



NPRF ADVISORY NOTE

Issued 2nd November 2009

Waterless Urinals

Purpose

The purpose of this Advisory Note is to provide guidance to the Australian and New Zealand plumbing industry and consumers regarding the installation and maintenance of waterless urinals.

Background

In an effort to integrate water-sensitive urban designs into current practice the National Plumbing Regulators Forum (NPRF) for Australia and New Zealand formed the *Australasian Scientific Review of Reduction of Flows on Plumbing and Drainage Systems (ASFlow) Committee* to conduct research into the effects reduced flows are having on drainage systems.

The first stage of the project was to conduct research into the impacts of waterless urinal discharges. The NPRF ASFlow project committee has conducted a number of laboratory and field tests which have identified the potential for fitting and drainline blockages from Struvite (magnesium ammonium phosphate). Struvite is the main scale material which builds up immediately downstream of waterless urinals causing major blockages when not properly managed.

The trials have shown added flows to main pipes servicing waterless urinals will prevent rapid build-up of Struvite but highlighted the need for on-going maintenance of the urinal's outlet pipe at regular intervals to control the build-up of Struvite.

Current situation

The NPRF through its Technical Advisory Committee has facilitated an amendment to the Plumbing and Drainage Standards *AS/NZS 3500.2: 2003 Part 2: Sanitary plumbing and drainage* to manage the build-up of Struvite in sanitary plumbing and drainage systems. The amendment will provide provisions to minimise the risk of blockages by requiring a minimum of 2 fixture units e.g. 2 hand basins to be installed upstream of each waterless urinal. While this requirement will assist in preventing blockages of main drain lines the trials demonstrated it will not prevent build up of Struvite in the discharge pipe from the waterless urinal to the main drain line as discussed earlier.

At this stage it is recommended that facility owners and managers arrange for waterless urinals be inspected and cleaned at periods of no less than 6 months, until a more appropriate maintenance interval can be established for each facility. The maintenance interval will be dependent on a number of factors such as usage patterns, waterless urinal type, drainage design and other factors.



The above images show the build up of Struvite within 12 months of installation.

For further information contact the plumbing regulator in your state, territory.