Atlantic Offshore Occupational Health and Safety Initiative

Proposed Policy Intent for Phase 1 of the Atlantic OHS Regulations

Government of Canada
Government of Newfoundland and Labrador
Government of Nova Scotia

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INTRODUCTION

On December 31, 2014, amendments to the federal *Canada-Newfoundland and Labrador Atlantic Accord Implementation Act* and the *Canada-Nova Scotia Offshore Petroleum Resources Accord Implementation Act* and the corresponding provincial laws came into force. These changes established a statutory occupational health and safety (OHS) regime for each offshore area that apply to all workplaces in the offshore area, as well as passengers in transit to/from and in-between those offshore workplaces. The changes also clearly established the Canada-Newfoundland and Labrador Offshore Petroleum Board and the Canada-Nova Scotia Offshore Petroleum Board as the regulator of OHS matters in its respective administrative area.

Simultaneously, transitional regulations (both federal and provincial versions) were brought into force to implement the OHS regime. Those regulations will be automatically repealed in December 2019, requiring that new regulations enter into force prior to that date. As such, the Governments of Canada, Newfoundland and Labrador and Nova Scotia have embarked on the development of new OHS regulations under each Accord Act with the participation of the two boards.

As part of the initiative, the governments will be holding engagement sessions with stakeholders on draft policy intent as well as a session on the draft regulatory text. This consultation will ensure that stakeholders can provide feedback throughout the process of regulation development. This document contains the policy intent that is the subject of the first phase of consultation. The document is not comprehensive of all OHS regulations that will be necessary. Written comments on this policy intent may be submitted by September 2nd, 2016 to:

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All written comments will be posted on a government website without any amendments or alterations.

Similar policy intent documents addressing the remainder of the topics will be produced and circulated prior to subsequent engagement sessions.

DEFINITIONS

"Competent person" means a person who is a qualified person and that has knowledge of the Act and the regulations with respect to the hazard or danger or assigned work.

"Confined space" means an enclosed or partially enclosed space that

- a) is not designed or intended for human occupancy except for the purpose of performing work,
- b) has restricted means of access and egress, or an internal configuration, that could make first aid, evacuation, rescue, or other emergency response services difficult to perform, and
- c) may become hazardous to any person entering it owing to
 - a. its design, construction, location or atmosphere,
 - b. the materials or substances in it, or
 - c. any other conditions relating to it.

"Elevating work platform" means a type of integral chassis aerial platform that has an adjustable position platform, supported from ground level by an articulating or telescoping boom or by a vertically oriented telescoping or elevating mast.

"Floor opening" means an opening in a floor, platform or deck that measures 300 mm or more in its smallest dimension, or any other such opening that may pose a hazard to an employee.

"International Code of Practice" means the most recent version of the International Code of Practice published by the Industrial Rope Access Trade Association.

"Living accommodations" means sleeping quarters, dining/eating (galley) areas, general recreation areas, washrooms, food preparation areas, office space, and medical areas.

"Musculoskeletal injury (MSI)" means an injury or disorder of the muscles, tendons, ligaments, joints, nerves, blood vessels or related soft tissue, including a sprain, strain and inflammation, that may be caused or aggravated by work.

"Open-top enclosures" means open-top bins/tanks, vats, pits or any similar container

"Potable Water" means water that meets the standards set out in the most recent version of the Guidelines for Canadian Drinking Water Quality, under the authority of the Minister of Health, as amended from time to time.

"Qualified person" means a person who has adequate knowledge, training and experience (or

combination thereof) of work, hazards of work and means of controlling the hazards.

"Rope access" means a method of using ropes, in combination with other devices, for one of the following while further protected by a safety line, in which both the working line and safety line are connected to the user's harness and separately secured to a reliable anchorage in such a way that a fall is prevented or arrested:

- a) descending or ascending a working line to get to or from the work area,
- b) work positioning.

"Wall opening" means an opening in a wall, partition or bulkhead that measures at least 750 mm high and 300 mm wide, or any other such opening that that may pose a hazard to an employee.

"Washroom" means a room equipped with, at a minimum, one or more toilets and one or more handwashing facilities, and may include a shower.

"Waste material" means food waste, garbage, refuse and other debris that does not pose a specific and/or unique hazard.

"Work area" mean specific areas within the workplace in which an employee undertakes their own work or activity.

"Workplace" as defined in the Act.

"Workplace harassment" means engaging in a course of vexatious comment or conduct against an employee in a workplace that is known or ought reasonably to be known to be unwelcome

"Work place violence" means any action, conduct, threat or gesture of a person towards an employee in their work place that can reasonably be expected to cause harm, injury or illness to that employee.

ACRONYMS

ACGIH American Conference of Governmental Industrial Hygienists

ANSI American National Standards Institute

ASHRAE American Society of Heating, Refrigerating and Air-Conditioning Engineers

AWWA American Water Works Association

CEN European Committee for Standardization

CSA Canadian Standards Association

CSO Chief Safety Officer

EN European Standard

IDLH Immediately Dangerous to Life or Health

IESNA Illuminating Engineering Society of North America

IRATA Industrial Rope Access Trade Association

LEL Lower Explosive Limit

MSI Musculoskeletal injury

OHS Occupational Health and Safety

PPE Personal Protective Equipment

SCBA Self-contained Breathing Apparatus

TLV Threshold Limit Value

ULC Underwriters' Laboratories of Canada

WHO World Health Organization

GENERAL

- 1) (1) Except as otherwise provided in these regulations, an employer must
 - ensure that any equipment, components of equipment or components of a system are erected, installed, assembled, used, handled, stored, adjusted, maintained, repaired, inspected, serviced, tested, cleaned and dismantled in accordance with the manufacturer's specifications or instructions for the equipment, components or system; and,
 - b) comply with and ensure compliance with the applicable standards for the equipment, components or system as specified in these regulations.
 - (2) Except as otherwise provided in these regulations, a person must use equipment, components of equipment or components of a system in accordance with
 - the manufacturer's specifications or instructions for the equipment, components or system; and,
 - b) any applicable standards for the equipment, components or system specified in these regulations.
- 2) (1) An employer must ensure that any equipment used is inspected
 - a) by the user, before each use; and
 - b) by a competent person, annually, or more frequently as specified in any applicable Part of these regulations.
 - (2) If the inspection reveals a defect or condition that adversely affects the equipment, an employee must not use the equipment until the defect or condition is remedied.
- 3) Records of inspection, maintenance, repair and modification of equipment shall be kept by the equipment operator and a person inspecting and maintaining the equipment in accordance with Section XX (record retention section to be developed and shared for comment at a later date).
- 4) The equipment manufacturer's operation manual and maintenance for each piece of equipment in use at the workplace shall be available at the workplace.

SANITATION AND FACILITIES

General Workplace Sanitation

- 5) Workplace must be kept free of grease, oil, tools, equipment, or other materials that may cause a hazard to an employee.
- 6) All cleaning and sweeping that may cause dusty or unsanitary conditions must be carried out in a manner that prevents the contamination of the air by dust or other substances injurious to health.
- 7) Each workplace must have an integrated vector management plan, including means of prevention, maintaining vector control inspection records and logs, and pesticide application logs.
- 8) Each enclosed part of a workplace, each personal service room and each food preparation area must be constructed, equipped and maintained, where practicable, in a manner that prevents the entrance of vermin.
- 9) If vermin have entered any enclosed part of a workplace, any personal service room or any food preparation area, the employer must immediately take all steps necessary to eliminate the vermin and prevent the re-entry of the vermin.
- 10) Where the presence of vermin are causing hazards to the health and safety of employees and/or operation of equipment, the employer must immediately take all necessary steps to control the hazard.

Waste Material

- 11) Waste material disposal facilities must be provided to prevent hazardous accumulation of waste material in the workplace.
- 12) An employer must ensure that, on a regular basis waste material are
 - a) handled, collected or positioned so as to prevent a hazard; and
 - b) removed and disposed in an appropriate manner that prevents contamination or leakage.
- 13) Waste material must be removed daily from the living accommodations.

- 14) Waste material containers and equipment in living accommodations must be:
 - a) maintained in good working order and in a clean and sanitary condition;
 - b) leakproof;
 - c) made of material that is fire-rated; and
 - D) fitted with seals.

Washrooms

- 15) A minimum of one washroom must be provided at a convenient location for every group of not more than six persons who do not have a personal washroom.
- 16) If there are multiple toilets within a washroom, then the employer must ensure that:
 - a) a separate washroom is available for both male and females; and
 - b) each toilet is partitioned to secure privacy using proper door and fastener.
- 17) Washrooms must be designed to ensure:
 - a) It is conveniently accessible to a person's workplace;
 - b) it is adequately ventilated and illuminated;
 - c) it is heated;
 - d) it can be easily cleaned and maintained in a sanitary condition; and
 - e) that the floor and lower 150 mm of any walls and partitions in any are water-tight and impervious to moisture.
- 18) Washrooms must be:
 - a) kept in a clean and sanitary condition;
 - b) provided with a sufficient supply of toilet paper;
 - c) provided with a waste receptacle with lid;
 - d) provided with hot and cold water;
 - e) dispensable soap;
 - f) provided with individual clean towels (not a common towel) or other suitable means to dry hands;
 - g) maintained in working condition; and
 - h) in the case of a self-contained unit, emptied and serviced at intervals to ensure that the unit does not overflow.

Hand-Washing Facilities

Hand-washing facilities includes washbasins and industrial wash troughs

- 19) The employer must provide and maintain for the use of employees
 - a. adequate and suitable facilities for hand-washing;
 - b. a supply of clean hot and cold or warm water;
 - c. dispensable soap; and
 - d. clean towels (not a common towel) or other suitable means of drying.

Emergency Eyewash and Showers

- 20) An employer shall ensure that appropriate emergency washing facilities are provided in a work area where an employee's eyes or skin may be exposed to hazardous substance.
- 21) The selection of emergency washing facilities shall be based upon an assessment of the risk of exposures present in the workplace and the first aid measures provided by the Safety Data Sheet for the hazardous substance.
- 22) Access to emergency washing facilities must not be blocked by material or equipment.
- 23) Emergency washing facilities confirm with the requirements of the most recent version of ANSI/ISEA Z358.1, *American Standard for Emergency Eyewash and Shower Equipment*.

Potable Water

24) Every employer must provide potable water for drinking, personal washing and food preparation.

- 25) The employer shall develop a written potable water management program that addresses:
 - a) The potable water system to be used and materials acceptable under AWWA or the WHO standard on potable water;
 - b) Onsite qualified water operator for implementing and daily operation of the plan and system;
 - c) Maintenance and regular cleaning of the potable water system;
 - d) Regular microbiological and chemical testing of the water by a certified Canadian laboratory;
 - e) Ongoing monitoring of system, including daily residual readings, treatment device(s) operating, and ensuring that buildup of biofilms does not occur;
 - f) Contingency plan developed and implemented in the event that water quality does not meet acceptable quality levels;
 - g) Reporting the workplace committee any samples above the Canadian Drinking Water guideline; and,
 - h) Retention of records in accordance section XX (record retention section to be developed and shared for comment at a later date).
- 26) Potable water systems must be maintained, operated and tested to ensure the potable water is in compliance with the *Guidelines for Canadian Drinking Water Quality*.
- 27) If water is transported for drinking, personal washing or food preparation, only sanitary water containers must be used.
- 28) If a storage container for potable water is used,
 - a) The container must be constructed of a suitable material;
 - b) the container must be securely covered and labelled that it contains potable water;
 - c) the container must be used only for the purpose of storing potable water; and
 - d) the water must be drawn from the container in a manner that precludes the contamination of the water.
- 29) Except when potable drinking water is supplied by a drinking fountain, sanitary drinking cups must be provided.
- 30) Any ice that is added to potable water or used for the contact refrigeration of foodstuffs must be made from potable water and must be so stored and handled as to prevent contamination.
- 31) If drinking water is provided by a drinking fountain, the fountain must be installed, serviced and maintained in a sanitary condition to ensure the health and safety of persons using the fountain.

Changing Facilities

This Part refers to an area designated for employees to change clothing, store clothing when not in use, and shower (if so desired). This may be more commonly known as a "locker room". The intent is that the facilities to launder work clothing be made available, and that they are separate from the regular laundry facilities to avoid contamination.

- 32) A changing facility must be provided by the employer and designed so that it:
 - a) located adjacent to a washroom that is equipped with sufficient showers;
 - b) Is of sufficient size to allow employees to change in and out of work clothing;
 - c) Has sufficient sized lockers for each employee;
 - d) Has sufficient capacity to allow for storage for gear belonging to off-rotation employees; and
 - e) Provides for means of drying wet clothing.
- 33) Wet or contaminated work clothing must be stored in such a manner that it does not come in contact with clothing that is not wet or contaminated.
- 34) The employer must provide a dedicated laundry facility for laundering work clothing.

Contamination Control

- 35) Measures must be taken to ensure that all clothing are handled and cleaned or disposed of in a manner that prevents employee exposure to hazardous substances, infectious or offensive materials.
- 36) Where an employee's skin may be contaminated by a hazardous substance, an employer shall provide a de-contamination shower facility.
- 37) Where there is a high risk of contamination of employees by hazardous substances, infectious or offensive materials as a part of the regular work processes at a place of employment, an employer shall allow sufficient time during normal working hours for an employee to use shower or other cleaning facilities.
- 38) An employee must not leave the work area wearing clothing contaminated by a hazardous substance, infectious or offensive materials.

Living Accommodations

This part refers to the Living accommodations as sleeping quarters, dining/eating (galley) areas, general recreation areas, washrooms, food preparation areas, office space, and medical areas.

- 39) All living accommodation must meet the following standards:
 - a) it must be so constructed that it can easily be cleaned and disinfected;
 - b) the food preparation area and dining area must be separated from the sleeping quarters;
 - c) if a water plumbing system is provided, the system must operate under sanitary conditions; and,
 - d) heating, ventilation and sanitary sewage systems must be provided.
- 40) In any living accommodation provided as sleeping quarters for employees,
 - a) The minimum inner dimension of a bed or bunk must be 198cm by 80cm;
 - b) a separate bed or bunk, that is not part of a unit that is more than double-tiered, must be provided for each employee;
 - c) if the unit is double-tiered:
 - i. the lower bunk or bed must be at least 30 cm above the floor; and
 - ii. The upper bunk or bed must be placed approximately midway between the bottom of the lower bunk or bed and the ceiling.
 - d) each bed must be constructed that it can be easily cleaned and disinfected;
 - e) mattresses, pillows, sheets, pillow cases, blankets, bed covers and sleeping bags must be kept in a clean and sanitary condition;
 - f) a storage area fitted with a locking device must be provided for each employee; and
 - g) a reading lamp must be provided.
- 41) For double-tiered bunks, an access ladder and suitable barrier for fall protection must be provided.
- 42) The maximum number of employees sleeping in one room is two.
- 43) Every employee shall be assigned their own separate bed or bunk
- 44) Employers must maintain living accommodations in clean and sanitary condition.
- 45) The employer shall ensure that living accommodations are cleaned at least once every day that it is used.
- 46) Living accommodations must be so used by employees that the rooms or areas remain in as clean and sanitary a condition as is reasonably practicable.

47) A person must not use living accommodations space for the purpose of storing equipment unless a closet fitted with a door is provided in that room for that purpose.

Food Prep, Handling and Storage

- 48) If food is served in a workplace, the employer must adopt and implement a food safety program that is in accordance with the most recent version of the Canadian Food Inspection Agency's *Guide to Food Safety*.
- 49) Each food handler must be instructed and trained in food safety, including handling practices that prevent the contamination of food.
- 50) A person who is suffering from a communicable disease must not work as a food handler before being symptom free for a minimum of 48 hours.
- 51) Foods that require refrigeration to prevent them from becoming hazardous to health must be maintained at a temperature of 4°C or lower.
- 52) Foods that require freezing to prevent them from becoming hazardous to health must be maintained at a temperature of -18° C or lower
- 53) Temperature logs must be maintained for freezers and hot and cold holding units.
- 54) Equipment and utensils used for food preparation and serving must be cleaned and stored to maintain their surfaces in a sanitary condition.
- 55) A person must not eat, handle, prepare or store food in any area or manner where food is likely to become contaminated or otherwise made unsafe for consumption.

Eating Areas

56) The employer shall provide and specify appropriate designated eating areas for the safe and sanitary consumption of food.

- 57) The eating area shall be:
 - a) kept in a sanitary condition;
 - b) of sufficient size to allow individual seating and table space for each employee using the area;
 - c) provided with non-combustible covered receptacles for the disposal of food waste or garbage; and
 - d) separated from any place where a hazardous substance may contaminate food, dishes or utensils.

Thermal Environment

- 58) Employers shall develop a thermal environmental program that includes:
 - a) regular monitoring of heat and cold stresses, posting of warning devices and additional first aid measures:
 - b) provision of PPE and/or special equipment and clothing;
 - c) provision of screens or shelters;
 - d) medical supervision, hot or cold drinks and acclimatization procedures;
 - e) limited work schedules with rest periods; and
 - f) other appropriate controls and measures.
- 59) An employer shall provide appropriate and suitable monitoring equipment in a workplace where the thermal environment is likely to pose a hazard to an employee.
- 60) In living accommodations, the temperature and humidity must be maintained in accordance with the most recent version of ASHRAE-55 Thermal Environmental Conditions for Human Occupancy.
- 61) All marine installations, except those engaged where temperate climatic conditions do not require it, must be equipped with air conditioning in the living accommodation areas.
- 62) Air conditioning systems must be designed to
 - a) maintain the air at a satisfactory temperature and relative humidity as compared to outside air conditions;
 - b) ensure a sufficient number of air changes in all air-conditioned spaces;
 - c) take account of the particular characteristics of operations at offshore;
 - d) not produce excessive noises or vibrations; and
 - e) facilitate cleaning and disinfection in order to prevent or control the spread of disease.

- 63) In a workplace, an open flame, steam pipe or other high temperature source shall be identified at the source and positioned or shielded to prevent contact by an employee, unless the exposed source is necessary for work processes and cannot be appropriately controlled by engineering means.
- 64) Where a source referred to in the Section 63 is necessarily exposed, an employee shall wear appropriate personal protective equipment.

Ventilation

- 65) An employer shall ensure that
 - a) there is appropriate circulation of clean air;
 - b) there is adequate ventilation that conforms with the most recent version of ANSI/ASHRAE Standard 62.1 *Ventilation for Acceptable Indoor Air Quality* and ACGIH Standard *Industrial Ventilation: A Manual of Recommended Practice*, as applicable; and
 - c) impurities are made harmless and inoffensive in a workplace in accordance with standards established by ASHRAE and ACGIH, as applicable.
- 66) Where a work or process gives off dust, fumes, vapour, mist or other impurity of a kind and quantity liable to be injurious or offensive to an employee, an employer shall provide, maintain and ensure the proper use of a ventilation system sufficient to protect the employee against inhalation of impurities and to prevent impurities from accumulating in the work space.
- 67) Where practicable, local exhaust ventilation shall be installed and maintained near to the point of origin of an impurity to prevent it entering the air of the workplace and the breathing zone of its employees.
- 68) Impurities removed under sections 66 and 67 shall be exhausted clear of a workplace and prevented from entering a workplace.
- 69) The ventilation system referred to in section 67 must be so designed and operated as to maintain the air pressure in every living accommodation positive relative to any adjacent area which may contain airborne hazardous substances.
- 70) Ventilation system shall be designed so that the air in the enclosed hazardous area is maintained at a pressure that is lower than the pressure of each adjacent hazardous area that is classified as less hazardous.
- 71) Where possible, exhaust from an internal combustion engine operated indoors shall be vented to the outdoors.

- 72) Where mobile equipment powered by an internal combustion engine is operated indoors or in an enclosed work area:
 - a) the engine shall be adequately serviced and maintained to minimize the concentration of air contaminants in the exhaust to the applicable ACGIH Standard; and
 - b) the work area shall be monitored to determine the potential for exposure of employees to harmful levels of exhaust components.
- 73) Where an employee is or may be exposed to an exhaust gas component in concentrations exceeding the applicable exposure limits, exhaust gas scrubbers, catalytic converters, or other engineering controls shall be installed.

74) An employer shall ensure that

- a) the mechanical ventilation system
 - including humidification equipment, is constructed and maintained to minimize the growth and dissemination of micro-organisms, insects and mites through the ventilation system; and
 - ii. where reasonably practicable, is readily accessible for cleaning and inspection;
- a qualified person inspects and maintains all parts of a mechanical ventilation system,
 cleans all louvers and replaces or adequately cleans all filters at a frequency that is sufficient
 to protect the health and safety of employees;
- c) a record of all inspections, maintenance and cleaning of the mechanical ventilation system is
 - i. completed by a qualified person who performs the work, and
 - ii. readily available for examination by the occupational health and safety committee or representative;
- d) when mechanical ventilation is required, the ventilating fans are located to prevent recirculation of contaminated air; and
- e) measurements of the air volume of the mechanical ventilation system are taken at suitable intervals to ensure compliance with the minimum air volume requirements in accordance with the most recent version of the standards established by ASHRAE, ACGIH or other equivalent standard acceptable to the CSO.
- 75) Where there is a change in a work process, operation, machinery or equipment, an employer must ensure that a ventilation system is modified as required to maintain the concentration of any hazardous substance below the levels prescribed by ACGIH TLVs.
- 76) Recirculating air system shall conform to the most recent version of the applicable ACGIH standard or ANSI/AIHA Z9.7 *Recirculation of Air from Industrial Process Exhaust Systems*.
- 77) The ventilation system must be equipped with a device which will provide a warning when the system is not working effectively.

LIGHTING

This Part does not apply to marine installations and structures when exterior lighting levels may create a hazard to navigation.

- 78) An employer shall ensure the provision of lighting that is sufficient for the type of work being done considering
 - a) the quantity of illumination; and
 - b) the quality of illumination, including reflectance, direct glare and reflected glare
- 79) Minimum lighting levels must meet those outlined in the most recent version of *The IESNA Lighting Handbook: Reference and Application*, published by the Illuminating Engineering Society of North America (IESNA).
- 80) Where a failure of a lighting system would create conditions dangerous to the health and safety of employees, an automatic emergency lighting system shall be provided for the workplace and the exit routes.
- 81) The automatic emergency lighting system shall provide dependable illumination while the primary lighting system is off to enable all emergency measures to be carried out, including
 - a) emergency shutdown procedures, and
 - b) evacuation of employees from the premises.
- 82) The automatic emergency lighting system must be:
 - a) inspected and tested monthly and maintained in accordance with manufacturer specifications; and
 - b) tested annually to determine whether the units provide lighting for a period equal to the design criteria.
- 83) Handling, storage and disposal of lighting components bulbs shall be in accordance to manufacturers' instructions.
- 84) Where lighting components are disposed of by crushing or compacting, it shall be done in an area adequately ventilated to protect the health and safety of the employee and the employee shall be provided with and use appropriate protective equipment.

LEVEL OF SOUND

- 85) An employer shall implement and maintain a noise control and hearing conservation program if noise in the workplace exceeds permissible exposure limits established by the ACGIH.
- 86) A noise control and hearing conservation program established under Section 85 shall comply with the following minimum requirements:
 - a) a noise survey of the workplace to identify high noise areas shall be performed in accordance with the most recent version of CSA Z107.56 *Procedures for the Measurement of Occupational Noise Exposure*;
 - b) the employer shall first take appropriate action to implement control measures to reduce noise to permissible levels;
 - c) where it is not practicable to reduce the noise to permissible levels or to isolate employees from the noise, the employees shall wear personal protective equipment that meets the requirements as set out in accordance with the most recent version of CSA Z94.2 *Hearing Protection Devices Performances, Selection, Care and Use;*
 - d) audiometric tests for every employee on an biennial basis, or more frequently as recommended by an audiologist or occupational physician; and
 - e) mandatory training and education for all employees in the health and safety hazards of excessive sound levels and the selection, fitting, maintenance, care and use of hearing protection.
- 87) A noise control and hearing conservation program shall be documented and those records shall be retained in accordance with Section XX (record retention section to be developed and shared for comment at a later date).
- 88) An employer shall post and maintain signs at entrances to or on the periphery of areas where employees may be exposed to hazardous sound levels in excess of the threshold limit.
- 89) A sign shall clearly state that a noise hazard exists and shall describe the personal protective equipment that is required.
- 90) Notwithstanding this Part, sound levels shall not affect communications for normal and emergency operations.
- 91) An employee must not be exposed in sleeping quarters to a level of sound of more than 70dB.

CONFINED SPACES

- 92) "confined space" means an enclosed or partially enclosed space that
 - a) is not designed or intended for human occupancy except for the purpose of performing work;
 - b) has restricted means of access and egress, or an internal configuration, that could make first aid, evacuation, rescue, or other emergency response services difficult to perform; and
 - c) may become hazardous to any person entering it owing to
 - d. its design, construction, location or atmosphere;
 - e. the materials or substances in it; or
 - f. any other conditions relating to it.
- 93) When assessing whether a space is or may become hazardous to a person entering it, a person must not take into account the protection afforded to a person through the use of personal protective equipment or additional ventilation.

<u>Confined Space Management Program</u>

- 94) Employer must develop, establish, implement and maintain a confined space management program in accordance with this section.
- 95) The confined space management program must be integrated as part of the broader OHS management system and OHS program.

Identification of Confined Spaces

- 96) An employer shall ensure a competent person evaluates the workplace to identify and record any confined spaces that exist.
- 97) Employer must identify all confined spaces by means of visible identifier that:
 - a) identifies it as a confined space;
 - b) indicates access is restricted to authorized personnel only; and,
 - c) warning that a danger exists.
- 98) Employer must re-evaluate the workplace for confined spaced every three years or as a result of changes in the workplace that may have created new confined spaces, or eliminated ones, and record any changes from the last evaluation.

Hazard Assessment

- 99) Where it is likely that a person will enter a confined space, the employer shall appoint a competent person to:
 - a) carry out an assessment of:
 - a. the hazards that may exist due to the design, construction, location, use or contents of the confined space;
 - b. the hazards that may develop while work is done inside the confined space;
 - b) specify the tests that are necessary to determine whether the person would be likely to be exposed to any of the hazards identified pursuant to subsection (a).
- 100) The competent person referred to in section 99 shall, in a signed and dated report to the employer, record the findings of the assessment carried out pursuant to subsection 99(a).
- 101) Upon request, the employer shall make a copy of any report made pursuant to section 99 available to:
 - a) the work place committee or the health and safety representative; and,
 - b) any employee who is required to enter the confined space.
- 102) The employer shall ensure that the assessment is reviewed as often as necessary to ensure that the assessment referred to in subsection 99(a) remains current.

Procedures

- 103) (1) Where a confined space exists in the workplace, the employer shall, in consultation with the health and safety committee or health and safety representative, establish written work procedures that are to be followed by a person entering, exiting or occupying a confined space.
 - (2) Written work procedures must specify:
 - a) The required controls specific to the known hazards or the task to be performed;
 - b) The standard protective equipment that is to be used by every person who is entering a confined space;
 - c) Retrieval equipment to be worn by every person entering a confined space, including the type of full body harness to be worn, where practicable;
 - d) Additional rescue equipment, including a yoke and adequate means to extract an unconscious person;
 - e) The processes for preventing entanglement of life-lines and other equipment where one or more employees are entering the confined space;
 - f) Equipment to be used for atmospheric testing, including calibration requirements; and,
 - g) All training requirements for entrants, attendants and rescuers.

- 104) Notwithstanding Section 103, the use of a lifeline and/or full body harness is not required where an obstruction or other condition makes its use unsafe but, in that case, an employer shall implement procedures to ensure the safety, and safe removal, of the employee.
- 105) Employer must re-evaluate the procedure every three years or upon any structural or equipment modifications, or change in purpose, and record any changes from the last evaluation.
- 106) In consultation with the workplace committee or health and safety representative, the employer shall develop written emergency procedures to be followed in the event of an emergency in or near the confined space, on all of the following:
 - a) a plan for responding to emergencies and preventing or mitigating any illness or injury as a result of potential hazards that might be encountered;
 - b) the methods for communication, including:
 - i. between entrants and those outside the confined (attendants and rescuers);
 - ii. signaling evacuation;
 - c) a plan to rescue an employee following an accident or emergency in the confined space;
 - d) identification of the necessary resources to implement a plan under subsection 106 (a) & (b) effectively, including a determination of whether more than one person is required to be present outside a confined space during its occupancy by any person;
 - e) provision to ensure immediate evacuation of the confined space when an alarm is activated or there is any significant, unexpected and potentially hazardous change in the concentration, level or percentage referred to in section 112;
 - f) means by which a written emergency procedure would be initiated;
 - g) communicating with other employees in the vicinity and other personnel, as appropriate;
 - h) The protective equipment and emergency equipment to be used and/or worn by a person who takes part in the rescue of a person from the confined space or in responding to other emergency situations in the confined space; and,
 - i) Regular conduct of emergency response drills and exercises.

Training

- 107) An employee shall not work in a confined space unless he or she has completed a confined space training program that includes, at minimum, the following components:
 - a) This section of the regulations;
 - b) Definition of confined spaces with identification of confined spaces and their hazards;
 - c) Hazard assessment;
 - d) Confined space work permit systems and standard procedures;
 - e) Familiarization with the operation of gas monitoring equipment;
 - f) Atmospheric testing;
 - g) Methods to safely ventilate and/or purge confined spaces;
 - h) Isolation requirements for substances, energy and equipment;
 - i) Duties of supervisors and entrants;
 - j) Confined space safety watch responsibilities;
 - k) Entrant tracking;
 - 1) Overview of rescue and emergency response (including rescue plan);
 - m) Emergency Escape Breathing Devices;
 - n) Identification and use of appropriate confined space PPE and rescue equipment;
 - o) Hot work and other hazardous activities.
- 108) Training program must be renewed, at minimum, every three years.
- 109) Prior to entry, the employer shall provide every employee who is likely to enter a confined space with instruction and training in
 - a) the procedures established for confined space entry and for emergencies;
 - control measures and PPE to be utilized while in a confined space and during an emergency;
 and
 - c) the specific hazard(s) that have been identified as potentially existing within the confined space they are about to enter.
- 110) Any person tasked with emergency response and rescue from a confined space shall be trained in:
 - a) Applicable emergency response training;
 - b) Emergency response procedures;
 - c) Meet or exceed the requirements under Sections 107 and 109;
 - d) Advanced level of first aid training; and
 - e) In addition, an employee who is required to enter a confined space shall be provided training in the specific hazard(s) that have been identified as potentially existing within the confined space they are about to enter.

111) Any attendant must be trained to perform the assigned duties effectively, including training in their role in the emergency response procedures.

Confined Space Atmosphere

- 112) The atmosphere within the confined space must meet the following:
 - a) An employee's exposure to harmful substances is maintained at acceptable levels in accordance with the TLVs established by ACGIH;
 - b) The level of oxygen in the confined space is not less than 19.5% and not more than 22.5%; and
 - c) The concentration of flammable substances is maintained below 10% of the lower explosive limit (LEL) of that substance or substances, except where hotwork is conducted in accordance with 129(a).

Tests

- 113) The employer shall appoint a qualified person to carry out appropriate tests to verify the requirements in Section 112 can be achieved throughout the period of time that the person will be in the confined space.
- 114) Atmospheric testing should be conducted, and results recorded,
 - a) Before entry into a confined space;
 - b) After an interruption in the work procedures;
 - c) At appropriate intervals; and
 - d) Shall not exceed 12 hours being testing.
- 115) The employer shall ensure the confined space is continuously monitored and that the atmosphere remains at all times in compliance within Section 112.
- 116) The employer shall ensure that tests referred to in Section 113 are performed on adjacent areas that may be affected by, or may affect, the work performed in the confined space.
- 117) Tests shall be performed by a qualified person who has been adequately educated and trained in:
 - a) The proper use of testing and monitoring equipment;
 - b) Limitations of the equipment;
 - c) Properties of the potential contaminants to be tested; and
 - d) Any other relevant information specific to the task at hand.

118) Equipment used in testing and monitoring shall be calibrated, maintained and used according to the manufacturer's instructions, and shall be bump tested, at minimum, every 12 hour shift.

Precautions Prior to Entrance

- 119) The employer shall ensure:
 - a) the opening for entry and exit is sufficient to allow safe passage of a person wearing personal protective equipment;
 - b) mechanical equipment in the confined space is
 - i. disconnected from its power source, and
 - ii. locked out and tagged;
 - pipes and other supply lines whose contents are likely to create a hazard are blanked off, or otherwise locked out or controlled to ensure that no contents are inadvertently discharged into the confined space;
 - d) measures have been taken to ensure that, where appropriate, the confined space is continuously ventilated;
 - e) liquid in which a person may drown or a free-flowing solid in which a person may become entrapped has been removed from the confined space;
 - f) adequate explosion-proof illumination is provided where appropriate;
 - g) a source containing a hazardous substance leading to the confined space is safely and completely disconnected or blanked;
 - h) Adequate barriers are erected to prohibit unauthorized entry;
 - i) PPE and emergency equipment identified in section 103(2)(b) are provided as close as reasonably practicable to the entrance to the confined space.
- 120) Where atmospheric gas testing under section 113 indicates presence of a harmful or explosive substance and it is not feasible to provide a safe atmosphere using engineering and administrative controls, an employer shall ensure that:
 - a) An employee entering the confined space is provided with and wears respiratory and personal protective equipment appropriate to the hazards likely to be encountered;
 - b) Where a flammable or explosive gas or liquid is present all sources of ignition is eliminated; and
 - c) Conditions are monitored to ensure protection afforded by controls remains adequate.

121) The employer shall provide

- a) appropriate respiratory protective equipment to a person who enters a confined space where the concentration of chemical substance or a mixture of chemical substances in a confined space is hazardous to the health and safety of an employee; and
- b) Positive pressure respiratory protective equipment to a person who enters a confined space where the concentration of oxygen is less than 19.5%.

- 122) The employer shall ensure that the respiratory protective equipment referred to in section 121 is in accordance with the most recent version of CSA Z94.4 Standard and for escape from IDLH atmospheres the SCBA or Escape SCBA shall have a rated Service time in excess of the anticipated time needed to escape.
- 123) Additionally, the respiratory protective equipment must be:
 - a) a Pressure-Demand SCBA with an audible alarm that sounds when the air supply has diminished to 20% the capacity of the unit; or
 - b) a Multifunctional SCBA/Airline Respirator with auxiliary self-contained air supply, with a minimum rated service time of 15 minutes and the escape route shall be planned such that the time needed to esc ape does not exceed the rated service time of the auxiliary air supply.
- 124) Respiratory protection shall be selected, used, maintained and tested in accordance with the most recent version of CSA Standard Z94.4, *Selection, Use and Care of Respirators*.
- 125) Where there is a hazard of electrical shock in a confined space, and employer shall ensure that electrical equipment taken into the confined space is:
 - a) Battery operated;
 - b) Double insulated;
 - c) Bonded to ground and not exceeding 30 v and 100 volt-amps; or
 - d) Equipped with a ground fault, circuit interrupter of the Class A type that complies with the most recent version of CSA standard CSA C22.1, Canadian Electrical Code Part 1 Safety Standard for Electrical Installations, and that its tested before each use.

Entrance Into a Confined Space

- 126) The employer shall ensure that one or more attendants are:
 - a) assigned the employees who are entering the confined space;
 - b) stationed outside and near
 - i. The entrance to the confined space; or
 - ii. Where there is more than one entrance to the confined space, the one that best allows the attendant to perform his or her duties;
 - iii. And shall ensure effective record keeping of persons in and out of the confined space
 - in continuous communication with the employee using an appropriate means of communication provided with a device for summoning an adequate rescue response.

- 127) An attendant shall not enter a confined space and shall
 - a) Not be assigned any additional duties beyond the duties outlined in (b) through (d);
 - b) Monitor the safety of the employee in the confined space;
 - c) Provide assistance to persons inside the confined space;
 - d) Summon an adequate response where one is required.
- 128) Where conditions change such that the control measures provided by Sections 119 and 121 are no longer feasible, an employee shall leave the confined space.

Hot Work

- 129) An employer shall ensure that an employee does not perform hot work in a confined space unless all of the following conditions are satisfied:
 - a) In the case of an explosive or flammable gas vapour, the atmospheric concentration is less than 5% of the lower explosive limit, as determined by a combustible gas instrument,
 - b) The atmosphere in the confined space does not contain, and is not likely to contain while an employee is inside, an oxygen content greater than 22.5%,
 - c) The atmosphere is continuously monitored,
 - d) The entry permit includes adequate provisions for hot work and corresponding control measures, and
 - e) An adequate alarm system and exit procedures are provided to ensure that employees have adequate warning and are able to exit the confined space safely where either or both of the following occur, in the case of an explosive or flammable gas or vapour
 - i. The atmospheric concentrations exceeds 5% of its lower explosive limit, or
 - ii. The oxygen content of the atmosphere exceed 22.5% by volume.
 - f) all potential sources of flammable and explosive gases are identified and blocked off/locked out,
 - g) a qualified person patrols the area surrounding the confined space and maintain a fireprotection watch in that area until all fire hazard has passed,
 - h) fire extinguishers specified as emergency equipment are provided in the area referred to in (d) above.
- 130) Hotwork shall not be performed in a confined space where:
 - a) Concentrations of flammable or explosive substances exceed 5% of the LEL;
 - b) Oxygen concentrations are in excess of 22.5%; or
 - c) Where flammable liquids are present.
- 131) Where flammable liquids are present, the employee must ensure all flammable liquids are removed and the area cleaned and inspected to ensure no residue exists, prior to permitting any hotwork to be performed in the confined space.

ENTRY PERMIT

- 132) An employer shall ensure that no person enters a confined space until the employer has fulfilled the requirements of this section and a competent person has provided a written work permit
- 133) The written work permit must, at minimum, identify:
 - a) Date and time if when the tests referenced in section 113 were performed, and their results;
 - b) The type of work that:
 - i. Can be performed in the confined space; and
 - ii. Is explicitly banned in the confined space.
 - c) Any engineering and administrative control measures identified as necessary;
 - d) Specific PPE that must be worn by every employee entering the confined space;
 - e) The means by which the work is to be performed;
 - f) The expiry date and time of the permit;
 - g) Names of all employees entering the confined space; and
 - h) The method to be followed by an employee entering into, exiting from, or occupying a confined space.
- 134) The written permit must include:
 - a) the signature of the competent person(s) completing the work permit, and
 - b) The signature of qualified person(s) completing the tests identified in Section 113;
 - c) the signatures of all persons entering the confined space, verifying that they have read and understood the permit.
- 135) No permit issued shall be valid for longer than 12 hours after the time the tests required under section 113 were performed.
- 136) An employer shall post a copy of the valid permit required at the entrance to the confined space for the duration of the confined space occupancy.
- 137) The employer shall retain the permit for 12 months following the date of entrance.

CONFINED SPACE CLOSURE

138) No person shall close off a confined space until a qualified person has verified that no person is inside it, and verify that all locks and isolations are removed, as required.

STRUCTURAL SAFETY

Access & Egress

- 139) Workplaces shall have safe and appropriate means of access and egress.
- 140) All work areas shall be arranged and maintained to allow the safe movement of employees, equipment and materials.
- 141) A passageway designated for pedestrian traffic shall be clearly indicated by visible markings or other means and, where practicable, floor or grade markings shall be used.
- 142) Practical means of emergency escape shall be provided from each work area in which work processes could create an immediate threat to employees, and where regular means of egress could be rendered dangerous or unusable.
- 143) Walkways intended for pedestrian traffic must be of sufficient width to allow for the safe passage of each employee.
- 144) A door shall not open directly onto a stairway, but shall open onto a floor or a landing having a width that exceeds the swing of the door.
- 145) Every double-action swinging door that is located in an exit, entrance or passageway used for two-way pedestrian traffic must be designed and fitted in a manner that will permit persons who are approaching from one side of the door to be aware of persons who are on the other side of the door.

Guardrails

- 146) (1) Every guardrail must consist of
 - a) a horizontal top rail not less than 900 mm and not more than 1 100 mm above the base of the guardrail;
 - b) a horizontal intermediate rail spaced midway between the top rail and the base of the guardrail; and
 - c) supporting posts spaced not more than 3 m apart at their centres.
 - (2) Every guardrail must be designed to withstand the greater of
 - a) the maximum load that is likely to be imposed on it; or
 - b) a static load of not less than 890 N applied in any direction at any point on the top rail or line.

- 147) Except on helicopter decks and where reasonably practicable, guardrails must be installed at every open edge where there is a fall hazard, when there is a drop of more than 1.2 m.
- 148) If it is not reasonably practicable to install guardrails as required by Section 147, cables or chains must be installed that meet the requirements under Section 146 or other means of protection provided that will prevent employees from falling.

Toe Boards

- (1) Subject to subsection (2), if there is a hazard that tools or other objects may fall from a raised area onto an employee, the employer must, if reasonable practicable, install
 - a) a toe board that
 - (i) extends above the floor of the raised area, and
 - (ii) will prevent tools or other objects from falling from the raised area; or
 - b) when the tools or other objects are piled to such a height that a toe board will not prevent the tools or other objects from falling, a solid or mesh panel that extends from the floor of the raised area to a height that will prevent the tools or other objects from falling.
 - (2) If the installation of a toe board is not reasonably practicable on a raised area, all tools or other objects that could fall must be
 - a) tied in such a manner that, if they fall, employees beneath the platform will be protected; or
 - b) placed in such a way that, if they fall, they will be caught by a safety net positioned so as to protect from injury any employee on or below the raised area.

Floor and Wall Openings

- 150) If an employee has access to a wall opening from which there is a drop of more than 1.2 m or to a floor opening, guardrails must be fitted around the wall opening or floor opening or the opening must be covered with material capable of supporting all loads that may be imposed on it.
- 151) The material referred to in section 150 must be securely fastened to supporting structural member of the workplace.

Open-top Enclosures

- 152) If an employee has access to an open-top enclosure from a point directly above the enclosure, the enclosure must be fitted with a fixed ladder on the inside wall of the enclosure and must be
 - a) covered with a grating, screen or other covering that will prevent the employee from falling into the enclosure; or
 - b) provided with a walkway that is not less than 500 mm wide and is fitted with guardrails.
- 153) A grating, screen, covering or walkway referred to in section 152 must be so designed, constructed and maintained that it will support a load that is not less than the greater of
 - a) the maximum load that is likely to be imposed on it; or
 - b) a live load of 6 kPa.

Stairways and Ramps

- 154) If an employee in the course of employment is required to move from one level to another level that is more than 450 mm higher or lower than the former level, the employer must install a fixed ladder, stairway or ramp between the levels.
- 155) Stairs and ramps must be designed, constructed and maintained to support any load that is likely to be imposed on them and to allow safe passage of persons and equipment on them
- 156) Temporary stairs must have
 - a) uniform steps in the same flight;
 - b) a slope of not more than 1.2 to 1;
 - c) a hand rail that is not less than 900 mm and not more than 1 100 mm above the stair level on:
 - i. all open sides of a stairway,
 - ii. on one side of an enclosed stairway up to and including 1.12 metres in width; and
 - iii. on both sides of enclosed stairways over 1.12 metres wide.
- 156) Where a stairway ends in direct proximity to a hazard or potential hazard, the employer must install a barricade that will protect employees using the stairway from the hazard;
- 157) Ramps must be
 - a) securely fastened in place;
 - b) braced if necessary to ensure their stability; and
 - c) provided with cleats or surfaced in a manner that provides a safe footing for employees.

Working on Decks or Bulkheads

158) Before the commencement of work which includes making an opening, in a deck, bulkhead or similar structure, the employer shall identify the location of all pipes, cable and conduits in the area where the work is to be done.

Temporary Heat

- 159) (1) Subject to subsection (2), when a salamander or other portable heating device is used in an enclosed workplace, the heating device must not restrict a means of exit and must be
 - a) so located, protected and used that there is no hazard of igniting combustible materials adjacent to the heating device;
 - used only when there is ventilation provided and air quality monitored to ensure carbon monoxide levels are below the acceptable threshold limit value established by the ACGIH; and
 - c) so located as to be protected from damage or overturning.
 - (2) If the heating device does not provide complete combustion of the fuel used in connection with it, the heating device must be equipped with a securely supported sheet metal pipe that discharges the products of combustion outside the enclosed workplace.
 - (3) A portable fire extinguisher that has not less than a 10B rating as defined in ULC standard ULC S508, *Rating and Fire Testing of Fire Extinguishers*, as amended from time to time, be readily accessible from the location of the heating device when the device is in use.

LADDERS

Fixed ladder design requirements

- 160) Subject to section 162, a fixed ladder that is more than 6 m in length must, where reasonably practicable, be fitted with a protective cage for that portion of its length that is more than 2.44m above the base level of the ladder.
- 161) Subject to section 162, a fixed ladder that is more than 9 m in length must have, at intervals of not more than 6 m, a landing or platform that
 - (i) is not less than 0.36 m² in area; and
 - (ii) is fitted at its outer edges with a guardrail.
- 162) A fixed ladder, cage or landing referred to in sections 160 or 161 must be designed and constructed to withstand all loads that may be imposed on it.
- 163) A fixed ladder must be
 - a) vertical;
 - b) securely held in place at the top, bottom and at intervals not more than 3m for the entire length of the ladder; and
 - c) fitted with
 - (i) rungs that are at least 150 mm from the wall and uniformly spaced at intervals not more than 300 mm, and
 - (ii) side rails that extend not less than 1m above the landing or platform.

Additionally, the ladder rungs must not impede the employee from safely exiting the ladder onto the platform or landing, if it is fitted with side rails.

- 164) Sections 160 and 161 do not apply to a fixed ladder that is used by an employee wearing with a fall arrest system.
- 165) A ship's ladder shall be engineered.

Portable ladders

- 166) (1) Portable ladders must meet the requirements set out in the most recent version of one of the following standards:
 - a) CSA Standard CAN3-Z11 Portable Ladders; or
 - b) ANSI/ALI Standard A14.2, American National Standard for Ladders Portable Metal Safety Requirements
 - (2) Portable ladders used on ships used for seismic, geotechnical, construction or diving may alternatively meet the requirements set out in the most recent version of ANSI/ALI Standard A14.1 American National Standard for Ladders Wood Safety Requirements.
- 167) Notwithstanding Section 166, an employer shall ensure a ladder with a load capacity of less than 250lbs/113.4kg are not used.
- 168) Notwithstanding Section 166, ladders shall be made of a non-combustible material on marine installations and structures used for the drilling for and production of petroleum products.

Ladder (fixed and portable) Use

- 169) Subject to section 171 every portable ladder must, while being used,
 - a) be placed on a firm and stable footing;
 - b) be secured in such a manner that it cannot be dislodged accidentally from its position; and
 - c) the upper support of the side rails shall be rested on a bearing surface strong enough to safely withstand the applied load; and
 - d) if equipped with locks, have the locks engaged before the ladder is climbed.
- 170) Every ladder, whether fixed or portable, must be positioned in a manner so that it is not necessary for a person to use the underside of the ladder.
- 171) When a fixed or portable ladder provides access from one level to another the ladder must extend, if reasonably practicable, at least three rungs above the higher level or, if it is not reasonably practicable, handholds must be provided.
- 172) A metal or wire-bound fixed or portable ladder must not be used if there is a hazard that it may come into contact with any live electrical circuit or equipment.
- 173) An employee must not perform work from any of the three top rungs of any single or extension portable ladder or from either of the two top steps of any stepladder.

- 174) A non-metallic fixed or portable ladder must not be coated with a material that may hide flaws that may impact the integrity of the ladder.
- 175) The employer shall ensure that the working surface of a ladder used by an employee must, if reasonably practicable, be kept free of grease, oil or other slippery substance and of any material or object that may cause an employee to slip or trip.
- 176) When a portable ladder is used, it must not be
 - a) placed in front of or against a door that can be opened unless the door is blocked in the open position, locked or guarded;
 - b) used as a scaffold component or as a horizontal walkway, ramp or work platform support except where the ladder is part of a premanufactured or engineered system;
 - c) joined together with another ladder to increase its length, unless the manufacturer's instructions permits;
 - d) located in an elevator shaft or hoistway when such space is being used for hoisting
 - e) located near moving equipment under a load
 - f) used in a way which may compromise its stability or the stability of the person performing work on the ladder.
- 177) An employee may only work from a-portable ladder less than 3 m in height without fall protection where
 - 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 ladder side rails; and
 - c) the ladder is not positioned near an edge or floor opening that would significantly increase the potential fall distance.
- 178) While ascending or descending a fixed or portable ladder, an employee shall
 - a) maintain a three-point contact with the ladder;
 - b) face the ladder; and
 - c) carry any tools, equipment or materials in a pouch or holster or in any other secure manner.

SCAFFOLDS, STAGES, ELEVATING PLATFORMS

General

- 179) An employee must not work on a scaffold, stage or work platform in environmental conditions that are likely to be hazardous to the health or safety of the employee, except when the work is required to remove a hazard or to rescue an employee.
- 180) An employee must not use a scaffold, stage or elevating platform unless
 - a) the employee has authority from the employer to use it; and
 - b) the employee has been trained and instructed in its safe and proper use.
- 181) If a person or equipment-may come into contact with a scaffold, stage or elevating platform in such a way that poses a hazard, a barricade must be installed around it to prevent any such contact.

Scaffolds

- 182) A scaffold shall be designed, erected, maintained, dismantled and stored in accordance with the most recent version of CSA Z797, *Code of Practice for Access Scaffold*.
- 183) In addition to the certification requirements under the standard in section 182, where a scaffold is used to support a temporary floor or is subject to loads which can cause overturning, the scaffold shall be erected and used in accordance with the written instructions of a professional engineer.
- 184) Ladderjack scaffolds must not be used at a workplace.
- 185) Every scaffold must be capable of supporting at least four times the load that is likely to be imposed on it.
- 186) Where reasonably practicable, manufactured platforms must be used.
- 187) All wooden materials used as planks in scaffolding must be treated with a transparent fire retardant coating to reduce likelihood of combustion.
- 188) Where vertical ladders are used on scaffolds greater than 9m in total height, rest platforms must be provided at least every 6.1 metres and must be fully guarded except at the ladder location.

- 189) For greater certainty, requirements of a fall arrest system apply to the erection and dismantling of a scaffold.
- 190) The employer shall ensure that all components of scaffold are compatible with each other.
- 191) (1) A running scaffold shall have internal horizontal cross-bracing installed in the bay immediately adjacent to and at the level of a building tie unless equivalent bracing is achieved by use of fabricated scaffold planks secured by end hooks to provide a fully decked work platform at this level.
 - (2) A double-pole tube and coupler scaffold shall have internal bracing in accordance with subsection (1).

Elevating Work Platform

- 181) An employer must ensure that boom-supported elevated work platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:
 - a) ANSI Standard ANSI /SIA A92.5 Boom-Supported Elevating Work Platforms;
 - b) CSA standard CSA B354.4, Self-Propelled, Boom-Supported Elevating Work Platforms;
- 182) An employer must ensure that self-propelled elevating work-platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:
 - a) CSA standard CSA B354.2, Self-Propelled Elevating Work Platforms;
 - b) ANSI Standard ANSI /SIA A92.6 American National Standard for Self-Propelled Elevating Work Platforms.
- 183) An employer must ensure that manually self-propelled elevating work-platforms are designed, constructed, erected, maintained, inspected, monitored and used in accordance with the most recent version of one of the following:
 - a) CSA standard CSA B354.1, Portable Elevating Work Platforms;
 - b) ANSI Standard ANSI /SIA A92.3 American National Standard for Manually Propelled Elevating Aerial Platforms.
- 184) A person on an elevating work platform shall wear a personal fall arrest system secured to an anchorage point that is approved by the manufacturer or professional engineer.

- 185) The rated capacity of an elevating work platform
 - a) shall be marked on the platform; and
 - b) shall not be exceeded.
- (1) Controls on an elevating work platform shall be 'hold-to-run' (continuous pressure) type that return to the neutral or stop position when released.
 - (2) An emergency stop devices shall be red in colour and located within easy reach of the elevating work platform operator.
- 187) Mobile elevating work platforms shall be secured against inadvertent movement before an employee occupies the platform.
- 188) An elevating work platform lifting mechanism which creates a shear hazard to employees shall be adequately guarded or identified with signs, decals or similar markings warning of the hazard.
- 189) Mobile elevating work platforms shall have an audio and visual warning system which is automatically activated during motion of the work platform.
- 190) An employee may not be transported on an elevated work platform unless the transport is in accordance with the manufacturer's instructions.

Stages

- 191) An employer must ensure that a suspended work-platform is
 - a) inspected and operated in accordance with the most recent version of CSA standard CSA Z91, Health and Safety Code for Suspended Equipment Operations; and
 - **b)** designed, constructed, installed, maintained, and inspected in accordance with the most recent version of CSA standard CSA Z271, *Safety Code for Suspended Platforms*.
- 192) The erection, use, dismantling or removal of a stage must be carried out by or under the supervision of a qualified person.
- 193) Every stage must
 - a) have a working surface that is even and horizontal and is capable of supporting any load that is likely to be imposed on it;
 - b) be fitted with an effective means of holding the stage away from the working area; and
 - c) subject to section 146, when the stage is to be used at a height of more than 3 m, be fitted with guardrails.

194) The supporting structure and the ropes or tackle supporting a stage must have a safety factor of not less than six.

ROPE ACCESS

- 195) Where rope access work is being used, a rope access program must be established and maintained, as part of Employer's OHS program required under the Act, and must be aligned with the International Code of Practice, published by IRATA.
- 196) In the International Code of Practice, "should" must be read as expressing a mandatory requirement for a rope access program.
- 197) An employer must ensure that only rope access technicians engage in rope access work at a workplace.
- 198) The Employer must develop a rope access safe-work plan, which must be based on a hazard assessment of the specific work area and must include, at minimum, the following information:
 - a) a list of the potential hazards associated with the work to be performed and their associated risks;
 - b) how the hazards will be eliminated or controlled;
 - c) the rope access system to be used at the work area;
 - d) the procedures to be used to assemble, maintain, inspect, use and disassemble the rope access system;
 - e) a list of persons who will be working in the work area, including each person's name and their duties;
 - f) the appropriate personal protective equipment to be used to perform the work;
 - g) an emergency response plan, including rescue operations, to be followed at the work area;
 - (h) an access and rigging plan for how to rig the ropes and gain access to the work position,
- 199) A rope access technician must keep a logbook in accordance with IRATA requirements.

- 200) An employer must ensure that equipment used in rope access is designed, installed, maintained and used in accordance with standards referenced in the IRATA Code of Practice or in accordance with the most recent version of the following standards that apply to the equipment being used:
 - a) CSA standard CSA Z259.1, "Body Belts and Saddles for Work Positioning and Travel Restraint";
 - b) CSA standard CSA Z259.10, "Full Body Harnesses";
 - c) CSA standard CSA Z259.11, "Energy Absorbers and Lanyards";
 - d) CSA standard CSA Z259.12, "Connecting Components for Personal Fall Arrest Systems (PFAS)";
 - e) CEN standard EN 567, "Mountaineering Equipment Rope clamps Safety requirements and test methods";
 - f) CEN standard EN 353-2, "Personal protective equipment against falls from height Part 2: Guided type fall arresters including a flexible anchor line"
- 201) An employer must ensure that each component of a rope access system is compatible with all of the following, as indicated in the manufacturer's specifications and instructions for use of their equipment:
 - a) each other component, and that the safe function of any component does not interfere with the safe function of another component;
 - b) the work conditions and conditions of the physical environment under which the equipment is to be used.
- 202) An employer must ensure that all anchorages used as a component of a rope access system are capable of withstanding the following forces in any direction in which the force may be applied:
 - a) 22 kN, for non-engineered anchorage;
 - b) 2 times the maximum arresting force anticipated, for an engineered anchorage.
- 203) An employer must ensure that a rope access technician wears protective headwear that is appropriate to the hazards and meets the most recent versions of one of the following:
 - a) CSA standard CSA Z94.1, "Industrial Protective Headwear";
 - b) ANSI standard ANSI Z89.1, "American National Standard for Industrial Head Protection";
 - c) CEN standard EN 12492, "Mountaineering equipment Helmets for mountaineers Safety requirements and test methods".
- 204) A work permit is required for all rope access activities.

FALL PROTECTION

- 205) Fall protection is required if an employee is at risk of falling from a work area that is:
 - a) 3 m or more above the nearest safe surface or water; or
 - b) less than 3 m and the work area is above one of the following:
 - i. a surface or thing that could cause injury to the person,
 - ii. above an open-top enclosure containing a hazardous material.
- 206) If fall protection is required, an employer must ensure that at least one of the following means of fall protection on is used, as appropriate in the circumstances:
 - a) a guardrail;
 - b) temporary flooring;
 - c) a personnel safety net;
 - d) a travel restraint system;
 - e) a fall-arrest system; or
 - f) other means of fall protection that provides a level of safety equal to or greater than a fall arrest system that meets the requirements of Section 209.
- 207) Where fall protection is required, a fall protection program must be established and maintained, as part of Employer's OHS program required under the Act, and must, at minimum, include:
 - a) a list of potential fall hazards of the work and their associated risks;
 - b) the fall-protection system or systems to be used at the work area;
 - c) reference to applicable sections of the Accord Act and these regulations;
 - d) written procedures that address:
 - i. the risks associated with the potential for swing as a result of anchorage placement when a person is using a fall-arrest system
 - ii. the assembly, maintenance, inspection, use and disassembly of a fall-protection system, as applicable
 - iii. the rescue of a person who falls and requires rescue, including if a person is suspended by a fall-arrest system or personnel safety net
 - e) schedules for inspecting any fall-protection systems;
 - f) the training and qualifications required for persons who will perform the work
 - g) a method for communicating the fall-protection safe-work program to any person who may be affected by the program
- 208) Where a fall may reasonably result in death or serious injury, a work permit is required pursuant to section 224.

- 209) The components of a fall-arrest system must meet the most recent version of the following standards:
 - a) CSA Z259.17 Selection and Use of Active Fall Protection Equipment and Systems;
 - b) CSA Standard Z259.2.5, Fall Arresters and Vertical Lifelines;
 - c) CSA Standard Z259.2.4 Fall Arresters and Vertical Rigid Rails;
 - d) CSA Standard Z259.1, Body Belts and Saddles For Work Positioning and Travel Restraint;
 - e) CSA Standard Z259.2.2, Self-Retracting Devices;
 - f) CSA Standard Z259.2.3, Descent Devices;
 - g) CSA Standard Z259.11, Energy Absorbers and Lanyards;
 - h) CSA Standard Z259.12, Connecting Components for Personal Fall Arrest Systems (PFAS);
 - i) CSA Standard Z259.13, Flexible Horizontal Lifeline Systems;
 - j) CSA Standard Z259.16, Design of Active Fall Protection Systems;
 - k) CSA Standard Z259.10, Full Body Harnesses;
 - l) CSA Standard CSA Z259.15, Anchorage Connectors.
- 210) An employer must ensure that all anchorages used as components of a fall-protection system capable of withstanding the following forces in any direction in which the force may be applied:
 - a) 22 kN, for non-engineered anchorage;
 - b) 2 times the maximum arresting force anticipated, for an engineered anchorage.
- 211) An employer must ensure that a lanyard used in a fall-arrest system is equipped with an energy absorber, unless all of the following conditions are met:
 - a) the fall-arrest system is designed by a competent person to limit the free fall to less than 1.2 m and 4 kN arresting force;
 - b) the fall-arrest system does not permit the user to contact an unsafe surface.
- 212) An employer must ensure a self-retracting device used as a component of a fall-protection system is:
 - a) anchored above the user's head unless the manufacturer's specifications allow using a different anchorage location; and
 - b) used in a manner that
 - i. minimizes the hazards of swinging, and
 - ii. if the user falls, limits the distance they drop during the swing to 1.2 m.

- 213) An employer must ensure that each component of a fall-protection system is compatible with all of the following, as indicated in the manufacturer's specifications and instructions for use of their equipment:
 - a) each other component and that the safe function of any component does not interfere with the safe function of another component;
 - b) the work conditions and conditions of the physical environment under which the equipment is to be used.
- 214) Unless otherwise prescribed in these regulations, an employer must ensure a work-positioning system is used in combination with a fall-arrest system in all of the following circumstances:
 - a) the centre of gravity of the person using the work-positioning system extends beyond the edge from which a person could fall;
 - b) the state or condition of the work surface creates a slipping or tripping hazard.
- 215) A person must not use, and an employer must ensure a person does not use, a work-positioning system as a means of fall arrest.

This section does not apply to safety nets used in and around the helicopter landing deck area of a marine installation.

- 216) An employer must ensure that a personnel safety net used as a means of fall protection is designed, manufactured, installed, used, inspected, tested and made of materials in accordance with the most recent version of ANSI/ASSE A10.11 Safety Requirements for Personnel & Debris Nets
- 217) Despite any requirements set out in the standard required by the above, a personnel safety net must be erected and installed in accordance with all of the following:
 - a) it must be erected and installed under the supervision of a competent person;
 - b) it must be positioned as close as reasonably practicable, but no more than 4.6 m below the work area and extend at least 2.4 m on all sides beyond the work area;
 - c) When used under a gangway, it must extend on both sides of the gangway for a distance of at least 1.8 m;
 - d) it must be positioned and maintained so that when arresting the fall of a person, the maximum deflection of the personnel safety net does not permit any portion of the person to contact another surface;
 - e) it must be kept free of debris, obstructions or intervening objects that may be struck by a person who falls from a workplace into the net;
 - f) where connected to another personnel safety net, the splice joints connecting it with the other personnel safety nets are equal to, or greater in strength than, the strength of the weakest of the personnel safety nets; and

- 218) Employees and/or supervisors, as the case may be,- must successfully complete training on fall arrest systems:
 - a) before they do any of the following:
 - i. use of a fall arrest system,
 - ii. work in, supervise or plan the work for a work area where a fall arrest system required; and
 - b) once at least every 3 years.
- 219) In order to successfully complete training, a person must be deemed competent to inspect and use fall protection by one of the following persons who conducted the training:
 - a) their employer;
 - b) a training organization.
- 220) Training must be instructed by a competent person.
- 221) The person conducting the training must identify a method of evaluating the person taking the training and determining whether a person successfully completes the training.

- 222) Every employee working where fall arrest is required must complete a fall arrest training program that includes, at minimum, the following components:
 - a review of all applicable health and safety legislation, regulations and standards, including roles and responsibilities of workplace parties;
 - b) importance of fall protection training;
 - c) identification of fall hazards;
 - d) review of the hierarchy of controls that may be used to eliminate or minimize risk of injury from a fall;
 - e) the different methods of fall protection and the most suitable application of the methods;
 - f) fall-protection and safe-work procedures;
 - g) instruction on assessing and selecting specific anchors that may be used for various applications;
 - h) instruction on selecting and correctly using fall-protection components, including connecting hardware;
 - i) information about the effect of a fall on the human body, including all of the following:
 - i. free fall,
 - ii. swing fall,
 - iii. maximum arresting force, and
 - iv. the purpose of energy absorbers,
 - j) pre-use inspections of equipment and systems;
 - k) the use, care, storage, maintenance and inspection of fall protection systems, equipment and components,
 - l) emergency response procedures to be used if a fall occurs;
 - m) practice in all of the following:
 - inspecting, fitting, adjusting and connecting fall-protection systems and components,
 - ii. the emergency response procedures required by clause (I).
- 223) Fall protection training records must be retained in accordance with Section XX (*record retention section to be developed and shared for comment at a later date*).

PERMIT TO WORK

- 224) The employer must establish and maintain, as part of Employer's OHS program required under the Act, a permit to work system that, at minimum, contains:
 - a) Roles and responsibilities;
 - b) Training and education on the system;
 - c) How necessary information will be communicated to relevant personnel;
 - d) Work requiring a permit;
 - e) Method of assessing hazards;
 - f) Work permit process;
 - g) Record keeping and retention; and
 - h) Regular verification and monitoring of the system.
- 225) A Permit to work is required where an activity in the workplace presents a potential hazard that may be capable of causing death or serious injury, and any other activity requiring a work permit, as prescribed in these regulations.
- 226) The employer must designate a competent person to issue a written work permit, including the signatures required in 227, before the commencement of the work.
- 227) The work permit must include:
 - a) The signature of the competent person(s) completing the work permit, and
 - b) The signatures of all persons involved in the work, verifying that they have read and understood the permit.

- 229) The work permit must identify the following information:
 - a) the name of the person who issues the permit;
 - b) the name of the person to whom it is issued;
 - c) the periods during which the permit is valid;
 - d) the type of work to be performed and its location; and
 - e) assessment of conditions related to the hazard of performing the work, and instructions arising from those conditions, including, if applicable,
 - (i) the work procedures to be followed,
 - (ii) the identification of equipment that is to be locked out;
 - (iii) a description of any safety tests to be performed before the work is performed, during the performance of the work and following the completion of the work,
 - (iv) the specification of the particulars of the tags or signs to be used, if any,
 - (v) the specification of the protection equipment to be used, if any,
 - (vi) in the case of an emergency, the procedures to be followed,
 - (vii) a description of the specific space, work or electrical equipment to which the instructions apply,
 - (viii) the identification of any other work, including but not limited to any other permits or certificates, that may affect the emergency or work procedures to be followed;
 - f) any other information that is necessary to ensure all parties are informed of the health and safety risks to be undertaken.
- 230) The work permit must be made readily available for examination by employees for the period in which the work is being performed.
- 231) The permit shall be retained in accordance with Section XX (record retention section to be developed and shared for comment at a later date).

ERGONOMICS

- 232) The employer must establish and maintain a program, as part of Employer's OHS program required under the Act, to address factors in the workplace that may expose employees to a musculoskeletal injury and must identify, at minimum, the following:
 - a) Method for identifying MSI hazards in the workplace;
 - b) Method for assessing the MSI risk to an employee;
 - c) Control measures necessary to reduce MSI risk to as low as reasonably practicable;
 - d) Education to ensure employees are knowledgeable in MSI hazard identification and trained in the use of specific control measures to be employed; and
 - e) Methods for monitoring the control measures for effectiveness;
- 233) An employer shall, when performing an MSI assessment, consult with
 - a) employees with signs or symptoms of MSI injury; and
 - b) a representative sample of the employees who are required to carry out the work being assessed.
- 234) An employer shall implement control measures as soon as reasonably practicable.
- 235) An employer shall, without delay, implement interim control measures when the introduction of permanent control measures is delayed.

VIOLENCE AND HARASSMENT IN THE WORKPLACE

- 236) The employer shall develop and post at a place accessible to all employees a work place violence and workplace harassment prevention policy setting out, among other things, the following obligations of the employer:
 - a) to provide a safe, healthy and violence-free work place;
 - b) to dedicate sufficient attention, resources and time to address factors that contribute to work place violence and workplace harassment including, but not limited to, bullying, teasing, and abusive and other aggressive behaviour and to prevent and protect against it;
 - c) to communicate to its employees information in its possession about factors contributing to work place violence and workplace harassment; and
 - d) to assist employees who have been exposed to work place violence or workplace harassment.
- 237) A violence and harassment prevention program shall be developed to implement the policy in section 236 and shall include, at a minimum:
 - a) An assessment of the potential for workplace violence and workplace harassment in the workplace, taking into consideration the nature, type and condition of work, previous experience in the workplace and occupational experience in similar workplaces;
 - b) include measures and procedures to control the risks identified in the assessment;
 - c) include measures and procedures for summoning immediate assistance when workplace violence occurs or is likely to occur
 - d) include measures and procedures for employees to report incidents of workplace violence or workplace harassment to the employer or supervisor;
 - e) set out how the employer will investigate and deal with incidents or complaints of workplace violence or workplace harassment
 - f) provisions for the instruction and training for employees on the factors that contribute to work place violence and workplace harassment
- 238) The Program shall be reviewed every three years, or following an incident of workplace violence or workplace harassment in the workplace or a change in conditions of the workplace.