

Table 2.2.2      Recommissioning Procedures for Building Closure by Duration		
Duration of Closure	Classification of Closure	Action Required
<60-Days	Temporary Closure	<p>A record sheet shall be completed on each occasion and this should be signed by the person undertaking the task and their supervising manager. All records are to be retained and copied to the DRP[W].</p> <p>It is the responsibility of the relevant manager to notify the DRP[W] of their intention to re-open a temporarily closed area and this should be undertaken as soon as re-occupation is confirmed.</p> <p>At the end of the closure period or after 60-days has elapsed (whichever occurs first) a review shall take place to identify if the area can be reoccupied. If the area is to be re-occupied within the near future (within 30 days) then the twice weekly flushing shall continue.</p> <p>Before the closed area is re-occupied the DRP[W] shall carry out the following monitoring and testing of the water systems:</p> <ul style="list-style-type: none"> <li>• Cold water storage tanks – Inspection and temperature checks;</li> <li>• DHW generators – Confirm operation, thermostat settings and pump operation, and flow return temperatures temperature checks;</li> <li>• Sentinel points – Legionella samples;</li> <li>• All outlets – Check temperatures.</li> </ul> <p>The DRP[W] will arrange for any remedial works that may be required [see section 'clean &amp; disinfection'] including legionella samples [see 'Legionella sampling'].</p> <p>In the instance that part or all of a building is to remain closed, with no planned re-opening date [this will be classed as 'Indefinite Closure'], negotiations must be held as detailed above and funding be made available to the DRP[W], in order to disconnect and drain the water services within the affected area.</p>

Duration of Closure	Classification of Closure	Action Required
>60-Days	Temporary Closure	<p>A temporary closure of &gt;60 days and where building reoccupation shall definitely occur, will require the water system within the building to remain charged for use. Instances of when this may occur include pandemic situation where the general public are put into lockdown and must remain at home. As such, workplaces and buildings become either partially occupied or unoccupied.</p> <p><b>No building should be reoccupied without first addressing the safety of its water system.</b> The level of work and resources required should therefore be appropriate to the size and type of water systems within a building i.e. for very simple buildings, flushing alone maybe sufficient but for most buildings some form of disinfection is likely to be required [repeated disinfections and cleaning may also be necessary].</p> <p>Flushing explained:</p> <ul style="list-style-type: none"> <li>Hygiene Flush – To prevent stagnation from occurring.</li> <li>Cleanse Flush - To remove debris or organic matter of from all outlets. The objective of which is to change the bulk water within the system, whereby the increased flow velocity may have a shearing effect on biofilm and also move other contaminants. Outlet fittings and flow restrictors shall be removed before the starting the cleanse flush. All valves and outlets to be operated in the fully open position so that any debris or organic matter can be flushed out of the system.</li> </ul> <p>For a building to be reoccupied the following recommissioning plan shall be followed;</p> <p><b>Detail of Works:</b>  <b>Small buildings</b> – using mains fed water and point of use water heaters only.</p> <p><b>SHUTDOWN:</b></p> <ul style="list-style-type: none"> <li>Leave charged with water.</li> <li>Turn off water heaters – completed by either CP[W] or site personnel.</li> <li>Complete a 'hygiene' flush [to prevent stagnation] at least twice weekly – either CP[W] or site personnel to complete flush and fill in 'little used out flushing form'.</li> </ul> <p><b>REOCCUPATION:</b></p> <ul style="list-style-type: none"> <li>IF FLUSHED: <ul style="list-style-type: none"> <li>Complete a 'cleanse' flush - CP[W] to undertake flush and complete 'little used out flushing form'.</li> <li>Turn on water heaters – completed by either CP[W] or site personnel.</li> <li>Check cold and hot water temperatures are compliant – CP[W] to undertake using 'sentinel temperature form'.</li> <li>Reoccupy within 48 hours.</li> </ul> </li> <li>IF <b>NOT</b> FLUSHED [or the planned flushing strategy has failed]: <ul style="list-style-type: none"> <li>Complete a 'cleanse flush' by following the 'safe purging of stagnant water' process, whereby no aerosol from the purged outlet is released. i.e. attaching a hose to the tap and discharging the open end of the hose into a bucket of water to prevent any release of aerosol when flushing. This is to be completed at all outlets - CP[W] to undertake flush and complete 'little used out flushing form'.</li> </ul> <p>IF, the 'safe purging' process can't be completed, then suitable RPE [Respiratory Protective Equipment] must to be provided to the CP[W] undertaking the cleanse flush. RPE to be worn at all times whilst completing the 'cleanse flush'. No unprotected persons will be allowed inside the building, whilst flushing is being undertaken.</p> </li> </ul>

		<p>Aerosol from the flushed outlets can remain present in the air for several hours after flushing has ceased.</p> <ul style="list-style-type: none"> <li>▪ Turn on water heaters – undertaken either CP[W] or site personnel.</li> <li>▪ Check cold and hot water temperatures are compliant - CP[W] to undertake using 'sentinel temperature form'.</li> <li>▪ Take 'pre' and 'post' Legionella samples [in accordance with BS7592] from sentinel points** - undertaken by CP[W] or contractor.</li> <li>▪ Ensure flushing of all outlets occurs daily, until sample results are returned. If results are clear, then re-occupy within 48 hours.</li> <li>▪ Where sample results return positive counts of &gt;1000 cfu/L and the building requires opening, then Point Use Water Filters [POUF] will be installed by the CP[W]. Complete 'POUF install form' prior to re-occupation at those affected outlets. Investigate reason for Legionella count[s] and resolve – system disinfection [in accordance with BSI PD855468] may be required. Complete risk assessment and arrange for any remedial works to be completed.</li> </ul> <p><b>Other buildings</b> – using mains fed water / cold water storage tanks and DHW generators.</p> <p><b>SHUTDOWN:</b></p> <ul style="list-style-type: none"> <li>• Leave charged with water.</li> <li>• Turn off DHW generators - CP[W] to undertake.</li> <li>• Complete a 'hygiene' flush [to prevent stagnation] at least twice weekly – either CP[W] or site personnel to undertake flush and complete 'little used out flushing form'.</li> </ul> <p><b>REOCCUPATION:</b></p> <ul style="list-style-type: none"> <li>• IF FLUSHED: <ul style="list-style-type: none"> <li>▪ Complete a 'cleanse' flush - CP[W] to undertake flush and complete 'little used out flushing form'.</li> <li>▪ Cold Water Storage Tanks &amp; Distribution System: <ul style="list-style-type: none"> <li>• Clean and disinfection [in accordance with BSI PD855468] – undertaken by CP[W] or contractor**</li> <li>• Inspection and temperature checks –undertaken by CP[W] or contractor**</li> </ul> </li> <li>▪ DHW Generator[s] &amp; Distribution System: <ul style="list-style-type: none"> <li>• Switch unit[s] on and undertake thermal disinfection [in accordance with BSI PD855468] – undertaken by CP[W] or contractor**</li> <li>• Confirm operation, thermostat settings, pumps[s] operation and flow/return temperature checks – undertaken by CP[W] or contractor**</li> </ul> </li> <li>▪ Check cold and hot water temperatures are compliant at all outlets &amp; return loops – CP[W] or contractor** to undertake and complete 'sentinel temperature form'.</li> <li>▪ Take 'pre' and 'post' Legionella samples [in accordance with BS7592] from sentinel points** - undertaken by CP[W] or contractor.</li> <li>▪ Ensure flushing of all outlets occurs daily until sample results are returned. If results are clear, then reoccupy within 48 hours.</li> <li>▪ Where sample results return positive counts of &gt;1000 cfu/L and the building requires opening, then Point Use Water Filters [POUF] will be installed by the CP[W]. Complete 'POUF install form' prior to re-occupation at those affected outlets. Investigate reason for Legionella count[s] and resolve – additional system disinfection [in accordance with BSI PD855468] may be required. Complete risk assessment and arrange for any remedial works to be completed.</li> </ul> </li> <li>• IF <b>NOT</b> FLUSHED [or planned flushing strategy has failed]: <ul style="list-style-type: none"> <li>▪ Complete a 'cleanse flush' following the 'safe purging of stagnant water' process, whereby no aerosol from the purged outlet is released i.e. attaching a hose to the tap and discharging the water</li> </ul> </li> </ul>
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Duration of Closure	Classification of Closure	Action Required
>60-Days	Indefinite Closure	<p>In the instance that either part or all of a building is to close, with no planned re-opening date, or where the closure period exceeds 60 days, negotiations must be held as detailed below. Additionally, funding shall made available to the DRP[W] by the manager of the department that is closing, in order to disconnect and drain the water services within the affected area. The relevant manager should be aware that the cost for modifications needed to achieve this requirement in some large properties may be considerable.</p> <p><b>Detail of Works</b> Where relevant:</p> <ul style="list-style-type: none"> <li>- all water tanks associated with the affected area shall be drained, cleaned and dried out;</li> <li>- All pipework and devices shall be drained and where applicable DHW generator [or other storage vessels] shall be opened up, cleaned and left open to the atmosphere;</li> <li>- Pipework shall be disconnected from the mains services and capped off, mains cold water services shall be isolated and capped off from the system and all relevant pipework drained;</li> <li>- Notices shall be posted throughout the affected area, stating that all water services are disconnected;</li> <li>- The Estates Department shall be responsible for ensuring that an adequate water seal exists in unused toilets to prevent odours from the foul drain system entering the premises;</li> <li>- Adequate records of actions, and amended water service schematic diagrams shall be produced by the Estates Department showing the relevant modifications and disconnections made to the water systems. A Remedial Works Record Sheet shall be used for record keeping purposes.</li> </ul> <p><b>Procedure in the Event of Re-occupation of an Indefinitely Closed Area.</b></p> <p>In the event of re-occupation of an indefinitely closed area, full negotiations must take place between the relevant manager and the Estates Department, prior to the re-occupation exercise.</p> <p>The Estates Department will require the following information:</p> <ul style="list-style-type: none"> <li>• The planned re-opening date.</li> <li>• Any proposed changes of use of the area.</li> <li>• Any areas which will not be used.</li> </ul> <p>The Estates Department will provide the relevant manager with a cost to put the water systems <i>[for which the relevant manager must provide funding]</i> back in service.</p> <p>Before the water system is put back into service, any necessary modifications and maintenance shall be carried out prior to the cleaning of the system.</p>