# Respiratory Protection — Know The Laws of Your Province



Respiratory protection is a critical component of workplace safety, designed to safeguard workers from inhaling hazardous substances such as dust, fumes, gases, and airborne pathogens. Employers are required to assess workplace hazards, provide appropriate respiratory protective equipment (RPE), and ensure proper training for workers on its use and maintenance. These measures help prevent respiratory illnesses and long-term health issues while ensuring compliance with occupational health and safety regulations. Across Canada, specific requirements for respiratory protection vary by province and territory, reflecting local needs and regulatory frameworks. Adhering to these standards is essential for protecting worker health and promoting a safe work environment.

# **FEDERAL**

Under the <u>Code of Federal Regulations</u>, <u>Section 1910.134</u>: Respiratory Protection, federally regulated <u>employers must</u> implement a comprehensive respiratory protection program to safeguard workers from airborne hazards. This includes conducting hazard assessments, selecting appropriate respiratory protective equipment (RPE), and ensuring proper fit testing and training for workers.

Respiratory Protection.

This section applies to **General Industry** (part 1910), **Shipyards** (part 1915), **Marine Terminals** (part 1917), **Longshoring** (part 1918), and **Construction** (part 1926). **Section 1910.134**.

# (a) Permissible practice

- (1) In the control of those occupational diseases caused by breathing air contaminated with harmful dust, fogs, fumes, mists, gases, smoke, sprays, or vapours, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.
- (2) A respirator **shall** be provided to each employee when such equipment is necessary to protect the health of such employee. The employer **shall** provide the respirators which are applicable and suitable for the purpose intended. The employer **shall** be responsible for the establishment and maintenance of a respiratory protection program, which **shall** include the requirements outlined in <u>paragraph</u> (c) of this section. The program **shall** cover each employee required by this section to use a respirator.
- (c) Respiratory protection program. This paragraph requires the employer to develop and implement a written respiratory protection program with required worksite-specific procedures and elements for required respirator use. The program must be administered by a suitably trained program administrator. In addition, certain program elements may be required for voluntary use to prevent potential hazards associated with the use of the respirator. The Small Entity Compliance Guide contains criteria for the selection of a program administrator and a sample program that meets the requirements of this

paragraph.

- (1) In any workplace where respirators are necessary to protect the health of the employee or whenever respirators are required by the employer, the employer **shall** establish and implement a written respiratory protection program with worksite-specific procedures. The program **shall** be updated as necessary to reflect those changes in workplace conditions that affect respirator use. The employer **shall** include in the program the following provisions of this section, as applicable:
- (i) Procedures for selecting respirators for use in the workplace;
- (ii) Medical evaluations of employees required to use respirators;
- (iii) Fit testing procedures for tight-fitting respirators;
- (iv) Procedures for proper use of respirators in routine and reasonably foreseeable emergency situations;
- (v) Procedures and schedules for cleaning, disinfecting, storing, inspecting, repairing, discarding, and otherwise maintaining respirators;
- (vi) Procedures to ensure adequate air quality, quantity, and flow of breathing air for atmosphere-supplying respirators;
- (vii) Training of employees in the respiratory hazards to which they are potentially exposed during routine and emergency situations;
- (viii) Training of employees in the proper use of respirators, including putting on and removing them, any limitations on their use, and their maintenance; and
- (ix) Procedures for regularly evaluating the effectiveness of the program.

- (2) Where respirator use is not required:
- (i) An employer may provide respirators at the request of employees or permit employees to use their own respirators, if the employer determines that such respirator use will not in itself create a hazard. If the employer determines that any voluntary respirator use is permissible, the employer **shall** provide the respirator users with the information contained in appendix D to this section ("Information for Employees Using Respirators When Not Required Under the Standard"); and
- (ii) In addition, the employer **must** establish and implement those elements of a written respiratory protection program necessary to ensure that any employee using a respirator voluntarily is medically able to use that respirator, and that the respirator is cleaned, stored, and maintained so that its use does not present a health hazard to the user. **Exception**: Employers are not required to include in a written respiratory protection program those employees whose only use of respirators involves the voluntary use of filtering facepieces (dust masks).
- (3) The employer **shall** designate a program administrator who is qualified by appropriate training or experience that is commensurate with the complexity of the program to administer or oversee the respiratory protection program and conduct the required evaluations of program effectiveness.
- (4) The employer **shall** provide respirators, training, and medical evaluations at no cost to the employee.
- (d) **Selection of respirators**. This paragraph requires the **employer** to evaluate respiratory hazard(s) in the workplace, identify relevant workplace and user factors, and base respirator selection on these factors. The paragraph also specifies appropriately protective respirators for use in IDLH atmospheres, and limits the selection and use of air-purifying respirators.

# (1) General requirements for Employers

- (i) The employer **shall** select and provide an appropriate respirator based on the respiratory hazard(s) to which the worker is exposed and workplace and user factors that affect respirator performance and reliability.
- (ii) The employer **shall** select a NIOSH-certified respirator. The respirator **shall** be used in compliance with the conditions of its certification.
- (iii) The employer **shall** identify and evaluate the respiratory hazard(s) in the workplace; this evaluation **shall** include a reasonable estimate of employee exposures to respiratory hazard(s) and an identification of the contaminant's chemical state and physical form. Where the employer cannot identify or reasonably estimate the employee exposure, the employer **shall** consider the atmosphere to be IDLH.
- (iv) The employer **shall** select respirators from a sufficient number of respirator models and sizes so that the respirator is acceptable to, and correctly fits, the user.

Further details on the Code of Federal Regulations can be found at <a href="Ecfr.gov">Ecfr.gov</a>.

# **ALBERTA**

Under Alberta's <u>Occupational Health and Safety (OHS) Code</u>, Part 18: Personal Protective Equipment (Sections 244 to 255), employers are required to provide appropriate respiratory protective equipment (RPE) to workers exposed to airborne hazards such as dust, fumes, or toxic gases. These regulations mandate hazard assessments, proper selection of RPE, and training workers on its correct use, maintenance, and storage.

# Respiratory Protective Equipment - Respiratory dangers

(1) An employer **must** determine the degree of danger to a

worker at a work site and whether the worker needs to wear respiratory protective equipment if

- (a) a worker is or may be exposed to an airborne contaminant or a mixture of airborne contaminants in a concentration exceeding their occupational exposure limits,
- (b) the atmosphere has or may have an oxygen concentration of less than 19.5 percent by volume, or
- (c) a worker is or may be exposed to an airborne biohazardous material. **Section 244(1)**.
- (2) In making a determination under subsection (1), the employer **must** consider
- (a) the nature and exposure circumstances of any contaminants or biohazardous material,
- (b) the concentration or likely concentration of any airborne contaminants,
- (c) the duration or likely duration of the worker's exposure,
- (d) the toxicity of the contaminants,
- (e) the concentration of oxygen,
- (f) the warning properties of the contaminants, and
- (g) the need for emergency escape. Section 244(2).
- (3) Based on a determination under subsection (1), the employer must
- (a) subject to clause (b), provide and ensure the availability of the appropriate respiratory protective equipment to the worker at the work site, and
- (b) despite section 247, when the effects of airborne biohazardous materials are unknown, provide and ensure the

availability of respiratory protective equipment appropriate to the worker's known exposure circumstances. **Section 244(3)**.

Subsection (3) does not apply when an **employer** has developed and implemented procedures that effectively limit exposure to airborne biohazardous material. **Section 244(3.1) – Subsection (3)** 

(4) A worker must use the appropriate respiratory protective equipment provided by the employer under subsection (3). **Section 244(4).** 

# Code of practice

- (1) If respiratory protective equipment is used at a work site, an employer **must** prepare a code of practice governing the selection, maintenance, and use of respiratory protective equipment. **Section 245(1)**.
- (2) In the case of a health care worker who may be exposed to airborne biohazardous material, an employer **must** ensure that the code of practice required under subsection (1) includes training on at least an annual basis. **Section 245(2).**

# Approval of equipment

An employer **must** ensure that respiratory protective equipment required at a work site is approved

- (a) by NIOSH, or
- (b) by another standards setting and equipment testing organization, or combination of organizations, approved by a Director. Section 246(a)(b).

# Selection of equipment

An employer **must** ensure that respiratory protective equipment used at a work site is selected in accordance with CSA Standard Z94.4-02, Selection, Use, and Care of Respirators.

#### Section 247.

### Storage and use

- (1) An employer **must** ensure that respiratory protective equipment kept ready to protect a worker is
- (a) stored in a readily accessible location,
- (b) stored in a manner that prevents its contamination,
- (c) maintained in a clean and sanitary condition,
- (d) inspected before and after each use to ensure it is in satisfactory working condition, and
- (e) serviced and used in accordance with the manufacturer's specifications. Section 248(1)(a) to (e).
- (2) An employer **must** ensure that respiratory protective equipment that is not used routinely but is kept for emergency use is inspected at least once every calendar month by a competent worker to ensure it is in satisfactory working condition. **Section 248(2).**

# Quality of breathing air

- (1) An employer **must** ensure that air used in a self-contained breathing apparatus or air line respiratory protective equipment
- (a) is of a quality that meets the requirements of Table 1 of CSA Standard Z180.1-00 (R2005), *Compressed Breathing Air and Systems*, and
- (b) does not contain a substance in a concentration that exceeds 10 percent of its occupational exposure limit. **Section 249(1)**.
- (2) Subsection (1)(b) does not apply to substances listed in Table 1 of CSA Standard Z180.1-00 (R2005), Compressed

Breathing Air and Systems. Section 249(2).

#### Effective facial seal

- (1) An employer **must** ensure that respiratory protective equipment that depends on an effective facial seal for its safe use is correctly fit tested and tested in accordance with CSA Standard Z94.4-02, Selection, Use and Care of Respirators. **Section 250(1)**.
- (2) An employer **must** ensure that, if a worker is or may be required to wear respiratory protective equipment and the effectiveness of the equipment depends on an effective facial seal, the worker is clean shaven where the face piece of the equipment seals to the skin of the face. **Section 250(2)**.

#### For more information:

- Equipment for immediate danger. Section 251.
- Equipment no immediate danger. **Section 252.**
- Air purifying equipment. Section 253.
- Emergency escape equipment. Section 254(1)(2).
- Abrasive blasting operations. Section 255.

Further details on the Occupational Health And Safety Code can be found at Alberta.ca.

# **BRITISH COLUMBIA**

Under British Columbia's Occupational Health and Safety Regulation, Part 8: Personal Protective Clothing and Equipment (Sections 8.32 to 8.45), employers are required to implement measures to protect workers from respiratory hazards. This includes conducting hazard assessments, selecting appropriate respiratory protective equipment (RPE), and ensuring proper fit testing and training for workers.

# **Respiratory Protection**

# When required

The employer **must** provide appropriate respiratory protective equipment if a worker is or may be exposed to concentrations of an air contaminant in excess of an applicable exposure or excursion limit, or to an oxygen deficient atmosphere. **Section 8.32.** 

#### **Selection**

- (1) The employer, in consultation with the worker and the occupational health and safety committee, if any, or the worker health and safety representative, if any, **must** select appropriate respiratory protective equipment in accordance with CSA Standard CAN/CSA-Z94.4-93, Selection, Use, and Care of Respirators.
- (2) Only respiratory protective equipment which meets the requirements of a standard acceptable to the Board may be used for protection against airborne contaminants in the workplace. Section 8.33(1)(2).

#### **Protection factors**

A respirator **must** not be used for protection against concentrations of an air contaminant greater than the maximum use concentration, which is the concentration determined by multiplying the exposure limit for the air contaminant by the appropriate respirator protection factor. **Section 8.34.** 

# IDLH or oxygen deficient atmosphere

- (1) If a worker is required to enter or work in an IDLH or oxygen deficient atmosphere the worker **must**
- (a) wear a full facepiece positive pressure respirator which is either an SCBA, or an airline respirator with an auxiliary self-contained air cylinder of sufficient capacity to permit the worker to escape unassisted from the contaminated area if the air supply fails, and

- (b) be attended by at least one other worker stationed at or near the entrance to the contaminated area who is similarly equipped and capable of effecting rescue.
- (2) Subsection (1) (a) applies if there is a significant risk of accidental release into a worker's breathing zone of quantities of an air contaminant sufficient to produce an IDLH atmosphere. Section 8.35(1)(2).

#### Emergency escape respirators

- (1) If the nature or quantity of an air contaminant and the nature of the work area could prevent a worker escaping from a contaminated area without assistance, the worker **must** carry an emergency escape respirator.
- (2) The emergency escape respirator must be
- (a) carried on the worker's person or be within arm's reach at all times, and
- (b) sufficient to permit the worker to leave the contaminated area without assistance. **Section 8.36(1)(2).**

#### Fit tests

- (1) A respirator which requires an effective seal with the face for proper functioning **must** not be issued to a worker unless a fit test demonstrates that the facepiece forms an effective seal with the wearer's face.
- (2) Fit tests **must** be performed in accordance with procedures in CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators.
- (2.1) A fit test must be carried out
- (a) before initial use of a respirator,
- (b) at least once a year,

- (c) whenever there is a change in respirator facepiece, including the brand, model, and size, and
- (d) whenever changes to the user's physical condition could affect the respirator fit.
- (3) Other personal protective equipment that is to be worn at the same time as a respirator and which could interfere with the respirator fit must be worn during a fit test. **Section** 8.40(1)(2)(2.1)(3).

#### Records

The employer **must** maintain a record of

- (a) fit test results and worker instruction,
- (b) maintenance for air supplying respirators, powered air purifying respirators, and for sorbent cartridges and canisters, and
- (c) maintenance and repairs for each self-contained breathing apparatus and all air cylinders in accordance with the requirements of CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators. Section 8.44(1).

# Maintenance and inspections

- (1) Inspection of compressed air cylinders **must** be done in accordance with CSA Standard CAN/CSA-Z94.4-02, Selection, Use, and Care of Respirators.
- (2) Self-contained breathing apparatus, including regulators, **must** be serviced and repaired by qualified persons.
- (3) Compressed air cylinders **must** be hydrostatically tested in accordance with CSA Standard CAN/CSA-B339-96, Cylinders, Spheres, and Tubes for the Transportation of Dangerous Goods. **Section 8.45(1) to (3).**

#### For more information:

- Respirable air quality. Section 8.37.
- Corrective eyewear. Section 8.38.
- Face seal. **Section 39 (1)(2).**
- User seal check. Section 8.41.
- Medical assessment. Section 8.42.
- Optional use. Section 8.43.

Further details on the Occupational Health and Safety Regulation can be found at <a href="mailto:BClaws.gov.bc.ca">BClaws.gov.bc.ca</a>.

# **MANITOBA**

Under Manitoba's <u>Workplace Safety and Health Act and Regulation</u>, Part 6: Personal Protective Equipment (Sections 6.15 and 6.16), employers are required to provide suitable respiratory protective equipment (RPE) to workers exposed to hazardous airborne substances. These regulations mandate employers to assess risks, select appropriate RPE, and ensure proper training for workers in its use, care, and maintenance.

# Respiratory protective equipment

- (1) An employer **must** ensure that respiratory protective equipment provided to a worker is selected, used, and maintained in accordance with CAN/CSA-Z94.4-11, Selection, Use, and Care of Respirators. **Section 6.15(1)**.
- (2) An employer **must** ensure that a worker using the respiratory protective equipment
- (a) is adequately trained by a competent person in the proper fit, testing, maintenance, use, and cleaning of the equipment and in its limitations;
- (b) is able to test, maintain, and clean the equipment;
- (c) is able to use the equipment safely; and
- (d) inspects and tests the equipment before each use. Section

# **Atmosphere-supplying respirators**

An employer **must** ensure that air in an atmosphere-supplying respirator that is provided to a worker meets the purity requirements set out in CAN/CSA Standard-Z180.1-13, Compressed Breathing Air and Systems. **Section 6.15.1**.

#### Working in dangerous atmospheres

- (1) An employer **must** provide a worker who is required to enter an atmosphere that is immediately dangerous to his or her safety or health with one of the following atmosphere-supplying respirators:
- (a) an open-circuit SCBA, which
- (i) is sufficiently charged to enable the worker to perform the work safely,
- (ii) operates in a pressure demand or positive pressure mode, and
- (iii) has a minimum rated capacity of 30 minutes;
- (b) an airline respirator equipped with a full face piece that
- (i) operates in a pressure demand or positive pressure mode, and
- (ii) has an auxiliary supply of air that is carried on the person or within arm's reach that is sufficient to allow the worker to escape in case of failure of the primary air supply equipment;
- (c) a closed-circuit SCBA **Section 6.16.**

Further details on the Workplace Safety and Health Act and Regulation at <u>Gov.MB.ca</u>.

# **NEW BRUNSWICK**

Under New Brunswick's Occupational Health and Safety Act, Part VII: Protective Equipment (Sections 45 to 47), employers are required to provide and maintain respiratory protective equipment (RPE) to protect workers from hazardous airborne substances. These regulations mandate hazard assessments, proper selection of RPE, and training workers on its correct use, maintenance, and storage.

# Part VII Protective Equipment - Respiratory Protective Equipment

- (1) An employer **shall** ensure that a **code of practice** concerning respiratory protective equipment is established for a place of employment at which the use of respiratory protective equipment is required.
- (1.1) The **code of practice** referred to in subsection (1) **shall** contain the following information:
- (a) the name of the employee responsible for implementing the code of practice;
- (b) a description of the respiratory protective equipment to be used to protect the health and safety of employees;
- (c) a description of any possible hazards that may affect the health or safety of employees;
- (d) the requirements for the proper selection, care, use, maintenance and fitting of the respiratory protective equipment;
- (e) the training requirements for employees who use respiratory protective equipment;
- (f) the record-keeping requirements; and
- (g) the frequency by which the code of practice is to be

reviewed.

- (2) An employer **shall** comply with CSA standard Z94.4-11 (R2016), Selection, use, and care of respirators or a standard offering equivalent or better protection in developing the code of practice.
- (2) An employer **shall** comply with CSA standard Z94.4-93, "Selection, Use, and Care of Respirators" in developing a code of practice.
- (4) An employer **shall** consult with the committee or health and safety representative, if any, or with employees if there is no committee or representative, in developing the code of practice.
- (5) An employer **shall** ensure that a copy of the code of practice is readily available to an officer upon request and to employees in the areas where the respiratory protective equipment may be required to be used.
- (6) An employer **shall** ensure that the code of practice referred to in subsection (1) is implemented and adhered to at the place of employment.
- (7) An employee **shall** adhere to a code of practice referred to in subsection (1). **Section 45(1) to (7).**

An employee who may be required to use respiratory protective equipment **shall**, for the purpose of ensuring that the equipment fits effectively, cooperate with any person identified in the code of practice referred to in section 45 and, if a tight fit is essential to the proper functioning of the equipment, be as clean shaven as is necessary to ensure an effective seal to the facial skin of the employee. **Section 47.** 

Further details on the Occupational Health and Safety Act can be found at WorksafeNB.ca.

# **NEWFOUNDLAND & LABRADOR**

Under Newfoundland and Labrador's Occupational Health and Safety Regulations, Part VII: Personal Protective Equipment (Sections 83 to 86), employers are required to provide suitable respiratory protective equipment (RPE) to workers exposed to airborne hazards such as dust, fumes, or toxic gases. These regulations include conducting hazard assessments, selecting appropriate RPE, and ensuring workers receive training on its proper use, maintenance, and storage.

# Part VII Personal Protective Equipment — Respiratory Protection Program

Where required, an employer **shall** establish, implement and maintain, and revise where necessary, a written respiratory protection program in accordance with CSA Standard Z94.4 "Selection, Use and Care of Respirators". **Section 83.** 

# **Respiratory Protection**

- (1) When a worker is or may be exposed to an oxygen deficient atmosphere or harmful concentrations of air contaminants, atmospheric contamination **shall** be prevented to the extent practicable by accepted engineering controls and when engineering or other controls are not practicable, appropriate respiratory protection equipment **shall** be used in accordance with this section.
- (2) Respiratory protection equipment **shall** be provided by an employer when the equipment is necessary to protect the health of a worker.
- (3) An employer **shall** ensure that compressed air, compressed oxygen, liquid air and liquid oxygen used for respiration comply with the specifications of CSA Code Z180.1 Compressed Breathing Air and Systems.
- (4) An employer **shall** ensure that compressed oxygen is not

used in atmosphere-supplying respiratory equipment that has previously used compressed air.

- (5) Access points **shall** display signs warning that respiratory protection equipment is required and naming the contaminant or hazard involved.
- (6) An employer **shall** ensure that sufficient workers who are trained in rescue procedures are immediately available whenever workers are working in areas where an oxygen deficient atmosphere or hazardous contaminants may be present.
- (7) A rescue worker referred to in subsection (6) **shall** have immediate access to appropriate breathing apparatus or other aids necessary to affect a rescue. **Section 84(1) to (7).**

### Respiratory protection equipment

- (1) An employer **shall** select and provide appropriate respiratory protection equipment based on the respiratory hazard to which a worker is exposed and workplace and user factors that affect the performance and reliability of the equipment.
- (2) The equipment referred to in subsection (1) **shall** be certified by the National Institution of Occupational Safety and Health and used in compliance with the conditions of its certification.
- (3) An employer **shall** identify and evaluate the respiratory hazards in the workplace, and the evaluation **shall** include an employee's potential exposure to respiratory hazards and an identification of the contaminant's chemical composition and physical state.
- (4) Where an employer cannot identify the exposure referred to in subsection (3), the employer **shall** take immediate precautions to protect a worker from immediate danger.
- (5) An employer **shall** not permit a respirator with a tight-

fitting facepiece to be worn by an employee who has

- (a) hair on the face or scalp that is likely to prevent effective sealing of the facepiece to the facial skin; or
- (b) a condition that interferes with the face to facepiece seal or valve function.
- (6) Where an employee wears corrective glasses or goggles or other personal protective equipment, the employer **shall** ensure that the equipment is worn in a manner that does not interfere with the seal of the facepiece to the face of the user.
- (7) Where a tight-fitting respirator is used by an employee, an employer **shall** ensure that the employee performs a user seal check before each use. **Section 85(1) to (7).**

# **NOVA SCOTIA**

Under Nova Scotia's Occupational Safety General Regulations, respiratory protection requirements are addressed across multiple sections: Part 3: Personal Protective Equipment (Sections 9 and 13), Part 12: Confined Space Entry (Section 135), and Part 16: Equipment for Firefighters (Section 195). Employers are required to provide respiratory protective equipment (RPE) to workers exposed to hazardous airborne substances, ensure proper fit and maintenance of the equipment, and train workers in its safe use. Specific provisions apply to confined spaces and firefighting, where advanced RPE may be necessary to protect against extreme hazards.

# Use of personal protective equipment — Part 3

- (1) An employer **shall** ensure that adequate personal protective equipment or devices required for an assigned task are used, based on
- (a) the nature of the task;

- (b) the location and conditions of the workplace; and
- (c) any hazards that may affect the health and safety of people in the workplace.
- (2) Where personal protective equipment or devices are required under the Act or these regulations, an employer **shall** ensure that
- (a) an employee receives adequate training in the proper use and care of the personal protective equipment or devices; and
- (b) an employee wears or uses the personal protective equipment or devices in accordance with the instruction and training provided.
- (3) An employer **shall** ensure that all personal protective equipment or devices required under the Act or these regulations are
- (a) maintained by a competent person; and
- (b) tested or visually inspected before each use, in accordance with the manufacturer's specifications.
- (4) Where a person identifies any defect in personal protective equipment or devices that may impair the adequacy of the equipment or devices, the employer **shall** ensure that the personal protective equipment or devices are not used until they are repaired. **Section 9(1) to (4).**

# Respiratory hazard

- (1) Where a person is exposed to a respiratory hazard that may cause injury or disease, an employer **shall** provide and ensure the use of an adequate respirator that is appropriate to the hazard.
- (2) An employer **shall** ensure that the compressed breathing air used in a respirator complies with or exceeds the latest

version of CSA standard Z180.1, "Compressed Breathing Air and Systems".

- (3) An employer **shall** ensure compliance with the latest version of CSA standard CSA Z94.4 , "Selection, Use, and Care of Respirators", in respect of
- (a) the selection, use, maintenance and testing of a respirator; and
- (b) the training of users of a respirator. Section 13(1) to(3).

# Part 12 Confined Space Entry for Respiratory Protective Equipment

- (1) An employer **shall** provide
- (a) appropriate respiratory protective equipment to a person who enters a **confined space** where the concentration of a chemical substance or a mixture of chemical substances in a confined space is hazardous to the health or safety of a person; 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%.
- (2) An employer **shall** ensure that the respiratory protective equipment referred to in clause (1)(b).
- (a) has an airline and an independent 5-minute supply of air;
- (b) is self-contained and equipped with an audible alarm that sounds when the air supply has diminished to
- (i) 20% of the capacity of the unit, or
- (ii) a 5-minute reserve. Section 135(1)(2).

#### For more information:

Equipment for Firefighters – Part 12, Section 195(1) to
 (3).

Further details on the Occupational Safety General Regulations can be found at Novasafe.ca.

# **NORTHWEST TERRITORIES & NUNAVUT**

Under the Northwest Territories <u>Official Consolidation of Occupational Health and Safety Regulations</u>, Part 7: Personal Protective Equipment (Sections 91 to 93), employers are required to provide suitable respiratory protective equipment (RPE) to workers exposed to hazardous airborne substances. These regulations mandate conducting hazard assessments, ensuring proper selection of RPE, and providing training to workers on its correct use, maintenance, and storage.

# Part 7 Personal Protective Equipment — Respiratory Protective Equipment

- (1) If a worker is likely to be exposed to dust, fumes, gas, mist, aerosol, vapour, or other airborne contaminant that could be present in an amount that is harmful to the worker, an employer **shall**
- (a) provide an approved respiratory protective device, for use by the worker, that
- (i) gives suitable and adequate protection to the worker from one or more airborne contaminants,
- (ii) is the proper size for the worker's face,
- (iii) makes an effective seal to the facial skin of the worker, if a tight fit is essential to the proper functioning of the respiratory protective device, and
- (iv) has been fit-tested by a competent individual in an

approved manner, where a tight fit is essential to ensure the worker is not exposed to one or more airborne contaminants that could be harmful to the worker;

- (b) ensure that the respiratory protective device is regularly cleaned and maintained in an approved manner; and
- (c) ensure that the respiratory protective device is kept, when not in use, in a convenient and sanitary location in which the device is not exposed to extremes of temperature or to any contaminant that could hinder the operation of the device.
- (2) If a respiratory protective device is provided to a worker under subsection (1), the employer **shall** ensure that the worker is
- (a) trained by a competent individual in the proper testing, maintenance, use and cleaning of the respiratory protective device and in its limitations;
- (b) able to demonstrate that they
- (i) understand the training provided under paragraph (a),
- (ii) can test, maintain and clean the respiratory protective device, and
- (iii) can use the respiratory protective device safely;
- (c) required to test the respiratory protective device before each use;
- (d) assessed according to an approved standard as being capable of wearing a respiratory protective device; and
- (e) adequately informed of the reasons for the assessment required by paragraph (d).
- (3) An employer **shall** ensure that the training required by paragraph (2)(a) includes practical experience by the worker

in an uncontaminated environment.

- (4) If a respiratory protective device is used only for emergency purposes, an employer **shall** ensure that a worker who could be required to use the respiratory protective device is given semi-annual refresher training in its safe use.
- (5) An employer **shall** ensure that the following records are kept as long as the worker works for the employer and made readily available for inspection and examination by the Committee or representative, as the case may be:
- (a) records respecting fit-testing for each worker completed under subparagraph (1)(a)(iv);
- (b) records of the results of assessments for each worker completed under paragraph (2)(d);
- (c) records respecting training completed by each worker under subsection (2) and the practical experience referred to in subsection (3).
- (6) An employer **shall** ensure that records respecting the maintenance of atmosphere-supplying respirators used by a worker are kept and made readily available for inspection and examination by the Committee or representative, as long as that worker works for the employer.
- (7) A worker may, at any time, inspect and examine any records kept under subsection (5) or (6) respecting the worker. **Section 91(1) to (7).**

#### For more information:

- Inspection of Respiratory Protective Devices. Section92.
- Working in Dangerous Atmospheres. **Section 93.**

Further details on the Official Consolidation Of Occupational Health And Safety Regulations can be found at <a href="Canlii.org">Canlii.org</a>.

# **ONTARIO**

Under <u>Ontario Regulation 185/19</u>, <u>Sections 9 to 13</u>, <u>employers</u> are <u>required</u> to ensure that workers are provided with appropriate respiratory protective equipment (RPE) when exposed to hazardous airborne contaminants. These regulations mandate that employers assess the risk, select suitable RPE, and ensure proper training for workers on its use, maintenance, and storage.

# Respiratory Protection Program - Employer Duties

- (1) An **employer** who provides a worker with a respirator **shall** ensure that the respirator,
- (a) is appropriate in the circumstances for the form and concentration of airborne biological or chemical agent in respect of which the respirator is to be used;
- (b) meets or exceeds the requirements set out in this section and sections 10 to 13; and
- (c) is used by workers in accordance with the requirements of this section and sections 10 to 13.
- (2) An employer who provides a worker with a respirator **shall** establish written measures and procedures regarding the selection, care and use of respirators.
- (3) An employer who provides a worker with a respirator **shall** provide training and instruction to the worker in the care and use of the respirator before the worker first uses the respirator.
- (4) The training and instruction required under subsection (3) **shall** include training and instruction on the following:
  - 1. Limitations of the respirator.

- Inspection and maintenance of the respirator, including, in the case of an air-purifying respirator, end of service life indicators or change out schedules for the cartridge, canister, or filter.
- 3. Proper fitting of the respirator.
- 4. Cleaning and disinfecting the respirator. Section 9.

# Respirator requirements

- (1) A respirator **must** meet the following requirements:
  - 1. It **must** be,
  - 2. approved by NIOSH; or
  - 3. approved by a testing and certification agency other than NIOSH and, in the opinion of a person qualified because of knowledge, training and experience in industrial hygiene practice, afford the worker using it protection at least equal to the protection afforded by the use of a respirator approved by NIOSH.
  - 4. It must meet or exceed the applicable assigned protection factor set out in Schedule 2.
- (2) An employer who provides a worker with a respirator **shall** have regard to the following when selecting the respirator:
  - The airborne concentration of the biological or chemical agent to which the worker is exposed, calculated in accordance with Schedule 1, and the maximum use concentration of the respirator.
  - 2. The manufacturer's information on the intended use, scope and limitations of the respirator.
  - 3. The potential for an atmosphere with an oxygen concentration of less than 19.5 per cent, an IDLH atmosphere, or oil in the atmosphere.
- (3) If a respirator is used to protect a worker from exposure to asbestos, it **must** be,
- (a) equipped with a HEPA filter; or

- (b) equipped with a N-100, R-100 or P-100 particulate filter.
- (4) If an airline respirator is used in an IDLH atmosphere, it must be fitted with an auxiliary supply of breathing air that is sufficient to permit the worker to escape unassisted from the atmosphere.
- (5) If a respirator is supplied with breathing air from an air cylinder or a compressed breathing air system, the following requirements **must** be met:
  - 1. The breathing air **must** meet the purity requirements set out in Table 1 of CSA Standard CAN/CSA-Z180.1-13 (R2018), Compressed Breathing Air and Systems (2018).
  - 2. If a compressed breathing air system uses a compressor with an operating pressure greater than 103.4 kPa to supply the breathing air, the breathing air must be tested at least once every six months to ensure that it meets the requirement set out in paragraph 1.
  - 3. The air intake used in connection with a compressed breathing air system **must**,
  - 4. for breathing air delivered by a compressor with an operating pressure greater than 103.4 kPa, be located in accordance with section 6 (Air intakes) and Annex A of CSA Standard CAN/CSA-Z180.1-13 (R2018), Compressed Breathing Air and Systems (2018), and
  - 5. for breathing air delivered by an ambient air system, be located in accordance with section 6 (Air intakes) and Annex B of CSA Standard CAN/CSA-Z180.1-13 (R2018), Compressed Breathing Air and Systems (2018).
  - 6. If a compressed breathing air system uses an oillubricated compressor to supply the breathing air,
  - 7. a continuous carbon monoxide monitor equipped with audible and visual alarms that activate at 5 ppm must be provided, and
  - 8. the continuous carbon monoxide monitor **must** be calibrated in accordance with the manufacturer's instructions. **Section 10(1) to (5).**

#### For more information:

- Requirements: use of respirator. Section 11.
- Requirements: tight-fitting respirator. Section 12.
- Requirements: care and maintenance of respirator.Section 13.

Further details on the Ontario Regulation 185/19 can be found at Ontario.ca.

# PRINCE EDWARD ISLAND

Under Prince Edward Island's <u>Occupational Health and Safety Act General Regulations</u>, Part 45: Personal Protective Equipment (Sections 45.17 to 45.20), employers are required to provide appropriate respiratory protective equipment (RPE) for workers exposed to hazardous airborne contaminants. These regulations mandate the assessment of risks, selection of suitable RPE, and ensuring workers are trained on its correct use, maintenance, and storage.

# Part 45 - Personal Protective Equipment - Respiratory Protection

#### Hazardous air

(1) Every employer **shall** ensure that when workers are or may be exposed to an oxygen deficient atmosphere or harmful concentrations of air contaminants, mechanical means of engineering design **shall** be utilized to prevent or to eliminate such hazardous conditions of exposure.

# Respiratory equipment

(2) Every employer **shall** ensure that where the prevention or elimination of such hazardous conditions is not reasonably practicable, or where the exposure results from temporary or emergency conditions only, every worker exposed **shall** wear approved protective respiratory equipment. **Section** 

45.17(1)(2).

# Selection, use, and care of respirators

- (1) The employer **shall** ensure that the selection, use and care of respirators meet the applicable standards and specifications set out and referred to in the CSA Standard Z94.4-18, "Selection, Use, and Care of Respirators".
- (2) The employer **shall** ensure that where air is provided for the purpose of any respiratory protective equipment, the air meets the applicable standards and specifications set out and referred to in CSA Standard Z180.1-19, Compressed Breathing Air and Systems.

# Respirator performance

(3) The employer **shall** ensure the selected respiratory protective equipment for filtering particulate matter meets the applicable standards and specifications set out in CSA Standard Z94.4.1:21, "Performance of Filtering Respirators," or a standard offering equivalent protection. **Section 45.18(1)(2)(3)**.

# Shaving

Every employer **shall** ensure that workers required to use a respirator **shall** be clean shaven where the respirator seals with the face. **Section 45.19**.

# **Signs**

- (1) Every employer **shall** ensure that access routes to work areas where workers may be exposed to oxygen deficient atmosphere or harmful concentrations of air contaminants **shall** be posted with signs and specifying
- (a) the required personal protective equipment; and
- (b) the areas and hazards involved.

#### Rescue team

- (2) The employer **shall** ensure
- (a) that sufficient workers who are trained in rescue procedures are immediately available whenever workers are working in areas where an oxygen deficient atmosphere or harmful concentrations of air contaminants exist or are likely to develop; and
- (b) that the rescue workers have immediate access to appropriate respirators or other aids necessary to affect a rescue.

# Air supply

- (3) The employer **shall** ensure that where a worker is wearing an approved airline or approved air-hose type respirator in an atmosphere immediately harmful to the worker
- (a) the air supply source **shall** be attended by another worker who **shall** be equipped to effect rescue or render assistance if the worker is rendered unconscious or otherwise incapacitated; and
- (b) the worker **shall** be provided with and carry an auxiliary supply of compressed respirable air of sufficient capacity to enable the worker to escape from the area in an emergency or until rescue I s effected. **Section 45.20(1)(2)(3).**

Further details on the Occupational Health and Safety Act General Regulations can be found at <a href="Princeedwardisland.ca">Princeedwardisland.ca</a>.

# **QUÉBEC**

Under Québec's Regulation Respecting Occupational Health and Safety, Division VI: Respirators (Sections 45 to 48), employers are required to provide appropriate respiratory protective equipment (RPE) to workers exposed to airborne

hazards. These regulations mandate the proper selection of respirators based on a risk assessment, ensuring the equipment is properly fitted and maintained.

# **Division VI** — **Respirator**

**Respirator**: The employer **must** provide the worker with a respirator in the following cases:

- (1) during the period required to implement a measure provided for in section 41;
- (2) in case of an emergency where the values provided for in section 40 are not complied with;
- (3) if no measure makes it possible to comply with the values provided for in section 40. **Section 45.**

Every respirator provided by the employer must be certified by the NIOSH or the CSA.

When providing such a device, the employer must draft and apply a respiratory protection program in compliance with CAN/CSA Standard Z94.4-11, Selection, Use, and Care of Respirators, as published in September 2016. **Section 45.1.** 

**Prohibition**: Notwithstanding section 45.1, an employer may not provide the worker with a self-contained or air-supplied protective respiratory apparatus equipped with an automatic device which interrupts or restricts the air supply in the part of the apparatus covering the face. **Section 46.** 

Air supply: Compressed breathing air for supplied-air respirators or self-contained respiratory protective apparatuses must comply with CSA Standard CAN/CSA-Z180.1-00, Compressed Breathing Air and Systems. Systems that produce, store, and distribute air must comply with the standard that applies to them.

Samples of compressed breathing air  ${\it shall}$  be taken and

analyzed to obtain an accuracy equivalent to that obtained by applying the methods described in the Sampling Guide for Air Contaminants published by the Institut de recherche Robert-Sauvé en santé et sécurité du travail du Québec. The analyses must be made at least every 6 months, except for ambient air systems. The results of these analyses **shall** be entered in a register that **shall** be kept for a period of at least 5 years.

Breathable compressed air supply and distribution systems shall be maintained in compliance with the manufacturers' instructions. The date on which such maintenance is performed as well as the name of the person who performed it shall be recorded by the employer in a register that shall be kept for a period of at least 5 years. Section 48.

Further details on the Regulation Respecting Occupational Health And Safety can be found at <a href="Legisquebec.gouv.gc.ca"><u>Legisquebec.gouv.gc.ca</u></a>.

# **SASKATCHEWAN**

Under Saskatchewan's Occupational Health and Safety Regulations, Part 7: Personal Protective Equipment (Sections 7.3 to 7.5), employers are required to provide suitable respiratory protective equipment (RPE) to workers exposed to hazardous airborne substances. These regulations mandate that employers assess potential respiratory hazards, select appropriate RPE, and ensure it is properly maintained and fitted.

# Part 7 Personal Protective Equipment — Respiratory Protective Devices

If a worker is likely to be exposed to dust, fumes, gas, mist, aerosol or vapour or any airborne contaminant that may be present in any amounts that are harmful or offensive to the worker, an **employer or contractor shall**:

(a) provide an approved respiratory protective device for use

by the worker that:

- (i) provides suitable and adequate protection to the worker from one or more airborne contaminants;
- (ii) is the proper size for the worker's face;
- (iii) if a tight fit is essential to the proper functioning of the respiratory protective device, makes an effective seal to the facial skin of the worker; and
- (iv) if a tight fit is essential to ensure the worker is not exposed to one or more airborne contaminants to an extent that may pose a risk of significant harm to the worker, has been fit-tested by a competent person in an approved manner;
- (b) ensure that the respiratory protective device is regularly cleaned and maintained in an approved manner; and
- (c) ensure that the respiratory protective device is kept, when not in use, in a convenient and sanitary location in which the respiratory protective device is not exposed to extremes of temperature or to any contaminant that may inactivate the respiratory protective device.
- (2) If a respiratory protective device as required by subsection (1) is provided to a worker, the **employer or contractor shall** ensure that the worker:
- (a) has been trained by a competent person in the proper testing, maintenance, use, and cleaning of the respiratory protective device and in its limitations;
- (b) can demonstrate that the worker:
- (i) understands the training provided pursuant to clause (a);
- (ii) can test, maintain, and clean the respiratory protective
  device; and
- (iii) can use the respiratory protective device safely;

- (c) tests the respiratory protective device before each use;
- (d) is assessed according to an approved standard as being capable of wearing a respiratory protective device; and
- (e) is adequately informed respecting the reasons for the assessment required pursuant to clause (d).
- (3) An **employer or contractor shall** ensure that the training required by clause (2)
- (a) includes practical experience by the worker in an uncontaminated environment.
- (4) If respiratory protective devices are used only for emergency purposes, an **employer or contractor shall** ensure that a worker who may be required to use a respiratory protective device is given semi-annual refresher training in its safe use.
- (5) An employer **shall** ensure that the following records are kept as long as the worker who was provided with a respiratory protective device is employed by the employer and that the following records are made readily available for inspection and examination by the committee or the representative, as the case may be:
- (a) records respecting fit-testing for each worker that is completed pursuant to subclause (1) (a) (iv);
- (b) records respecting the results of assessments for each worker that are completed pursuant to clause (2) (d);
- (c) records respecting training completed by each worker pursuant to subsections (2) and (3).
- (6) An employer **shall** ensure that any records mentioned in clause (5) (b) respecting a worker that are made available for inspection and examination pursuant to subsection (5) do not disclose any personal health information as defined in

The Health Information Protection Act respecting the worker, unless the worker agrees to that disclosure.

- (7) An employer **shall** ensure that records respecting the maintenance of atmosphere-supplying respirators are kept and made readily available for inspection and examination by the committee or the representative as long as the worker who was provided with an atmosphere-supplying respirator is employed by the employer.
- (8) A worker may, at any time, inspect and examine any records kept pursuant to subsection (5) or (7) that relate to the worker. Section 7-3 (1) to (8).

# Inspection of respiratory protective devices

# An employer or contractor shall ensure that:

- (a) any respiratory protective device for emergency use is thoroughly inspected by a competent person at least once a month and after each use;
- (b) the date of every inspection made pursuant to clause (a) and the name of the person who made the inspection are recorded and conspicuously displayed at the location where the respiratory protective device is stored; and
- (c) any defects identified during the inspection carried out pursuant to clause (a) are corrected immediately by a competent person. **Section 7-4.**

#### For more information:

Working in dangerous atmospheres. Section 7-5(1) to (3).

Further details on the Occupational Health And Safety Regulation can be found at <a href="Saskatchewan.ca">Saskatchewan.ca</a>.

# **YUKON**

Under the <u>Workers' Safety and Compensation (WSC) Regulations</u>, **Part 1: General, Sections 1.26 to 1.33** on **Protective Equipment and Clothing – Respiratory**, **employers** in Yukon are **required** to provide appropriate respiratory protective equipment (RPE) to workers exposed to airborne hazards. These regulations **mandate** that employers conduct a thorough hazard assessment, select suitable RPE, and ensure proper training for workers on the correct use, maintenance, and storage of the equipment.

# **Protective Equipment and Clothing — Respiratory**

Where a worker is or may be exposed to an air contaminant in excess of the permissible concentration or excursion limit, or to an oxygen-deficient or -enriched atmosphere, as established by the Occupational Health Regulations.

# Air quality evaluation

(a) the employer **shall** carry out a comprehensive determination and evaluation to assess the quality of the air and the measures required to render the atmosphere safe to work in, and

# **Proper ventilation**

(b) when necessary, as established by the Occupational Health Regulations, a proper ventilation system or other measure **shall** be installed or implemented. **Section 1.26.** 

# Requirement for use

Where air contamination beyond the permissible concentration occurs at a workplace as a temporary or an emergency situation, and where a worker is or may be exposed to such atmosphere

#### **Provision**

(a) the worker **shall** be provided with and wear appropriate respiratory protective equipment and be adequately trained in its use, limitations, and maintenance, and

#### **Standards**

(b) the respiratory equipment **shall** be selected in accordance with the CSA Standard Z94.4-02, Selection, Use and Care of Respirators or other similar standard acceptable to the board. **Section 1.27.** 

#### Worker IDLH or oxygen deficient atmosphere

If a worker is required to enter or work in an IDLH or oxygendeficient atmosphere, or where there is risk of accidental release of an air contaminant or development of such conditions, the employer **shall** provide and the worker **shall** 

#### **SCBA**

(a) wear a full facepiece positive pressure respirator that is an SCBA, or an airline respirator with auxiliary selfcontained air cylinder of sufficient capacity to permit the worker to escape from the contaminated area without any assistance if air supply fails,

#### **Attendant**

(b) be attended by at least one other worker who is similarly equipped, trained, and capable of effecting rescue, stationed at, or near the entrance to the contaminated area, and

# **Training**

(c) be aware of the requirements of Part 2 — Confined Spaces. **Section 1.28.** 

# **Emergency escape air bottle**

A worker using SCBA or an airline respirator **shall** 

- (a) carry an emergency escape air bottle if there is any possibility that the worker may not be able to escape from a contaminated area without assistance, and
- (b) carry the emergency escape air bottle or ensure that it is within arm's reach at all times. **Section 1.29.**

# Annual testing of air quality

The compressed air supplied to respirators, such as SCBA or "supplied air respirators", **shall** be tested at least annually to check the quality of the air and compliance with the requirements of CSA Standard Z180.1-00, Compressed Breathing Air and Systems, or other similar standard acceptable to the board. **Section 1.30.** 

#### For more information:

- Section 1.31.
- Clean shaven face. Section 1.32.

Further details on the Workers' Safety and Compensation (WSC) Regulations can be found at <a href="https://www.wcb.yk.ca">wcb.yk.ca</a>.