

Backflow prevention requirements for dental surgeries

Plumbing Advisory Note

Revised February 2023

Recent changes to the *National Construction Code - Volume 3, Plumbing Code of Australia (PCA)* has increased the hazard rating for dental consoles and dental procedure rooms.

Expert advice

Plumbing installations associated with medical facilities, such as a dental surgery, are complex. A suitably recognised expert, e.g. a hydraulic consultant, should undertake installation designs.

Installation requirements for backflow devices

Individual protection

The National Construction Code - Volume 3, Plumbing Code of Australia (PCA) defines the hazard rating for dental consoles as a **medium hazard** for the purpose of individual protection.

Multiple dental chairs plumbed from a common water service must be installed with individual **medium hazard** backflow prevention valves to ensure there is no cross contamination between the individual dental chairs and the drinking water service.

Zone protection

The drinking water supply in rooms containing groups of dental equipment such as Autoclaves or Disinfectors must be protected by a **high hazard** backflow device.

Note: Fixtures used for personal hygiene must not be connected to a water supply downstream of an individual or zone backflow prevention device (eg. a hand basin or kitchen sink).

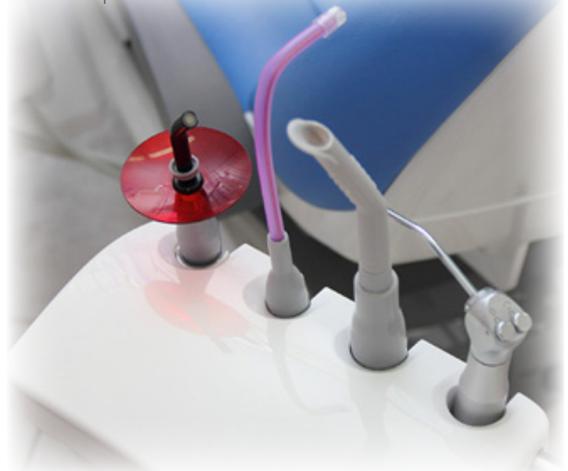
Legislative requirements

The *National Construction Code - Volume Three, Plumbing Code of Australia (PCA)* sets out the cross-connection hazards and corresponding Hazard Ratings in Specification 41.

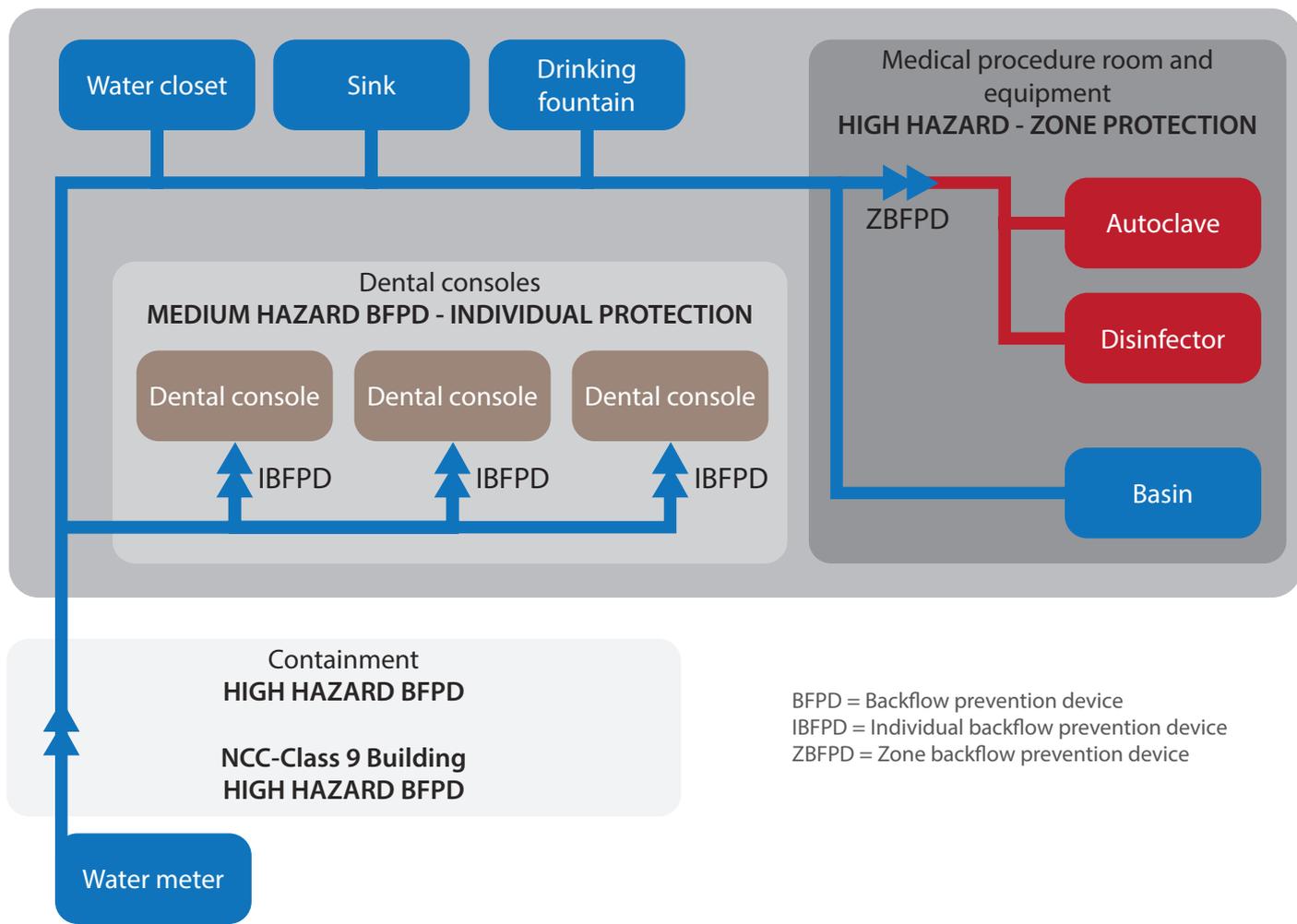
AS/NZS 3500.1 - Table 4.4.1 sets the selection of a suitable Backflow Prevention devices after the hazard is known.

Containment protection

Dental surgeries/clinics are Class 9A buildings, these buildings require a **high hazard** backflow device for containment protection.



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Containment for mixed use buildings

As buildings can have mixed uses, they can also have mixed (or multiple) classifications. Where buildings have multiple classifications, the containment protection must default to the highest classification.

For example:

Class 9A buildings are generally hospitals, referred to as health care buildings in the National Construction Code. They are buildings in which occupants or patients undergo medical treatment.

Class 9A buildings are **high hazard** for the purpose of containment protection.

Class 6 buildings are places that sell retail goods or supply

services direct to the public, like a shopping centre. In the National Construction Code, Class 6 buildings are **medium hazard** for the purpose of containment protection.

If a Class 6 building (medium hazard) includes tenancies such as a dental surgery/clinic, the hazard level for the Class 6 building would then be increased to high hazard for the purpose of containment protection.

Contact the Office of the Technical Regulator for more information

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