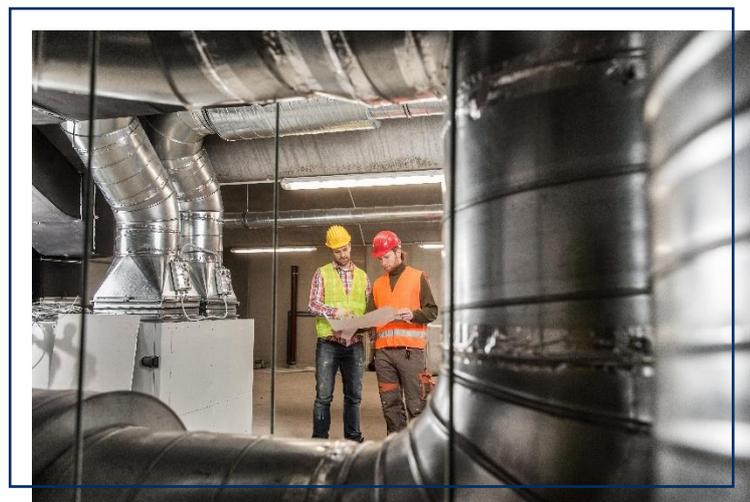


Controlling the spread of airborne diseases in commercial buildings

Managing heating, ventilation and air conditioning (HVAC) systems can aid in reducing the risk of airborne diseases travelling within a building. It is important that these systems remain well maintained and maximised to reduce the risk of airborne pathogens spreading.



Maintaining ventilation systems

Every commercial building with specified systems should have a compliance schedule which contains specific information and procedures for those specified systems, which includes HVAC.

Once a compliance schedule is issued, a regular Building Warrant of Fitness (BWof) is required. A BWof verifies that the inspection, maintenance and reporting procedures for all the specified systems within a building have been carried out in accordance with the compliance schedule for the previous 12 months.

To enable efficient operation, ventilation and air conditioning systems should be regularly cleaned by your HVAC Independent qualified person (IQP). An IQP is a person (or firm) approved by the territorial authority as qualified to inspect certain specified systems (in this case the ventilation and air conditioning system) to ensure that necessary maintenance occurs.

Fans and ducts need to be kept clean and clear, filters should be cleaned or replaced as required and flow rates need to be balanced.

Ideally, air should be not re-circulated within a space and exhaust air should be vented directly outside. Where air recirculation cannot be eliminated, it should be reduced and the use of outdoor air increased as much as possible.

Building owners should confirm that filters are being cleaned and are in good condition and that fresh air supplies are working as intended. The IQP might also have advice on how the system might be fine-tuned to ensure reduced aerosol transmission.

Maximising existing ventilation systems

Talk to your HVAC IQP to identify opportunities to improve the indoor air quality of your building.

Most specified systems require at least an annual inspection by an IQP but in some cases they should be inspected more frequently. A ventilation system in an office building for example is likely to require inspections every two months.

To maximise the fresh air coming into a building the mechanical outdoor ventilation rate should be set above minimum rates wherever possible, but this must be balanced against the need to ensure the thermal comfort of occupants.

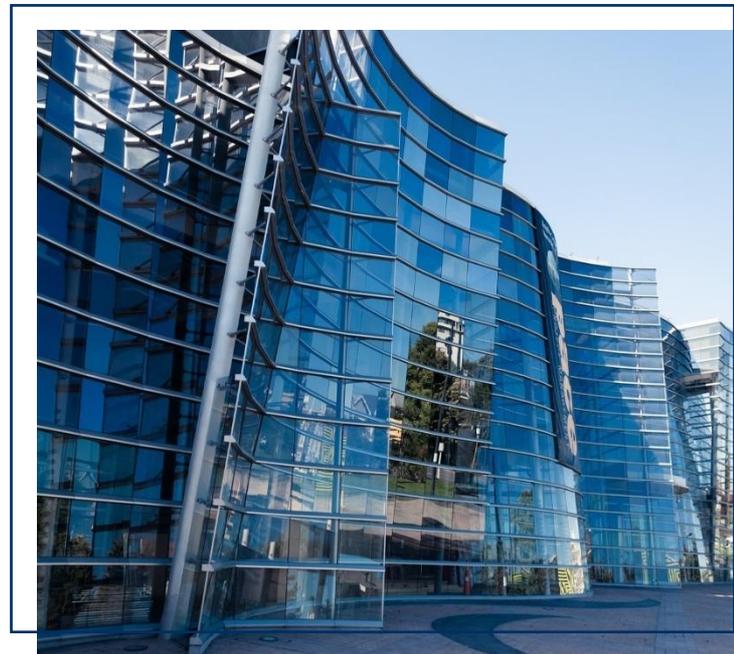
Possible actions which may be considered include (but are not limited to):

- Increasing ventilation rates for office spaces above 10 L/s per person. If ventilation rates cannot be increased, the maximum room occupancy should be decreased.
- Switching centralised air handling units to 100% outdoor air mode.
- Disable demand-control ventilation functions that reduce air supply based on temperature or occupancy.
- Do not switch off ventilation at nights and weekends, but keep systems running at low speed.

If buildings do not have a HVAC system and instead rely on natural ventilation via opening windows, check that all windows that should open, can open (eg have not been painted over).

For more detailed advice on ventilation principles to reduce aerosol transmission in workplace settings the Victorian Government of Australia has produced this advice which may be useful:

<https://www.health.vic.gov.au/covid-19-ventilation-principles-strategies-to-reduce-aerosol-transmission-community-workplace>



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