

Location	City of Edmonton	Sections	All Applicable Sections
Branch	All Applicable Branches	Date	July 30, 2020
Details	SARS-CoV-2 (COVID-19) Virus		

Introduction and Scope

This Code of Practice sets out the requirements for employees of the City of Edmonton to follow for the proper use and care of respiratory protective equipment (RPE) for protection against the SARS-CoV-2 virus at the workplace, which causes the COVID-19 disease. By following this Code of Practice (COP) at the work site, business areas using the respiratory protective equipment listed in this document, will be in full compliance with pages 106-114 of the [City of Edmonton OHS Program and Standards Manual - Corporate Respiratory Protective Equipment Standard](#). This COP does not apply to rescue personnel providing emergency rescue services and complements but does not replace existing business area COP's already in place for tight-fitting respirators. This COP does not apply to the use, care and maintenance of face coverings by City employees as these are not considered tight fitting respirators. For additional information regarding the requirements and guidelines for the use of face coverings by City employees, refer to the [Face Coverings Guideline and Quick Reference Guide](#). The use of non-medical masks by City employees is encompassed under this COP, however, non-medical masks do not require fit testing or health clearance, as is required for tight fitting respirators prior to being worn by City employees.

This document must be available and easily accessible to employees at all times. This document must be reviewed and updated annually by the section and reviewed by the program administrators. For questions about this Code of Practice, please contact your supervisor or an RPE program administrator. The RPE program administrators are the City of Edmonton Occupational Hygiene Representatives.

Administering the Program

The program administrator is authorized by the City of Edmonton to manage the respiratory protection program and ensure employees are trained and use RPE in a manner that protects their health and safety. Employees are encouraged to bring all respirator issues to their supervisor or to a program administrator. All employees must cooperate in the performance of the program administrator's duties.

Occupational Hygiene Representatives / RPE Program Administrators: (responsible for determining the appropriate RPE)

Erin Pierce	780-423-4894	erin.pierce@edmonton.ca	Workforce Safety and Employee Health, Employee Services
Chase Kuziw	780-496-5950	chase.kuziw@edmonton.ca	Workforce Safety and Employee Health, Employee Services

Person responsible for supplying employees with RPE during COVID-19:

Business Area	Name	Email
Transit Maintenance (CPSS Supplies Shop)	Bradley Wells	bradley.wells@edmonton.ca
Municipal maintenance (CPSS Supplies Shop)	Bradley Wells	
Community & Recreation	Natalie Szekely	natalie.szekely@edmonton.ca
ETS Bus Operation (DATS, Training, Operational Support)	Shawn Walls (Operations) Chris Litzgus (EOC*)	shawn.walls@edmonton.ca chris.litzgus@edmonton.ca
LRT Operations & Maintenance DL MacDonald Davies Bus Facilities Maintenance ROW Building LRT Control	Farid Abid or Rod Zens James Cott Trevor Dennehy Darryl Schwartz	farid.abid@edmonton.ca or rod.zens@edmonton.ca james.cott@edmonton.ca trevor.dennehy@edmonton.ca darryl.schwartz@edmonton.ca
Edmonton Fire Rescue Services	Merilee Lynes	merilee.lynes@edmonton.ca
Edmonton Police Services	Stacey York	stacey.york@eps.ca
Parks & Roads Services	Michael Stagliano	michael.stagliano@edmonton.ca



Corporate Departments	Robert Kuziw	robert.kuziw@edmonton.ca
Fleet & Facility Maintenance	Darryl Anderson	darryl.anderson@edmonton.ca
Occupational Health & Safety	Chase Kuziw	chase.kuziw@edmonton.ca
Community Standards Peace Officers / Bylaw Officers / Animal Care & Control	Cheng-hsin Chang	cheng-hsin.chang@edmonton.ca
*EOC = Emergency Operations Centre		

Respiratory protective equipment (RPE) is classified as a type of personal protective equipment (PPE) which is used as a last resort for protecting the worker and reducing risks to an acceptable level in the hierarchy of controls when engineering and/or administrative controls cannot be implemented or are unavailable for use.

The correct selection of RPE is critical to the health and safety of employees and requires knowledge of chemical safety, exposure evaluation, work task demands, and RPE performance characteristics. Factors to consider may include, but are not limited to:

- The type of airborne contaminant(s),
- Physical state of airborne contaminant(s),
- Concentration or likely concentration of airborne contaminant(s) or biohazardous materials,
- Occupational exposure limit (OEL) of contaminant(s),
- Length of task performed,
- Oxygen deficient atmosphere (less than 19.5%) or oxygen enriched atmosphere (greater than 23%),
- Health effects of the chemical (i.e. skin/eye absorption and/or irritation), and
- Emergency escape or rescue.

Where the business areas hazard assessment and control process deems it necessary for employees to wear respiratory protective equipment (mask or respirator) to protect against COVID-19, and employees are normally not required to wear any form of



respiratory protection due to a lack of other respiratory hazards (biological, chemical or physical) being encountered during work tasks - the City of Edmonton requires employees to use disposable (surgical or procedure) masks at a minimum to provide COVID-19 protection.

Where the business area normally encounters other potential respiratory hazards in their work tasks (chemical, physical), the level of respiratory protection provided for COVID-19 protection will be consistent with the types and levels of respiratory protection already in use, if these types and levels of respiratory protection also provide adequate and evidence based COVID-19 protection. If the existing types and levels of respiratory protection are not consistent with also providing adequate protection against COVID-19, a suitable alternative will be issued to the business area which provides dual protection for the COVID-19 hazard, and the other respiratory hazards encountered in work tasks.

In an effort to prioritize and preserve RPE supply and availability and minimize waste during the COVID-19 pandemic, disposable N95 filtering respirators will be priority allocated and issued to essential service providers (ie. first responders), before being issued to other business areas for use, even in circumstances where it is normal operational practice for these other business areas to use N95 respirators, even if they are considered essential service providers but not first responders. In cases where N95 is deemed required and is not issued or available, a suitable alternative will be issued providing equivalent or higher level respiratory protection, than the normally issued N95 respirator.

If employees require any assistance with the selection of a filter/cartridge, please consult with the City of Edmonton Occupational Hygiene Consultants or the business area Safety Engagement Lead (refer to Department Contacts).

Task-based Respirator Selection and Hazards						
Job Description	Airborne Hazard	Type of Respirator	Applicable Respirator Make / Model # (note 1)	Type of Cartridge	Cartridge Make / Colour	RPE Use Mandatory?***
Routine work tasks where	-COVID-19 virus	Procedure /	-Annuochem 7100-FDB	Single-use	N/A	Yes



Respiratory Protective Equipment (RPE) Code of Practice

Version: 2.0

Date: July 30, 2020 (update)

Reviewed by: Chase Kuziw

Job Position: Supervisor, Corporate
Safety and Health Services

exposure to COVID-19 is only possible.		Surgical mask	-Vanch KZ001 -Noveko 9dHER -Noveko 3xEZ-L -VISITeFAIR 3 ply -AK-FM-B 3 ply (ear loop) -AK-FM-G (tie on)	disposable procedure/ surgical mask		
Routine work tasks where exposure to respirable particulate and COVID-19 virus exposure is possible.	-respirable particulate -nuisance dust -COVID-19 virus	N95 / KN95	-3M 1860 -3M Aura 1870+ -3M 8210 -Kimberly-Clark PFR95	Single-use disposable filtering respirator	N/A	Yes
Routine work tasks where exposure to respirable particulate and COVID-19 virus exposure is possible.	-respirable particulate -nuisance dust -COVID-19 virus	N99	Multiple - consult business area RPE COP	Single-use disposable filtering respirator	N/A	Yes
Routine work tasks where exposure to respirable particulate and COVID-19 virus exposure is possible.	-respirable particulate -nuisance dust -COVID-19 virus	P100	Multiple - consult business area RPE COP	Single-use disposable filtering respirator	N/A	Yes
Routine work tasks where exposure to respirable particulate, COVID-19 or other pathogens, or chemical hazards is possible.	-respirable particulate -nuisance dust -COVID-19 virus -chemical hazards	Half facepiece APR*	Multiple - consult business area RPE COP	Reusable filter and/or cartridge	Multiple - consult business area RPE COP	Yes
Routine work tasks where exposure to respirable particulate, COVID-19 or other pathogens, or chemical hazards is	-respirable particulate -nuisance dust -COVID-19 virus -chemical hazards	Full facepiece APR*	Multiple - consult business area RPE COP	Reusable filter and/or cartridge	Multiple - consult business area RPE COP	Yes

possible.						
-----------	--	--	--	--	--	--

*APR = Air Purifying Respirator
Note 1: Equipment (masks and respirators) on this list will be updated periodically as new equipment is procured and placed into use across the organization. When updates are made to this document, the version number listed in the header will also be updated.

Requirements for use of RPE during COVID-19

NOTE: The COVID-19 RPE COP is not intended to replace individual business area COP's for non COVID-19 respiratory hazards.

<p>NIOSH Approval</p>	<p>All RPE being used for protection against COVID-19 must be approved by the City's RPE Program Administrators, including all disposable and non-sterile surgical or procedure masks, disposable filtering facepiece respirators (ie. N95 level or higher, including international equivalents) and reusable filters used in conjunction with half or full facepiece respirators. The above represents a deviation from normal approval processes due to the COVID-19 pandemic and disposable mask and respirator supply mitigation strategies currently in place. Additional information on RPE supply mitigation strategies and City actions, may be found in the City's Respiratory Protective Equipment Guideline.</p> <p>Half facepiece and full facepiece air purifying respirators must continue to be approved by the U.S. National Institute for Occupational Safety and Health (NIOSH) or by another standards-setting and equipment-testing organization that is acceptable to the Government of Alberta Ministry of Labour.</p>
<p>Health Surveillance</p>	<p>All employees providing essential services who are required to wear N95 or higher level respiratory protective equipment, must complete the Respirator User Health Screening Form and be medically cleared for respirator use before wearing the respirator. Respirator health screening is not required for employees wearing single-use and disposable: non-medical face masks, non-sterile procedure masks, and/or non-sterile surgical masks.</p> <p>Employees must be free from any physiological or psychological condition that would prevent them from being able to wear a respirator. If employees indicate that they have a health condition on the screening form, they must be</p>



Respiratory Protective Equipment (RPE) Code of Practice

	<p>assessed and be cleared as medically fit by a healthcare professional prior to wearing a respirator. Employees who have questions about their ability to wear a respirator due to health reasons are asked to report their concern to their immediate Supervisor and/or their Safety Engagement Lead (SEL).</p>
<p>Respirator Use</p>	<p>Employees who are required to use tight-fitting respirators (N95 or higher level respiratory protection) MUST BE CLEAN SHAVEN WHERE THE RESPIRATOR MEETS THE FACE to ensure an effective facial seal as per their routine business area RPE Code of Practice. The COVID-19 RPE COP is not intended to replace individual business area COP's for non COVID-19 respiratory hazards. Employees who are required to wear single use and disposable masks (non-medical, procedure, surgical) for COVID-19 protection only, are not required to be clean shaven, but must be aware that large amounts of facial hair may inhibit effective use of these masks for preventing the spread of respiratory fluids, droplets, and aerosols from the wearer to others they are in contact with, or the environment they are working in.</p> <p>According to CSA Standard Z94.4-02 Selection, Use, and Care of Respirators, clean shaven is shaven “within the previous 24 or preferably 12 h to ensure that hair neither infringes on the sealing surface of the respirator nor interferes with valve or respirator function.” A photo showing acceptable and unacceptable facial hair can be found on Page 7 of this document. Employees are to remove anything that could potentially break the seal where the respirator meets the face, including, but not limited to, glasses-side arms, hair, clothing, jewelry, piercings, etc. Modifications to the selected respirator protective equipment are prohibited.</p>
<p>Respirator Fit Testing</p>	<p>Tight-fitting RPE that depends on an effective seal for its safe use must be properly fit-tested by a competent (trained) person in accordance with the CSA Standard Z94.4-02 Selection, Use, and Care of Respirators. This testing verifies that the employee is capable of wearing a respirator and that a sufficient fit can be achieved. Respirator fit testing is carried out:</p> <ul style="list-style-type: none"> ● Prior to initial respirator use, ● Every two years thereafter, ● When there is a change in the RPE (brand, model, size), and ● When there is a change in the user's physical condition that could impact respirator use (e.g. major dental surgery, significant loss or gain in weight, etc.)



Respirators must be fit-tested on employees by either:

- **Qualitative Fit Test** or
- **Quantitative Fit Test (using a Portacount)**

***Reminder:** Before using a respirator, the RPE user must perform a positive and negative fit **check** to verify the effectiveness of the seal.*

At this time, the City has implemented a modified fit testing protocol for all business areas requiring fit testing, which are continuing to operate during the COVID-19 pandemic to address the challenges fit testing activities create to complying with AHS physical distancing recommendations and other COVID-19 prevention measures like hand washing, cough/sneeze etiquette and cleaning/disinfection. Additional information on the modified fit testing protocol including circumstances where normal initial and biennial fit testing requirements may be waived, and applicability to your business area may be found in the City's [Respiratory Protective Equipment Guideline](#). If your business area is deemed an essential service, and is required to perform quantitative fit testing activities, contact a CoE Occupational Hygiene Consultant to arrange training in and access to the Modified Fit Testing Procedure and supplies issue (Portacount, Particulate Generator, etc). A Modified Fit Testing Procedure has been developed to ensure the appropriate level of PPE and infection control measures are in place to mitigate COVID-19 transmission risk during the fit testing activities.

Training

All employees who wear respiratory protection must be trained in the following:

- Airborne contaminants in your work areas
- Symptoms and toxic effects of overexposure to contaminants
- Respirator capabilities and limitations
- Donning/doffing and performing positive and negative fit checks on the respirator
- Maintenance, cleaning, sanitizing and storage of the respirator
- Emergency Procedures - what to do in case of an emergency
- City of Edmonton Standard for RPE
- Alberta's legislation on respiratory protection



- Other: COVID-19 transmission

Maintenance / Cleaning / Storage of Respiratory Protective Equipment

Each employee is responsible for cleaning, maintaining and storing their respiratory protective devices. Cleaning supplies, replacement parts and new respirators will be supplied by the City of Edmonton as needed.

Maintenance

Non-medical, procedure, and/or surgical face masks being used for COVID-19 protection only, must be discarded after one use only and considered single use disposable.

Disposable filtering facepiece respirators (N, P, R - 95 to 100) must be discarded after only one use and are considered single use disposable if they are being used for COVID-19 protection and/or protection against other respiratory (biological, physical) hazards.

Reusable filtering cartridges/ filters used in conjunction with half or full facepiece respirators must be replaced as per the manufacturer's instructions or earlier if smell, taste or irritation from the contamination is detected or if there is resistance to breathing. It is recommended that particulate cartridges/filters are changed out every 40 working hours or every 30 days.

Cleaning

Single use and disposable masks (non-medical, procedure and/or surgical) must be discarded after one use. Single use and disposable filtering facepiece respirators (N, P, R - 95 to 100) must be discarded after one use. Reusable RPE (half facepiece respirator or higher level protection) must be cleaned after each use. Non-alcohol wipes may be used on a daily basis. Regular cleaning should be performed on all components of the RPE with warm water, a mild detergent followed by a disinfectant application. Additional information on cleaning and disinfection requirements for reusable RPE may be found in the City's [Respiratory Protective Equipment Guideline](#).

Storage

RPE must be stored in a manner that will prevent its contamination. Sealing the respirator in a plastic bag away from sunlight or freezing conditions and in a manner that does not distort the shape of the facepiece is favourable. Additional information on storage requirements for reusable RPE may be found in the City's [Respiratory Protective Equipment Guideline](#).

Reviewed and Approved By



Reviewed By

Name:	Date:	Job Position:
Erin Pierce	April 21, 2020	Occupational Hygiene Consultant
Chase Kuziw	April 21, 2020	Supervisor, Corporate Safety & Health Services







Approved By (RPE Program Administrator)

Name:	Date:	Job Position:
Marvin Shmyr	April 22, 2020	OHS Director Supporting Citizen Services and Non Operational Departments
Dusty Schlitter	April 22, 2020	OHS Director Supporting City Operations and Integrated Infrastructure Services
Christie Pelletier	April 22, 2020	Director, Corporate Safety & Health Services

Acceptable Facial Hair (A to D)

<p>A. Clean-shaven, ideal for a good seal</p>	
<p>B. Amount of facial hair that will typically allow a good seal</p>	
<p>C. Moustache that does not interfere with the sealing surface, valves, or respirator function</p>	
<p>D. Soul patch that does not interfere with the sealing surface, valves, or respirator function</p>	

Unacceptable Facial Hair (E to J)

<p>E. Soul patch that will interfere with the respirator seal in the chin area on elastomeric facepieces Facial hair and sideburns that will interfere with the sealing surface</p>	
<p>F. This facial "shadow" (not clean-shaven) will interfere with the sealing surface of a half or full facepiece. It will also compromise a secondary seal inside a tight-fitting hood-style respirator. Degradation of fit can occur during cumulative work hours when an individual grows this amount of facial hair.</p>	
<p>G. Moustache is too thick and too long (down around edge of mouth); will contact a sealing surface and interfere with exhalation valve. Sideburns and/or heavy hair under the chin will prevent a good seal.</p>	
<p>H. Moustache is too thick and too long (down around edge of mouth); will contact a sealing surface and could get stuck in an exhalation valve. The hair on the rest of the face will interfere with a sealing surface.</p>	
<p>I. Hair is in sealing region and under the chin. Hair is in chin cup sealing region and on the side of the face.</p>	
<p>J. Moustache is too thick and too long; will contact a sealing surface and interfere with exhalation valve.</p>	

The examples provided above are sourced from Annex M of CSA Standard Z94.4-11 *Selection, Use, and Care of Respirators* and are illustrations of the application of the criteria specified in the Standard. These examples are limited, not comprehensive, and are provided only as guidance for program administrators, fit testers, supervisors, and users.