

Dept of Health Information Session

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SA Water Development Services Branch

TOPICS TO BE COVERED

- Plumbing Code of Australia
- AS/NZS 3500:2003
- Amendment 1 to AS/NZS 3500:2003 and SA Variations
- National Water Efficiency Labelling Scheme
- Certificate of Compliance
- Rain Water

How Important is Plumbing

- **Healthy communities cannot exist without clean water and safe disposal of waste water and that is a given.**
- **Most of us take it for granted that plumbing systems meet these requirements.**
- **Water Efficiency, Energy Efficiency and Environmental Efficiency are all factors beginning to emerge.**

Regulation Reform

- **The regulatory framework of the Plumbing Industry is today undergoing considerable change.**
- **Each State and Territory regulates plumbing in its own way, in some cases delegating authority to Local Councils or Water Authorities.**
- **Heavy reliance is placed on Standards**

Making it Happen

**Plumbing Code of
Australia**

**Building Code of
Australia**

AS/NZS 3500 and SA Variations

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PLUMBING CODE OF AUSTRALIA

December 2004



National Plumbing Regulators Forum

Scope of the PCA

➤ **Water Service:**

- Cold Water Services
- Heated Water Services
- Non Drinking Water Services
- Fire Fighting Water Services

➤ **Sanitary plumbing and drainage systems.**

➤ **Storm water drainage systems.**

➤ **Heating, ventilation & air conditioning.**

➤ **On-site wastewater systems.**

➤ **Materials and Product Certification and Authorization.**

What will all this Achieve?

- **It must produce a transparent cost effective regulatory model for approving products .**
- **It must recognise equivalent International Standards.**
- **It must not compromise Safety, Health or Emerging Efficiency Standards.**
- **And given all this, to work, State and Territory Regulators must ensure that the legislation is endorsed.**



**SA Water
and
South Australian Councils**

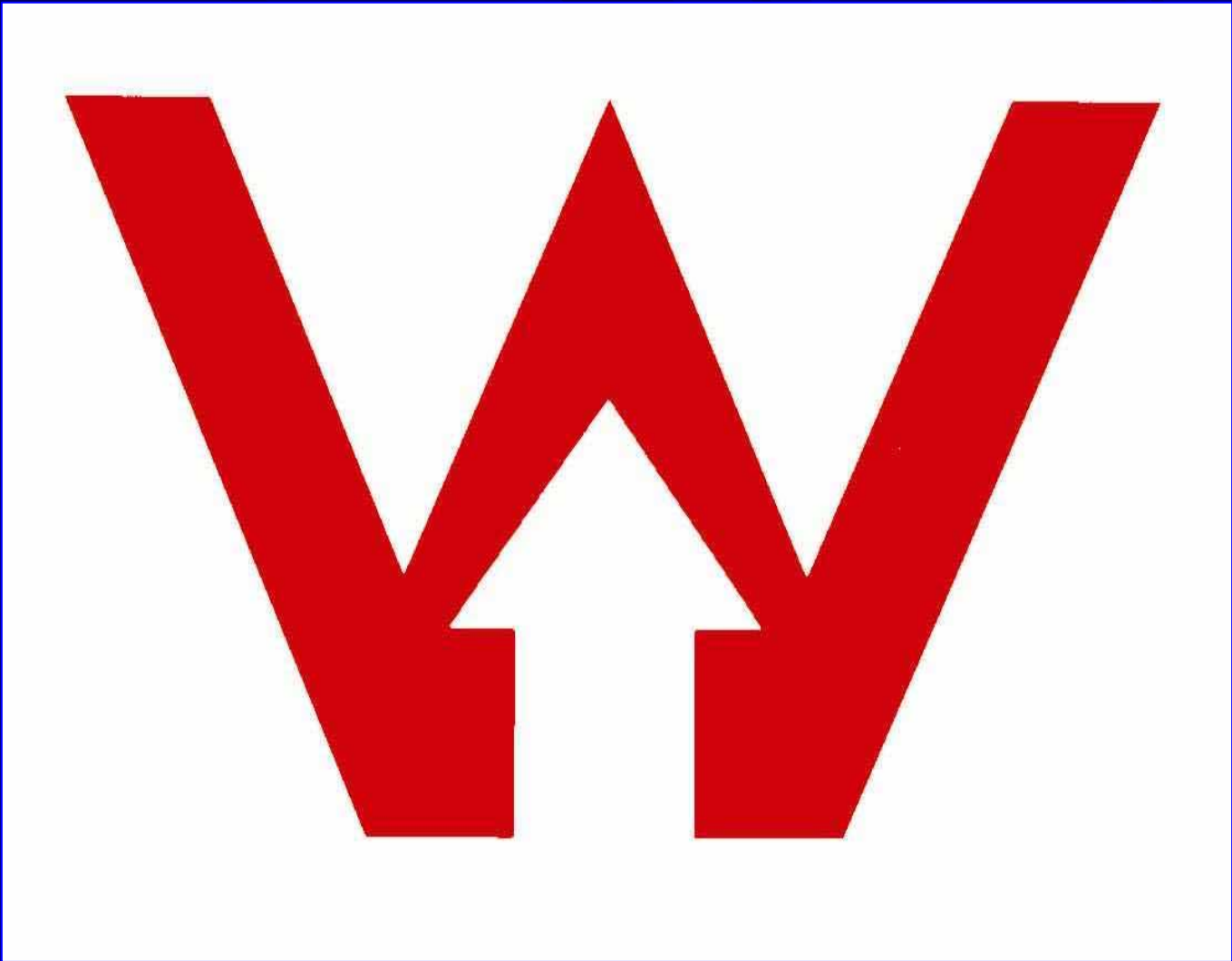
CERTIFICATES OF COMPLIANCE

**SANITARY PLUMBING
SANITARY DRAINS
WATER PLUMBING**



The Major Changes

- **A National single mark scheme with two levels of risk assessment.**
- **The levels are to be set by the NPRF.**
- **Plumbing products will for the first time need to satisfy both water and energy efficiency issues set by regulators.**



The WaterMark

MANDATORY WATER EFFICIENCY LABELLING SCHEME FOR AUSTRALIA

Point of Sale Control

The “Mandatory Labelling Scheme” will cover prescribed plumbing products such as shower heads, washing machines, dishwashers, urinals and toilets.

Once implemented, it will be unlawful to offer any of these products for sale unless they carry the water efficiency information prescribed in regulations.



Australian Government
Department of the
Environment and Heritage

INTRODUCING THE WATER EFFICIENCY LABELLING AND STANDARDS SCHEME

Australia has a new
water efficiency label
to assist people to
purchase, and to
encourage industry to
produce, more water
efficient products



www.waterrating.gov.au



www.waterrating.gov.au

What products will be labelled?

UNDER THE WELS SCHEME, WATER EFFICIENCY LABELS MUST APPEAR ON ALL:

- ★ Showers intended for normal bathing
- ★ Clothes washing machines intended for household or similar use
- ★ Dishwashers intended for household or similar use
- ★ Toilets
- ★ Urinals, except for "waterless" urinals
- ★ Taps for use over basins, ablation troughs, kitchen sinks or laundry tubs

Water efficiency labels may also appear on some flow control devices, but this will be optional for suppliers.

Toilets will in addition be subject to a minimum water efficiency standard, so that the maximum average flush capacity must not exceed 5.5 litres. (This effectively means that dual flush toilets must be 9/4.5 litres or less.)

The number of products with water efficiency labels is expected to grow over time as new models are registered. Additional types of products are also likely to be added to the WELS Scheme, so check the website to stay up to date! ■

Introduction of a Mandatory Labelling Scheme for Australia

The target date is July 1st 2006

Plumbing Legislative Update

- SA Water as the Technical Regulator for Plumbing has
 - AS/NZS 3500:2003
 - Amendment 1 to AS/NZS3500:2003
 - The South Australian Variations and/or Additional Provisions to the Australian/ New Zealand Standard, Plumbing and Drainage AS/NZS 3500-2003
 - 2006 revised Part 5 Sanitary Plumbing for domestic installations and Amendment 2 to AS/NZS3500:2003

Amendments to AS/NZS 3500

- Galvanised pipework not to be used on drinking water supplies.
- Flow rates from a shower, basin, kitchen sink or laundry trough outlet shall not exceed 9L/min.
- The maximum static pressure within domestic dwellings shall be no greater than 500kpa.

- Recycled water systems
 - Pipes to be Jacaranda or Purple
 - All buried piping shall have identification tape fastened to the pipe at 3m intervals with the words “Warning Recycled or Reclaimed Water Do Not Drink”
 - External hose taps powder coated purple have standard threads on the inlet and outlet. Have a removable handle except where installed 1200mm above finished surface level and must have a Warning or Prohibition sign.

Amendments to AS/NZS 3500

- Rainwater tanks
- The water supply from the tank must be marked every 500mm with wording ‘Rainwater’ and each outlet shall be identified by a sign “Rainwater” or the tap identified by a green coloured indicator with the letters “RW”
- Backflow prevention shall be provided to protect the Network Utilities water supply
- A suitable check valve shall be provided on the pipeline from the rainwater to prevent the drinking water flowing into the tank
- Backflow prevention requirements for buried or partly buried rainwater tanks

Amendments to AS/NZS 3500

- Multi Unit Developments
- Where 3 or more buildings on an allotment drain to the sewerage system the sanitary drain from each building must have:
 - An open upstream vent
 - An overflow relief gully
 - An inspection opening receiving the drain
 - 20 units and over maintenance shafts

The P.A.P.A.

Positive Air Pressure Attenuator

- Can replace Relief Venting
- Assists in traditionally vented systems
- Able to be retrofitted to solve problems in existing systems
- With Maxi-Vent attached gives complete stack protection against positive and negative pressures



- Deals with Positive Pressure Transients
- Can be installed horizontally and/or vertically
- Uses standard fittings
- Greatly simplifies drainage ventilation
- Suitable for buildings 3+ storeys high

Amendments to AS/NZS 3500

- Reduced Velocity Aerator Stack System
- The system uses an aerator, a proprietary fitting, in the stack at each floor for the connection of discharge pipes from the sanitary fixtures.
- The maximum length of the discharge or common pipe shall not exceed 30 fixtures units or a maximum length of 10m without venting.

150mm Akavent at Flynn Apartments in Brisbane



- ❖ **Replaces three documents formally issued by SA Water.**
- ❖ **New provision for *Recycled Water Service* installations.**
- ❖ **The “*Notice of intention*” has been deleted.**
- ❖ **Available to both unrestricted and restricted plumbing contractors.**
- ❖ **Work must be undertaken within the terms of the currently held licence.**
- ❖ **The notice book has been adopted by South Australian councils.**
- ❖ **State-wide coverage for Certificates of Compliance.**

DRAINS IN COMMUNITY TITLE ALLOTMENTS

When buildings are constructed as part of a community title allotment and are to be connected to a sanitary drain serving an existing building, the following requirements apply:

- The entire drain to the connection point must be tested.
- If any defects exist on the existing drain they must be repaired or replaced and re-tested.
- Both the existing and the new drains are to be tested following the interconnection of the two drains.

INSPECTION OPENINGS

The following inspection openings must be raised to surface:

1. At each end of the straight section of a main drain and at intervals of not more than 30m.
2. On the downstream end where any pipe passes under a building except where waste fixtures only are connected.
3. Where any new section of drain is connected to an existing drain.

All other inspection openings need not be raised provided they are not below paved, concreted or floor surfaces.



IS YOUR FLOOR GULLY WORKING?

IS YOUR FLOOR GULLY WORKING?







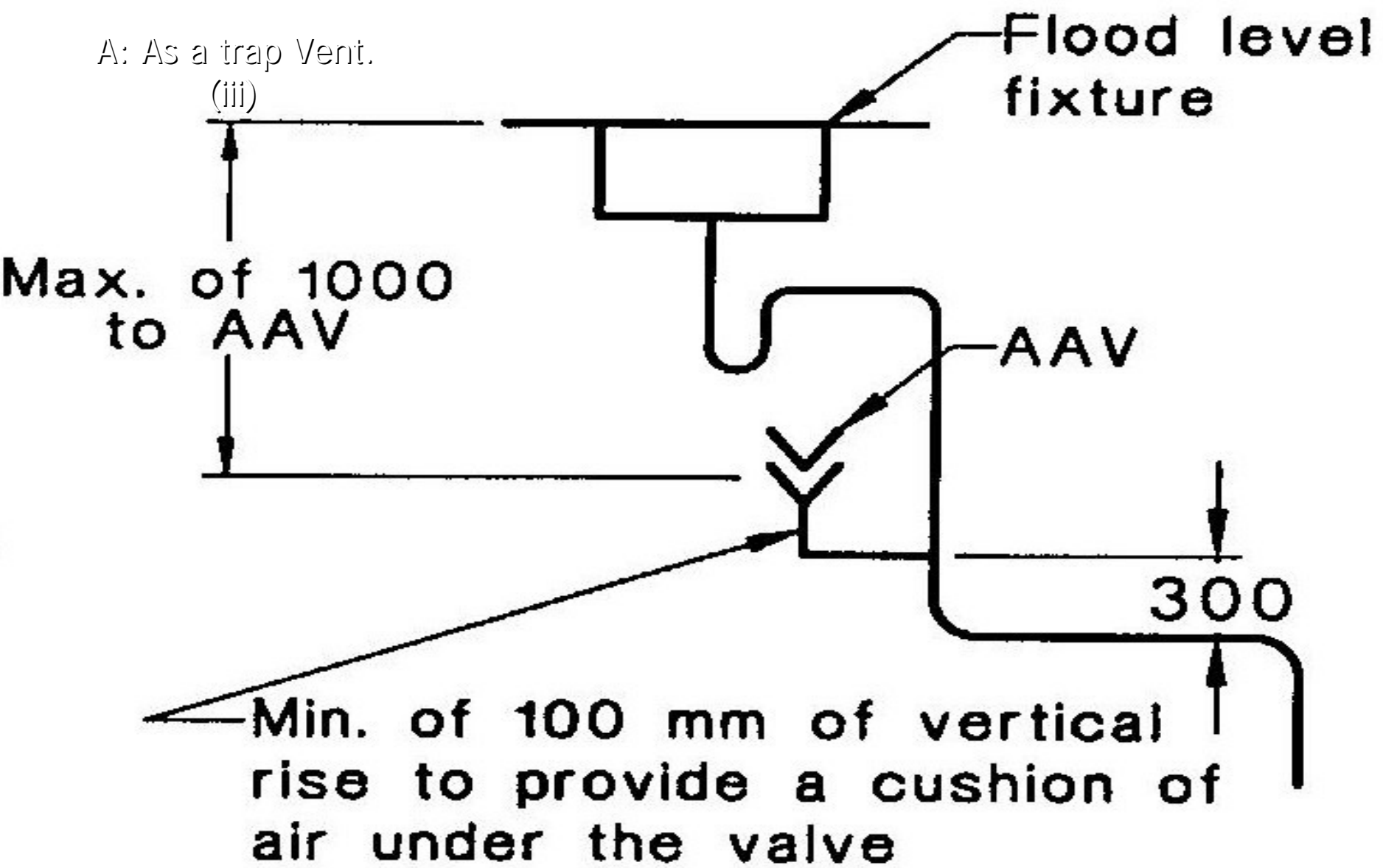
Part 2

Section 6 – General Design Requirements for Sanitary Plumbing Systems (page 74)

■ 6.9.1 Air Admittance Valves

- Extended to include stack and branch drain venting
- Requirements listed under Clause 6.9.2





A: As a trap Vent.
(iii)

Flood level
fixture

Max. of 1000
to
AAV

AAV

300

Min. of 100 mm of vertical
rise to provide a cushion of
air under the valve

(iii)









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