

## LIST OF AMENDMENTS

The Plumbing Code of Australia (PCA), which is Volume 3 of the National Construction Code, came into effect on the 1 May 2019. The PCA 2019 is available for free download at [www.abcb.gov.au](http://www.abcb.gov.au).

These notes have been prepared by the Victorian Building Authority as a guide to assist in identifying changes to the PCA 2019 when compared to the PCA 2016 edition.

Key changes made to the PCA include:

1. Restructuring the document to improve accessibility and readability.
2. Relocation of a number of plumbing requirements to Schedule 1 – Victorian Variations and Additions.
3. New Performance Requirements and compliance options for fire sprinkler protection, excessive noise and water tempering for disabled facilities.

See the following information for a summary of the key changes to the PCA 2019.

### Want to know more?

If you have a technical enquiry, please email [plumbingtechnicaladvice@vba.vic.gov.au](mailto:plumbingtechnicaladvice@vba.vic.gov.au) or call 1300 815 127.

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## Restructuring Changes

Relevant PCA section	Class(s) of plumbing work	Nature of change	Description of change
Section B – Part B5 Cross-connection control	Water supply Backflow prevention Fire protection	Re-organising information	A new part that consolidates cross-connection requirements across water services has been created.  <b>Impact of change</b> Nil – administrative in nature.
Section B – Part B6 Rainwater harvesting and use	Water supply Roofing (stormwater) Backflow prevention	Re-organising information	A new part that consolidates rainwater harvesting and use requirements across water services has been created.  <b>Impact of change</b> Nil – administrative in nature.
Section D – Part D1 Excessive noise, and Schedule 1 – Victorian Variations and Additions: Vic Part D1 Excessive noise	Water supply Sanitary Fire protection	Re-organising information and new deemed-to-satisfy requirements	A new part that consolidates excessive noise requirements across water services and plumbing and drainage systems has been created.  <b>Impact of change</b> There are new deemed-to-satisfy provisions added that must be complied with (see relevant section below).
Section E – Part E1 Facilities	Water supply Sanitary	Re-organising information	A new part that consolidates requirements for people with a disability.  <b>Impact of change</b> Nil – administrative in nature.

## Relocation to Schedule 1 -Victorian Variation and Additions

Relevant PCA section	Class(s) of plumbing work	Nature of change	Description of change
Schedule 1 – Victorian Variations and Additions: Vic Section F Stormwater drainage systems	Roofing (stormwater)	Re-organising information	<p>Stormwater drainage system requirements have been relocated from the body of the PCA to Schedule 1 – Victorian Variations and Additions section as this work is not plumbing work in other jurisdictions.</p> <p><b>NOTE:</b> Requirements relating to gutters and downpipes under Part 3.5.3 of the NCC Volume 2 (including the downpipe requirement that they not serve more than 12m of gutter length for each downpipe) does not apply in Victoria – instead, these requirements are now consolidated into the PCA Schedule 1 – Victorian Variations and Additions section.</p> <p><b>Impact of change</b> Nil – administrative in nature.</p>
Schedule 1 – Victorian Variations and Additions: Vic Section G Heating, ventilation and air-conditioning systems	Mechanical services Refrigerated air-conditioning	Re-organising information	<p>Heating, ventilation and air-conditioning requirements have been relocated from the body of the PCA to Schedule 1 – Victorian Variations and Additions section as this work is not plumbing work in other jurisdictions.</p> <p><b>Impact of change</b> Nil – administrative in nature.</p>
Schedule 1 – Victorian Variations and Additions: Vic Section H Low risk on-site liquid trade waste systems	Sanitary Drainage	Re-organising information	<p>Low risk on-site liquid trade waste requirements have been relocated from the body of the PCA to Schedule 1 – Victorian Variations and Additions section as this work is not plumbing work in most jurisdictions.</p> <p><b>Impact of change</b> Nil – administrative in nature.</p>

## Changes to performance requirements and compliance options

Relevant PCA section	Class(s) of plumbing work	Nature of change	Description of change
No longer referenced in PCA	Water supply Sanitary Roofing (stormwater) Drainage	Deletion of a referenced standard	<p><i>AS/NZS 3500.5 Plumbing and drainage – Housing installations</i> has been deleted as a deemed-to-satisfy standard for use in a class 1 or 10 building for:</p> <ul style="list-style-type: none"> <li>• cold water services,</li> <li>• heated water services,</li> <li>• non-drinking water services,</li> <li>• sanitary plumbing,</li> <li>• sanitary drainage,</li> <li>• stormwater drainage, and</li> <li>• on-site waste water management systems.</li> </ul> <p><b>Impact of change</b> Practitioners must use AS/NZS 3500.1, AS/NZS 3500.2, AS/NZS 3500.3 and/or AS/NZS 3500.4 as appropriate. AS/NZS 3500.5 consolidated the requirements of the 3500 series as they applied to housing installations. It has not been updated and is no longer referenced as a deemed-to-satisfy standard.</p>
Section B – Part B2 Heated water services	Water supply	New requirements	<p>Heated water temperature must be limited to 45°C in designated accessible facilities located in the common areas of a class 2, or any part of a class 3, 5, 6, 7, 8, 9a, 9b, 9c or 10 building. Class 2 buildings are multi-storey apartment buildings. Common areas could include, foyers, gardens, pools, roofs etc. Class 3, 5, 6, 7, 8, 9a, 9b or 10 buildings include almost all buildings apart from private homes or apartments. It includes hotels, shops, restaurants, offices, carparks, factories, warehouses, sports facilities, train stations etc.</p> <p><b>Impact of change</b> Requirements will mean only a thermostatic mixing valve (TMV) or thermostatically controlled tap may be used to meet the 45°C</p>

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			temperature limitations. A tempering valve may not be used to meet this requirement.
Section B - Part B4 Fire-fighting water services, and Schedule 1 – Victorian Variations and Additions: Vic B4.2 General Requirements	Fire protection Water supply	Additional compliance options	<p><i>FPAA101D Automatic fire sprinkler system design and installation – Drinking water supply</i> and <i>FPAA101H Automatic fire sprinkler system design and installation – Hydrant water supply</i> added as deemed-to-satisfy options to meet the fire-fighting water service requirements.</p> <p>FPAA101D (Drinking water supply) is for systems using the drinking water supply and connected to toilets in each of the sole occupancy units. It is based on a modified version of the existing AS 2118.5 standard.</p> <p>FPAA101H (Hydrant water supply) is for sprinkler systems connected to the hydrant system rather than a dedicated supply. This standard is based on the existing AS 2118 and AS 2419 standards. While a combined hydrant sprinkler standard AS 2118.6 already exists, this is designed for higher capacity installations in taller buildings.</p> <p>These two new standards were introduced as part of changes to sprinkler requirements. The National Construction Code Volume 1 now requires sprinkler protection for Class 2 and 3 buildings four storeys or greater in height. Previously this was only required in buildings over 25m in height.</p> <p>Includes a Victorian variation that requires automatic fire sprinklers installed in a class 1 or 10 building to use AS 2118.1, AS 2118.4, AS 2118.5, FPAA101D or FPAA101H, as appropriate.</p> <p><b>Impact of change</b> The standards FPAA101H and FPAA101D are designed for use in Class 2 and 3 buildings under 25m in height. They can also be used for class 1 or 10 buildings. Other standards that can also be used are AS 2118.1, AS 2118.4 and AS 2118.5 as appropriate.</p>

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Section B – Part B5 Cross-connection control	Water supply Fire protection	Additional compliance information	<p>Hazard ratings for common fixtures and appliances added to this section, which are used to choose appropriate backflow protection. Where a fixture or appliance is not listed, a hazard assessment should be carried out in accordance with AS/NZS 3500.1.</p> <p>In addition, a new deemed-to-satisfy provision has been added to clarify that “where a site is served by a network utility operator’s drinking water supply, appropriate containment protection must be selected and installed in accordance with Section 4 of AS/NZS 3500.1”.</p> <p><b>Impact of change</b> Practitioners will need to use the cross-connection hazard specification to determine the type of protection required for the relevant fixture and appliance.</p>
Section C – Part C1 Sanitary plumbing systems, C1.2 Invert levels, and Part C2 Sanitary drainage system, C2.2 Invert levels	Sanitary	New requirements	<p>A new requirement for sanitary plumbing and drainage systems whereby the invert level of a trap or gully weir must be a minimum of 10mm higher than the soffit of the pipe to which it connects.</p> <p><b>Impact of change</b> Applies to all trap and gully weir sanitary plumbing and drainage installations.</p>
Section C – Part C2 Sanitary drainage system, C2.3 Swimming pools	Sanitary	New requirements	<p>A new requirement for swimming pool drainage – “Where pumped discharge from a swimming pool connects to a gully riser, it must be installed in accordance with AS/NZS 3500.2”.</p> <p><b>Impact of change</b> Applies to swimming pools with a pumped discharge that is connected to a gully riser.</p>
Section D – Part D1 Excessive noise, and	Water supply Sanitary Fire protection	New requirements	<p>New noise requirements to ensure water services and plumbing and drainage systems do not create undue noise. This means separating plumbing from neighbouring houses or units with sound</p>

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Schedule 1 – Victorian Variations and Additions: Part D1 Excessive noise			<p>insulating walls, which must not be compromised by the incorporation or penetration of a plumbing or drainage system. Includes a Victorian requirement that the sound insulation of a floor or wall must not be compromised by the incorporation or penetration of a plumbing or drainage system. These requirements previously only applied to building work under NCC Volumes 1 and 2.</p> <p><b>Impact of change</b> Plumbing practitioners will need to ensure their installation does not create undue noise by following the new deemed-to-satisfy provisions unless a Performance Solution is used.</p>
Schedule 1 – Victorian Variations and Additions: Vic G1.2 General requirements (m)	Mechanical services Refrigerated air-conditioning Gasfitting	Additional compliance options	<p>A new deemed-to-satisfy standard <i>AS/NZS 5141 Residential heating and cooling systems – Minimum application and requirements for energy efficiency, performance and comfort criteria</i> added as a means to meet installation requirements for ducted and non-ducted residential heating and cooling. The Standard gives an overview of the requirements for the installation of residential heating and cooling systems, covering air-conditioners and reverse-cycle heat pumps (ducted and non-ducted) and gas ducted heaters.</p> <p><b>Impact of change</b> AS/NZS 5141 must be followed for residential heating and cooling system installations.</p>
Schedule 1 – Victorian Variations and Additions: Vic G1.2 General requirements (5) & (6)	Mechanical services Refrigerated air-conditioning Gasfitting	Additional compliance information	<p>Additional discharge option added to allow “condensate drain and bleed down drains installed in heating, cooling and air-conditioning systems (including evaporative coolers) other than cooling towers to a sanitary drainage system by way of an untrapped tundish discharging to a charged floor waste gully in accordance with Clause 4.6.7.8 or tundish and self-sealing device in accordance with Clause 13.21 of AS/NZS 3500.2”.</p>

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			<p>Confirmation that “condensate drains and bleed down drains shall not discharge to a system that is used for the collection of drinking water”.</p> <p><b>Impact of change</b> Nil – maintains existing industry practice.</p>

## Miscellaneous changes

Relevant PCA section	Class(s) of plumbing work	Nature of change	Description of change
<p>Schedule 1 – Victorian Variations and Additions:</p> <ul style="list-style-type: none"> <li>• Part B1 Cold water services</li> <li>• Part B2 Heated water services</li> <li>• Part B3 Non-drinking water services</li> <li>• Part C1 Sanitary plumbing systems</li> <li>• Part C2 Sanitary drainage systems</li> </ul>	<p>Water supply Sanitary Drainage</p>	<p>Variation</p>	<p>Alteration of the scope to expand the plumbing requirements beyond the property boundary to incorporate vessels and caravans as appropriate for:</p> <ul style="list-style-type: none"> <li>• cold water services</li> <li>• heated water services</li> <li>• non-drinking water services</li> <li>• sanitary plumbing systems</li> <li>• sanitary drainage systems.</li> </ul> <p><b>Impact of change</b> Nil – maintains existing requirements.</p>