

Considerations for empty buildings

When buildings are left empty, the lack of use of these buildings will have some unintended consequences on the plumbing system within the buildings. These unintended consequences may cause issues for occupants as they return, many of which are a H&S concern.

Issues can include:

- Evaporation of trap seals – allowing for foul air from the plumbing waste system to enter buildings
- Stagnant water in unused water pipes – allowing for the potential growth of waterborne pathogens, including legionella bacteria
- Hot water systems with the power turned off – allowing for the potential growth of waterborne pathogens, including legionella bacteria
- Scale to build in pipework – potentially coming off when pipes are run and blocking aerators or getting into drinking water
- Speeding up corrosion of plumbing pipe systems and components.
- Leaching of lead and other metals into the drinking water.

The Board recommends that practitioners advise their customers have the following done before empty buildings are reoccupied:

1. Ensure all storage hot water heaters are heating the water to a minimum of 60° Celsius and has reached this temperature before hot water is used – This will kill the legionella bacteria that may be in the hot water system. (some hot water plant may require different approaches depending on size and actual layout)
2. Flush at full flow all water pipes – the exact time the water needs to run to flush a pipe will vary depending on the volume of water in the pipeline, pipe size and length needs to be considered – This will flush the stagnant water out of the pipes and replenish the trap seals.

As a rule of thumb for many domestic installations running the water from each outlet for a minimum of 5 minutes, after the water is delivered at the normal hot or cold temperatures will suffice. Commercial and industrial installations will vary depending on the volume of water within the pipelines.

Please note:

When flushing the water a mask should be worn to prevent possible inhalation of pathogens and organisms such as legionella bacteria.

Aerators, point-of-use filters and other fittings may need to be removed to prevent scale getting caught when flushing, these are also a potential breeding ground for pathogens.

Checks and disinfection/flushing regimes that are needed will vary for many buildings depending on the specific plumbing/hydraulic systems in them.

The advice in this document serves as a guide only, not all building plumbing/hydraulic systems are created equal.