

HVAC and Fire system maintenance during COVID-19



Maintaining your systems throughout COVID-19

These past few weeks have been an incredibly difficult time for everyone – the distress of seeing so many businesses and their employees facing an uncertain future has affected us all.

With the prospect of shutdowns lasting six months or more, we are committed to helping you through this period with advice and action that contributes to our mutual success and position post COVID-19.

Hibernated and semi-occupied buildings

You may be wondering whether you can stop maintaining HVAC and fire services in buildings that are closed, or semi-occupied, during this period. Unfortunately, shutting down systems is not as straight forward as it may seem. A level of maintenance is still required to:

- remain compliant with the relevant Australian Standards - statutory services and preventative maintenance regimes must remain in place – this is particularly important for annual certification to meet AS:1851 and AS:3666 Standards
- retain the condition and integrity of your assets – some of your most valuable assets are designed for continuous operation and should not spend any length of time shut down
- retain the condition of your interiors- changing your facility's HVAC functionality for extended periods will impact on indoor air quality. Depending on the site, this can result in active mould growth on hard and soft finishes and furnishings, or in extreme cases timber floors or joinery can be completely destroyed
- protect the health and safety of any remaining or occasional occupants including security or other essential services
- retain the validity of some insurance policies.

If you are considering shutdowns for 3 to 6 months, please be aware that any short-term gains that you make by shutting down your systems may prove more costly in the future when you are ramping up your business after the crisis.

For businesses facing this challenge, we have identified some options that may help you to balance your legal and insurance obligations with the new financial and operational constraints that you are experiencing.

Options to consider that may lessen the burden

Reducing equipment runtime / changing the occupancy model

Reduce operating costs via BMS control by:

- changing the time schedules to a reduced operating hours programme similar to what may be used during a holiday break
- implementing a low occupancy mode.

This will ensure there is still adequate ventilation throughout the building and has the added effect of reducing wear and tear.

Reduced maintenance frequencies:

Your maintenance programme was initially designed in accordance with the relevant Australian Standards to suit the systems installed.

It may be possible to reduce some components of your maintenance programme. For example, you may be able to reduce the frequency of programmed maintenance from monthly to quarterly on some types of HVAC equipment and still comply with the relevant standards.

To do this, a risk assessment of the HVAC system must be completed to comply.

Delaying chiller servicing

Annual chiller servicing is usually scheduled in the cooler months because of the reduced load. On sites with multiple chillers and/or Low load chillers, this service may be pushed out a few months to provide some temporary financial relief.

Rescheduling after hours tests to business hours

Where a site is in full shutdown, we may be able to reschedule the mandatory annual Full Function Fire Test to business hours, thereby reducing the cost of having to do this in curfew hours.

Isolating some areas, where possible

HVAC systems are complex so, depending on your building's design, we may be able to isolate some vacant floors.

Please note that any shutdown to an asset that can be viably hibernated during this time will need to undergo a shutdown procedure relevant to that particular type of asset. This may involve a technician/s to visit site and may be less cost effective in the longer term.



Please check
with your insurer
and relevant
authorities before
you decide to shut
down your facility

Essential services

It is important to remember that HVAC Systems for commercial, retail & industrial sites form part of the Essential Services for the Annual Fire Safety Statement (AFSS) and are required to be maintained for occupancy. Along with Fire & Essential Electrical tasks (such as Emergency and Exit Light testing), scheduled statutory maintenance of these systems is mandatory.

AIRAH (the Australian Institute of Refrigeration, Air Conditioning and Heating) and FPA Australia (Fire Protection Association Australia) have appealed to governments at both the state and federal level for essential service status. Their determination may also have an impact on the provision of services during this period. As of 1 April 2020, this decision is still pending.

Limiting future damage and non-compliance

To help you make an educated decision, it is important that you understand the impact of any reduction in maintenance, hibernation or shutting down of these systems:

- your programmed preventative maintenance regime keeps microbial growth in check and helps to maintain air quality and temperature control – all of which are also important to maintain the integrity of your assets and the condition of the facility
- maintenance of specific components including condensate drains and trays are mandated in AS3666 standards.
- cooling towers, with the threat of a high legionella count, must either be maintained as per Australian standard or shutdown i.e drained, locked out and tagged
- pressure vessel certification is also a statutory requirement reportable to the respective state government
- when a fire alarm is activated, the HVAC system plays an integral part of the fire matrix- in smoke control and fire isolation as it applies to AS 1851-2012. This varies building to building based on the specific fire matrix, relevant plant can not be hibernated.
- some of your major and most expensive assets (pumps, boilers, chillers etc) are designed for continuous operation and may be prone to corrosion if shut down without the appropriate preparation for closure
- HVAC and fire systems work hand in hand in the detection, prevention and mitigation of fire activity.

On the rare occasion that you do have security, employees or other services on site when the building is closed, you must continue to provide a safe workplace.

The importance of Fire System testing

Under AS1851 – 2012: Routine Service of Fire Protection Systems and Equipment; it is essential that all owners and managers of properties ensure that their Fire Systems are Tested and Maintained in accordance with this Standard and in conjunction with other relevant authorities applicable within the Australian States and Territories.

Testing of your Fire systems also allows our technicians to determine if they are functioning correctly or fail to comply. This is an important part of the testing procedure, to quickly identify any faults or failures which could inhibit automatic operations of the key fire systems and allow immediate notification to the client so that they can approve repairs to the system.

All testing of systems includes the monthly testing of Sprinkler Systems, Fire Pump Sets, Fire Alarm, EWIS/ OWS Systems and the 6 monthly/ annual testing of Fire Doors, Portable Fire Extinguishers and Blankets, Hydrant and Hose Reel Systems and Emergency Exit Lighting (EEL) etc.

Quarterly System Interface Testing (SIT) and HVAC Smoke Control Systems are an integral part of the Annual Full Function Fire Testing and validation of correct operation of these systems under fire alarm conditions.

This annual testing along with the monthly, six monthly and Full Function Fire Test are the key components to determine if the Building and its Systems are compliant to the property's Safety Measures and approved Annual Fire Safety Statement as required by council.

We are here to help

Precise Air Group value our relationship with you – we are committed to continuing to partner with you during this incredibly difficult and uncertain time.

We can provide you with advice specific to your unique situation that will assist you in balancing the need to continue maintenance within an environment of increasing economic pressures.

Please contact your Precise Air or Precise Fire Account Manager if you have any questions regarding your HVAC or Fire systems.