1.0 Purpose:

It is the policy of the Russell Fire Department to protect its employees from any hazardous atmospheres through a comprehensive respiratory program of recognition; evaluation; engineering, administrative and work practice controls, as well as personal protective equipment, including respirators. Hazard elimination, engineering and work practice controls shall be employed in order to control employee exposure to within allowable exposure limits as much as possible. Self Contained Breathing Apparatus, Respirators and other personal protective equipment shall be provided to all employees of the Russell Fire Department whenever required under this program.

This document is the Russell Fire Department’s Respiratory Protection Program; it is designed to protect employees by establishing accepted practices for respirator use, it also provides a guideline for training and respiratory selection, the program also explains proper storage, use and care of respirators. This program also serves to help the fire department and its employees comply with Ontario Fire Service Section 21 Advisory Committee Guidance Note # 4-9.

2.0 Scope:

This Operating guideline applies to all Russell Fire Department personnel who must wear a respirator to perform his/her assigned duties. Examples of situations that pose potential respiratory hazards and involve respirator use are:

1- Firefighting duties
2- Hazardous materials incidents
3- Epidemic / Pandemic

In addition, any employee who voluntarily wears a respirator when one is not required (i.e., in certain maintenance operations) is subject to the medical evaluation, cleaning, maintenance, and storage elements of this program, and will be provided with necessary training. Employees who voluntarily wear filtering face pieces (dust masks) are not subject to the medical evaluation, cleaning, storage, and maintenance provisions of this program.
3.0 Responsibility:

3.1 Employer:
The Employer (Russell Fire Department) shall be responsible for preparing and implementing a written Respiratory Protection Program and designating a qualified person as the Program Administrator.

3.2 Program Administrator:
The Program Administrator for the Russell Fire Department is the Captain Brian Murray. The program administrator will report to the Fire Chief. The roles and responsibilities of the Program Administrator include:

- Ensure that the respiratory protection program is reviewed annually to assess the effectiveness of the program
- Ensure that a monitoring system and associated performance measures are in place to track the efficiency of the procedures and training adopted under the respiratory protection program
- Ensure that written instructions and records required by this program are maintained
- Develop and maintain a system to manage and review the respiratory protection program
- Ensure that appropriate regulatory authority and/or standards organizations are consulted as required on interpretations relevant to criteria affecting the use of respirators in the workplace
3.2.12 ensure the development of procedures in anticipation of emergency and rescue operations
3.2.13 Periodically update the respiratory protection program

3.3 **Supervisors:**
The roles and responsibilities of the supervisor include:

3.3.1 ensure that fit testing and training are completed prior to assigning a user any task that requires the use of a respirator
3.3.2 ensure respirators are cleaned, sanitized, inspected, maintained, repaired and stored in accordance with written instructions and manufacturer’s recommendations
3.3.3 ensure the respirator is used in accordance with the instructions, the training received and the safe operating procedures established for the workplace
3.3.4 in the case of a tight-fitting face piece, ensure respirator users maintain their required clean-shaven condition and do not have any object or material that would interfere with the seal or operation of the respirator
3.3.5 notify the program administrator of respirator users concerns, changes in processes, equipment or operating procedures that have an impact on environmental conditions and respiratory protection requirements; and
3.3.6 notify the program administrator of investigation reports that revealed that the use of a respirator may have prevented or contributed to an incident or injury

3.4 **Respirator User:**
Each employee is responsible for wearing his or her respirator when and where required and in the manner in which they are trained. Employees must also:

3.4.1 in the case of a tight-fitting face piece maintain their required clean-shaven condition and refrain from having any object or material that would interfere with the seal or operation of the respirator
3.4.2 check that the respirator is clean and in good operating condition prior to each use
3.4.3 perform a negative and/or positive pressure user seal-check after each donning of a tight-fitting respirator
3.4.4 remove from service a respirator that they determine to be defective and report it to their immediate supervisor or other responsible person
3.4.5 report to their supervisor or other responsible person any condition or change that may impact on their ability to use a respirator safely, and
3.4.6 use the respirator in accordance with the instructions and training received.

4.0 Program:

4.1 Hazard Assessment:

The Program Administrator will select respirators to be used, based on the hazards to which workers are exposed and in accordance with the CAN/CSA-Z94.4 (current Edition) Standard. Due to the unknown situations that occur during fire fighting operations, meeting the requirements of clause 6 of the standard is virtually impossible. Therefore, an IDLH atmosphere will be assumed as per clause 6.2.7 of the standard.

4.2 Updating the Hazard Assessment:

The Program Administrator must revise and update the hazard assessment as needed.

5.0 Training:

5.1 The Program Administrator will schedule training for respirator users and their supervisors on the contents of the Russell Fire Department’s Respiratory Protection Program and their assigned responsibilities.

5.2 The training will cover the following topics;

5.2.1 The Russell Fire Department Respiratory Protection Program
5.2.2 Proper selection and use of respirators
5.2.3 Limitations of respirators
5.2.4 Respirator donning and user seal (fit) checks
5.2.5 Fit testing
5.2.6 Emergency use procedures
5.2.7 Maintenance and storage; and
5.2.8 Medical signs and symptoms limiting the effective use of respirators

Employees will be retrained bi-annually or as required. Employees must demonstrate their understanding of the topics covered in the training through hands-on exercises. The
Supervisor will document respirator training and the documentation will include the type, model, and size of respirator for which each employee has been trained and fit tested.

6.0 Voluntary Respirator Use:

Voluntary use of respiratory protective equipment does not exempt workers from the requirements of the Selection, Use and Care of Respirators standard.

7.0 Fit Test:

7.1 Employees who are required to wear respirators will be fit tested

7.1.1 prior to being allowed to wear any respirator with a tight-fitting face piece
7.1.2 every 2 years; or
7.1.3 when there are changes in the employee’s physical condition that could affect respiratory fit (e.g. obvious change in body weight, facial scaring etc.)

7.2 Employees will be fit tested with the make, model, and size of respirator that they will actually wear.
7.3 The Program Administrator will ensure fit tests are conducted in accordance with the requirements of Can/CSA – Z94.4 (clause 9)

8.0 General Respirator use Procedures:

8.1 Employees will use their respirators under conditions specified in this program, and in accordance with the training they receive on the use of each particular model. In addition, the respirator shall not be used in a manner for which it is not intended or certified.
8.2 All employees shall conduct user seal checks each time they wear their respirators.
8.3 Employees are not permitted to wear tight-fitting respirators if they have any condition, such as facial scars, facial hair, or missing dentures that would prevent a proper seal. Employees are not permitted to wear headphones, jewellery, or other items that may interfere with the seal between the face and the face piece.
9.0 Air Quality:

For supplied-air respirators, only breathing air meeting the requirements of CAN/CSA-Z180.1 (current edition) shall be used in the cylinders.

10.0 Cleaning:

Respirators are to be cleaned and disinfected regularly and after every use. Respirators issued for the exclusive use of an employee shall be cleaned as often as necessary. Atmosphere-supplying and emergency use respirators are to be cleaned and disinfected after each use.

Respirators shall be cleaned as per the manufacturer’s instructions.

11.0 Maintenance:

11.1 Respirators are to be properly maintained at all times in order to ensure that they function properly and protect employees adequately. Maintenance involves a thorough visual inspection for cleanliness and defects. Worn or deteriorated parts will be replaced prior to use. No components will be replaced or repairs made beyond those recommended by the manufacturer.

11.2 All respirators shall be inspected routinely before and after each use.

11.3 The Respirator Inspection Checklist (See Attachment) will be used when inspecting respirators.

11.4 A record shall be kept of inspection dates and findings

12.0 Storage:

12.1 After inspection, cleaning, and necessary repairs, respirators shall be stored appropriately to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals.

12.1.1 Respirators must be stored in a clean, dry area, and in accordance with the manufacturer’s recommendations

12.1.2 Respirators maintained at stations and work areas for emergency use shall be stored in compartments built specifically for that purpose and be quickly accessible at all times.
13.0 Respirator Malfunctions and Defects:

13.1 Respirators that are defective or have defective parts shall be taken out of service immediately. If, during an inspection, an employee discovers a defect in a respirator, he/she is to bring the defect to the attention of his/her supervisor. The Supervisor will decide whether to:

- 13.1.1 temporarily take the respirator out of service until it can be repaired
- 13.1.2 perform a simple fix on the spot, such as replacing head strap or
- 13.1.3 seek direction from the Program Administrator

13.2 When a respirator is taken out of service for an extended period of time, the respirator will be tagged out of service.

14.0 Program Evaluation:

14.1 The Program Administrator will conduct periodic evaluations of the workplace to ensure that the provisions of this program are being implemented. The evaluations will include regular consultations with employees who use respirators and their supervisors, site inspections and a review of records. Items to be considered will include:

- 14.1.1 Comfort
- 14.1.2 Ability to breathe without objectionable effort
- 14.1.3 Ability to perform all tasks without undue interference
- 14.1.4 Confidence in the face piece fit

14.2 The evaluation may also include:

- 14.2.1 regulatory review
- 14.2.2 management process, roles and responsibilities
- 14.2.3 program procedures
- 14.2.4 records review
- 14.2.5 selection, use and maintenance of respirators
- 14.2.6 training requirements
- 14.2.7 inspection of respirators
- 14.2.8 storage of respirator
14.3 Identified problems will be noted in an inspection log and addressed by the Program Administrator. These findings will be reported to the Fire Chief and the report will list plans to correct deficiencies in the respirator program and target dates for the implementation of those corrections.

15.0 Documentation and Record Keeping:

15.1 A written copy of this program and the applicable Standards shall be kept in the Program Administrator’s office and made available to all employees who wish to review it.

15.2 Copies of training and fit test records shall be maintained by the Program Administrator. These records will be updated as new employees are trained, as existing employees receive refresher training, and as new fit tests are conducted.

15.3 Maintenance records for self contained breathing apparatus are entered into our records management system. Maintenance records for the breathing air compressor are located in the equipment files in the SCBA/compressor room.

16.0 Types of Respirators:

Respirators are classified into two main classes according to the type of hazardous environment in which the respirator is to be used and the degree of danger to life and health, which that environment presents.

16.1 Self-Contained Breathing Apparatus (SCBA):

The Self-Contained Breathing Apparatus (SCBA) is a special type of supplied-air respirator that gives the user an independent air supply from a pressurized tank on the wearer’s back. Generally, the air supply lasts for 30 to 60 minutes, but is dependent upon the wearer’s size and type of work performed. SCBA’s are used under the following conditions;
Russell Fire Department
Respiratory Protection Program

- In oxygen-deficient atmospheres where the oxygen level is below 19.5%
- In poorly ventilated areas and/or in confined spaces such as tanks, tunnels, or vessels. **Note:** SCBAs are not required if the confined space is well ventilated and the concentration of toxic contaminants is known to be below the upper protection limit recommended for the respirator.
- In atmospheres where the concentration of contaminants is Immediately Dangerous to Life or Health (IDLH).
- In atmospheres where the concentration of toxic contaminants is unknown. Any unknown concentration must be treated as IDLH.
- For firefighting.

16.2 **Air-Purifying Respirators:**

This type of respirator usually consists of a face piece to remove dusts, mists and specific fumes, gases and vapours from the breathing air. They are the lightest and the easiest to use type of respiratory protection. Air-purifying respirators include:

- **Disposable Respirators** protect the wearer from low (nuisance) concentrations of fumes, mists and/or dust. Some models include an exhalation channel that exhausts air directly for less hot air and moisture build-up in the mask.

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*It is understood that this Guideline may not address all circumstances. Conditions may exist that require some type of deviation by the Incident Commander. Decisions should always be based on experience, the safety of the public and the safety of the Russell Fire Department personnel.*
17.0 **Associated Documents:**

Ontario Fire Service Section 21 Advisory Committee Guidance Note #4-9
CAN/CSA Z94.4 Selection, Use and Care of Respirators
CAN/CSA Z180.1-00 Compressed Breathing Air and Systems
Russell Fire Department Respirator Inspection Checklist
Russell Fire Department Rules and Regulations
Respiratory Protection
Russell Fire Department
Respiratory Protection Program
OG-#107

20.0 Document History:

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