazardous~~ clearly mark as hazardous the area comprising a minimum radius of two tree lengths from the stump of the lodged tree, and

~~(b) ensure that the lodged tree is removed as soon as possible without being climbed by any person, having another tree felled on it or having the supporting tree cut.~~

(b) ensure that the lodged tree is removed as soon as the circumstances permit by operating a powered mobile equipment without being climbed by any person, having another tree felled on it or having the supporting tree cut, and

(c) not do any work, other than removing the lodged tree, within the area that is clearly marked as hazardous.

354(4) An employee shall not cut a spring pole in a manner that will endanger any person.

2001-33

Delimbing and Bucking

Delimbing and bucking

355(1) When delimbing a fallen tree, an employee shall ensure that

(a) the tree to be delimbed is resting solidly on the ground,

(b) no person walks on the trunk of the tree while it is being delimbed, and

(c) whenever possible, the tree is worked on from the uphill side.

355(2) When delimbing a fallen tree using a chain saw, an employee shall ensure that

(a) the tip of the chain saw guidebar is never used for delimbing,

(b) the chain saw is never positioned directly in front of the operator, and

(c) while delimbing or topping, the chain saw is never used with motions towards the employee.

Delimbing and bucking

356(1) In this section

“bucking” means cutting a tree into lengths after it has been felled and delimbed.

356(2) When bucking a tree using a chain saw, an employee shall ensure that

(a) both feet are on the ground,

(b) the tree to be bucked is resting solidly on the ground, and

(c) the chain saw is never positioned directly in front of the employee.

Safe Operation of Powered Mobile Equipment

Safe operation of powered mobile equipment

357(1) An employer shall ensure that

(a) subject to subsection (2), another employee is within ~~200 m~~ 600 m of an employee operating powered mobile equipment, or

(b) the employee operating the powered mobile equipment is contacted at least every two hours and if the employee exits the cab to perform work on the equipment, the employee contacts a person designated by the employer before exiting the cab.

357(2) An employee other than the employee who is the operator of powered mobile equipment shall not work closer than 50 m from powered mobile equipment while the equipment is being operated, except when assisting an employee operating a skidder.

357(3) An employee operating a skidder shall

(a) direct any person assisting the operator to stand clear of any trees or logs after the trees or logs have been attached to the skidder,

(b) not winch any trees or logs until the person assisting the operator is ~~standing clear~~ standing clear and opposite to the direction in which the load is to be winched and has signalled to the operator that the person is clear,

(c) operate the winch from the seat unless it is designed to be operated by remote control,

(d) keep the wheel chains on the skidder properly adjusted, ~~and~~

(e) lower the blade and apply the brakes when winching and;

(f) verify the location of the person assisting the operator before moving the skidder

Hauling Logs

Hauling logs

358(1) An employer shall ensure that wire rope used for hauling logs is replaced when signs of wear or damage appear.

358(2) Where wire rope is used for hauling logs, an employer shall ensure that cable cutters are readily available.

Hauling logs

359 When hauling logs with a wire rope, an employee shall attach the wire rope no farther than 1 m from the end of the log.

Cable Logging Systems

Application of other provisions

359.1 Paragraphs 207(1)(a) and (b), sections 208, 209, 210 and 210.01, subsection 211(1), paragraphs 211(2)(a) to (f) and paragraphs 212(a), (b) and (d) apply, with the necessary modifications, to a cable logging system.

General requirements

359.2 An employer and an owner of a cable logging system shall each ensure that the cable logging system is installed, erected, inspected, operated and maintained in accordance with section 7-2.4 of ASME Standard B30.7-2011. "Winches" or a standard offering equivalent or better protection.

Remote control

359.3(1) An employer shall ensure that a cable logging system is equipped with remote controls that have a fail-safe mechanism to prevent the simultaneous operation of two or more remote controls.

359.3(2) An employer shall ensure that employees receive training on how to use the cable logging system.

Woods Roads

Woods roads

360(1) In this section and sections 361 to ~~363~~ 364,"woods road" means any road, other than a local government road or provincial highway, through a forest area that provides access for the harvesting and ~~extraction~~ transportation of raw forest products by means of a motor vehicle.

360(2) An employer shall ensure that a woods road

(a) is provided with wide sections for passing if the road has only one travelling lane,

(b) has stop signs conspicuously located at intersections,

(c) has signs warning of dangerous curves and blind or steep hills conspicuously located to allow for ample reaction time, and

(d) is kept in a safe condition.

360(2.1) If a logging operation, a silviculture operation or woods road building work is being carried out and interferes with the flow of vehicular traffic, an employer shall ensure that adequate warning signs are posted and made visible in both directions.

360(3) An employer shall ensure that a woods road is constructed as close as is practicable to a logging area to allow reasonable access and efficient evacuation in the event of an emergency.

2005-80; 2017, c.20, s.122.

360(4) An employer or property owner shall notify the authority owning or operating an energized electrical utility line of the intention to build a woods road close to the electrical utility line, the location of the planned work and the time and duration of the planned work before any work is done.

360(5) An employer shall ensure that a woods road is not built any closer to an energized electrical utility line than the distances specified by an authority referred to in subsection (4).

Woods roads

361(1) An employer shall ensure that a bridge on a woods road

(a) is constructed according to a plan approved by an engineer,

(b) has the load capacity conspicuously posted 30 m from both ends of the bridge, and

(c) has a warning sign conspicuously located 90 m from the bridge if the bridge is not visible from that distance.

361(2) An employer shall ensure that a bridge or culvert on a woods road

(a) that is over 1.2 m in height has bumpers at least 250 mm high running the length of the bridge or culvert on both sides,

(b) has a hazard marker located on each corner of the bridge or culvert with the bottom of the marker not less than 1.5 m or more than 2.5 m above the level of the travelled portion of the road, and

(c) has a sign conspicuously located along the side of the road at least 150 m from the bridge or culvert warning of a narrow passage if the width of the bridge or culvert is less than that of the woods road.

Woods roads

362 An employer shall ensure that a sign or hazard marker used on a woods road is constructed of light reflective material and is of suitable dimensions so as to be clearly visible under normal driving conditions.

Woods roads

363 An operator of a vehicle shall keep the headlights of the vehicle on while driving on a woods road.

Driving conditions on woods roads

363.1 An operator of a vehicle driving on a woods road shall do so with due regard to the speed limit set by the owner of the woods road, the traffic, the environmental conditions and the conditions of the woods road.

Loading Operations

Loading operations

364 ~~An employer shall ensure that a truck load of logs is securely fastened before leaving the work area.~~

364(1) An employer and an employee shall ensure that a truck load of logs travelling on a woods road is secure by complying with the requirements set out in this section.

364(2) A truck shall be equipped on the top and on the rear of the cab with structural protection that is strong enough to restrain the cargo.

364(3) A rear overhang exceeding 1 m shall have a visible means of identification.

364(4) A stack of wood in the load shall be restrained with a minimum of two tie-downs.

364(5) Stakes that are not permanently attached to the vehicle frame or bunk shall be secured in a manner that prevents the stakes from separating from the truck while it is travelling on a woods road.

364(6) The weight of the load shall not create a hazard.

364(7) An employer shall ensure that an employee conducts a walk around inspection of the load at check-points that are designated by the employer and marked with signs along the woods road and before

(a) leaving the work area,

(b) entering a highway, and

(c) removing load binders at off-loading site.

Loading operations

365(1) An employer shall ensure that an employee does not ride on logs and no employee shall ride on logs that are being on or off loaded or drawn by a moving vehicle.

365(2) Where a vehicle is being loaded with logs, an employer shall ensure that an employee does not stand on and no employee shall stand on top of the load.

365(3) Where hydraulic loaders are used to load or unload logs, an employer shall ensure that an employee does not work or stand under and no employee shall work or stand under the suspended load.

PART XXII

ARBORICULTURAL OPERATIONS

Application

366 This Part applies to arboricultural operations.

Training and equipment

367 An employer who provides tree removal or tree maintenance services shall ensure that an employee who removes a tree or provides tree maintenance services is competent and has adequate equipment for the work that is being done.

Application of other provisions

368 Sections 346, 347 and 348, paragraphs 349(a) to (g) and (j), section 351 and paragraphs 352(a) and (c) to (g) apply to an arboricultural operation with the necessary modifications.

Training course in arboricultural electrical safety

369 Where tree removal or tree maintenance makes it necessary for an employee or for any object to approach closer to an energized electrical utility line or utility line equipment than the distances specified in subsection 289(1), an employee may undertake the tree removal or tree maintenance only if the employee has participated in and successfully completed a course in arboricultural electrical safety offered by the NB Safety Council Inc. or a course offered by another organization that is equivalent in content.

2005-20

Notification of authority for electrical utility line or equipment

370 An employer shall notify the authority owning or operating an energized electrical utility line or utility line equipment of the intention to work closer to the electrical utility line or utility equipment than the distances specified in subsection 289(1), the location of the planned work and the time and duration of the planned work before any such work is done.

Working distance from electrical utility line or equipment

371(1) An employee who works closer to an energized electrical utility line or utility line equipment than the distances specified in subsection 289(1) shall not approach, or allow any object to approach, any energized electrical utility line or utility line equipment closer than the distances specified in the following table:

DISTANCE OF EMPLOYEE, UNINSULATED OBJECT OR INSULATED OBJECT FROM ENERGIZED ELECTRICAL UTILITY LINE OR UTILITY LINE EQUIPMENT

Voltage Phase to Phase	Employee or Uninsulated Object	Insulated Object
Up to 750V	600 mm	150 mm
750V - 15kV	900 mm	300 mm
16kV - 25kV	1.2 m	450 mm
26kV - 69kV	1.5 m	900 mm
70kV - 138kV	1.8 m	1.2 m
139kV - 230kV	2.1 m	1.5 m
231kV - 345kV	3.7 m	3.0 m

371(2) An employee who works closer to an energized electrical utility line or utility line equipment than the distances specified in subsection 289(1)

(a) shall not climb or cut a tree where any portion of the tree is closer to an energized electrical utility line or utility line equipment than the distances specified in the following table, and

(b) shall ensure that no portion of a tree that is being cut, trimmed or maintained approaches any energized electrical utility line or utility line equipment closer than the distances specified in the following table:

DISTANCE OF PORTION OF TREE FROM ENERGIZED ELECTRICAL UTILITY LINE OR UTILITY LINE EQUIPMENT

Voltage Phase to Phase	Where Employee is Using an Uninsulated Object	Where Employee is Using an Insulated Object without an Insulated Aerial Device	Where Employee is Using an Insulated Object with an Insulated Aerial Device
Up to 750v	300 mm	Up to but not touching	Up to but not touching
750v - 15kV	600 mm	300 mm	Up to but not touching
16kV - 25kV	750 mm	450 mm	Up to but not touching
26kV - 69kV	1.5 m	1.0 m	750 mm
70kV - 138kV	1.8 m	1.2 m	900 mm
139kV - 230kV	2.1 m	1.8 m	1.5 m
231kV - 345kV	3.7 m	3.4 m	3.0 m

371(3) An employer shall ensure that an employee who is permitted to work closer to an energized electrical utility line or utility line equipment than the distances specified in subsection 289(1) does not work closer to the electrical utility line or utility line equipment than the distances specified in subsections (1) and (2).

371(4) Where an employee referred to in subsection (1) or (2) is about to commence work that may bring any person or object closer to an energized electrical utility line or utility line equipment than the distances specified in subsection (1) or (2), an employer shall contact the authority owning or operating the electrical utility line or utility line equipment and shall ensure that the electrical utility line or utility line equipment

(a) is de-energized, or

(b) is adequately insulated or guarded

before permitting the employee to commence the work.

2010-159

Protective equipment and electrical utility lines or equipment

372(1) An employer shall ensure that an employee who works closer to an energized electrical utility line or utility line equipment than the distances specified in subsection 289(1) uses the protective equipment referred to in section 288.

372(2) An employee who works closer to an energized electrical utility line or utility line equipment than the distances specified in subsection 289(1) shall use the protective equipment referred to in section 288.

Safety of others when felling trees

373 An employee shall, before felling a tree or part of a tree, take necessary precautions for the safety of persons in the felling area.

When fall-arresting system required

374 An employer shall ensure that an employee working more than 3 m above the nearest safe level uses a fall-arresting system or

(a) wears a safety belt, a tree-trimming saddle belt or a saddle formed by a double bowline on a bight, and

(b) uses as a life line, a rope designed for use in tree maintenance operations that is

(i) inspected by the employee before each use,

(ii) properly knotted when in use, and

(iii) stored in a separate protective container.

2010-159

PART XXII.I

VIOLENCE AND HARASSMENT

Codes of Practice

2018-82

Assessment of risk

2018-82

374.1(1) An employer shall assess the risk of violence at the place of employment.

374.1(2) In assessing the risk of violence, an employer shall consult with

(a) all committees, if any,

(b) all health and safety representatives, if any, or

(c) if there is no committee or representative, employees.

374.1(3) When conducting the assessment referred to in subsection (1), the employer shall consider the following information:

(a) the location and circumstances in which the work is carried on;

(b) the risk that may arise out of or in connection with

(i) an employee's work, or

(ii) sexual violence, intimate partner violence or domestic violence occurring at the place of employment;

(c) the categories of employees at risk, or the types of work that place employees at risk of experiencing violence;

(d) the possible effects on the health or safety of employees who are exposed to violence at the place of employment;

(e) all previous incidents of violence at the place of employment; and

(f) incidents of violence in similar places of employment.

374.1(4) An employer shall ensure that the assessment referred to in subsection (1) is documented and made available to all committees, if any, or all health and safety representatives, if any, and to an officer on request.

374.1(5) The employer shall review the assessment of the risk of violence and update it

(a) when there is a change in conditions at the place of employment, or

(b) when ordered to do so by an officer.

2018-82

Establishing code of practice for violence

2018-82

374.2(1) The following definitions apply in this section.

"emergency service provider" means

(a) a police force as defined in the Police Act,

(b) a fire department organized to serve any area of the Province, or

(c) an ambulance service provided in accordance with the *Ambulance Services Act*.

"health professional" means a person who

(a) provides a service related to the preservation or improvement of the health of individuals or the diagnosis, treatment or care of individuals who are injured, sick, disabled or infirm, and

(b) is registered or licensed under an Act of the Province to provide the service.

"pharmacist" means a person licensed to practise pharmacy under the *New Brunswick Pharmacy Act, 2014*.

"Public Service" means the Public Service as defined in the *Public Service Labour Relations Act*.

“social worker” means a person registered under the *New Brunswick Association of Social Workers Act, 1988*.

“veterinarian” means a person who is licensed to practise veterinary medicine under the *Veterinarians Act*.

374.2(2) A code of practice for violence shall

(a) mitigate the risk of violence at the place of employment and ensure the health and safety of employees to the extent possible, and

(b) consider any risk of violence that is identified in an assessment referred to in subsection 374.1(1).

374.2(3) An employer that has 20 or more employees regularly employed at one or more places of employment in the Province shall establish a written code of practice for violence.

374.2(4) An employer that has fewer than 20 employees regularly employed at one or more places of employment in the Province shall establish a written code of practice for violence in any of the following circumstances:

(a) work is carried on at the place of employment by any of the following persons:

(i) an employee of the Public Service;

(ii) a supplier of goods or services to a public body under the Procurement Act;

(iii) an employee of an emergency service provider;

(iv) a health professional;

(v) a pharmacist;

(vi) a veterinarian;

(vii) a social worker, outreach worker, crisis intervener or support worker, including persons providing services to victims of intimate partner violence, domestic violence or sexual violence;

(viii) an employee of an agency as defined in the Private Investigators and Security Services Act; or

(ix) a person registered or licensed under an Act of the Province to provide financial services;

(b) the following work is carried on at the place of employment:

(i) teaching;

(ii) early learning and childcare services;

(iii) retail sales;

(iv) transporting goods or persons for hire in a vehicle, whether the vehicle is owned by a public body or privately owned; or

(v) home support services;

(c) work is carried on at any of the following places of employment:

(i) a casino or other gaming premises under the Gaming Control Act;

(ii) a place in respect of which a licence or permit issued under the Liquor Control Act applies and to which members of the public have access; or

(iii) a cannabis retail outlet as defined in the Cannabis Control Act; or

(d) an assessment referred to in subsection 374.1(1) identifies a risk of violence.

2018-82

Code of practice – violence

2018-82

374.3(1) A code of practice established under section 374.2 shall include the following:

(a) an inventory of the locations at which and circumstances in which

(i) violence may reasonably be expected to occur, and

(ii) the code of practice would be applicable;

(b) a description of the types of violence that may reasonably be expected to occur;

(c) a description of the categories of employees at risk, or of the types of work that place employees at risk of experiencing violence;

(d) the identity of the person responsible for implementing the code of practice; and

(e) a statement that an employee shall report an incident of violence to the employer as soon as the circumstances permit.

374.3(2) A code of practice referred to in subsection (1) shall set out the actions and measures the employer shall take to mitigate the risk of violence, including

(a) the methods and equipment to be used and the procedures to be followed,

(b) the follow-up measures to be used with affected employees,

(c) the means, including alternative means, by which an employee may secure emergency assistance,

(d) the procedure the employer shall follow to investigate and document any incident of violence of which the employer is aware,

(e) the manner in which affected employees shall be informed of the results of an investigation,

(f) the procedure the employer shall follow to implement any corrective measures identified as a result of the investigation, and

(g) the identification of training needs.

2018-82

Code of practice – harassment

2018-82

374.4(1) An employer shall establish a written code of practice for harassment at the place of employment to ensure the health and safety of employees to the extent possible.

374.4(2) A code of practice for harassment shall include the following:

(a) a statement that every employee is entitled to work free of harassment;

(b) the identity of the person responsible for implementing the code of practice;

(c) a statement that an employee shall report an incident of harassment to the employer as soon as the circumstances permit;

(d) the procedure the employer shall follow to investigate and document any incident of harassment of which the employer is aware;

(e) the manner in which affected employees shall be informed of the results of an investigation;

(f) the procedure the employer shall follow to implement any corrective measures identified as a result of the investigation;

(g) the follow-up measures to be used with affected employees; and

(h) the identification of training needs.

2018-82

Implementation

2018-82

374.5(1) An employer shall ensure that the codes of practice established under section 374.2 and 374.4 are, when followed, sufficient to provide for the health and safety of employees at the place of employment to the extent possible.

374.5(2) In establishing and implementing the codes of practice referred to in subsection (1), an employer shall consult with

(a) all committees, if any,

(b) all health and safety representatives, if any, or

(c) if there is no committee or representative, employees.

374.5(3) An employer shall ensure that a copy of the codes of practice referred to in subsection (1) is readily available to an officer and to employees on request.

374.5(4) An employer shall ensure that the codes of practice referred to in subsection (1) are implemented and followed at the place of employment.

374.5(5) An employee shall follow all codes of practice.

2018-82

Privacy

2018-82

374.6(1) An employer shall not disclose to any person the identity of a person who is involved in an incident of violence or harassment or the circumstances related to the incident, other than when the disclosure is

(a) necessary in order to investigate the incident,

(b) required in order to take corrective measures in response to the incident, or

(c) required by law.

374.6(2) The personal information that is collected, used or disclosed by the employer under sections 374.1 to 374.5 shall be limited to the minimum amount of information necessary to accomplish the purpose.

2018-82

Training

2018-82

374.7(1) An employer shall implement a training program in respect of the codes of practice established under sections 374.2 and 374.4 for each employee and for each supervisor who is responsible for an employee.

374.7(2) The training record for each employee shall be made available to an officer on request.

2018-82

Review and update

2018-82

374.8(1) An employer shall review the codes of practice established under section 374.2 and 374.4 at least once each year in consultation with

(a) all committees, if any,

(b) all health and safety representatives, if any, or

(c) if there is no committee or representative, employees.

374.8(2) An employer shall update the codes of practice referred to in subsection (1)

(a) when there is a change in conditions at the place of employment, or

(b) when ordered to do so by an officer.

2018-82

PART XXIII

REPEAL AND COMMENCEMENT

Repeal of regulations under Occupational Health and Safety Act

375(1) New Brunswick Regulation 77-1 under the Occupational Health and Safety Act is repealed.

375(2) New Brunswick Regulation 89-66 under the Occupational Health and Safety Act is repealed.

New Brunswick Regulation 92-106 under the Occupational Health and Safety Act is repealed

Repeal of provisions of N.B. Regulation 77-58 - Mining Act

376 New Brunswick Regulation 77-58 under the Mining Act is amended

(***a***) ***by repealing section 41;***

(***b***) ***by repealing section 46;***

(***c***) ***by repealing section 48;***

(***d***) ***by repealing section 50;***

(***e***) ***by repealing section 54;***

(***f***) ***by repealing sections 268 to 274;***

(***g***) ***by repealing subsections 276(1) and (3);***

(***h***) ***by repealing sections 277 to 286;***

(***i***) ***by repealing subsection 287(1);***

(***j***) ***by repealing sections 289 and 290;***

(***k***) ***by repealing sections 292 to 301;***

(***l***) ***by repealing sections 315 to 318;***

(***m***) ***by repealing subsection 319(1); and***

(***n***) ***by repealing sections 320 and 321.***

New Brunswick Regulation 96-105 under the Occupational Health and Safety Act is amended

(a) in section 2

(i) by repealing the definition "threshold limit value";

(ii) by repealing the definition "CSA" and substituting the following:

"CSA" means the CSA Group; (CSA)

(iii) by adding the following definition in alphabetical order:

"occupational exposure limit" means an occupational exposure limit as defined in the General Regulation - Occupational Health and Safety Act; (seuil d'exposition professionnelle)

(b) in paragraph 47(b)

(i) in subparagraph (i) by striking out "thresh- old limit value" and substituting "occupational exposure limit";

(ii) in subparagraph (ii) by striking out "thresh- old limit value" and substituting "occupational exposure limit";

(c) in subsection 115(1) by striking out "are destroyed using methods approved by the supplier" and substituting "are disposed of in accordance with the Explosives Act (Canada)

Commencement

377 This Regulation comes into force on March 1, 1992.

N.B. This Regulation is consolidated to May 29, 2020.

~~This Regulation come into force on April 1, 2022~~ This Regulation is consolidated to May 20, 2022