

Gradex Consulting Ltd.

Safety Manual

Sub-Contractors

2005

OH & S Code Reference Materials Gradex Consulting Ltd for Sub-Contractors

There have been some strict changes in the legislation in accordance with the **OH & S Act** and the **OH & S Code**. Along with these changes, the Province of Alberta has opted to enforce all laws with tougher penalties. In our safety manual, we will review some of the changes, how they will affect us and how we are going to implement them in our day-to-day activities in the field.

In keeping with an increase in safety awareness in the Residential Building Industry, **Gradex Consulting Ltd.** is adopting a formal health and safety program to ensure compliance with **OH & S** regulations as well as committing to a strong safety program that protects our staff, sub-contractors, clients and the general public from accidents on our job sites.

Employees and sub-contractors at every level, including management, are responsible and accountable for the overall safety initiatives as set out by **Gradex Consulting Ltd.** Complete and active participation by everyone, everyday, in every job is necessary for the safety excellence that we expect and we fully support the co-ordination of safety among all employees, sub-contractors and the general workforce on all job sites we are dealing with.

It is a **Gradex Consulting Ltd.** mandate that we are all responsible for following the required procedures, working safely, and wherever possible improving safety measures to ensure an injury and accident free environment.

Gradex Consulting Ltd. is trying to keep current with workplace health and safety rules to ensure that the most current and best practices are followed. Please note that the health and safety information contained herein does not take precedence over **OH & S** regulations and everyone should be familiar with the **OH & S Act** and Regulations.

In order to protect themselves, many of our builders are introducing new policies and practices also. It is our responsibility to ensure that we follow these rules. The overall expectations are as follows:

- 1) To read, understand, and comply with various safety policies, safe work practices, procedures, and rules.
- 2) To wear the safety equipment and personal protective devices and clothing required by regulations, company policies and builders requirements.
- 3) To notify your employer of any unsafe conditions or acts that may be of danger to their workers or yourself.
- 4) To report all accidents and injuries to your supervisor as soon as possible.
- 5) To take every reasonable precaution to protect the safety of other workers and yourself.

Bill 37, the **OH & S Amendment Act** received Royal Assent on December 4, 2002. Effective on that date, Alberta's **OH & S Act** changed in six major ways:

- 1) Maximum fines increased – the maximum fine for a violation of the **OH & S Act** increased from \$150,000 to \$500,000.
- 2) The court can now order alternative penalties – penalties other than fines and jail sentences for **OH & S** offences, such as having to provide safety programs or educational programs, can now be awarded by judges.
- 3) The use of an **OH & S Code** is now permitted – the process for updating **OH & S** rules was streamlined by allowing the creation of an **OH & S Code** that contains workplace safety rules.
- 4) On-the-spot administrative fines are now possible – the Act was amended to allow **OH & S** officers to issue on-the-spot administrative fines similar to those used for traffic violations. These fines will only be introduced if a study of this approach in other jurisdictions shows them to be effective.
- 5) The names of the best and worst safety performers can now be made public – the Act was amended to allow the names of the employers with the best and worst safety performance records to be published.
- 6) The prosecution period was extended – the length of time available to prosecutors to begin a prosecution was increased from one year to two years.

For the purposes of enforcing this Act, the number of safety officers for Northern Alberta has more than doubled from what it was at the beginning of 2003. At anytime, an **OH & S** officer may:

- 1) At any reasonable hour enter into or on any work site and inspect that work site.
- 2) Require the production of any records, books, plans or other documents that relate to the health or safety of workers and may examine them, make copies of them, or remove them temporarily for the purposes of making copies.
- 3) Inspect, seize, or take samples of any material, product, tool, appliance or equipment being produced, used or found in or on the work site that is being inspected.
- 4) Make tests and take photographs or recordings in respect of any work site
- 5) Interview and obtain statements from persons at the work site.

If a person refuses to allow an **OH & S** officer to exercise any powers or interferes or attempts to interfere with the **OH & S** officer in the exercise of those powers, a Director of Inspection may apply to the Court of Queen's Bench requesting an order restraining that person from preventing or interfering in any manner with the **OH & S** officer in the exercise of those powers.

Attached are some of aspects of the code that pertain to the sub-contractors of **Gradex Consulting Ltd.**

From Part 2 of the Occupational Health and Safety Code:

Hazard Assessment, Elimination and Control

7(1) An employer must assess a work site and identify existing or potential hazards before work begins at the work site.

(2) An employer must prepare a report of the results of a hazard assessment and the methods used to control or eliminate the hazards identified.

(3) An employer must ensure that the date on which the hazard assessment is prepared or revised is recorded on it.

- (4)** An employer must ensure that the hazard assessment is repeated
- (a) at reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions,
 - (b) when a new work process is introduced,
 - (c) when a work process or operation changes, or
 - (d) before the construction of a new work site.

Worker participation

8(1) If reasonably practicable, an employer must involve affected workers in the hazard assessment and in the control or elimination of the hazards identified.

(2) An employer must ensure that workers affected by the hazards identified in a hazard assessment report are informed of the hazards and the methods used to control or eliminate the hazards.

Hazard elimination and control

9(1) If an existing or potential hazard to workers is identified during a hazard assessment, an employer must take measures in accordance with this section to

- (a) eliminate the hazards, or
- (b) if elimination is not reasonably practicable, control the hazard.

(2) If reasonably practicable, an employer must eliminate or control a hazard through the use of engineering controls.

(3) If a hazard cannot be eliminated or controlled under subsection (2), the employer must use administrative controls that control the hazard to a level as low as reasonably achievable.

(4) If the hazard cannot be eliminated or controlled under subsections (2) or (3), the employer must ensure that the appropriate personal protective equipment is used by workers affected by the hazard.

(5) If the hazard cannot be eliminated or controlled under subsections (2), (3) or (4), the employer may use a combination of engineering controls, administrative controls or personal protective equipment if there is a greater level of worker safety because a combination is used.

Emergency control of hazard

10 If emergency action is required to control or eliminate a hazard that is dangerous to the safety or health of workers,

- (a) only those workers competent in correcting the condition, and the minimum number necessary to correct the condition, may be exposed to the hazard, and
- (b) every reasonable effort must be made to control the hazard while the condition is being corrected.

Health and safety plan

11 If ordered to do so by a Director, an employer must prepare and implement a health and safety plan that includes the policies, procedures and plans to prevent work site incidents and occupational diseases at the work site.

From Part 3 of the Occupational Health and Safety Code:

Specifications and Certifications

Following specifications

12 An employer must ensure that

- (a) equipment is of sufficient size, strength, design and made of suitable materials to withstand stresses imposed on it during its operation and to perform the function for which it is intended or was designed,
- (b) the rated capacity or other limitations on the operation of the equipment, or any part of it, or supplies as described in the manufacturer's specifications or specifications certified by a professional engineer, are not exceeded,
- (c) modifications to equipment that may affect its structural integrity or stability are performed in accordance with the manufacturer's specifications or specifications certified by a professional engineer, and
- (d) equipment and supplies are erected, installed, assembled, started, operated, handled, stored, serviced, tested, adjusted, calibrated, maintained, repaired and dismantled in accordance with the manufacturer's specifications or the specifications certified by a professional engineer.

Manufacturer's and professional engineer's specifications

13(1) If this Code requires anything to be done in accordance with a manufacturer's specifications, an employer may, instead of complying strictly with the manufacturer's specifications, comply with modified specifications certified by a professional engineer.

(2) If this Code requires anything to be done in accordance with manufacturer's specifications and they are not available or do not exist, an employer must

- (a) develop and comply with procedures that are certified by a professional engineer as designed to ensure the thing is done in a safe manner, or
- (b) have the equipment certified as safe to operate by a professional engineer at least every 12 calendar months.

Certification by a professional engineer

14(1) If this Code requires that procedures or specifications be certified by a professional engineer, the certification must

- (a) be in writing, and
- (b) be stamped and signed by the professional engineer.

(2) Unless the document states otherwise, certification by a professional engineer implies that the procedures or specifications certified are fit and safe for the workers affected by them.

Approved equipment

15 If this Code requires equipment to be approved by a named organization, an employer must use best efforts to ensure that the seal, stamp, logo or similar identifying mark of that organization is on the equipment and legible.

From Part 7 of the Occupational Health and Safety Code:

Emergency Preparedness and Response

115(1) An employer must establish an emergency response plan for responding to an emergency that may require rescue or evacuation.

(2) An employer must consult with affected workers in establishing the emergency response plan.

(3) An employer must ensure that an emergency response plan is current.

Contents of plan

116 An emergency response plan must include the following:

- (a) the identification of potential emergencies;
- (b) procedures for dealing with the identified emergencies;
- (c) the identification of, location of and operational procedures for emergency equipment;
- (d) the emergency response training requirements;
- (e) the location and use of emergency facilities;
- (f) the fire protection requirements;
- (g) the alarm and emergency communication requirements;
- (h) the first aid services required;
- (i) procedures for rescue and evacuation;
- (j) the designated rescue and evacuation workers.

Rescue and evacuation workers

117(1) An employer must designate the workers who will provide rescue services and supervise evacuation procedures in an emergency.

(2) An employer must ensure that designated rescue and emergency workers are trained in emergency response appropriate to the work site and the potential emergencies identified in the emergency response plan.

(3) The training under subsection (2) must include exercises appropriate to the work site that simulate the potential emergencies identified in the emergency response plan.

(4) The training exercises referred to in subsection (3) must be repeated at the intervals required to ensure that the designated rescue and evacuation workers are competent to carry out their duties.

Equipment

118(1) An employer must provide workers designated under section 117 with personal protective clothing and equipment appropriate to the work site and the potential emergencies identified in the emergency response plan.

(2) Workers who respond to an emergency must wear and use personal protective clothing and equipment appropriate to the work site and the emergency.

From Part 10 of the Occupational Health and Safety Code:

Fire and Explosion Hazards

General Protection and Prevention Prohibitions

162(1) A person must not enter or work at a work area if more than 20 percent of the lower explosive limit of a flammable or explosive substance is present in the atmosphere.

(2) Subsection (1) does not apply to a competent worker who is responding in an emergency.

(3) A person must not smoke tobacco or use an open flame in a work area where a flammable substance is stored, handled or processed.

(4) A person must not mix, clean or use a flammable or combustible liquid at a temperature at or above its flash point in an open vessel if a potential source of ignition is in the immediate vicinity of the activity.

(5) A person must not use a flammable or combustible liquid at a temperature above its flash point in a washing or cleaning operation, unless the washing or cleaning equipment is specifically designed and manufactured for the use of the liquid.

Procedures and precautions

163(1) An employer must develop procedures and precautionary measures to prevent flammable substances, or combinations of them, that are stored, handled, processed or present at a work site, from igniting unintentionally.

(2) An employer must ensure that, at a work site,

(a) the quantity and application of the flammable substance will not be sufficient to produce an explosive atmosphere,

(b) flammable substances are not stored within 30 metres of an underground shaft,

(c) flammable substances are not stored in the immediate vicinity of the air intake of

(i) a ventilation supply system,

(ii) an internal combustion engine, or

(iii) the firebox of a fired heater or furnace,

(d) portable quantities of flammable liquids are stored only in containers approved to

(i) CSA Standard B376-M1980 (R1998), *Portable Containers for Gasoline and Other Petroleum Fuels*, or

(ii) ULC Standard C30-1995, *Containers, Safety*, and

(e) contaminated rags used to clean or wipe up flammable substances are stored in a covered container that has a label that clearly indicates it is to be used for the storage of contaminated rags.

(3) An employer must ensure that, at a work site, metallic or conductive containers or vessels used to contain flammable or combustible liquids are electrically bonded to one another and electrically grounded while their contents are being transferred from one container or vessel to another.

Contaminated clothing and skin

164(1) If a worker's clothing is contaminated with a flammable or combustible liquid, the worker must

- (a) avoid any activity where a spark may be created,
 - (b) remove the clothing at the earliest possible time in a manner consistent with clause (a), and
 - (c) ensure that the clothing is decontaminated before it is used again.
- (2)** If a worker's skin is contaminated with a flammable or combustible liquid, the worker must wash the skin at the earliest possible time.

Internal combustion engines

166(1) An employer must ensure that an internal combustion engine in a hazardous location has a combustion air intake and exhaust discharge that are

- (a) equipped with a flame arresting device, or
 - (b) located outside the hazardous location.
- (2)** An employer must ensure that the temperature of all the surfaces of an internal combustion engine that are exposed to the atmosphere in a hazardous location are lower than the temperature that would ignite a flammable substance present in the hazardous location.

(3) Subsections (1) and (2) do not apply to a vehicle that is powered by an internal combustion engine.

(4) An employer must ensure that a vehicle powered by an internal combustion engine is not located or operated in a hazardous location except in accordance with section 169.

(5) An employer must ensure that an internal combustion engine is not located in a Zone 0 hazardous location under the *Canadian Electrical Code* or in a part of a Division 1 hazardous location under the *Canadian Electrical Code* that meets the description of a Zone 0 location.

(6) An employer must ensure that an internal combustion engine is not located in a Zone 1 or Division 1 hazardous location under the *Canadian Electrical Code* unless it is equipped with combustible gas monitoring equipment in accordance with section 18 of the *Canadian Electrical Code*.

Flare stacks, flare pits and flares

167 An employer must ensure that open flames from flare pits, flare stacks or flares are not less than 25 metres beyond the boundary of a hazardous location.

Compressed and liquefied gas

171(1) An employer must ensure that

- (a) compressed or liquefied gas containers are used, stored and transported in accordance with the manufacturer's specifications,
 - (b) compressed or liquefied gas cylinders are secured, preferably upright, and cannot fall or roll,
 - (c) compressed or liquefied gas cylinders, piping and fittings are protected from damage during handling, filling, transportation and storage,
 - (d) compressed or liquefied gas cylinders are equipped with a valve protection cap if manufactured with a means of attachment, and
 - (e) oxygen cylinders or valves, regulators or other fittings of the oxygen using apparatus or oxygen distributing system are kept free of oil and grease.
- (2)** An employer must ensure that a compressed or liquefied gas system is not exposed to heat sources that generate temperatures that may
- (a) result in the failure or explosion of the contents or the system, or
 - (b) exceed the maximum exposure temperatures specified by the manufacturer.
- (3)** An employer must ensure that a compressed or liquefied gas system is kept clean and free from oil, grease and other contaminants that may
- (a) cause the system to fail, or
 - (b) burn or explode if they come in contact with the contents of the system.
- (4)** An employer must ensure that on each hose of an oxygen-fuel system,
- (a) a flashback device is installed at the regulator end, and
 - (b) a back-flow prevention device is installed at either the torch end or regulator end.
- (5)** Compressed or liquefied gas cylinders need not be secured to prevent dislodgment if an employer uses another method certified by a professional engineer that protects against the hazards caused by dislodgment.
- (6)** Despite subsection (5), an employer must ensure that a cylinder containing acetylene is secured and stored upright.
- (7)** An employer must provide a nozzle guard for use with airless spray machinery.
- (8)** A worker must ensure that
- (a) compressed gas equipment designed to be used with a specific gas is only used with that gas,
 - (b) the cylinder valve is shut off and pressure in the hose is released when cutting or welding is not in progress,
 - (c) sparks, flames or other sources of ignition are not allowed to come in contact with the cylinders, regulators or hoses of a compressed or liquefied gas system,
 - (d) compressed air is not used to blow dust or other substances from clothing, and
 - (e) the nozzle guard of airless spray machinery is in place at all times when the machinery is operated.

Horizontal cylinder storage

173(1) An employer must ensure that a compressed gas cylinder that is horizontal when it is transported or used in a vehicle

- (a) is in a storage compartment that incorporates a structure of sufficient strength to prevent the cylinder from passing through it should the valve end of the cylinder be damaged and vent its contents in an uncontrolled manner,
- (b) is in a storage compartment that incorporates a means of securing the cylinder that stops the cylinder moving within the compartment and puts the bottom of the cylinder in direct contact with the structure in clause (a), and
- (c) is protected against scoring during insertion into, and removal from, the storage compartment.

(2) An employer must ensure that the regulator on a compressed gas cylinder that is horizontal when it is transported or used in a vehicle is protected from damage by other equipment in the storage compartment.

(3) An employer must ensure that a storage compartment on a vehicle from which welding services are provided is certified by a professional engineer as meeting the requirements of subsections (1) and (2).

Handling cylinders

174(1) A worker must not insert or remove a compressed gas cylinder from a storage compartment by holding the valve or valve protection cap.

(2) A worker must put on and secure to the valve outlet the valve protection cap or plug provided by the manufacturer of a compressed gas cylinder if the cylinder is not secured and connected to dispensing equipment.

(3) If a welding service vehicle is not in service for any reason, a worker must

- (a) close compressed gas cylinder valves,
- (b) remove regulators if they are not integral to the cylinder, and
- (c) put on and secure the valve protection caps or plugs.

(4) A worker must shut off the cylinder valve and release the pressure in the hose if a compressed gas cylinder on a welding service vehicle is not in use or the vehicle is left unattended.

From Part 11 of the Occupational Health and Safety Code: **First Aid**

Training standards

177(1) A person or agency that provides training in first aid may enter into an agreement with the Director of Medical Services for the purpose of providing training in first aid to workers under this Code.

(2) An approved training agency that provides the first aid training to candidates for a certificate in emergency first aid, standard first aid or advanced first aid must comply with the terms of the agreement with the Director of Medical Services.

(3) A worker who successfully completes the training by an approved training agency must meet the standards for a certificate in emergency first aid, standard first aid or advanced first aid that are adopted by the Director of Medical Services in consultation with the Joint First Aid Training Standards Board.

Providing services, supplies, equipment

178(1) An employer must provide first aid services, supplies and equipment and provide a first aid room in accordance with the applicable requirements of Schedule 2, Tables 3 to 7 or an acceptance from the Director of Medical Services.

(2) A prime contractor must ensure that first aid services, supplies and equipment and a first aid room, are available at the work site for the type of work site and the total number of workers at the work site in accordance with the applicable requirements of Schedule 2, Tables 3 to 7.

(3) Despite subsections (1) and (2), the employers and prime contractor at a project may enter into a written agreement to collectively provide first aid services, supplies and equipment and provide a first aid room for workers in accordance with the applicable requirements of Schedule 2, Tables 3 to 7 or an acceptance.

(4) If a first aid room is a temporary or mobile facility, an employer must ensure that it meets the requirements of Schedule 1, Table 4 except that

- (a) the room may be used for other services if it is maintained appropriately to provide first aid, and
- (b) where it is not possible or practicable to provide a supply of hot and cold potable water, a supply of cold potable water is acceptable.

Location of first aid

179 An employer and prime contractor must

- (a) ensure that first aid services, first aid equipment, supplies and the first aid room required by this Code are
 - (i) located at or near the work site they are intended to serve, and
 - (ii) available and accessible during all working hours;
- (b) ensure that first aid equipment and supplies are
 - (i) maintained in a clean, dry and serviceable condition,
 - (ii) contained in a material that protects the contents from the environment, and
 - (iii) clearly identified as first aid equipment and supplies;

- (c) post, at conspicuous places at the work site, signs indicating the location of first aid services, equipment and supplies or, if posting of signs is not practicable, ensure that each worker knows the location of first aid services, equipment and supplies; and
- (d) ensure that an emergency communication system is in place for workers to summon first aid services.

Emergency transportation

180(1) Before workers are sent to a work site, the employer must ensure that arrangements are in place to transport injured or ill workers from the work site to the nearest health care facility.

(2) An employer must ensure that an ambulance service is readily available to the work site when travel conditions are normal.

(3) If an ambulance service is not readily available to the work site or travel conditions are not normal, an employer must ensure that other transportation is available that

- (a) is suitable, considering the distance to be traveled and the types of acute illnesses or injuries that may occur at the work site,
- (b) protects occupants from the weather,
- (c) has systems that allow the occupants to communicate with the health care facility to which the injured or ill worker is being taken, and
- (d) can accommodate a stretcher and an accompanying person if required to.

(4) An employer must provide a means of communication at the work site to summon an ambulance service or transportation described in subsection (3).

(5) If a worker is acutely ill or injured or needs to be accompanied during transport to a health care facility, an employer must ensure that the worker is accompanied by at least one first aider, in addition to the operator of the transportation.

(6) Subsection (5) does not apply if there are 3 or fewer workers at the work site at the time.

First aid providers

181(1) An employer must ensure that the number of first aiders at a work site and their qualifications and training comply with Schedule 2, Tables 5, 6 or 7.

(2) An employer must ensure that the first aiders at a work site have successfully completed a first aid training course approved by a Director of Medical Services and hold a valid certificate in first aid.

(3) If a nurse, advanced first aider, or E.M.T.-P is required at a work site, that person must

- (a) be based at or near the first aid room, and
- (b) when not in the first aid room, be easy to contact or notify if first aid services are required.

(4) A nurse, advanced first aider or E.M.T.-P while on duty at the work site, must only perform duties that let the person remain in a fit and clean condition.

(5) Subsection (4) does not apply if the duties are those of a first aid provider.

(6) An employer must keep a record of workers at a work site who are first aiders.

Duty to report injury or illness

182 If a worker has an acute illness or injury at the work site, the worker must report the illness or injury to the employer as soon as practicable.

Record of injury or illness

183(1) An employer must record every acute illness or injury that occurs at the work site in a record kept for the purpose as soon as practicable after the illness or injury is reported to the employer.

(2) A record under subsection (1) must include the following:

- (a) the name of the worker;
- (b) the name and qualifications of the person giving first aid;
- (c) a description of the illness or injury;
- (d) the first aid given to the worker;
- (e) the date and time of the illness or injury;
- (f) the date and time the illness or injury was reported;
- (g) where at the work site the incident occurred;
- (h) the work-related cause of the incident, if any.

(3) The employer must retain the records kept under this section for 3 years from the date the incident is recorded.

First aid records access

184(1) This section applies to records of first aid given to a worker.

(2) Subject to section 8 of the *Act*, a person who has custody of records must ensure that no person other than the worker has access to a worker's records unless

- (a) the record is in a form that does not identify the worker,
- (b) the worker has given written permission to the person, or
- (c) the Director of Medical Services or a person authorized by the

Director requires the records to be produced under the *Act*.

(3) An employer must give a worker a copy of the records pertaining to the worker if the worker asks for a copy.

From Part 12 of the Occupational Health and Safety Code:

General Safety Precautions

Housekeeping

185 An employer must ensure that a work site is kept clean and free from materials or equipment that could cause workers to slip or trip.

Lighting

186(1) An employer must ensure that lighting at a work site is sufficient to enable work to be done safely.

(2) An employer must ensure that a light source above a working or walking surface is protected against damage.

(3) An employer must ensure that there is emergency lighting at a work site if workers are in danger if the normal lighting system fails.

(4) Emergency lighting must generate enough light so that workers can

(a) leave the work site safely,

(b) start the necessary emergency shut-down procedures, and

(c) restore normal lighting.

Pallets and storage racks

187(1) An employer must ensure that pallets used to transport or store materials or containers are loaded, moved, stacked, arranged and stored in a manner that does not create a danger to workers.

(2) An employer must ensure that racks used to store materials or equipment

(a) are designed, constructed and maintained to support the load placed on them, and

(b) are placed on firm foundations that can support the load.

(3) A worker must report any damage to a storage rack to an employer as quickly as is practical.

(4) The employer and the workers at a work site must take all reasonable steps to prevent storage racks from being damaged to the extent that their integrity as a structure is compromised.

Securing equipment and materials

189 If a worker may be injured if equipment or material is dislodged, moved, spilled or damaged, both the employer and the worker must take all reasonable steps to ensure the equipment or material is contained, restrained or protected to eliminate the potential danger.

Signalers

191(1) If this Code requires signals to be given by a designated signaler, an employer must designate a competent worker to give the signals.

(2) An employer must ensure that, if the designated signaler uses hand signals, the signaler wears a highly visible vest, armband or other piece of clothing that clearly identifies the worker as a designated signaler.

(3) A designated signaler using hand signals must wear the vest, armband or other piece of clothing required by the employer under subsection (2).

(4) Before giving a signal to proceed, a designated signaler must ensure that there are no hazards in the vicinity.

(5) An equipment operator must take signals only from the designated signaler if a signaler is designated.

(6) An employer must ensure that only one designated signaler at a time gives signals to an equipment operator.

(7) Despite subsections (5) and (6), an equipment operator must take a "STOP" signal from a worker who is not a designated signaler.

(8) Despite subsections (5) and (6), if signals cannot be transmitted properly between a designated signaler and an equipment operator, an employer must ensure that

(a) additional designated signalers are available to transmit signals, or

(b) a means of ensuring clear and complete communication other than using designated signalers is provided.

Vehicle traffic control

194(1) If vehicle traffic at a work site is dangerous to workers on foot, in vehicles or on equipment, an employer must ensure that the traffic is controlled to protect the workers.

(2) An employer must ensure that a worker on foot and exposed to traffic wears a highly visible piece of clothing.

(3) A worker on foot and exposed to traffic must wear a highly visible piece of clothing.

(4) If a worker is designated by an employer to control traffic, the employer must ensure that the designated traffic controller wears a highly visible piece of clothing that

(a) clearly identifies the worker as a designated traffic controller, and

(b) is retro reflective if the worker is controlling traffic in the dark or visibility is poor.

(5) A worker designated to control traffic must wear a highly visible piece of clothing that complies with subsection (4).

(6) If a worker is designated by an employer to control traffic, the employer must ensure that the designated traffic controller uses a handheld signal light if it is dark or visibility is poor.

(7) If traffic on a public highway is dangerous to workers, an employer must protect the workers from the traffic using

(a) warning signs,

(b) barriers,

(c) lane control devices,

(d) flashing lights,

(e) flares,

(f) conspicuously identified pilot vehicles,

(g) automatic or remote controlled traffic control systems,

(h) designated persons directing traffic, or

(i) methods described in the *Manual of Uniform Traffic Control Devices for Canada* (1998), and its updates published up to and including April 30, 2004, published by the Transportation Association of Canada.

Working on ice

195(1) If a worker is to work on ice and the water beneath the ice is more than 1 metre deep at any point, an employer must ensure the ice will support the load to be placed on it.

- (2) The employer must test the ice for the purposes of subsection (1)
 - (a) before work begins, and
 - (b) as often during the work as necessary to ensure the safety of the workers.

From Part 13 of the Occupational Health and Safety Code:

Joint Work Site Health and Safety Committee

Ministerial order

196 This Part applies to a work site that is required to have a joint work site health and safety committee by Ministerial Order under section 31 of the *Act*.

Members

197 A joint work site health and safety committee must have, subject to section 31(3) of the *Act*,

- (a) at least 2 but not more than 6 worker members, and
- (b) at least 1 but not more than 6 employer members.

Term of membership

198(1) Members of a joint work site health and safety committee hold office for a term of not less than 1 year and may continue to hold office until their successors are elected or appointed.

(2) Members of a joint work site health and safety committee may be reelected or re-appointed for further terms.

(3) Despite subsection (1), a member of a joint work site health and safety committee may be replaced at any time during that member's term of office by those persons whom the member represents.

Election of worker members

199(1) Worker members of the joint work site health and safety committee must be elected by workers employed at the work site who do not exercise any managerial function on behalf of the employer.

(2) Despite subsection (1), workers employed at the work site who belong to a trade union or worker association may, in accordance with the constitution or by-laws of the trade union or worker association, elect to the joint work site health and safety committee the number of worker members that is proportionate to the number of workers at the work site who belong to that trade union or worker association.

(3) To be eligible to be elected a worker member, a person must work at the work site where the joint work site health and safety committee is established.

Appointment of employer members

200(1) Employer members of a joint work site health and safety committee must be appointed to the committee by the employer or prime contractor.

(2) To be eligible to be appointed as an employer member, a person must be employed at the work site where the joint work site health and safety committee is established.

Co-chairs of committee

- 201(1)** A joint work site health and safety committee must have 2 co-chairs.
- (2) Worker members must select one co-chair from among themselves.
 - (3) Employer members must select one co-chair from among themselves.

Recording and posting minutes

- 202** The co-chair selected by employer members must ensure that
- (a) minutes of each meeting of the joint work site health and safety committee are recorded,
 - (b) copies of the minutes are given to the employer within 7 days after the day the meeting was held, and
 - (c) copies of the minutes are posted at the work site within 7 days after the day the meeting was held.

Meetings

- 203(1)** The joint work site health and safety committee must meet within 10 days of its establishment and thereafter at least once in each calendar month.
- (2) The joint work site health and safety committee must convene special meetings if requested to do so by a Director of Inspection.

Quorum

- 204** A quorum of a joint work site health and safety committee is one-half of the members if

- (a) both worker and employer members are present, and
- (b) at least one-half of those present are worker members.

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Attendance by an officer

- 205** An officer may attend a meeting of a joint work site health and safety committee.

Duty to inspect work site

- 206** A joint work site health and safety committee must perform inspections at the work site at least once before each regular meeting of the committee.

Co-chairs present during inspection

- 207(1)** If an officer inspects a work site, the joint work site health and safety committee co-chairs, or their designates, may be present at that inspection unless the officer asks that they not be there.

(2) An officer must not make a request under subsection (1) unless, in the officer's opinion, special circumstances exist that would prevent the officer from making a proper inspection if the members of the joint work site health and safety committee or their designates were present during the inspection.

From Part 14 of the Occupational Health and Safety Code:

Lifting and Handling Loads

Equipment

208(1) An employer must provide, where reasonably practicable, appropriate equipment for lifting, lowering, pushing, pulling, carrying, handling or transporting heavy or awkward loads.

(2) An employer must ensure that workers use the equipment provided under subsection (1).

(3) Workers must use the equipment provided for lifting, lowering, pushing, pulling, carrying, handling or transporting heavy or awkward loads.

(4) For the purposes of this section, a heavy or awkward load includes equipment, goods, supplies, persons and animals.

Adapting heavy or awkward loads

209 If the equipment provided under section 208 is not reasonably practicable in a particular circumstance or for a particular heavy or awkward load, the employer must take all practicable means,

(a) to adapt the load to facilitate lifting, lowering, pushing, pulling, carrying, handling or transporting the load without injuring workers, or

(b) to otherwise minimize the manual handling required to move the load.

Assessing manual handling hazards

210 Before a worker manually lifts, lowers, pushes, pulls, carries, handles or transports a load that could injure the worker, an employer must perform a hazard assessment that considers

(a) the weight of the load,

(b) the size of the load,

(c) the shape of the load,

(d) the number of times the load will be moved, and

(e) the manner in which the load will be moved.

Musculoskeletal injuries

211 If a worker reports to the employer what the worker believes to be work related symptoms of a musculoskeletal injury, the employer must promptly

(a) review the activities of that worker, and of other workers doing similar tasks, to identify work-related causes of the symptoms, if any, and

(b) take corrective measures to avoid further injuries if the causes of the symptoms are work related.

From Part 16 of the Occupational Health and Safety Code:

Noise Exposure

Duty to reduce

216 An employer must ensure that all reasonably practicable measures are used to reduce the noise to which workers are exposed in areas of the work site where workers may be present.

Noise control design

217(1) An employer must ensure that the following are designed and constructed in such a way that the continuous noise levels generated are not more than 85 dBA or are as low as reasonably practicable:

- (a) a new work site;
- (b) significant physical alterations, renovations or repairs to an existing work site or work area;
- (c) a work process is introduced to the work site or work area;
- (d) significant equipment is introduced to the work site or work area.

(2) Subsection (1) does not apply to alterations, renovations or repairs begun or work processes or equipment introduced before April 30, 2004.

Worker exposure to noise

218 An employer must ensure that a worker's exposure to noise does not exceed

- (a) the noise exposure limits in Schedule 3, Table 1, and
- (b) 85 dBA Lex.

Noise management program

221(1) If a noise exposure assessment confirms that workers are exposed to excess noise at a work site, the employer must develop and implement a noise management program that includes policies and procedures.

(2) The employer must ensure that the noise management program includes the following:

- (a) a plan to educate workers in the hazards of exposure to excess noise and train workers in the correct use of control measures and hearing protection;
- (b) the methods and procedures to be used when measuring or monitoring worker exposure to noise;
- (c) the posting of suitable warning signs in any work area where the noise level exceeds 85 dBA;
- (d) the methods of noise control to be used;
- (e) the selection, use and maintenance of hearing protection devices to be worn by workers;
- (f) requirements for audiometric testing and the maintenance of test records;
- (g) an annual review of the policies and procedures to address
- (i) the effectiveness of the education and training plan,

- (ii) the need for further noise measurement, and
- (iii) the adequacy of noise control measures.

(3) A worker who is subject to noise management must cooperate with the employer in implementing the policies and procedures.

Hearing protection

222(1) An employer must ensure that hearing protection equipment provided to workers exposed to excess noise

- (a) meets the requirements of CSA Standard Z94.2-02, *Hearing Protection Devices – Performance, Selection, Care, and Use*, and
- (b) is of the appropriate class and grade described in Schedule 3, Table 2.

(2) An employer must

- (a) provide workers with training in the selection, use and maintenance of hearing protection equipment required to be used at a work site in accordance with the manufacturer's specifications, and
- (b) ensure that affected workers wear the hearing protection equipment that is required to be used.

(3) Workers who are provided with hearing protection equipment must wear and use the equipment in accordance with the training provided by the employer.

Audiometric testing

223(1) An employer must provide, at the employer's expense, the following audiometric tests for a worker exposed to excess noise:

- (a) an initial baseline test as soon as practicable, but not later than 6 months after the worker is employed or within 6 months after a worker is exposed to excess noise because of a change in the worker's duties or process conditions,
- (b) not more than 12 months after the initial baseline test, and
- (c) at least every second year after the test under clause (b).

(2) An employer must ensure that audiometric tests are administered by an audiometric technician who must

- (a) work in consultation with a physician, audiologist or occupational health nurse designated by the employer,
- (b) maintain a logbook for each audiometer being used that
 - (i) contains the audiometer's written calibration records, and
 - (ii) remains with the audiometer throughout its useful lifetime,
- (c) conduct the tests in a location where background noise levels do not exceed those specified in Schedule 3, Table 3,
- (d) record the results of the audiometric tests,
- (e) provide a copy of the test results to the worker,
- (f) retain the records of the audiometric tests for a period of not less than 10 years, and
- (g) ensure that the medical history information is under the sole control of the person designated under subsection (2)(a).

(3) If the results of an audiometric test indicate an abnormal audiogram or show an abnormal shift, the audiometric technician must

- (a) advise the worker of the test results,

- (b) request the worker to provide, and the worker must provide, relevant medical history information, and
 - (c) forward the results that indicate an abnormal audiogram or an abnormal shift, the medical history information and a baseline audiogram to a physician or audiologist designated by the employer to receive this information.
- (4) If the physician or audiologist designated by the employer confirms the audiogram as abnormal or the abnormal shift, the physician or audiologist must
- (a) advise the worker to that effect within 30 days,
 - (b) with the written consent of the worker, provide results of the audiometric tests to the worker's physician,
 - (c) advise the employer as to the effectiveness of the noise management program in place at the work site, and
 - (d) retain the records of the audiometric test for a period of not less than 10 years.
- (5) A person must not release records of audiometric tests conducted on a worker or medical history information received from a worker as required by this section to any person without the worker's written permission except in accordance with this section.

Credit of time

224 If it is not reasonably practicable for a worker to undergo audiometric testing during the worker's normal working hours, the employer must

- (a) credit the time the worker spends to get the test as time at work, and
- (b) ensure that the worker does not lose any pay or other benefits because the worker was tested.

From Part 18 of the Occupational Health and Safety Code:

Personal Protective Equipment

Duty to use personal protective equipment

228(1) If the hazard assessment indicates the need for personal protective equipment, an employer must ensure that

- (a) workers wear personal protective equipment that is correct for the hazard and protects workers,
 - (b) workers properly use and wear the personal protective equipment,
 - (c) the personal protective equipment is in a condition to perform the function for which it was designed, and
 - (d) workers are trained in the correct use, care, limitations and assigned maintenance of the personal protective equipment.
- (2)** A worker must
- (a) use and wear properly the appropriate personal protective equipment specified in this Code in accordance with the training and instruction received,
 - (b) inspect the personal protective equipment before using it, and
 - (c) not use personal protective equipment that is unable to perform the function for which it is designed.
- (3)** An employer must ensure that the use of personal protective equipment does not itself endanger the worker.

Eye Protection

Compliance with standards

229(1) If a worker's eyes may be injured or irritated at a work site, an employer must ensure that the worker wears properly fitting eye protection equipment that

- (a) is approved to
 - (i) CSA Standard Z94.3-99, *Industrial Eye and Face Protectors*, or
 - (ii) CSA Standard Z94.3-02, *Eye and Face Protectors*, and
 - (b) is appropriate to the work being done and the hazard involved.
- (2)** If eye protection is required to be worn by a worker at a work site, prescription eyewear may be worn if it complies with subsection (1).
- (3)** If a worker must wear a full face piece respirator and the face piece is intended to prevent materials striking the eyes, and employer must ensure that the face piece
- (a) meets the requirements of CSA Standard Z94.3-02, *Eye and Face Protectors*, or
 - (b) meets the impact and penetration test requirements of section 9 of ANSI Standard Z87.1-1989, *Practice for Occupational Health and Educational Eye and Face Protection*.

Contact lenses

230 An employer must ensure that, if wearing contact lenses poses a hazard to the worker's eyes during work, the worker is advised of the hazards and the alternatives to wearing contact lenses.

Flame Resistant Clothing

Use of flame resistant clothing

232(1) If a worker may be exposed to a flash fire or electrical equipment flashover, an employer must ensure that the worker wears flame resistant outerwear and uses other protective equipment appropriate to the hazard.

(2) A worker must ensure that clothing worn beneath flame resistant outerwear and against the skin is made of flame resistant fabrics or natural fibres that will not melt when exposed to heat.

Foot Protection

Footwear

233(1) An employer must ensure that a worker uses footwear that is appropriate to the hazards associated with the work being performed and the work site.

(2) If the hazard assessment identifies that protective footwear needs to have toe protection, a puncture resistant sole, metatarsal protection, electrical protection, chainsaw protection or any combination of these, the employer must ensure that the worker wears protective footwear that is approved to

(a) CSA Standard CAN/CSA-Z195-M92 (R2000), *Protective Footwear*, or

(b) CSA Standard Z195-02, *Protective Footwear*.

(3) Despite subsection (2), if a worker is likely to be exposed to a hazard other than those referred to in subsection (2), the employer must ensure that the worker uses footwear appropriate to the hazard.

(4) If a worker is unable, for medical reasons, to wear protective footwear that complies with subsection (2), the worker may substitute external safety toecaps if the employer ensures that

(a) the safety toecaps meet the impact force requirements of CSA Standard Z195-02, *Protective Footwear*,

(b) metatarsal protection is not needed to protect the feet from injury,

(c) the hazard assessment confirms that the worker will not be exposed to any sole penetration hazards, and

(d) wearing the safety toecaps does not itself create a hazard for the worker.

(5) An employer must ensure that a fire fighter wears safety footwear that is approved to

(a) CSA Standard CAN/CSA- Z195-M92 (R2000), *Protective Footwear*,

(b) CSA Standard Z195-02, *Protective Footwear*,

(c) NFPA Standard 1971, *Protective Ensemble for Structural Fire Fighting*, 2000 Edition, or

(d) NFPA Standard 1977, *Protective Clothing and Equipment for Wildland Fire Fighting*, 1998 Edition.

Head Protection

Industrial headwear

234(1) Subject to sections 235, 236 and 237, if there is a foreseeable danger of injury to a worker's head at a work site and there is a significant possibility of lateral impact to the head, an employer must ensure that the worker wears industrial protective headwear that is appropriate to the hazards and meets the requirements of

(a) CSA Standard CAN/CSA-Z94.1-92 (R1998), *Industrial Protective Headwear*,
or

(b) ANSI Standard Z89.1-1997, *American National Standard for Industrial Head Protection* for Type II head protection.

(2) Subject to sections 232, 233 and 234, if there is a foreseeable danger of injury to a worker's head at a work site and the possibility of lateral impact to the head is unlikely, an employer must ensure that the worker wears industrial protective headwear that is appropriate to the hazard and meets the requirements of

(a) CSA Standard CAN/CSA-Z94.1-92 (R1998), *Industrial Protective Headwear*,
or

(b) ANSI Standard Z89.1-1997, *American National Standard for Industrial Head Protection*.

Exemption from wearing headwear

239(1) Despite section 234, if it is impractical for a worker to wear industrial protective headwear during a particular work process,

(a) the employer must ensure that the worker's head is protected using an adequate alternative means of protection during the work process, and

(b) the worker may conduct the work while the alternative means of protection is in place.

(2) A worker must wear industrial protective headwear if the foreseeable danger of injury to the worker's head persists immediately after completing the work process referred to in subsection (1).

Limb and Body Protection

242 If there is a danger that a worker's hand, arm, leg or torso may be injured, an employer must ensure that the worker wears properly fitting hand, arm, leg or body protective equipment that is appropriate to the work, the work site and the hazards identified.

Skin protection

243 An employer must ensure that a worker's skin is protected from a harmful substance that may injure the skin on contact or may adversely affect a worker's health if it is absorbed through the skin.

From Part 19 of the Occupational Health and Safety Code:

Powered Mobile Equipment

Operator responsibilities

- 256(1)** A worker must not operate powered mobile equipment unless the worker
- (a) is trained to safely operate the equipment,
 - (b) has demonstrated competency in operating the equipment to a competent worker designated by the employer,
 - (c) is familiar with the equipment's operating instructions, and
 - (d) is authorized by the employer to operate the equipment.
- (2)** Subsections (1)(a), (b) and (c) do not apply if a worker in training operates the equipment under the direct supervision of a competent worker designated by the employer.
- (3)** The operator of powered mobile equipment must
- (a) report to the employer any conditions affecting the safe operation of the equipment,
 - (b) operate the equipment safely,
 - (c) maintain full control of the equipment at all times,
 - (d) use the seat belts and other safety equipment in the powered mobile equipment,
 - (e) ensure that passengers in the powered mobile equipment use the seat belts and other safety equipment in the powered mobile equipment, and
 - (f) keep the cab, floor and deck of the powered mobile equipment free of materials, tools or other objects that could interfere with the operation of the controls or create a tripping or other hazard to the operator or other occupants of the equipment.

Visual inspection

- 257(1)** Before operating powered mobile equipment, the operator must complete a visual inspection of the equipment and the surrounding area to ensure that the powered mobile equipment is in safe operating condition and that no worker, including the operator, is endangered when the equipment is started up.
- (2)** While powered mobile equipment is in operation, the operator must complete a visual inspection of the equipment and surrounding area at the intervals required by the manufacturer's specifications or, in the absence of manufacturer's specifications, the employer's operating procedures.
- (3)** Despite subsections (1) and (2), if the powered mobile equipment is continuously operated as part of an on-going work operation, the operator may visually inspect the equipment during the work shift or work period as required by the employer's operating procedures.
- (4)** A person must not start powered mobile equipment if the visual inspection under subsection (1) is not completed.

Dangerous movement

258(1) If the movement of a load or the cab, counterweight or any other part of powered mobile equipment creates a danger to workers,

- (a) an employer must not permit a worker to remain within range of the moving load or part, and
- (b) the operator must not move the load or the equipment if a worker is exposed to the danger.

(2) If the movement of a load or the cab, counterweight or any other part of powered mobile equipment creates a danger to workers, a worker must not remain within range of the moving load or part.

(3) If a worker could be caught between a moving part of a unit of powered mobile equipment and another object, an employer must

- (a) restrict entry to the area by workers, or
- (b) require workers to maintain a clearance distance of at least 600 millimetres between the powered mobile equipment and the object.

Pedestrian traffic

259(1) An employer must ensure that, if reasonably practicable,

- (a) walkways are designated that separate pedestrian traffic from areas where powered mobile equipment is operating,
- (b) workers use the designated walkways.

(2) If it is not reasonably practicable to use designated walkways, an employer must ensure that safe work procedures are used to protect workers who enter areas where powered mobile equipment is operating.

Inspection and maintenance

260(1) An employer must ensure that powered mobile equipment is inspected by a competent worker for defects and conditions that are hazardous or may create a hazard.

(2) An inspection under subsection (1) must be made in accordance with the manufacturer's specifications.

(3) If an inspection under subsection (1) indicates that powered mobile equipment is hazardous or potentially hazardous, an employer must ensure that

- (a) the health and safety of a worker who may be exposed to the hazard is protected immediately,
- (b) the powered mobile equipment is not operated until the defect is repaired or the condition is corrected, and
- (c) the defect is repaired or the unsafe condition corrected as soon as reasonably practicable.

(4) Despite subsection (3), if an inspection under subsection (1) indicates that the powered mobile equipment is potentially hazardous but the equipment can be operated safely, an employer must ensure that

- (a) the operator is made aware of the potential hazard, and
- (b) the defect or condition is repaired as soon as reasonably practicable.

(5) An employer must ensure that a record of the inspections and maintenance carried out as required by subsections (1) and (2) is kept at the work site and readily available to a worker who operates the powered mobile equipment.

Maintenance on elevated parts

261 An employer must ensure that if elevated parts of powered mobile equipment are being maintained or repaired by workers, the parts and the powered mobile equipment are securely blocked in place and cannot move accidentally.

Starting engines

262(1) Subject to subsection (3), an employer must ensure that a worker does not start the power unit of powered mobile equipment if the drive mechanisms and clutches of the equipment are engaged.

(2) A worker must not start the power unit of powered mobile equipment if the drive mechanisms and clutches of the equipment are engaged.

(3) An employer must ensure that no worker, including the operator, can be injured due to the movement of powered mobile equipment or any part of it, if

(a) its power unit can be started from a location other than the equipment's control platform or cab seat, or

(b) it is not reasonably practicable to disengage its drive mechanism or clutches.

Unattended equipment

263(1) A person must not leave the controls of powered mobile equipment unattended unless the equipment is secured against unintentional movement by an effective method of immobilizing the equipment.

(2) A person must not leave the controls of powered mobile equipment unattended unless a suspended or elevated part of the powered mobile equipment is either landed, secured in a safe position, or both.

Lights

264(1) An employer must ensure that powered mobile equipment operated during hours of darkness or when, due to insufficient light or unfavorable atmospheric conditions, workers and vehicles are not clearly discernible at a distance of at least 150 metres, is equipped with lights that illuminate

(a) a direction in which the equipment travels,

(b) the working area around the equipment, and

(c) the control panel of the equipment.

(2) An employer must ensure that the lights on earthmoving construction machinery comply with SAE Standard J1029 (1996), *Lighting and Marking of Construction, Earthmoving Machinery*.

Windows and windshields

265(1) An employer must ensure that glazing used as part of the enclosure for a cab, canopy or rollover protective structure on powered mobile equipment is safety glass or another non-shattering material providing at least equivalent protection.

(2) An employer must ensure that the glazing on an enclosure of powered mobile equipment complies with ANSI Standard ANSI/SAE Z26.1 (1996), *Safety Glazing Material for Glazing Motor Vehicles and Motor Vehicle Equipment Operating on Land Highways — Safety Standard*.

(3) An employer must ensure that broken or cracked glazing that obstructs an operator's view from powered mobile equipment is replaced as soon as reasonably practicable.

(4) An employer must ensure that a windshield on powered mobile equipment has windshield wipers of sufficient size and capacity to clean matter that obstructs the operator's view from the windshield.

Other safety equipment

266 An employer must ensure that powered mobile equipment has

- (a) a device within easy reach of the operator that permits the operator to stop, as quickly as possible, the power unit, draw works, transmission or any ancillary equipment driven from the powered mobile equipment, including a power take-off auger or digging, lifting or cutting equipment,
- (b) an effective means of warning workers of the presence, general dimensions and movement of the equipment if the presence, dimensions or movement may be a danger to a worker,
- (c) seats or other installations sufficient to ensure the safety of the operator and other workers who may be in or on the equipment while it is in motion, and
- (d) safety clips on the connecting pins if the powered mobile equipment is equipped with a trailer hitch.

Warning signal

267(1) An employer must ensure that, if a powered mobile equipment operator's view of the equipment's path of travel is obstructed or cannot be seen directly or indirectly in a direction, the powered mobile equipment has

- (a) an automatic audible warning device that
 - (i) activates if the equipment controls are positioned to move the equipment in that direction, and
 - (ii) is audible above the ambient noise level,
- (b) a warning device or method appropriate to the hazards of the work site, or
- (c) an automatic system that stops the equipment if a worker is in its path.

(2) If it is impractical to equip powered mobile equipment in accordance with subsection (1), the operator must ensure that the operator and other workers are protected from injury before moving the equipment by

- (a) doing a visual inspection on foot of the area into which the equipment will move,
- (b) following the directions of a traffic control or warning system, or
- (c) getting directions from a worker who
 - (i) has an unobstructed view of the area into which the equipment will move, and
 - (ii) is stationed in a safe position in continuous view of the operator.

Bulkheads

268 An employer must install a bulkhead or provide other effective means to protect the operator of a vehicle transporting equipment or materials that may shift during an emergency stop.

Guards and screens

269 An employer must ensure that powered mobile equipment has a cab, screen, shield, grill, deflector, guard or other adequate protection for the operator if the hazard assessment indicates there is a significant possibility that the operator may be injured by flying or projecting objects.

Rollover protective structures

270(1) An employer must ensure that the following types of powered mobile equipment weighing 700 kilograms or more have rollover protective structures:

- (a) tracked (crawler) or wheeled bulldozers, loaders, tractors or skidders, other than those operating with side booms;
 - (b) back hoes with a limited horizontal swing of 180 degrees;
 - (c) motor graders;
 - (d) self-propelled wheeled scrapers;
 - (e) industrial, agricultural and horticultural tractors, including ride-on lawnmowers;
 - (f) wheeled trenchers.
- (2)** An employer must ensure that a rollover protective structure complies with the applicable requirements of
- (a) CSA Standard B352.0-95 (R1999), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines — Part 1: General Requirements*, and
 - (i) CSA Standard B352.1-95 (R1999), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines — Part 2: Testing Requirements for ROPS on Agricultural Tractors*, or
 - (ii) CSA Standard B352.2-95 (R1999), *Rollover Protective Structures (ROPS) for Agricultural, Construction, Earthmoving, Forestry, Industrial and Mining Machines — Part 3: Testing Requirements for ROPS on Construction, Earthmoving, Forestry, Industrial, and Mining Machines*,
 - (b) SAE Standard J1042 (2003), *Operator Protection for General-Purpose Industrial Machines*,
 - (c) SAE Standard J1194 (1999), *Rollover Protective Structures (ROPS) for Wheeled Agricultural Tractors*,
 - (d) ISO Standard 3471:1994, *Earth-moving machinery – Roll-over protective structures – Laboratory tests and performance requirements*,
 - (e) OSHA Standard 1928.52, *Protective Frames for Wheel-type Agricultural Tractors – Tests, Procedures and Performance Requirements*, or
 - (f) a predecessor of the standard that was in effect at the time the powered mobile equipment was designed or manufactured.
- (3)** If powered mobile equipment is not referred to in subsection (1) and a hazard assessment identifies rollover as a potential hazard, the employer must
- (a) equip the powered mobile equipment with a rollover protective structure that is either supplied by the manufacturer or certified by a professional engineer as being suited to that equipment, or
 - (b) institute safe work procedures that eliminate the possibility of rollover.

Equipment with rollover protection

271(1) An employer must ensure that the powered mobile equipment fitted with a rollover protective structure has seat belts for the operator and passengers that comply with

- (a) SAE Standard J386 (1997), *Operator Restraint System for Off-Road Work Machines*, or
- (b) SAE Information Report J2292 (2000), *Combination Pelvic/Upper Torso (Type 2) Operator Restraint Systems for Off-Road Work Machines*.

(2) Despite subsection (1), if the work process makes wearing the seat belts in the powered mobile equipment impracticable, the employer may permit workers to wear shoulder belts or use bars, screens or other restraining devices designed to prevent the operator or a passenger from being thrown out of the rollover protective structure.

Falling objects protective structures

272(1) If hazard assessment identifies that an operator of powered mobile equipment is exposed to falling objects, the employer must ensure that the powered mobile equipment is equipped with a falling objects protective structure.

(2) A falling objects protective structure must comply with the appropriate requirements of

- (a) SAE Standard J167 (2002), *Overhead Protection for Agricultural Tractors – Test Procedures and Performance Requirements*,
- (b) SAE Standard J/ISO 3449 (1998), *Earthmoving Machinery – Falling- Object Protective Structures – Laboratory Tests and Performance Requirements*, or,
- (c) SAE Standard J1042 (2003), *Operator Protection for General – Purpose Industrial Machines*.

(3) An employer, instead of using a falling objects protective structure that complies with subsection (2), may use equipment that is certified by a professional engineer as providing the equivalent or better protection.

Re-certification after modification

273 An employer must ensure that any addition, modification, welding or cutting of a rollover protective structure or a falling objects protective structure is done in accordance with the instructions of, and is re-certified as restored to its original performance requirements by, the equipment manufacturer or a professional engineer.

Fuel tank in cab

274 An employer must ensure that a fuel tank located in the enclosed cab of a unit of powered mobile equipment has a filler spout and vents

- (a) extending outside the cab, and
- (b) that are sealed to prevent vapors from entering the enclosed cab.

Worker transportation

275(1) An employer must ensure that no part of an operator's or passenger's body extends beyond the side of a vehicle or powered mobile equipment while it is in operation.

(2) An employer must ensure that equipment or material in a vehicle or unit of powered mobile equipment is positioned or secured to prevent injury to the operator and passengers, if any.

(3) An employer must ensure that sufficient protection against inclement weather is provided for workers traveling in a vehicle or unit of powered mobile equipment.

(4) If a vehicle or unit of powered mobile equipment with an enclosed body is used to transport workers, an employer must ensure that the equipment's exhaust gases do not enter the enclosed body.

Riding on loads

276 A person must not ride on top of a load that is being moved.

Hazardous loads

277(1) An employer must ensure that workers are not servicing or maintaining a vehicle while flammable, combustible or explosive materials are

(a) being loaded into or unloaded from the vehicle, or

(b) in the vehicle, other than in the vehicle's fuel tank or a portable fuel tank that is approved to the appropriate ULC standard for that tank.

(2) For the purposes of subsection (1), servicing and maintaining a vehicle does not include checking or topping up fluid levels or air pressure.

(3) A worker must not service or maintain a vehicle in contravention of subsection (1).

Tank trucks

278(1) The operator must ensure that a tank truck containing flammable, combustible or explosive materials is bonded and grounded while

(a) its loading lines are connected or disconnected, and

(b) the contents of the tank truck are being transferred.

(2) Section 277 does not apply to a commercial tank truck designed to transport flammable, combustible or explosive materials.

Refueling

279(1) An employer must ensure that a worker does not

(a) smoke tobacco within 7.5 metres of a vehicle while it is being refueled,

(b) refuel a vehicle when there is a source of ignition within 7.5 metres of that vehicle, or

(c) dispense flammable fuels into the fuel tank of a motor vehicle, watercraft or aircraft while its engine is running.

(2) A person must not

(a) smoke tobacco within 7.5 metres of a vehicle while it is being refueled,

(b) refuel a vehicle when there is a source of ignition within 7.5 metres of that vehicle, or

(c) dispense flammable fuels into the fuel tank of a motor vehicle, watercraft or aircraft while its engine is running.

(3) An employer must ensure that a worker dispensing flammable fuel

(a) takes precautions to prevent the fuel overflowing or spilling,

- (b) does not knowingly overfill the fuel system, and
 - (c) does not use an object or device that is not an integral part of the hose nozzle valve assembly to maintain the flow of fuel.
- (4) Subsections (1)(c) and (2)(c) do not apply to the fuelling system of the motor vehicle, watercraft or aircraft if its manufacturer or a professional engineer certifies
- (a) it is safe to refuel while the engine is running, and
 - (b) the safe work practices to be used during the refueling.

All-Terrain Vehicles and Snow Vehicles

Three-wheeled all-terrain cycles

280 A person must not use a three-wheeled all-terrain vehicle at a work site.

Operator's manual

281 An employer must ensure that the operator's manual for an all-terrain vehicle or snow vehicle is kept in a secure place with the vehicle or at another location readily accessible to the operator.

Pile Driving Equipment and Practices

Chocking

285 The operator of pile driving equipment must ensure that a pile hammer is securely chocked while suspended by the hammer line if the equipment is not operating.

Pile hoisting

286(1) The operator of pile driving equipment must ensure that pilings are not hoisted in the leads if workers who are not directly involved in the pile hoisting are on the superstructure or within range of a falling pile.

(2) A worker must not

- (a) remain or ride on a load or part of a load being moved, raised or lowered by pile driving equipment, or
- (b) be on the superstructure of pile driving equipment or within range of a falling pile if the worker is not directly involved in the pile hoisting.

Restraining hoses and connections

287 An employer must ensure that the pressure hoses of pile driving equipment with pressure hammers have, on the pressure side of all hose connections, safety chains or ropes designed to protect workers should the hoses or connections fail.

Brake bands and clutches

288 An employer must ensure that

- (a) at the beginning of a work shift, the brake bands and clutches of pile driving equipment are inspected by a competent worker designated by the employer, and
- (b) if the worker finds contamination by oil or grease, the contaminated units are dismantled and cleaned or replaced before they are used.

From Part 22 of the Occupational Health and Safety Code:

Safeguards

Safeguards

310(1) This section does not apply to belts, ropes or chains operated from a cathead.

(2) An employer must provide safeguards if a worker may accidentally, or through the work process, come into contact with

- (a) moving parts of machinery,
- (b) points of machinery at which material is cut, shaped or bored,
- (c) surfaces with temperatures that may cause skin to freeze, burn or blister,
- (d) energized electrical cables,
- (e) debris, material or objects thrown from equipment,
- (f) material being fed into or removed from process equipment, or
- (g) machinery or equipment that may be hazardous.

(3) Subsection (2) does not apply to machinery that already has a safeguard that

- (a) automatically stops the machinery if a worker comes into contact with a moving part or a point at which material is cut, shaped or bored,
- (b) prevents a worker from coming into contact with a hazard referred to in subsection (2), or
- (c) eliminates the hazards referred to in subsection (2) before a worker can be injured.

(4) If an employer determines that an effective safeguard cannot be provided in the circumstances, the employer must ensure that an alternative mechanism or system or a change in work procedure is put into place to protect workers from being exposed to hazards that exist if there is no safeguard.

(5) An alternative mechanism or system or a change in work procedure put into place under subsection (4) must offer protection to workers that is equal to or greater than the protection from a safeguard referred to in subsection (3).

(6) An employer must place warning signs on machinery that starts automatically

- (a) on a clearly visible location at a point of access to the machinery, and
- (b) giving clear instructions to workers on the nature of the hazard.

Tampering with safeguards

311(1) A person must not remove a safeguard from a machine that is operating if the safeguard is not designed to be removed when the machine is operating.

(2) A person must not remove a safeguard or make it ineffective unless removing it or making it ineffective is necessary to perform maintenance, tests, repairs, adjustments or other tasks on equipment.

(3) If a worker removes a safeguard or makes it ineffective, the worker must ensure that

- (a) alternative protective measures are in place until the safeguard is replaced,
- (b) the safeguard is replaced immediately after the task is completed, and
- (c) the safeguard functions properly once replaced.

(4) If a safeguard for machinery is removed or made ineffective and the machinery cannot be directly controlled by a worker, the worker who removes the safeguard or makes it ineffective must lock out or lock out and tag the machinery or render it inoperative.

No safeguards

312(1) Despite other sections in this Part, an employer may permit the machinery to be operated without the safeguards

- (a) if safeguards are required by this Code for machinery, and
- (b) the machinery cannot accommodate or operate with these safeguards.

(2) If machinery in subsection (1) is operated without safeguards, the employer must ensure workers operating or in the vicinity of the machine wear personal protective equipment that

- (a) is appropriate to the hazard, and
- (b) offers equal or greater protection than the safeguards.

Covering openings

314(1) An employer must ensure that an opening or hole through which a worker can fall is protected by

- (a) a securely attached cover designed to support an anticipated load, or
- (b) guardrails and toe boards.

(2) If a person removes a cover, guardrail or toe board, or part of them, protecting an opening or hole for any reason, an employer must ensure a temporary cover or other means of protection replaces it immediately.

(3) If a temporary cover is used to protect an opening or hole, an employer must ensure a warning sign or marking clearly indicating the nature of the hazard

- (a) is posted near or fixed on the cover, and
- (b) is not removed unless another effective means of protection is immediately provided.

Machine failure

317 If a worker may be injured if a machine fails, an employer must install safeguards on the machine strong enough to contain or deflect flying particles of material, broken parts of machinery and a shock wave.

Protection from falling objects

318(1) An employer must ensure that workers in a work area where there may be falling objects are protected from the falling objects by an overhead safeguard.

(2) An employer must ensure that a safeguard used under subsection (1) is designed to withstand the shock loads from objects that may fall onto it.

(3) Despite subsection (1), if the danger from falling objects is in a location in a work site where workers go intermittently or incidentally to their regular duties, an employer may place appropriate and adequate warning signs, horns, flashing lights or similar devices at the location to warn workers of the hazard.

(4) An employer must ensure that a safeguard used on a hoist or scaffold under subsection (1)

- (a) is made of wire mesh or an enclosure material that is equally or more efficient at containing equipment and materials,
 - (b) is not less than 1 metre high from the floor, platform or working level of the safeguard, and
 - (c) encloses all sides of a cantilever hoist platform or skip, except the side adjacent to the building.
- (5) If the material being hoisted or lowered is of a kind that prevents the sides of a cantilever hoist platform or skip being enclosed as required by subsection (4), an employer must provide another effective alternative safeguard against falling materials for the workers.
- (6) An employer must ensure that a safeguard around the surface opening of an underground shaft serving a tunnel
- (a) is made of wire mesh, or an enclosure material that is equally or more effective at containing equipment and materials, and
 - (b) is not less than 1 metre high from the surface.
- (7) An employer must ensure that a safeguard is installed on all sides of
- (a) the cage of a building shaft hoist or a tower hoist, or
 - (b) a hoist cage in an underground shaft serving a tunnel.
- (8) An employer must ensure that a safeguard used on a cage under subsection (7) is made of
- (a) wire mesh, or
 - (b) an enclosure material that is equally or more effective at containing equipment and materials and protecting workers from hazards associated with the movement of a cage in a shaft.

From Part 24 of the Occupational Health and Safety Code:

Toilets and Washing Facilities

Restrictions by employer

354 An employer must not place unreasonable restrictions on a worker's use of, or access to, any of the facilities required by this Part.

Drinking fluids

355(1) An employer must ensure that an adequate supply of drinking fluids is available to workers at a work site.

(2) The drinking fluids available at a work site must include potable water.

(3) Unless water is provided by a drinking fountain, the employer must ensure that an adequate supply of single-use drinking cups is provided in a sanitary container located by the water supply.

(4) If there are outlets at a work site for both potable water and non-potable fluid, the employer must ensure that the outlet for potable water has a prominent label that clearly indicates drinking water.

Exception

356 Sections 357 to 361 do not apply to

(a) a food establishment or other work site for which there are specific regulations under the *Public Health Act*, or

(b) a mobile or temporary work site at which work is being performed for a period of not more than 5 working days if the employer has arranged for workers to use local toilet facilities during that period.

Toilet facilities

357(1) Subject to subsection (2), an employer must ensure that a work site has the number of toilets for each sex that are required by Schedule 7 in separate toilet facilities.

(2) A work site may have only one toilet facility for the use of both sexes if

(a) the total number of workers at the work site is never more than 10, and

(b) the door to the toilet facility can be locked from the inside.

(3) If 3 or more toilets are required for men, an employer may substitute not more than two thirds of the toilets with urinals.

(4) If 2 toilets are required for men, an employer may substitute one of them with a urinal.

(5) An employer must ensure that a toilet facility is located so that it is readily accessible to the workers who may use it.

Water and drainage

358(1) If a work site is connected to a public or municipal water main and sanitary drainage system, the employer must ensure that the toilets are connected to that system.

(2) If a work site is not connected to a public or municipal water main and sanitary drainage system, the employer must ensure that the toilets are self-contained units or connected to a septic tank.

(3) An employer must ensure that a toilet that is a self-contained unit is emptied and serviced at regular intervals that ensure the unit does not overflow.

Hand cleaning facilities

359(1) An employer must ensure that at least one wash basin or hand cleaning facility is provided in a toilet facility.

(2) An employer must ensure that there is one wash basin or hand cleaning facility for every 2 toilets in addition to the washbasin or hand cleaning facility required under subsection (1) if 3 or more toilets are required in a toilet facility.

(3) An employer may substitute circular wash fountains for wash basins or hand cleaning facilities required by subsections (1) and (2) on the basis that each 500 millimetres of the fountain's circumference is equivalent to one wash basin or hand cleaning facility.

Supplies and waste receptacle

360 An employer must ensure that a toilet facility at a work site has

- (a) toilet paper available at each toilet,
- (b) hand cleaning agents and single-use towels of cloth or paper or air hand drying equipment at each wash basin or hand cleaning facility, and
- (c) a covered disposal container for feminine hygiene products near each toilet used by women.

Condition of facilities

361(1) An employer must ensure that a toilet, urinal, wash basin, hand cleaning facility, circular wash fountain or shower at a work site is

- (a) clean and sanitary, and
- (b) operational.

(2) An employer must ensure that changing rooms, lunch rooms, toilet facilities and rooms in which a wash basin or shower are located are not used as storage areas for materials unless the storage facilities are properly constructed for those materials.

From Part 27 of the Occupational Health and Safety Code:

Violence

Hazard assessment

389 An employer must ensure that workplace violence is considered a hazard for the purposes of section 7.

Policy and procedures

390 An employer must develop a policy and procedures respecting potential workplace violence.

Instruction of workers

391 An employer must ensure that workers are instructed in

- (a) how to recognize workplace violence,
- (b) the policy, procedures and workplace arrangements that effectively minimize or eliminate workplace violence,
- (c) the appropriate response to workplace violence, including how to obtain assistance, and
- (d) procedures for reporting, investigating and documenting incidents of workplace violence.

Response to incidents

392(1) Sections 18(3) to (6) and 19 of the *Act* apply to an incident of workplace violence.

(2) An employer must ensure that a worker is advised to consult a health professional of the worker's choice for treatment or referral if the worker

- (a) reports an injury or adverse symptom resulting from workplace violence, or
- (b) is exposed to workplace violence.

From Part 28 of the Occupational Health and Safety Code:

Working Alone

Application

393(1) This Part applies if

- (a) a worker is working alone at a work site, and
 - (b) assistance is not readily available if there is an emergency or the worker is injured or ill.
- (2) Working alone is a hazard for the purposes of section 7.

Precautions required

394(1) An employer must provide effective radio, telephone or other electronic communication between a worker who works alone and persons capable of assisting the worker in an emergency or if the worker is injured or ill.

(2) Despite subsection (1), if effective electronic communication is not practicable or readily available at the work site, the employer must ensure that

- (a) the employer or another competent worker visits the worker, or
- (b) the worker contacts the employer or another competent worker.

(3) The visits or contact under subsection (2) must be at intervals of time appropriate to the nature of the hazards associated with the worker's work.

From Part 29 of the Occupational Health and Safety Code:

Workplace Hazardous Materials Information System (WHMIS)

Application

395(1) Subject to subsections (3), (4) and (5), this Part applies to controlled products at a work site.

(2) An employer must ensure that a controlled product is used, stored, handled or manufactured at a work site in accordance with this Part.

(3) This Part does not apply if the controlled product is

- (a) wood or a product made of wood,
- (b) tobacco or a tobacco product,
- (c) a hazardous waste, or
- (d) a manufactured article,
 - (i) that is formed to a specific shape or design during manufacture,
 - (ii) that has a shape or design that determines its use in whole or in part, and
 - (iii) that, under normal use, will not release or otherwise cause a person to be exposed to chemicals emanating from it.

(4) This Part does not apply if the controlled product is a dangerous good, under the *Dangerous Goods Transportation and Handling Act*, to the extent that its handling, offering for transport or transport is subject to that Act.

(5) Sections 398, 403, 404, 405, 406, 407 and 408 do not apply if the controlled product is

- (a) an explosive governed by the *Explosives Act* (Canada),
- (b) a cosmetic, device, drug or food governed by the *Food and Drug Act* (Canada),
- (c) a product governed by the *Pest Control Products Act* (Canada),
- (d) a nuclear substance governed by the *Nuclear Safety and Control Act* (Canada), or
- (e) a product, material or substance packaged
 - (i) as a consumer product, and
 - (ii) in a quantity normally used by a member of the general public.

Information current

406(1) If the most recent supplier material safety data sheet for a controlled product at a work site is 3 years from its latest revision, an employer must, if possible, obtain an up-to-date supplier's material safety data sheet for the controlled product.

(2) If an employer is unable to obtain a supplier's material safety data sheet that is less than 3 years old, the employer must review, and revise if necessary, the existing supplier's material safety data sheet on the basis of the ingredients disclosed on the sheet.

(3) An employer must update a material safety data sheet referred to in section 405(1)

- (a) not more than 90 days after new hazard information becomes available to the employer, and
- (b) at least every 3 years.

Availability of material safety data sheet

407 An employer must ensure that the material safety data sheet required by this Part is readily available at a work site to workers who may be exposed to a controlled product and to the joint work site health and safety committee if there is one.