

BACK IN THE BUILDING

Reoccupying your workspace – the right way

Most businesses have been operating from home offices for the last seven weeks. As Alert Level 2 looms, so does the opportunity to bring your workforce back together in shared spaces.

What do you need to think about before reoccupying a building? And what might you need to do differently to ensure your spaces operate effectively?

Our experts share a practical checklist to make your transition as easy as possible:



MECHANICAL

Air

- ☐ **Cleaning internal surfaces on Air Handling Units (AHU), cleaning filters, and heat exchange coils:** Lack of airflow through a mechanical system can cause mould and other bacteria to grow within the air side system and industry guidelines globally recommend cleaning these surfaces before operating them again.

- ☐ **Increase outdoor air rates:** To reduce or eliminate recycling potentially contaminated air global industry guidelines recommend increasing outdoor air rates.

Water

- ☐ **Cooling tower dosing (chilled water, heating, etc.):** Cooling towers spray water into the air to reject heat from the system. When these systems shut down it can lead to enhanced corrosion, and also the growth of legionella which, given the cooling tower aerosolises the water mist, it presents significant risk to people contracting legionella.
- ☐ **Chilled and heating water supply dosing:** Mechanical water systems rely on inhibitors being circulated within the water supply system to prevent bacteria growth and reduce corrosion rates. If not turned on, or the dosing unit is empty it could have adverse effects on the system.

Electrical for mechanical and controls

- ☐ **Updating time settings on HVAC control systems:** Industry guidelines recommend extending the hours of operation to allow purging before people occupy the building each day, and after they have left.
- ☐ **Resetting BMS:** Some BMS have a self-learning function and, given most buildings have been left unoccupied, it may have led to incorrect system settings being used for the building once it is reoccupied.
- ☐ **Check electric heating elements (VAV, etc.):** Due to buildup of dust, this can present a potential fire hazard on heating elements.



ELECTRICAL

Emergency lighting

- ☐ The emergency lighting system is part of the regular BWoF test. Given the likelihood that the systems or fittings have not been tested, it is advisable they should be as battery backup may not have been recharging during this time.

General fluorescent lighting

- ☐ In the event that some lighting may have been left 'on', and there is some 'flickering' of the fluorescent tubes - it is advisable that the switch for these fittings should be switched off. This may indicate the capacitor/ starter in the light is trying to 'ignite' the tube, and this creates a very high but short spike in voltage. It is possible this can lead to overheating and create possible ignition or burning/damage to the insulation of the immediate wiring within the fitting. The fluorescent tube should be replaced.

Stairwell and toilet lighting

- ☐ Check the operating of the lighting.

Various alarms within equipment

- ☐ Many small pieces of general office equipment can have internal batteries associated with them. These batteries can be used to power memory within the tool or equipment. Sometimes if the battery is low an alarm can sound. It may be necessary to 'reset' the item or just repower.
- ☐ In some cases, the alarms can be for building systems, for example sump pumps typically in a basement or car park level, lift pit sump or battery system that power main switch board controls and the like. It is important to register these alarms to the facilities manager or the maintenance contractor.

Updating time settings on lighting

- ☐ Depending how you plan to reoccupy your building (e.g. extended office hours to facilitate social distancing) you may need to extend the 'occupied time hours' to reduce the need for building occupants to use light switches and the like.

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PLUMBING AND DRAINAGE

Replenishing water seals at fixtures

- ☐ Seals prevent foul air from the sewer entering the building and they are typically maintained by occupants using plumbing fixtures. It is likely with buildings being unused that water seals have depleted, allowing foul air into the building. Run water through them to replenish seals before people reoccupy the building. Special consideration should be given to floor waste gullies and tundishes, especially in plant rooms and other areas that people don't go to often.

Flushing water systems of stagnant water

- ☐ Stagnant water can lead to a number of different issues such as bacteriological, pathogen, and biofilm growth as well as leaching of heavy metals such as copper or lead into the water supply which can create H&S risks if consumed.
- ☐ At a minimum, and per MBIE guidelines released a week or so ago, water supplies should be flushed to turn the whole system over.
- ☐ While doing this will purge the system of stagnant water, it may not be enough to remove harmful bacteria from the system and, depending on size and complexity, you may also want to consider having both water and water outlets such as taps sampled for bacteria and then disinfect the system as required.

Hot water plant, thermally shocking the system

- ☐ Hot water systems need special consideration with regards to legionella control which will require turning water in the system over as well as thermally shocking the system.



SECURITY

Car Park access

- ☐ It is recommended to check the access systems to car parks are operating correctly before a large number of building users start to arrive. It is advisable to trial both 'in' and 'out' functions. Trial these several times and if possible, using different access cards if they are used. This allows a check of both the security and mechanical issue of the door opening mechanism.
- ☐ Roller doors and gates use mechanical 'relays' as switches. It is possible these relays can stick and not operate.

Updating time settings on security access control

- ☐ If you are planning on changing 'normal' operating hours, remember to adjust your security access control to suit.

Getting access to back end security control data

- ☐ While not fool proof (e.g. one person could swipe their access and two people could walk through), this can be used to assist in contact tracing if required as keeping a record of who has been in different areas of the building, depending on your setup.

OTHER / GENERAL

Escalators and lifts

- ☐ It is advisable that the maintenance contractor is approached to confirm lift operations are all correct and any interfaces, such as fire alarm (homing functions), internal lift car alarm/comms connection, and any security operations are functioning correctly.

Office equipment

- ☐ It is likely that many staff will have relocated equipment from their place of work to their 'home office'. Don't forget to register the return of the office equipment (and take serial numbers). It may be useful to ask each staff member to check the power supplies for any damage (has the dog used the cord as a bone?). The PCBU (Person Conducting a Business or Undertaking) has responsibilities under the Health and Safety Act, these small items need to be considered.

Vermin and other pests

- ☐ Checking for vermin and other pests in storage areas and the like as they may have made the building their home while it's been unoccupied.