PROVINCIAL BUILDING & CONSTRUCTION TRADES COUNCIL OF ONTARIO

RECOMMENDED COVID-19 RISK REDUCTION STRATEGIES FOR THE REOPENING OF TRAINING CENTRES

VERSION 1.1

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INTRODUCTION

This Protocol ***Risk Reduction Strategies for Reopening Training Centres*** (the Protocol) is intended to offer **guidance and recommendations regarding best practices** in an effort to reduce the risk of disease transmission, specifically novel coronavirus SARS-CoV-2 and the disease it causes, COVID-19.

The Protocol is in no way intended to override or supersede guidance from provincial public health and local organizations, including the Ministry of Health and Ministry of Labour & Skills Development. It is also acknowledged that Training Centres

Adherence to any information included in this Protocol will not ensure successful treatment in every situation, and user acknowledges that there is no "zero risk" scenario. **User acknowledges that each Training Centre and situation are unique and some of the guidance contained in this Protocol will not apply.** Furthermore, the Protocol should not be deemed inclusive of all proper methods nor exclusive of other methods reasonably directed to obtaining the same results.

The information contained herein reflects the available information at the time the Protocol was created. User recognizes that details and information are changing daily, and new information and/or the results of future studies may require revisions to the Protocol (and the general guidance contained therein) to reflect new data.

This resource does not replace the *Occupational Health and Safety Act* (OHSA) and its regulations and should not be used as or considered legal advice. Health and safety inspectors apply the law based on the facts in the workplace.

Additionally, any policies implemented by Training Centre's must adhere to provisions of the Ontario Human Rights Code. Training Centres may need to make accommodations , unless it would amount to undue hardship based on cost, or health and safety. Training centres should also be sensitive to other factors such as any particular vulnerability a tarinee may have (for example, if they have a compromised immune system).

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RISK REDUCTION STRATEGIES

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➢ GUIDING PRINCIPLES

Follow the precautionary principle

Training Centres should err on the side of caution when it comes to health and safety. Training Centres, instructors, local union administrators, and trainees must also recognize that there is no 'zero risk'. Reopening Training Centres will require accepting that the goal is risk and harm reduction.

Layer defenses

No one control strategy alone can limit the transmission of disease. Training Centres should approach reopening with a layered defense strategy, where many small interventions and strategies are combined, simultaneously. Training Centres should deploy an 'all in' approach that uses every control feasible.

Share responsibilities

Just as there is no single control strategy that is effective in and of itself, there is no single entity that is solely responsible for keeping everyone safe. Successfully reopening Training Centres will require continual collaboration between instructors, local union administrators, and trainees Everyone has a critical role to play. Getting through this pandemic will require a great deal of social trust.

Limit transmission chains

Even with the best control strategies in place, there may be cases. To limit classroom outbreaks from becoming wide outbreaks all Training Centres should take steps to limit contact chains as much as possible. Within a Training Centre , classes should be kept separated as much as possible and within a classroom, trainees should be physically separated as much as possible.

Be flexible

The scientific community's understanding of this virus is changing rapidly. Disease spread and timing are not fully predictable. Training Centres should recognize that the dynamic nature of knowledge during a global pandemic requires a flexible and adaptive approach. Our collective understanding of this virus will change, and therefore the approach Training Centres take may change over time, too.

UNDERSTANDING COVID-19

How is COVID-19 transmitted?

COVID-19 is the disease caused by the SARS-CoV-2 coronavirus. Before we talk about specific reopening strategies, it is useful to recall how the COVID-19 virus spreads so we can understand when and how a specific intervention might be effective. There are three routes of transmission for COVID-19 that are supported by models and case studies of outbreaks.

Close-contact transmission can occur via droplets (> 5 μm in diameter) or aerosols (tiny droplets < 5 μm in diameter, also called droplet nuclei). Close contact transmission by droplets refers to close-range transmission of virus by sometimes-visible droplets that are coughed or sneezed by an infectious person directly onto the eyes, mouth, or nose of a nearby person.

Droplet transmission can be minimized by, among other things, physical distancing, and universal non-medical cloth mask-wearing. Close contact transmission by aerosols refers to transmission of virus in tiny, invisible droplets that are generated when an infectious person exhales, speaks, coughs, sneezes, or sings, and that are then inhaled by another nearby person, allowing the virus to deposit directly on the surfaces of their respiratory tract. This close contact aerosol transmission can also be minimized by, among other things, physical distancing, and mask-wearing.

Long-range transmission refers to transmission of virus in aerosols, which may be generated when an infectious person exhales, speaks, sneezes, or coughs and then travel out of the immediate 6-foot vicinity of the infectious person via airflow patterns. This airborne virus can remain aloft for more than an hour indoors to infect people who are not interacting closely with the infectious person. Long-range airborne transmission can be minimized by, among other things, increasing outdoor air ventilation to dilute the concentration of airborne virus or filtering air recirculating in a room or building.

Fomite transmission refers to viral transmission via inanimate objects, like desks, tables or water fountains that are contaminated with the virus. A surface could become contaminated in many ways, for example, after a person coughs directly onto an object or after they sneeze into their hand and then touch the surface.

Individuals who touch the fomite while the virus remains viable, and then touch their eyes, nose, or mouth before washing their hands, could be exposed to the virus. How long the virus can be detected on fomites depends on the type of surface and the environmental conditions. Under some conditions, the COVID-19 virus can be detected up to 72 hours after deposition on hard, shiny or plastic surfaces or up to 24 hours after deposition on more porous surfaces, but the risk posed by these day(s)-later detections is much lower than the initial risk because the amount of the detectable infectious virus decreases rapidly over time.

Fomite transmission of a virus can be minimized through frequent cleaning and disinfection of commonly touched objects, through use of automatic or touchless alternatives (e.g., automatic doors), and through frequent hand washing.

What factors determine exposure?

There are three components of exposure – **intensity, frequency, and duration**. In general, more intense, more frequent, and/or longer duration exposures have the potential to cause more harm. In the case of COVID-19, we can reduce the risk of illness through interventions that reduce any or all of these three characteristics:

- **Intensity** of exposure to SARS-CoV-2 may be minimized by physical distancing because the amount of SARS-CoV-2 in the environment around an infectious person is highest closest to the infectious person. Additionally, infectious people following respiratory etiquette (i.e., cover nose/ mouth when coughing or sneezing) and wearing masks reduces exposure intensity to people nearby.

- **Frequency** of exposure to SARS-CoV-2 may be minimized by reducing how often someone is in close contact with individuals outside the home who may be infectious.

- **Duration** of exposure to SARS-CoV-2 may be minimized by spending less overall time inside in close contact with others.

What factors determine risk?

While exposure is largely a function of intensity, frequency, and duration, risk is determined by many additional factors. Most importantly, personal risk is dependent on individual susceptibility. For example, this may be a function of age, gender, pre-existing conditions, or genetics.

For these reasons, two people with the same *exposure* may have quite different *risk*. Discussions of risk can also be subjective; in that they depend on personal risk tolerance. Last, risk is a function of factors outside of the individual, including the local healthcare capacity, the efficacy of available treatments, and the extent of spread in the underlying community.

For additional information on risk please refer to the Centre for Disease Control (CDC) reference document https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/people-with-medical-conditions.html#hemoglobin-disorders.

What are the symptoms of COVID-19?

The symptoms include:

- Fever, cough, and fatigue
- Along with nasal stuffiness, rhinorrhea, sputum, diarrhea, and headache.

How long does it take for symptoms to appear?

The incubation period of a disease is defined as the time from exposure to a disease-causing agent to the time when clinical signs of a disease first appear. This period may vary between individuals and is often protocoled as a range. **For COVID-19, the average incubation period is around 7.7 days in children and 5.4 days in adults but can range to up to 14 days.**

When can someone transmit COVID-19?

It is possible for individuals to spread COVID-19 prior to experiencing any symptoms. Studies suggest that transmission of COVID-19 can occur as early as **five days before onset of symptoms**. For mild cases not requiring hospitalization, studies suggest that an individual is no longer able to transmit disease **ten days after first experiencing symptoms (as long as they do not have a fever and have improved clinically).**

Severe COVID-19 cases may have a longer infectious period; one study found that the infectious period among 129 severely or critically ill hospitalized patients ranged from 0 days to 20 days after symptom onset with a median of 8 days after onset[1].[2]

According to the World Health Organization (WHO), two consecutive negative laboratory test results, taken at least 24 hours apart, can be used to determine the end of the infectious period.[3]

[1] Huang R, Xia J, Chen Y, Shan C, and Wu C., 2020. A family cluster of SARS-CoV-2 infection involving 11 patients in Nanjing, China. *Lancet Infect Dis,* 20(5), pp534-pp535.

[2] Van Kampen JJA, van de Vijver DAMC, Fraaij PLA, Haagmans BL, Lamers MM, Okba N, van den Akker JPC, Endeman H, Gommers DAMPJ, Cornelissen JJ, Hoek RAS, van der Eerden MM, Hesselink DA, Metselaar HJ, Verbon A, de Steenwinkel JEM, Aron GI, van Gorp ECM, van Boheemen S, and van der Eijk AA., 2020. Shedding of infectious virus in hospitalized patients with coronavirus disease-2019 (COVID-19): duration and key determinants. *medRxiv.* Retrieved from: https://doi.org/10.1101/2020.06.08.20125310.

[3] WHO. (2020a May 27). Clinical management of severe acute respiratory infection when novel coronavirus (2019-nCoV) infection is suspected. Retrieved from: https://www.who.int/publications-detail/clinical-management-of-severe-acute-respiratory-infectionwhen-novel-coronavirus-(ncov)-infection-is-suspected.

RISK REDUCTION STRATEGIES

1. HEALTHY CLASSROOMS
2. HEALTHY BUILDINGS
3. HEALTHY POLICIES
4. HEALTHY SCHEDULES

HEALTHY CLASSROOMS

In classrooms, instructors and trainees can prevent the spread of COVID-19 by washing their hands, maximizing physical distancing, maximizing group distancing, wearing face coverings, and avoiding shared objects. These recommendations work together to reduce the risk of exposure by close contact, long-range airborne transmission, and fomites.

Each strategy complements the others to mitigate the overall risk of transmission. Training Centres should consider adopting a plan to incorporate these precautions when reopening and establishing a protocol for how to handle any non-compliance.

Wear masks & face coverings

- Have trainees wear non-medical mask/ homemade facial covering as much as possible, especially when in hallways or bathrooms or in proximity to trainees from other classes
- Train trainees and staff on how to wear and care for masks
- Ensure masks meet effectiveness criteria
- Build in time throughout the day where trainees and staff do not have to wear masks
- Allow instructors to wear transparent face shields when teaching at the front of the room and face
- masks when working more closely with trainees

Qualities of a Good Cloth Mask or Face Covering

A good cloth mask or face covering should:

- Be at least two layers of tightly woven cotton or linen
- Cover over nose, mouth and chin, and be easy to breathe through
- Fit securely to the head with ties or ear loops without gaping or impairing vision
- Be comfortable to avoid the need for adjustments when wearing
- Maintain their shape after washing and drying
- Not contain non-breathable materials such as plastic
- For instructions on making a mask using fabric, a t-shirt or a bandana, visit the Government of Canada website.

As part of a multi-layered strategy that includes physical distancing and other control measures, face masks and face/ homemade coverings are an effective way to mitigate transmission from individuals who are infectious, even when they do not have symptoms. When worn properly, masks and other face coverings limit the spread of droplets and smaller aerosols when people breathe, speak, cough, or sneeze[4]. This is called “source control.”

Training Centres will need to consider a wide range of social, educational, and feasibility factors when deciding on a mask policy. From a safety standpoint, individuals should always wear masks as often as possible. This includes instructors , who likely speak the most and the loudest during class.

[4] Konda A, Prakash A, Moss GA, Schmoldt M, Grant GD, and Guha S, 2020. Aerosol Filtration Efficiency of Common Fabrics Used in Respiratory Cloth Masks. *ACS Nano*, 14(5), pp6339–pp6347.

If instructors have concerns about trainees learning and speech perception, they might consider reserving the mask for closer contact with trainees and instead, wearing a transparent face shield while at the front of the classroom.

It is important to note that face shields are less effective at source control, especially for aerosols generated by speaking, sneezing, and coughing due to a looser fit around the face. A face shield is not an alternative to a mask. The Centres for Disease Control (CDC) has stated that they do not recommend use of face shields as a substitute for cloth face coverings[5].

Trainees, who may struggle to wear masks properly, might be required to at least wear masks in hallways or other non-classroom locations where physical and group distancing is more difficult to maintain. In addition, there are individuals for whom wearing a mask is not recommended or may be difficult, such as those with asthma, other breathing problems, or sensory sensitivities.

For these individuals, face shields may be an acceptable alternative. Training Centres must decide their policy on wearing masks and any documentation, such as a medical note, necessary for alternative options. Strict mask policies would be especially important in Training Centres that cannot adequately ensure safe physical distancing.

Additionally, any policies implemented by the Training Centre must adhere to provisions of the Ontario Human Rights Code. Training Centres- depending on the trainees circumstances- may be required to make accommodations , unless it would amount to undue hardship based on cost, or health and safety. Training centres should also be sensitive to other factors such as any particular vulnerability a trainee may have (for example, if they have a compromised immune system).

Training Centres should **provide structured training to all trainees and staff on how to safely choose, wear, care for, clean or discard, and store their masks.** For instance,

- Trainees should wash their hands before putting on or removing the mask
- Only touch the mask by its straps
- Avoid touching the mask while it is being worn
- Change masks if it becomes wet.
- Individuals should make sure the mask fits snugly to cover the nose bridge, mouth, and chin

Masks that fit improperly, such as leaving gaps, have been found to result in a greater than 60% decrease in filtration efficiency. Training Centres should consider providing the resources and/or scheduled time for trainees to properly wash and store their masks. Printed guidance, such as infographics from organizations like the WHO and the Centers for Disease Control and Prevention (CDC), should also be posted around the Training Centre.

Cloth masks may vary greatly in filtration efficiency and breathability, depending on the fabric and layering. The WHO recommends that masks be at least three layers thick, where the different layers serve to either

[5] https://www.cdc.gov/coronavirus/2019-ncov/prevent-getting-sick/cloth-face-cover-guidance.html

limit the spread of droplets from the wearer's mouth or protect the mask from outside contamination and penetration. [6]

Additionally, more tightly woven materials, such as cotton fabrics with higher thread counts, are preferable, while elastic materials are not recommended due to the higher pore size and lower filtration efficiency.

Wearing a mask all day long, each and every day will be challenging and frustrating. Over time, 'mask fatigue' may set in, and compliance may drop. To limit this, classrooms can incorporate 'mask free' time during the day. For example, consider taking masks off during time spent outside when distancing can be maintained, or during quiet classroom time when there is no talking and trainees can stay distanced, or have half the class leave the room for activities (hands on portion of the class etc.) so the remaining group can distance and take masks off.

Choosing lower-risk times for breaks from masks may help ensure masks are worn during higher-risk scenarios. The risks of viral transmission during mask breaks will be lower when other interventions, such as healthy building strategies (for indoor mask breaks) and physical distancing, are in place.

Personal hygiene & wash hands frequently

Establish a plan to promote good hygiene practices across the Training Centre. Washing hands frequently with soap and water for at least 20 seconds is a simple but effective preventative precaution that addresses fomite transmission and short-range droplet transmission (in the case where infectious droplets land directly on the hand).

It is recommended that everyone wash their hands before and after touching any high-use items or surfaces, both to prevent an infectious individual from contaminating a shared surface and to protect others from being infected by a contaminated surface. Everyone should also wash their hands before eating, before touching their face, after using the bathroom, and after coughing, sneezing, or blowing their nose.

Handwashing should be incorporated into the Training Centre day every time trainees enter or leave their classrooms and during transitions between activities. Training Centres could consider setting up handwashing stations with soap and water in classrooms, hallways, or other rooms to help facilitate regular handwashing.

If soap and water are unavailable or cannot be frequently accessed without bathroom crowding, hand sanitizer that contains at least 60% alcohol may be used, as it is also effective at inactivating SARS-CoV-2.

- Wash hands immediately before leaving home, leaving the classroom, eating, touching shared objects, touching one's face, and leaving the Training Centre
- Wash hands immediately after arriving at Training Centre, entering classroom, finishing lunch, touching shared objects, using the bathroom, coughing, sneezing, and blowing one's nose, and arriving at home
- Use hand sanitizer when washing hands is not possible

[6] WHO. (2020b June 5). *Advice on the use of masks in the context of COVID-19.* Retrieved from: https://www.who.int/publications-detail-redirect/advice-on-the-use-of-masks-in-the-community-during-home-care-and-in-healthcare-settings-in-the-context-of-the-novel-coronavirus-(2019-ncov)-outbreak.

- Avoid touching your eyes, nose, and mouth
- Always cover when coughing or sneezing with a tissue, then throw the tissue in the trash
- Do not share personal items or supplies such as phones, pens, notebooks, PPE, etc.
- Refrain from shaking hands with others
- Wash hands often with soap and water for at least 20 seconds, especially after going to the bathroom, before eating and after blowing your nose, coughing, or sneezing.

Keeping Training Centres safe will require significant measures to facilitate good personal hygiene and prevent transmission of contagions. Proper washroom facilities must be maintained. There must be adequate supplies of soap, water, toilet paper and paper towels at all times. Washroom facilities must be thoroughly cleaned and disinfected throughout the workday. Each Training Centre should provide the following as a minimum:

- Hand sanitizer should be available at or near entry points to the building, and at various high-traffic locations throughout such as doorways, tool cribs, equipment
- Prominent signage should indicate location of sanitizer stations and
- Hand soap should be available at bathroom facilities, lunchrooms, and kitchen areas

Hand Tools, Powered Mobile Equipment and Other Equipment

- Tools must not be shared person-to-person without a thorough cleaning with a disinfectant containing more than 70% alcohol
- Mobile and desktop phones must not be shared with others and
- Door and ladder handles, hand holds and rails, steering wheels, switches, buttons, knobs and fueling caps on powered mobile equipment should be cleaned regularly, and at the end of each practicum

In the Classroom

- Instructors must not re-use pens/pencils. It is recommended that Instructors discard used pens/pencils, or have trainees keep them for personal use
- No group work, all trainees will be required to work on their own. One trainee per worksheet (or replace with class discussion);
- Only Instructors to pass out worksheets to individual trainees, trainees should not touch other trainee's worksheets (or have them on the desk prior to class).

Additional Cleaning Protocols

All Training Centres should implement additional cleaning measures as outlined below:

- Before commencing class each day, high traffic surfaces (in terms of hand contact) within offices, meeting rooms, coffee and kitchen areas, workstations, and common workspaces should be cleaned
- Hard surfaces and buttons your hands may meet on frequently touched items such as refrigerators, microwaves, water cooler handles, taps and faucets, light switches and other high traffic objects should be cleaned after each use; and
- First-aid treatment rooms, reusable treatment equipment and instruments

Cleaning Solutions and Supplies:

- If available, household, or commercial disinfectant solutions and wipes containing more than 60% alcohol should be used to clean surfaces. However, some of these products are currently in short supply or are simply unavailable; if these household or commercial disinfectant cleaning products are not readily available, hard surfaces can be disinfected using a mixture of one-part bleach and nine parts water. The solution must contact the surface for one minute to disinfect (WHMIS workplace label must be affixed to any mixed solution listing all the ingredients)
- Items that cannot withstand liquid disinfectants such as tablets, smartboards and cellphones may be disinfected with 70% alcohol wipes ensuring the solution contacts the surface for one minute to disinfect and
- Use paper towels or single-use rags

After Training Protocols

Safety protocols continues after a trainee finishes and leaves the Training Centre for the day. The additional measures detailed below will help keep the trainee and his family safe.

- Remove any washable PPE items and place them in a bag. These should be washed as soon as the trainee arrives home
- Non-washable PPE equipment such as boots, hardhats and safety glasses should be sanitized and placed in a bag or away from other items that may be contaminated
- Any single use PPE items such as masks must be discarded safely and not re-used or left where others may handle them or have to discard them
- A separate waste container should be made available for hazardous material such as disposable PPE, cleaning wipes, cleaning supplies, etc.
- Once the trainee has removed and packed the PPE, they should sanitize their hands one last time before leaving the Training Centre
- Upon arriving home, safety boots should be left outside the home or in the vehicle
- Any items packed for washing along with the clothing worn during the day should go straight into the washing machine
- Finish the day with a shower before settling in to spend time with other occupants in the home
- Wear clean clothes each day and repeat the same procedure after school; and
- If a trainee is driving their personal vehicle to class, they should wipe down commonly touched surfaces at least once a day

Maximize physical distancing to protect individuals

- Keep at least six feet between individuals, as much as possible, for as long as possible
- Repurpose other large, unused spaces in the Training Centre as temporary classrooms (e.g., auditorium)
- Move class outdoors, if possible
- Replace hugs, handshakes, and high-fives with smiles, waves, and thumbs-ups

Physical distancing, separating individuals by at **least six feet (3 meters)**, lowers the probability that a person either infects someone else or becomes infected by someone else. It limits COVID-19 transmission by reducing the intensity of someone's exposure to any infectious droplets or aerosols.

Physical distancing within Training Centres could be encouraged by moving desks as far away as possible from each other, turning desks to all face the same direction, and assigning seats. If possible, large outdoor

spaces, cafeterias, and auditoriums could be repurposed as temporary classrooms to improve physical distancing practices for larger class sizes.

Maximize group distancing to slow transmission chains

- Keep class groups as distinct and separate as possible
- Limit trainees moving between different classrooms
- Avoid large groups and gatherings, both in and outside of Training Centre

Whereas physical distancing focuses on preventing infection transmission between trainees in the same room, group distancing aims to reduce the risk of an infection leading to a widespread outbreak in the Training Centre.

For example, group distancing means that trainees in one class are kept separate from trainees in other classes, so these class groups avoid being in the same location (e.g., classroom, cafeteria etc.) at any given time. **Training Centre-wide gatherings, such as assemblies should be avoided to maintain group distancing.**

This may require Training Centres to adjust class scheduling and be more prescriptive about curriculum tracks that trainees can sign up for. Another strategy for specialized instructors is to have them rotate between classrooms instead of having trainees move between classrooms.

This reduces the number of trainees using a particular desk, the frequency with which trainees touch common surfaces like door handles, the frequency of close contact interactions in hallways, and the potential exposure to aerosols in classroom air from a sick individual in the previous class.

If there is limited space **for a class to practice physical distancing, trainees within the class could be further organized into smaller pods that stay together throughout the day, including sitting together in class. These pods within larger class groups should still be physically spread out from each other as much as possible.**

Disinfect objects between users

- Disinfect any shared supplies between uses
- Provide disposal disinfectant wipes for individuals to use before using shared objects
- Choose lesson plans that limit trainee contact
- Provide trainees with their own separate supplies when possible

Training Centres can provide an adequate supply of disinfectant wipes in classrooms and throughout the building so individuals can disinfect objects before use.

Frequent hand-washing including before and after using shared materials, is an important control strategy that should be reinforced when objects and materials will be shared. In addition, instructors can try to **select lessons and activities that do not require shared equipment or close contact.**

When possible, provide each trainee their own supplies that they will use for all activities. If each classroom has limited supplies, consider pooling resources and then rotating supplies between different classrooms on different days, while ensuring adherence to strict cleaning and disinfection policies.

HEALTHY BUILDINGS

HEALTHY BUILDINGS

The following information on improving "air quality and ventilation" is intended to offer **guidance and recommended best practices** and the general operations of buildings in an effort to reduce the risk of disease transmission, specifically novel coronavirus SARS-C0V-2 and the disease it causes, COVID-19.

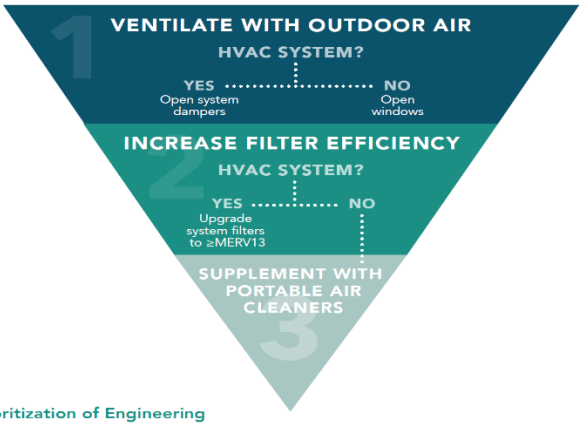
It is acknowledged that each Training Centre situations are unique and some of the guidance contained in this section "Healthy Buildings" will not apply. No one control strategy alone can limit the transmission of disease.

Training Centres should approach reopening with a layered defense strategy, where many small interventions and strategies are combined, simultaneously. Training Centres should deploy an 'all in' approach that uses every control feasible.

Healthy building strategies that improve air quality and clean surfaces should be incorporated as part of a layered defense against COVID-19. For improving indoor air quality, we recommend prioritizing control strategies – ventilation, filtration, supplemental air cleaning – and verifying system performance regularly.

For more detailed and technical guidance, we recommend reviewing the materials produced by the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) Epidemic Task Force. [7] [8] [9] [10]

Training Centre should work with facilities managers and outside professionals to tailor these recommendations for their unique building systems.



Prioritization of Engineering Controls to Reduce Long-Range Airborne Transmission

[7] ASHRAE, 2019. ANSI/ASHRAE Standard 62.1-2019: Ventilation for Acceptable Indoor Air Quality, *American Society of Heating, Refrigerating and Air-Conditioning Engineers*, Atlanta, Georgia.
[8] ASHRAE, April 2020. Position Document on Infectious Aerosols. *American Society of Heating, Refrigerating and Air-Conditioning Engineers.* Retrieved from https://www.ashrae.org/file%20library/about/position%20documents/pd_infectiousaerosols_2020.pdf
[9] ASHRAE. ASHRAE Epidemic Task Force: Filtration & Disinfection, 2020. *American Society of Heating, Refrigerating and Air-Conditioning Engineers.* Retrieved from https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-filtration_disinfection-c19-guidance.pdf.
[10] ASHRAE. ASHRAE Epidemic Task Force: Training Centre & Universities, 2020. *American Society of Heating, Refrigerating and Air-Conditioning Engineers*. Retrieved from https://www.ashrae.org/file%20library/technical%20resources/covid-19/ashrae-reopeningTraining Centre. PDF

Increase outdoor air ventilation

- Bring in more fresh outdoor air
- Follow the decision-tree for ventilation type and corresponding strategies

SARS-CoV-2 present in the coughs, sneezes, and exhaled breath of an infectious person can be transported in the air to disperse throughout a room and can remain aloft for hours. This long-range airborne virus can infect even people who have not had close contact with the infectious person if they inhale a sufficient amount of virus.

Bringing fresh outdoor air into a room can dilute and/or displace any present airborne virus, which thus reduces the probability that someone breathes enough infectious aerosol to become infected. As an ideal, holding class outdoors provides the freshest air and most effective dilution of any infectious airborne SARS-CoV-2. In Training Centres holding class outside is not a practical option.

Therefore, the next best solution, mechanical ventilation systems in the buildings can forcibly bring outdoor air inside and then distribute that fresh air to different areas of the building. Some fraction of the indoor air is usually recirculated and mixed with the outdoor air coming in to save on cooling and heating energy costs.

However, during a pandemic, when long-range airborne viral transmission can occur, air recirculation can lead to a buildup of airborne viral particles indoors and also potentially spread the virus to other areas of the building.

Therefore, if possible, buildings should eliminate or minimize air recirculation (thus maximizing fresh outdoor air) to the extent possible during this period. In addition, buildings should not shut off or reduce their mechanical ventilation during before or after-Training Centre hours when there still may be people in the building, including trainees, staff, and custodians during any programs, cleaning times etc.

Finally, mechanically ventilated Training Centres should evaluate any potential contaminant source near the outdoor air intake duct. For example, the outdoor air inlet should not be located too close to the exhaust air outlet or contaminated indoor air that is exhausted out of the building could renter (refer to local building codes on minimum required distance, generally 10 feet).

Training Centres that do not have mechanical ventilation systems can increase the amount of natural ventilation via:

a. open windows, doors, or skylight,
b. roof ventilators,
c. stacks, and
d. specially designed inlet or outlet openings.

Opening windows can help bring in fresh outdoor air and dilute and exhaust contaminants in the indoor air. Natural ventilation through windows can be effective but is dependent on factors that drive pressure differentials between outdoors and indoors, like wind pressure and stack (or buoyancy) effects. Therefore, airflow into the building, even with open windows, is not guaranteed.

To help address this, Training Centres can consider:

- using window fans or box fans positioned in open windows to blow fresh outdoor air into the classroom via one window and indoor air out of the classroom via another window.

Note that devices that simply recirculate the same indoor air without filtering it or replacing it with fresh air are not helpful in reducing any airborne virus present in the room **(including most window air conditioning units, fans used in rooms with closed windows, and fan coils and radiators).**

In some cases, it is not reasonable to bring in additional outdoor air. For example, on extremely hot summer days or very cold winter days it may not be impossible to maintain a comfortable temperature in the classroom if the windows are open.

Mechanical ventilation systems, similarly, may need to recirculate more indoor air and bring in less fresh outdoor air when extremely hot or cold outdoor air cannot be sufficiently cooled or heated before it is blown into classrooms. Other factors may also impact the ability to increase outdoor air ventilation, particularly for naturally ventilated buildings, including but not limited to, security concerns, high outdoor air pollution or pollen levels, or high outdoor noise levels.

In these cases, **the highest tolerable amount of outdoor air ventilation should still be used, even if trainees, instructors, and administrators have to adjust their clothing to be comfortable (e.g., wear a jacket indoors in the winter).**

In cases where there cannot be adequate outdoor air ventilation, other strategies such as enhanced filtration and air cleaning can be used to reduce airborne SARS-CoV-2 concentrations. **(See Chart Decision Tree of General Ventilation)**

Filter indoor air

- Increase the level of the air filter to MERV 13 or higher on recirculated air
- Inspect filters to make sure they are installed and fit correctly
- Check that sufficient airflow can be maintained across the filter
- Maintain and change filters based on manufacturer's recommendation

Filtration in Training Centre buildings can help mitigate long-range airborne viral transmission by removing SARSCoV- 2 from any air that is recirculated through the building. In buildings with mechanical ventilation systems, existing filters can be upgraded to filters with efficiency ratings of at least MERV 13 or the highest MERV rating the system can handle.

MERV ratings, developed by the American Society of Heating, Refrigerating and Air-Conditioning Engineers ASHRAE, indicate the percentage of particles and the sizes of particles that filters can remove from air passing through them. **Filters with higher MERV ratings remove higher percentages of particles and more effectively remove small particles than filters with lower MERV ratings. Filters with MERV ratings of 13 or higher are recommended for SARS-CoV-2 by ASHRAE.**

Filters need to be periodically replaced and inspected to make sure they are sealed and fitted properly, with no gaps or air bypass. In some cases if the airflow distribution system is not designed to handle a higher MERV filter, air could leak around the filter edges, compromising any benefit that might have even been gained from a lower MERV filter.

Supplement with portable air cleaners

- Supplement with air cleaning devices
- Select portable air cleaners with HEPA filters
- Size devices carefully based on the size of the room

Portable air cleaners with high-efficiency particulate air (HEPA) filters may be useful to reduce exposures to airborne droplets and aerosols emitted from infectious individuals in buildings. Portable air cleaners are typically most effective in smaller spaces, and care must be taken when choosing a device to ensure it is the correct size for the room where it will be used. One metric to consider is the clean air delivery rate (CADR).

The CADR reflects both the amount of air that a unit can process per unit time and the particle removal efficiency of the filter. A helpful rule of thumb is that for every 250 square feet of space, a CADR of about 100 cfm is desirable. CADR is not the only factor to consider. Portable air cleaners vary in their, ability to circulate air in the room, so not all devices with the same CADR rating are equivalent.

Devices that provide better mixing of the indoor air can capture particles from more of the room's airspace and are therefore preferred. Because potential viral sources could be in various locations within a room, it may be beneficial to have several units that meet the target CADR values rather than a single larger unit. In larger spaces, industrial-sized supplemental ventilation and filtration units are available and should be considered.

Furthermore, room airflow patterns and the distribution of people in the room should be considered when deciding on air cleaner placement that maximizes source control and prevents airflow from crossing people. Since air cleaners should be operated while people are present, it may be important to compare different models to find one that does not generate disruptive noise.

Verify ventilation and filtration performance

- Verify through commissioning and testing
- Work with an expert to evaluate building systems, ventilation, filtration, and air cleaning
- Measure carbon dioxide (CO2) as a proxy for ventilation

Mechanical heating, ventilation, and air conditioning (HVAC) systems in buildings tend to get out of tune. Within several years of construction, ventilation airflows may change from how they were designed. Training Centre can ensure that there is adequate ventilation and filtration through a process of commissioning and testing.

Commissioning is the process of checking HVAC performance to ensure that systems are operating as designed. Commissioning and testing should be performed by trained individuals and should be performed throughout the Training Centre year.

Consider advanced air quality techniques

- Attempt to maintain indoor relative humidity between 40-60%
- Consider advanced air cleaning with ultraviolet germicidal irradiation (UGVI)

Additional air quality controls can be considered, including maintaining higher humidity and air cleaning with ultraviolet germicidal irradiation (UVGI). **Because these controls require great care in implementation, they are listed in this separate section as advanced considerations. Training Centre that consider these approaches should consult with outside technical experts.**

Ultraviolet germicidal irradiation (UVGI) is an air cleaning technology that is sometimes used in buildings. uses low-wavelength ultraviolet light (UVC light) to destroy viruses. UVGI has been shown to be effective in disinfecting surfaces and air from bacteria and viruses such as influenza.[11] [12]

In buildings, this technology is usually deployed as upper room UVGI to destroy airborne virus in the upper airspace of a room or as UVGI in supply air ducts to destroy airborne virus present in recirculated air. UVGI may be able to reduce exposures to airborne COVID-19.

In order for UVGI to be effective, there must be sufficient contact time between the virus and the UV light: this often presents a challenge for installing an effective in-duct UVGI system. Similarly, upper room UVGI works best when the air in a room is well mixed so that airborne virus emitted by people in the lower portion of the room is lofted into the upper airspaces where it can be treated. Other potential issues with UVGI in Training Centre include cost, maintenance, and potential health concerns of inadvertent UV exposures.

In general, UVGI should be further discussed with an expert before consideration for use in a Training Centre.

Use plexiglass as physical barrier

- Install plexiglass shielding in select areas with fixed interactions (e.g., reception desk,
- cafeteria checkout)
- Use plexiglass shielding in the classroom if needed (e.g., around trainee desks, around instructor
- desks, between spaces at shared tables)

[11] Kujundzic E, Matalkah F, Howard C, Hernandez M and Miller S, 2006. UV Air Cleaners and Upper-Room Air Ultraviolet Germicidal Irradiation for Controlling Airborne Bacteria and Fungal Spores, *Journal of Occupational and Environmental Hygiene*. 3(10), pp536-pp546.

[12] Liu Y, Ning Z, Chen Y, Guo M, Liu Y, Gali NK, Sun L, Duan Y, Cai J, Westerdahl D, Liu X, Xu K, Ho K, Kan H, Fu Q, Lan K, 2020. Aerodynamic analysis of SARS-CoV-2 in two Wuhan hospitals. *Nature*. Advance online publication. Retrieved from https://doi. org/10.1038/s41586-020- 2271-3.

Training Centres that cannot adequately ensure physical distancing might consider installing physical barriers (e.g., plexiglass separators) in select areas. Consider installing plexiglass shielding in areas where there is fixed and steady interaction, like the reception desk and cafeteria checkout.

Within classrooms, plexiglass shielding may be useful for physically separating trainees who share tables, and as an additional barrier between the instructor and trainee areas of the classroom.

Install no-contact infrastructure

- Adjust use of existing infrastructure to make it touchless
- Install touchless technology for dispensers of hand soap, hand sanitizer, and paper towels

To limit fomite transmission, existing infrastructure could be replaced with contactless alternatives. For example, doors with handles could be replaced with automatic doors. If installing new infrastructure is not feasible, alternative policies could be implemented (e.g., doors could be propped open, so trainees do not need to touch them).

In addition to infrastructure, technology in bathrooms, classrooms, cafeterias, and other locations should be made as touchless as possible. This includes automatic dispensers of hand soap, hand sanitizer, and paper towels.

Contactless hand sanitizer dispensers at the entrance inside classrooms could improve hygiene of trainees during transitions between activities and after touching shared objects or surfaces within classrooms. Additionally, foot pedals could be installed to replace buttons on water fountains.

Keep surfaces clean

- Frequently clean and disinfect surfaces following directions on product labels
- Provide adequate training and personal protective equipment to protect custodial staff

Shared equipment, spaces, materials, and surfaces should be cleaned and disinfected throughout the day.[13] Special attention could be paid to the most highly touched surfaces, such as door handles, light switches, sink handles, and any elevator buttons.

In addition to cleaning by janitorial or custodial staff, provide instructors with disinfectant wipes to disinfect items in their classrooms between uses. The infectious virus does become inactivated over time without cleaning, but this would not be acceptable for objects regularly reused or frequently touched surfaces.

Focus on bathroom hygiene

- Keep bathroom doors and windows closed and run any exhaust fans at all times
- Install lids on all toilet seats and keep the lids closed, particularly during flushing

[13] Van Doremalen N, Bushmaker T, Morris DH, Holbrook MG, Gamble A, Williamson BN, Tamin A, Harcourt JL, Thornburg NJ, Gerber SI, Lloyd-Smith JO, de Wit E, and Munster VJ., 2020. Aerosol and surface stability of HCoV-19 (SARS-CoV-2) compared to SARSCoV-1. *The New England Journal of Medicine*, 382(16), pp1564-pp1567.

- Stagger bathroom use

SARS-CoV-2 has been found on toilets and in stool of COVID-19 hospital patients, indicating that bathrooms may be places where elevated fomite and long-range airborne transmission could occur through

Cleaning Frequency	Examples
Daily	• Classroom desks, tables, and chairs • Shared spaces
Multiple times per day	• Door handles • Light switches • Handrails • Drinking fountains • Sink handles • Restroom surfaces • Cafeteria surfaces • Elevator buttons

touching shared surfaces and breathing bioaerosols generated by toilet flushing.[14] Fomite transmission risk in bathrooms may be minimized by handwashing and installing touchless faucets, soap dispensers, towel dispensers, and doors.

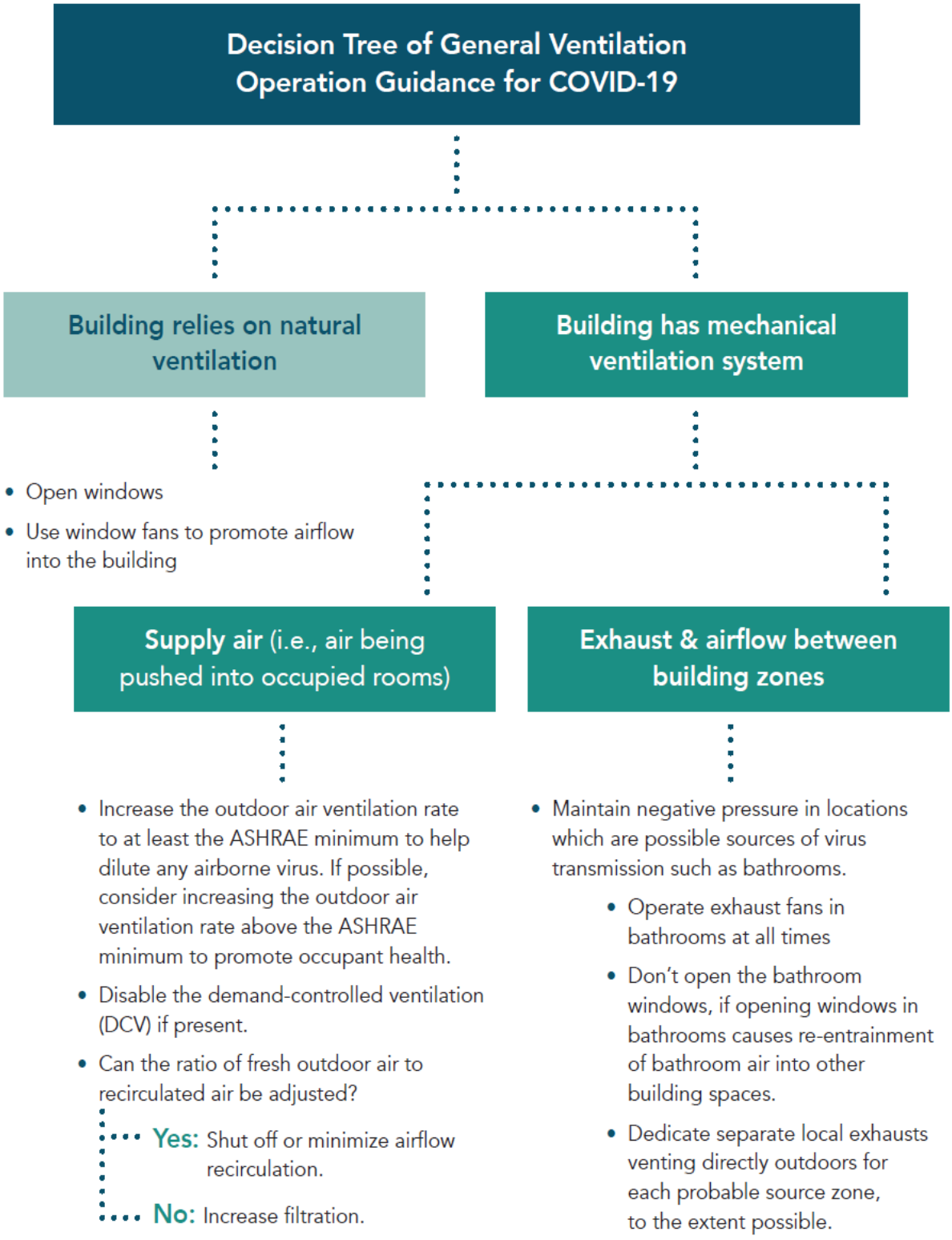
In order to prevent the spread of contaminants from bathrooms to other indoor spaces, negative pressure differentials with respect to other building zones should be maintained by running bathroom exhaust fans continuously and keeping bathroom doors and windows closed at all times, even when not in use. Long-range airborne transmission risk in bathrooms may be further minimized by installing toilet lids, keeping lids closed when not in use, and encouraging trainees to close the lids before flushing.

Before re-occupying the building after closures, Training Centre should flush all bathroom faucets, drains, and toilets in case the water in the p-traps has evaporated. In addition, any time there is a sewer gas smell, Training Centre should make sure to fix the plumbing.

Finally, bathrooms can be places where crowding occurs, especially when trainees may have shared windows of time when they can use the bathroom. To enforce physical and group distancing and to minimize crowding, it may be useful to close bathrooms during transition periods and promote bathroom

[14] Santarpia JL, Rivera DN, Herrera V, Morwitzer MJ, Creager H, Santarpia GW, Crown KK, Brett-Major DM, Schnaubelt E, Broadhurst MJ, Lawler JV, Reid SP, and Lowe JJ., 2020. Transmission potential of SARS-CoV-2 in Viral Shedding Observed at the University of Nebraska Medical Center. *medRxiv*. Retrieved from https://doi.org/10.1101/2020.03.23.20039446.

breaks during class time instead, to assign classrooms to use specific bathrooms or to stagger the timing of scheduled bathroom breaks by class.


Decision Tree of General Ventilation Operation Guidance for COVID-19
Building relies on natural ventilation
Building has mechanical ventilation system
• Open windows
• Use window fans to promote airflow into the building
Supply air (i.e., air being pushed into occupied rooms)
Exhaust & airflow between building zones
• Increase the outdoor air ventilation rate to at least the ASHRAE minimum to help dilute any airborne virus. If possible, consider increasing the outdoor air ventilation rate above the ASHRAE minimum to promote occupant health.
• Disable the demand-controlled ventilation (DCV) if present.
• Can the ratio of fresh outdoor air to recirculated air be adjusted?
Yes: Shut off or minimize airflow recirculation.
No: Increase filtration.
• Maintain negative pressure in locations which are possible sources of virus transmission such as bathrooms.
• Operate exhaust fans in bathrooms at all times
• Don't open the bathroom windows, if opening windows in bathrooms causes re-entrainment of bathroom air into other building spaces.
• Dedicate separate local exhausts venting directly outdoors for each probable source zone, to the extent possible.

HEALTHY POLICIES

HEALTHY POLICIES

How a Training Centre operates significantly impacts the safety of its trainees, instructors, and staff. This section outlines Training Centre policies to monitor and respond to potential COVID-19 cases.

Establish and reinforce a culture of health, safety, and shared responsibility

- Prior to Training Centre re-opening provide training to instructors, staff, trainees
- Start each day with a morning message to the entire Training Centre reinforcing health messaging
- Implement temperature checks as part of daily trainee screening
- Create and display signs around the Training Centre as reminders of rules, roles, and responsibilities
- Hold weekly and monthly all-staff meetings on COVID-19 to evaluate control strategies
- Send out weekly reports and reminders to trainees of their respective roles

Public health interventions only work when there is **training and reinforcement**. Training Centre's can begin training staff, instructors, and trainees in the weeks or days leading up to the re-opening. This can include virtual training and education sessions focused on the basics of disease transmission, new policies and procedures, and expectations regarding code of conduct. **General training sessions should be supplemented with training targeted toward specific people (administrators, facilities, instructors, trainees, staff).**

A strong communications plan should be developed with daily and weekly 'all Training Centre' communications via email. **Big, bold, signs should be placed throughout the Training Centre to reinforce the culture of health messaging.**

For example, **hand washing instructions could be posted in all bathrooms, physical distancing plans, and proper face mask techniques could be posted in hallways, and a COVID-19 symptom chart and contact plan could be available in all class rooms. Administrators and instructors should begin each day with a safety message.**

Prioritize staying home when sick

- Ask trainees and Training Centre instructors and staff to stay home when not feeling well
- Request daily self-declaration that people heading into Training Centre that day are free of symptoms
- Identify a comfortable room where individuals who become ill can isolate for the rest of the Training Centre day

Training Centre should ask individuals to stay home when sick. Sick individuals staying home should face no negative consequences or unfair attendance records, and there should be a plan in place to ensure continuity in remote learning or work for sick individuals who cannot come to Training Centre in-person.

Training Centre may also opt to directly screen trainees before Training Centre (e.g., **using temperature checks and visible symptom inspections**), following guidance of local public health authorities or other

relevant organization, to ensure that trainees who are sick remain at home. **See Appendix A for 2 sample pre-screening questionnaires that may be used by the Training Centres.**

Trainees, instructors, and Training Centre staff should be made aware of the symptoms of COVID-19. The Training Centre should consider a daily declaration, either via electronic means or self-administered, that each person heading into the Training Centre that day is free of symptoms. **(Appendix B)**

Additionally, a system should be in place for any of them to privately report symptoms, so this information can be used to make decisions about cleaning, notification of potential contacts, and/or classroom, or Training Centre closures.

In addition, instructors should be vigilant about the health of the trainees in their class and notify the Training Centre administrator immediately if a trainee is coughing or seems to have a fever in class.

If a trainee is found to exhibit new symptoms of illness while at Training Centre and it is not possible for them to go home immediately, the sick trainee could be asked to isolate in a dedicated room(s) in the Training Centre. **There should be a predetermined protocol for how to clean and disinfect any room the sick individual may have contaminated (including the isolation room).**

Ventilation and filtration in these isolation rooms needs to be verified. Ideally, contaminated rooms should be left empty for up to 24 hours or as long as possible before having staff clean or before allowing the room to be reoccupied. Care should be taken so as not to unnecessarily disclose trainee health status to other instructors or trainees in accordance with the applicable provincial or federal Privacy legislation.

Establish plans for when there is a case

Action must be taken if a worker, trainee, guest or other individual, who has visited a training facility is suspected or confirmed to be infected with COVID-19.

- Develop a plan for what to do when a case is identified in the Training Centre
- Establish a timetable for when someone with COVID-19, and their close contacts, can return to Training Centre
- Regularly check local public health guidance for updates to their protocols and definitions
- Keep records of who is on site, each day. Information obtained should include employee names', trainee names' and their contact information, time(s) and date(s) present in the facility, and areas of the workplace accessed (elevators, washrooms, floor numbers, unit numbers, etc.)
- Upon being made aware of a suspected or confirmed case of COVID-19 immediately notify Public Health officials to assist with contact tracing protocol.
- Provide Public Health officials with any information requested; and
- Upon an individual testing positive for COVID-19, decontamination should be completed as soon as reasonably possible by either workers trained in COVID-19 decontamination procedures or trained cleaning contractors brought in to complete the work.

In Ontario provincial and local public health units (PHU) have not identified specific time frames how long a premise or workplace needs to be shut down for cleaning. In the United States the Centre for Disease Control (CDC) recommends a 2-5-day building dismissal to clean, disinfect, and contact trace in consultation with local health officials in the event there is a case in a business, workplace or educational institution.

In Ontario, the use of restrictions or temporary closures are most often voluntarily implemented by workplaces and in response to large exposures where staff are on self-isolation after high-risk exposures. Where outbreak control measures cannot be sufficiently implemented, the PHU can consider communicable disease orders to temporarily close the workplace until appropriate measures are in place.

This presents a massive disruption to learning, and, depending on the nature of the case and controls that are in place, Training Centre can coordinate with local PHU's to determine if that is absolutely necessary in each instance. In addition, close contacts of the infected individual should stay at home for 14 days after their last interaction with that person.

A **"close contact"** is defined as a person who had a high-risk exposure to a confirmed or probable case during their period of communicability. This includes household, community, and healthcare exposures as outlined in Ministry guidance on cases and contacts of COVID-19[15].

Identifying close contacts will be simplest in the case of distinct class groups that take all the same classes together, then, when an individual from the class group becomes sick, the whole class can stay home and move to remote education for 14 days after the exposure. Having the entire exposed class group stay home and transition to remote learning would also help maintain privacy for the sick individual and ensure equal educational access within the class. Isolating exposed class groups will help prevent outbreaks from occurring in the whole Training Centre.

Finally, there should be a policy on when a Training Centre should entirely shut down in favor of remote education if COVID-19 appears to be spreading through the Training Centre.

Training Centre may find it useful to follow CDC guidance for healthcare workers when developing a Training Centre policy on when sick individuals can return to the Training Centre in person. For example, if a trainee or staff member were suspected or confirmed to have COVID-19, they could be asked to stay at home (with remote learning or work options) until the appropriate criteria are met as described below:

If the individual has symptoms, they should stay home until:

1. At least 3 days have passed since *recovery* (resolution of fever without the use of fever-reducing medications and improvement in respiratory symptoms)

2. AND either:

a) At least 14 days have passed *since symptoms first appeared*

b) OR they have two negative results, spaced at least 24 hours apart, based on authorized COVID-19 diagnostic tests by a medical professional.

Otherwise, if the individual tested positive in a diagnostic COVID-19 test but does not get symptoms, they should stay home until:

1. At least 14 days have passed since the positive result in the diagnostic test (assuming no symptoms appeared during that time)
2. OR they have two negative results, spaced at least 24 hours apart, based on authorized COVID-19 diagnostic tests by a medical professional

[15] http://www.health.gov.on.ca/en/pro/programs/publichealth/coronavirus/docs/2019_case_definition.pdf

Promote viral testing and antibody testing

- Encourage viral testing any time someone has symptoms, even if mild
- Track testing improvements and incorporate widescale testing into future plans
- Encourage antibody testing to monitor disease progression and plan control strategies
- Provide information on where people can go for testing

Diagnostic viral testing for those with symptoms or who have come in contact with someone who has COVID-19 is a critical strategy for slowing the spread of the virus and preventing major outbreaks because it can help identify those with active infections who then need to -isolate.

Training Centres should identify locations where trainees, staff, can be tested nearby and provide that information to everyone ahead of time.

As testing capacity, speed, and accuracy improves, Training Centres should consider more frequent testing as an approach to identify pre-symptomatic individuals. Testing for antibodies should also be encouraged to help Training Centres track disease progression through the community and plan control strategies.

Antibody testing is a type of test to determine if someone has previously had a COVID-19 infection. Although a positive antibody test result for one individual does not guarantee immunity, current scientific evidence indicates there may be some protection, for some time.

In addition, a negative antibody test does not mean that someone does not currently have an active infection, for which a diagnostic viral test would be needed. Regardless of antibody status, and until we have more scientific research, the same precautions should be followed by all individuals.

De-densify Training Centre buildings

- Limit visitor access
- Promote work-from-home for administrative duties, where possible
- Hold staff meetings via videoconferencing as much as possible

Minimizing the number of visitors in the building can help reduce the density of occupied spaces. If guests need to enter the Training Centre, they could be required to gain approval first, be briefed on COVID-19 policies, and verify they do not have symptoms.

The Training Centres can also consider restricting visitor access to limited times when classes are in session (i.e., at times when there will not be many people in the hallways).

Furthermore, all other planned meetings with visitors could be held online instead of at the Training Centre. In addition, to facilitate physical and group distancing and reduce everyone's risk of exposure, Training Centres may consider classifying non-essential staff that can work remotely.

HEALTHY SCHEDULES

HEALTHY SCHEDULES

Throughout the Training Centre day, there are opportunities to reduce transmission risk. As a starting point, Training Centre may choose to implement an attendance policy that reduces the number of trainees in the Training Centre at a given time. While trainees are in Training Centre, transition times can be limited, and lunch can be modified to maintain physical and group distancing. Training Centre may also be able to facilitate lower-risk transportation to and from Training Centre.

Manage transition times and locations

- Stagger Training Centre arrival and departure times, class transitions, and locker access
- Set up separate entrances and exits for different groups of trainees when possible
- Use well-marked lines on the floor to encourage physical distancing and indicate direction of travel

Training Centre arrival, departure, and class transitions can be a high-risk time due to the potentially large number of people in close contact in Training Centre entrances, exits, and hallways. Training Centre may consider staggering arrival and departure times so that children in different classes are not all entering or exiting the building at the same time. Even a difference of 5-10 minutes for each class or grade level could greatly reduce the number of trainees in the hallway heading to the door for dismissal at one time.

Trainees and staff should be encouraged to not loiter in entrances, exit areas, or hallways, but if waiting is necessary, lines should be clearly marked to maintain physical distancing. In small hallways or stairwells, clearly marked paths on the floor that indicate one direction of travel could be used when possible.

Additionally, different doors could be used by different classes or grades to enter and exit the Training Centre to minimize crowding and to reduce the number of people touching the same doors. Other recommendations about ways to reduce the number of transition times, such as by rotating instructors (instead of trainees) and serving lunch in the classroom, are found in other sections of this report.

Make lunchtime safer

- Use trainee classrooms or other Training Centre locations as temporary lunchrooms to facilitate group distancing
- Stagger lunch times in shared lunchrooms and clean and disinfect surfaces between groups
- Maintain physical distance between individuals eating lunch together
- Package Training Centre-provided meals in single-serving containers instead of serving food buffet-style
- Reinforce ‘no sharing’ of food, utensils, drinks

Lunchtime brings a distinct set of challenges. Masks cannot be worn while trainees are eating, and many Training Centre typically hold lunch in crowded lunchrooms. To limit the number of contacts of trainees and staff and maintain group distancing, the Training Centre may serve lunch in classrooms at trainees’ desks or in alternative lunchrooms (e.g., repurposing auditorium for expanded lunch capacity).

If a single large lunchroom is to be used, Training Centre may stagger lunch times, keep classrooms/cohorts together, maintain physical distance, and have all trainees face the same direction or

be seated in a staggered pattern, so there is no face-to-face contact. It may also be helpful to clearly mark spaces where each class/cohort will sit in the shared lunchroom. Instead of trainees going through a line to be served

Training Centre-prepared lunches consider alternative solutions, like using single-serving containers clearly labeled with any allergens in the meal. Training Centre's need to reinforce messaging regarding no sharing of food, utensils, and drinks.

Modify attendance

- Modify attendance policies to facilitate cleaning, reduce class sizes, and/or maintain group and physical distancing
- Allow for flexibility in attendance policies as situations change

Three attendance-based strategies to reduce transmission risk that have been proposed are **staggered attendance, split attendance, and phased re-entry**.

Staggered attendance is when trainees, perhaps based on level or class, attend the Training Centre every other day or every other week. With **split attendance**, half of the trainees may attend class in the morning, and the other half may attend in the afternoon. In both strategies, when not physically attending the Training Centre, trainees engage in remote learning.

Each Training Centre could decide the best length of time between group rotations. In **phased re-entry,** small numbers of trainees are brought back to the Training Centre first, such as only 1st year trainees or 3rd year trainees, then the number is increased as case numbers in the area decrease, and the Training Centre adjusts to new protocols. The Training Centre may need to dynamically adjust their attendance policies as new cases emerge in the Training Centre or surrounding community and based on which interventions are working effectively.

Human Rights Code

As has mentioned in other sections of this protocol it is important that any policies implemented by the Training Centre must adhere to provisions of the Ontario Human Rights Code. Training Centres depending on the trainee's circumstances may require accommodations , unless it would amount to undue hardship based on cost, or health and safety. Training centres should also be sensitive to other factors such as any particular vulnerability an employee may have (for example, if they have a compromised immune system).

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HEALTHY CLASSROOMS

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RESOURCES

Ontario government and agency-issued resources about COVID-19

The **Ontario Ministry of Health** is providing consistent updates on the provincial government's response to the outbreak, including:

- Status of cases in Ontario
- Current affected areas
- Symptoms and treatments
- How to protect yourself and self-isolate
- Updated Ontario news on the virus

Public Health Ontario is providing up-to-date resources on COVID-19, including:

- Links to evolving public health guidelines, position statements, and situational updates
- Synopsis of key articles updating on the latest findings related to the virus
- Recommendations for use of personal protective equipment
- Information on infection prevention and control
- Testing information
- Other public resources

Other COVID-19 resources

Health Canada outlines the actions being taken by the Government of Canada to limit spread of the virus, as well as what is happening in provinces and communities across the country. It also maintains a live update of the number of cases by province.

The **World Health Organization** is updating the latest guidance and information related to the global outbreak and spread beyond Canadian borders.

It also provides the most up-to-date information on:

- Current research and development around the virus
- A COVID-19 situation "dashboard"
- Emergency preparedness measures
- Live media updates on the spread of the virus

Appendix A

Preventive Measures
SITE ACCESS QUESTIONNAIRE

In an effort to reduce the transmission of COVID-19, the following questionnaire is to be completed at College reception by all employees as well as students engaged in activity on this site.

Please complete this short questionnaire to ensure your presence does not pose a risk to the site and return the completed form to College Administration, or Course Instructor

All employees and students must complete this form on their first day of work on the site.

College: _____
Instructor: _____
Student: _____

1. Have you travelled outside the country, or province since March 12th (included)?
   - ☐ Yes Date you Returned: _____
   - ☐ No
2. Do you currently have any of the following symptoms: fever (over 38°C), cough or worsening of a previous cough, sore throat, headache, difficulty breathing, or muscle aches?
   - ☐ Yes
   - ☐ No
3. Have you been exposed to a person who has a confirmed or probable case of the COVID-19 infection?
   - ☐ Yes
   - ☐ No
4. Do you intend to travel outside the province in the coming weeks?
   - ☐ Yes Scheduled Departure Date: _____ Destination: _____
   - ☐ No

Name (Please Print): _____
Signature: _____
Date: _____

Joint Apprenticeship Committee

FOR HEAT AND FROST INSULATORS LOCAL 95

166 Newkirk Road, Unit 5, Richmond Hill ON, L4C 3G7

Screening Protocol Prior to Entry: At Local 95, we recognize the serious nature of the COVID-19 pandemic and the need for a business response that is aimed at protecting the health and well-being of our employees, students, visitors and the public at large. We have taken measures to restrict access to our facilities, including implementing a screening protocol for all employees, students and visitors who are critical to our Training Center.

Do you have any of the following conditions or symptoms:

1. Are you presently showing symptoms such as severe chest pain, confusion, loss of consciousness, having a very hard time waking up or severe difficulty breathing? Consider calling 911.

2. Are you presently having flu-like symptoms, such as fever, cough (new or worsening), barking cough, shortness of breath, difficulty breathing, difficulty swallowing, muscle aches, fatigue, headache, sore throat or running nose?

3. Are you presently showing signs of pink eye or a loss of taste or smell?

4. Have you experienced any of the above symptoms within the last 14 days?

5. Have you received public health or medical advice to self-isolate?

6. In the last 14 days, have you traveled outside of Canada or to a high-risk area for the transmission of COVID-19?

7. In the last 14 days, have you been in close contact with anyone confirmed positive, quarantined or is being evaluated for COVID-19?

8. In the last 14 days, have you been in close physical contact with a person who is either currently sick with a new cough, fever or difficulty breathing?

9. In the last 14 days, have you been in close physical contact with a person who has returned from outside of Canada in the last two weeks?

Anyone who answers 'Yes' to any of the above questions, will not be permitted entry to the Heat & Frost Insulators Training Center.

Name: _____

Signature: _____

Date: _____

Joint Apprenticeship Committee

FOR HEAT AND FROST INSULATORS LOCAL 95

166 Newkirk Road, Unit 5, Richmond Hill ON, L4C 3G7

I confirm that I have attended the Basic Hygiene Training on _____.
(date)

I understand the training content.

I understand that as a student at the Training Center, it is my responsibility to abide by the Basic Hygiene Training, in accordance with what I have learned today.

If I have questions about the Basic Hygiene Training, I understand it is my responsibility to seek further clarification.

Print name_____

Employee Signature_____

Date_____

Appendix B

Preventive Measures
SITE ACCESS QUESTIONNAIRE
Daily Check-In

In an effort to reduce the transmission of COVID-19, the following questionnaire is to be completed at College reception by all employees as well as students engaged in activity on this site.

Please complete this short questionnaire to ensure your presence does not pose a risk to the site and return the completed form to College Administration, or Course Instructor

College: _____
Instructor: _____
Student: _____

1. Do you currently have any of the following symptoms: fever (over 38°C), cough or worsening of a previous cough, sore throat, headache, difficulty breathing, or muscle aches?
   - ☐ Yes
   - ☐ No
2. Have you been exposed to a person who has a confirmed or probable case of the COVID-19 infection?
   - ☐ Yes
   - ☐ No
3. Do you intend to travel outside the province in the coming weeks?
   - ☐ Yes Scheduled Departure Date: _____ Destination: _____
   - ☐ No

Name (Please Print): _____
Signature: _____
Date: _____