



# Respiratory Protection Program Guide

---

As per Section 83 of The Occupational Health and Safety Regulations, “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”.

In general, where the use of respirators is required as a condition of employment, and/or the hazards present in the workplace necessitate the use of respirators for personal protection, a respiratory protection program (RPP) is required by the employer. The purpose of this guidance document is to assist employers in developing and implementing a RPP that complies with OHS legislation and applicable CSA standards.

- 1) The most important thing to remember is to follow CSA Standard Z94.4 as closely as possible. There will be workplace specific items to address and parts of the standard that don't apply to your workplace, however the general format of your program should follow very closely with the order of sections presented in the standard. Also, a key point to consider is that your RPP has to be **specific to your workplace** and not a generic document.
- 2) When the CSA Standard is referenced, make sure the correct, most recent version is used. Alternatively you could just reference CSA Standard Z94.4 with no mention of revision date. Note that any mention of “the standard” from here on in this guidance document refers to this standard.
- 3) Start with an introduction about the company's commitment to protecting its employees and that the RPP is another tool to aid in this goal. Include the statement from Section 4.1 of the standard.
- 4) A section including definitions relevant to your workplace is a good place to start. If employees are unsure of certain language within the program, they can check the ‘Definitions’ section for clarification. A detailed list can be found in Part 3 of the standard.
- 5) Program components are listed in Section 4.3 of the standard and each of them will require a separate section in your RPP. All components are addressed below
- 6) Roles and Responsibilities
  - a. An effective RPP will include the following roles
    - i. Program Administrator (must be named within the document)
    - ii. Respirator user
    - iii. Supervisor



## Respiratory Protection Program Guide

---

- iv. Person Selecting Respirators
  - v. Fit tester
  - vi. Issuer of Respirators
  - vii. Maintenance Personnel
  - viii. Health Care Professional
- b. The employer shall ensure that all program roles are assigned to qualified persons. **THIS IS COMMONLY NOT DONE WHEN EMPLOYERS DEVELOP THEIR OWN RPP'S.**
- c. Responsibilities for the various roles are outlined in Section 5.1-5.8 of the standard. It is up to the employer to determine what responsibilities apply to their workforce and what would be contracted out (i.e. fit testing). Include applicable responsibilities in this section of the RPP.
- 7) Hazard Assessment
- a. A lot of RPP's that are submitted to the Division make reference to the importance of a hazard assessment, however in a lot of cases hazard assessments have not actually been completed and documented. The hazard assessments are very important to have done as they form the basis for the rest of the program. You need to know what hazards are present and in what amounts in order to select appropriate respirators, train personnel appropriately, etc.
  - b. Be sure to include the statement, "A hazard assessment shall be performed by a qualified person to determine the respiratory hazards present and to assist in the selection of an appropriate respirator where required." Then make sure that a qualified person actually conducts the hazard assessment. This person(s) should be identified, i.e. the program administrator, outside consultant, etc.
  - c. The steps to be taken for a hazard assessment can be found in Sections 6 and 7 of the standard, depending on the type of contaminant. You don't need to include full details; just a reference to the standard will be fine.
  - d. Include all hazard assessments conducted in an Appendix. We would look for these during our review of any RPP.
- 8) Respirator Selection
- a. Include statement: "Personnel conducting respirator selection shall understand and comply with the limitations of the selected respirators under the conditions of use."
  - b. Include statement: "Respirator selection shall be based on a systematic review of the hazards and knowledge of standards, regulatory criteria, and manufacturer's information on the types of respirators and their limitations to ensure that appropriate respirators are selected for the intended conditions of use." Also include: "There can be multiple hazards present (e.g. bioaerosol and chemical). All hazards shall be considered in exposure assessments."



## Respiratory Protection Program Guide

---

- c. Include classification of respirators as per Section 7.2 of the standard. Identify what respirators are used at your workplace, the rationale for that type of respirator, by whom they are used, and under what situations they are used (i.e. Full Face air purifying respirators (gas, vapor, and particulate removing) are used by cleaners spraying “x” chemicals during the night cleaning shift). The goal is to be workplace specific!
  - d. It is a good idea to include a respirator selection flowchart either in this section or as an appendix. A good example is given as Figure 1 of the standard.
  - e. The Assigned Protection factor (APF) for the respirator must be considered. The APF is the expected workplace level of respiratory protection that would be provided by a properly functioning respirator or a class of respirators to properly fitted and trained users. Operationally, the inhaled concentration can be estimated by dividing the ambient airborne concentration by the APF. For example, a half face respirator with an APF of 10 would mean that you could be exposed to up to 10 times the exposure limit for any particular contaminant, provided the respirator is worn properly. If the airborne concentration(s) were more than 10 times the exposure limit, you would need a respirator with a higher APF to avoid overexposure. Sampling for this portion of the program (by a qualified person) may be required to ensure airborne levels do not exceed the protection factor.
- 9) Training
- a. Include statement: “Training shall be provided by a qualified person or persons with a practical understanding of the respiratory protection program roles, responsibilities, and requirements and the ability to coordinate the multiple training requirements of the program”
  - b. See Section 8.1 of the standard for details on competencies and include relevant info.
  - c. Most importantly, have subsection on “Training will include the following elements:”
    - i. Policies, Procedures, Roles, and Responsibilities
    - ii. Respiratory hazards, their potential health effects on the worker, and the means to control them
    - iii. Respirator selection process / The choice of the appropriate respirator for the anticipated hazard
    - iv. Respirator user screening and medical assessment (include Respirator User Screening Form as an appendix – example is Figure E.1 in standard)
    - v. Fit Testing
    - vi. Donning and Doffing
    - vii. User seal checks
    - viii. Cleaning and inspection
    - ix. End of service recognition
    - x. Change-out of filter elements



## Respiratory Protection Program Guide

---

- xi. Replacement of air cylinders
- xii. Identification of problems
- xiii. Use under failure or emergency modes
- xiv. Storage
- xv. Removal from service
- xvi. Basic maintenance
- xvii. Familiarity with and adherence to the manufacturer's instructions
- d. At end of section include: "Accurate records shall be maintained so that documentation of training is available for all individuals involved in the Respiratory Protection Program". This should include details on who conducted the training, when it was conducted, and the training material that was presented.

### 10) Respirator Fit Testing

- a. Start with: "The purpose of a qualitative or quantitative fit test is to verify a user's ability to obtain an effective seal and an acceptably comfortable fit for a selected tight-fitting respirator. The fit test process also verifies that a user is able to demonstrate the required level of competency in donning and doffing the respirator, as well as inspecting it and performing a user seal check."
- b. Also include: "No person shall use or be assigned to use a tight-fitting respirator until a satisfactory fit has been verified by a qualitative or quantitative fit test."
- c. Also include: "The fit test shall be used to verify the selection of the specific make, model, and size of a tight-fitting respirator for individual users. A sufficient variety of respirators shall be provided to ensure that each user has an opportunity to obtain a satisfactory fit because no single make, model, or size can be expected to fit all persons. The fit tester shall not force fit a respirator being fit tested."
- d. A fit test shall be carried out:
  - i. After completion of user screening;
  - ii. After or during training;
  - iii. Prior to initial use of a tight-fitting respirator;
  - iv. When changes to a user's physical condition (e.g. significant weight change or changes to facial or dental features) could affect the respirator fit;
  - v. When there is a change in respirator (e.g. make, model, size);
  - vi. When a respirator user experiences continued significant discomfort during use or difficulty in completing a successful user seal check;
  - vii. When there is a change in PPE use that could affect the respirator; and
  - viii. At least every 2 years.
- e. Tight fitting respirators shall be tested only in the negative pressure mode regardless of the mode of operation in which the respirator is to be used.
- f. Individuals shall present themselves for fit testing free from interference of hair where the respirator seals to the skin of the face or neck. Fit testers shall follow the requirements of the program and shall not perform a fit test if they observe that the person is not free from interference where the respirator seals to the skin of the face or neck.



## Respiratory Protection Program Guide

---

- g. Individuals shall present themselves for fit testing in the same personal condition they would expect to be in when using the respirator. This includes hair styles, and wearing or not wearing dentures, eyeglasses, or contact lenses.
  - h. PPE Integration: When PPE such as eye, face, head, or hearing protectors or protective garments are required to be worn during respirator use, they shall be worn during respirator fit testing to ensure that the respirator seal is not compromised.
  - i. Qualitative fit testing (QLFT) shall be conducted in accordance with one of the procedures described in Annex B of the standard. Include these procedures as an appendix to your RPP. **QLFT shall not be used for SCBA and multi-functional SCBA airline applications.**
  - j. Quantitative fit testing (QNFT) shall be conducted in accordance with one of the procedures described in Annex C of the standard. Include these procedures as an appendix to your RPP.
  - k. The program administrator shall ensure that procedures are established to maintain fit test records.
- 11) Use of Respirators
- a. Start with: “Before being assigned any task that requires the use of a respirator, the user shall meet all the health screening, training, and fit testing requirements outlined in this program.”
  - b. Workers shall exit a contaminated work area whenever they detect the odor of the contaminant or experience any irritation symptoms caused by it.
  - c. Respirators requiring a tight fit in order to perform effectively shall not be worn when an effective seal to the face or neck of the person cannot be achieved and maintained.
  - d. The user of a respirator shall check the seal of the face piece immediately after donning the respirator, by procedures recommended in Annex A of the standard or by other procedures recommended by the respirator manufacturer. Include procedures for user seal checks in the RPP either in this section or as an Appendix. A user seal check shall not be used as a substitute for a qualitative or quantitative fit test.
  - e. Include notes on change-out procedures, schedules, and service time as per section 10.2 of standard (as applicable). Be sure to include:
    - i. A qualified person shall establish a change-out schedule for the replacement of air-purifying filters or cartridges of respirators before their useful service life is ended. THE RPP must include the change-out schedule for the respirators used and the contaminants present.
    - ii. Warning properties of the contaminant shall not be relied on for cartridge/canister change-out. Should workers detect odor or experience any irritation symptoms of the contaminant before the end of the change-out schedule, the respirator program administrator shall be informed and shall re-evaluate this respirator use, i.e. the change-out schedule, the workplace concentrations, or other conditions of use (relative humidity, work rate, etc).



## Respiratory Protection Program Guide

---

- iii. Change-out can include end-of-service-life indicators, maximum use time, and breathing resistance as appropriate.
- iv. Particulate filters shall be replaced if they become damaged or unhygienic; based on the employer's change-out schedule; when breathing becomes difficult; or as recommended by the manufacturer.
- v. If SCBA's are used at your workplace, consult 10.2.2.5 and 10.3 of the standard for guidance on what to include in your RPP.
- f. The respirator face-to-face piece seal shall not be broken to communicate
- g. Respirator users shall not remove their face pieces at any time while working in an IDLH atmosphere.

### 12) Cleaning, Inspection, Maintenance, and Storage of Respirators

- a. Each respirator shall be properly maintained to retain its original effectiveness. An acceptable program of care and maintenance shall include:
  - i. cleaning and sanitizing;
  - ii. inspection, testing, and repair;
  - iii. storage;
  - iv. record keeping.
- b. Defective or nonfunctioning respirators shall be identified as out of service or the equivalent (e.g., by being tagged) and shall be replaced or removed from service until repaired.
- c. **Cleaning and Sanitizing:** Respirators shall be cleaned and sanitized according to the respirator manufacturer instructions or according to the procedures authorized by the program administrator in consultation with the respirator manufacturer. Respirators designed not to be cleaned shall be disposed of after use as directed by the manufacturer. See Annex F of the standard for cleaning and sanitizing procedures and include in this section or as an Appendix.
- d. **Inspection, Testing, and Repair:**
  - i. Users shall inspect their respirators before and after each use.
  - ii. Respirator inspection shall include, where applicable, the following:
    - 1. condition of component parts (e.g., face piece, helmet, hood, suit, valves, connecting tubes, filters, cartridges, canisters, cylinders);
    - 2. tightness of connections;
    - 3. end of service-life indicator;
    - 4. shelf-life dates;
    - 5. proper functioning of regulators, alarms, and other warning systems.



## Respiratory Protection Program Guide

---

- iii. Respirators shall be inspected in accordance with the manufacturers instructions (include these in RPP). If they do not pass the inspection, the respirator shall be tagged and removed from service.
  - iv. IF SCBA's are used at the workplace, see 11.3.3 of standard for guidance on inspection of SCBA cylinders and include in your RPP.
  - v. Used respirators shall be reconditioned to accepted manufacturer's standards, and used SCBAs shall be reconditioned by the manufacturer or authorized service agents prior to use. Qualified persons shall repair and test respirators and cylinders and facilities where this takes place shall be registered to meet the requirements of CSA B339 and CSA B340.
- e. **Storage:**
- i. Respirators shall be stored in a manner that will protect them against dirt, dust, ozone, sunlight, heat, extreme cold, excessive moisture, vermin, damaging chemicals, oils, greases, or any other potential hazard that can have a detrimental effect on the respirator. Respirators shall be stored in a manner that will prevent deformation of rubber or other elastomeric parts. Emergency and rescue-use respirators placed in work areas shall be quickly accessible at all times and the storage cabinet, container, or holder shall be clearly marked.
  - ii. If SCBAs are used at the workplace, consult 11.5.4, 11.5.5, 11.6, and 11.7 of standard and include applicable portions in your RPP.

### 13) Health Surveillance

- a. Prior to fit testing and respirator use, the program administrator shall ensure that documentation is completed that confirms that individuals are free from any physiological or psychological condition that could preclude them from using the selected respirator. All health information shall be treated as medically confidential. (Again, see sample respirator user screening form in Figure E.1 of standard).
- b. Where the respirator user or program administrator is concerned that a condition may exist that could preclude the use of a respirator, an opinion from a health care professional shall be obtained before the person is permitted to use a respirator. The health care professional must be informed about the job and the working conditions of that person. The written opinion shall indicate whether the user
  - 1. Meets medical requirements;
  - 2. Meets medical requirements with limitations; or
  - 3. Does not meet medical requirements to use the selected respirator.

### 14) Program Evaluation

- a. Respirator selection, use, and care should be effectively managed within the boundaries of an appropriate respiratory protection program. A program should include mechanisms to routinely review the effectiveness of the program by



## Respiratory Protection Program Guide

---

verifying compliance with regulatory requirements and company standards, identifying weaknesses, and implementing appropriate corrective actions. A program review can range from an informal evaluation to a formal audit and accompanying report and can be done internally or externally by those knowledgeable in the relevant aspects of the RPP under review.

- b. The program administrator shall ensure that the RPP is reviewed annually to ensure that it is being managed effectively and that respirator users are being adequately protected. Key elements for review can include: (See list in Section 13.2 of the standard).
- c. Other items you can include:
  - i. Review of roles and responsibilities and make changes where necessary
  - ii. Review of hazard assessments and inclusion of any new ones
  - iii. Review of training records
  - iv. Review of fit testing records
  - v. Observation of compliance with care, use, and storage
  - vi. Review of health surveillance / evaluation records
  - vii. Enforcement of the program

### 15) Recordkeeping

- a. The program administrator shall ensure that appropriate records are kept of all respiratory protection program activities as required by applicable legislation, employer policy, or as outlined in the standard. Recordkeeping should include documentation on:
  - i. The individuals fulfilling the roles and responsibilities of the program, including corresponding with users, qualified persons, and regulators.
  - ii. Hazard assessment, including periodic monitoring of the workplace atmosphere
  - iii. Selection of the appropriate respirator
  - iv. Training
  - v. Respirator facial fit
  - vi. Cleaning, maintenance, and storage of respirators
  - vii. Health surveillance of respirator users
  - viii. Program evaluation

**Note:** *Records should be maintained for the duration of employment of the person trained or for a minimum of 10 years.*





## Respiratory Protection Program Guide

---

- b. Medical and health records containing information related to the health of an employee shall be confidential documents maintained in the employees' personnel file.
- c. Copies of CSA Standard Z94.4 shall be maintained by the Respiratory Protection Coordinator and made available upon request.
- d. For more details on recordkeeping for i-viii above see Section 14.2-14.8 of the standard.

### 16) Appendices

- a. A number of items listed in this document say "include as an appendix". Most RPP's will have a number of appendices for various items that don't really belong in the main document. Examples include:
  - i. Hazard assessments
  - ii. Respirator selection flowchart
  - iii. Training matrix
  - iv. Respirator user screening form
  - v. Fit testing procedures
  - vi. Change out schedules
  - vii. Cleaning and sanitizing procedures
  - viii. Etc.

Further information can be found by viewing the Newfoundland and Labrador *Occupational Health and Safety Act and Regulations* at:

<http://assembly.nl.ca/legislation/sr/statutes/o03.htm>

<http://www.assembly.nl.ca/legislation/sr/regulations/rc120005.htm>

CSA Standards referenced in the Occupational Health and Safety Regulations can be viewed online at:

<https://community.csagroup.org/login.jspa?referer=%252Findex.jspa>