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THE INSTITUTE OF PLUMBING AUSTRALIA Inc

E-Institute

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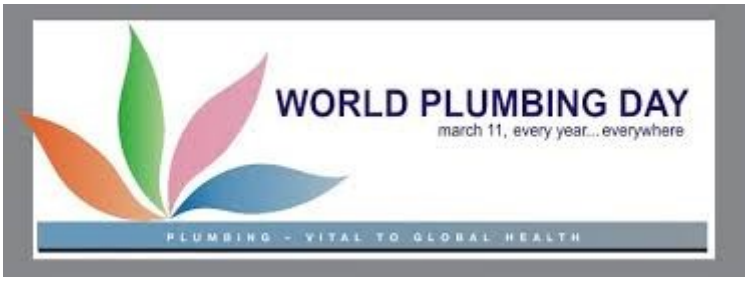

Happy World Plumbing Day

To our members, our supporters and all those professionals that are part of the wider plumbing community.

See www.worldplumbingday.org

For WPC Chairman's address and what is happening around the world.

The Institute of Plumbing Australia started its WPD in joining with other stakeholder individuals and groups in a proposal to introduce real guidance for circulatory heated water piping systems into Australian Standards.

Fortunately much of the required research has been done and collated over recent times during a similar project that tended to focus on one aspect of this current proposal.

A small, diverse and dedicated team of stakeholders are currently drafting the necessary proposal submission and they seek your assistance by a simple letter of support.

Below is a document that gives some insight as to what the project is about, its importance and how you may help.

In this issue:

Please Support our Supporters

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Why not make it your World Plumbing Day Resolution to support this work by providing a message to the Institute Secretary at the addresses shown below.

My World Plumbing Day Resolution is to work diligently on managing the process until we have a Standard that sets minimum requirements for the design, installation and commissioning of circulatory heated water piping systems.

Stephen Movley
Institute Secretary

The Plumbing Industry needs your support:

A small but growing group of plumbing industry stakeholders are preparing a proposal to Standards Australia for the inclusion of a specific Section in the standard AS/NZS 3500.4 Heated water systems with the title CIRCULATORY HEATED WATER PIPING SYSTEMS. Over recent years it has become increasingly more evident that the current standard does not provide deemed to satisfy requirements for circulatory heated water systems in relation to the Plumbing Code of Australia (NCC Vol.3).

Part of the proposal process is a need to demonstrate Stakeholder Support and Consultation:

This document is a first line of what will be ongoing consultation.

To demonstrate your support we need a letter of support to append to the proposal.

The current round for submitting proposals closes on 18 March 2015 and to allow for document compilation we urgently need your support now.

The Scope:

The urgent need for a Section in a Standard, referenced as deemed to satisfy the Plumbing Code of Australia (NCC Vol.3), to *set out the minimum requirements for the design, installation and commissioning of* circulatory piping systems within *heated water services* including for *application to new installations as well as alterations, additions and repairs to existing installations*

(Words in italics are copied from the scope of AS/NZS3500.4:2003).

Timeline of work to date:

The current standard AS/NZS 3500.4: 2003 indicates that Standards Australia did in fact have concern back in 2003 and reserved a Section 9 for the purpose of including circulatory

piping systems into the standard but due to a lack of reported failures at that time the work was apparently postponed.

By 2012 the prevalence of failures had increased to a critical stage due in part to an increased use of centralised water heating plant with pumped circulation, increased use of mixed pipe materials and the continued lack of a deemed to satisfy standard for regulators to regulate to.

In 2013 a project was proposed and accepted by Standards Australia to look at the problem and insert some guidance into the AS/NZS 3500.4 Standard for heated water circulatory piping systems. Although this project touched on a number of factors considered to be contributing to failures it concentrated on the subject of high water velocity. This project faltered for various reasons out of the control of Standards Australia and was eventually picked up and brought back to the table by a national organisation.

Through 2014 although there was a wealth of knowledge and information provided the main consideration remained with high water velocities to the extent that the only outcome has been a standalone table of maximum velocities that may be drafted into the revised heated water systems standard in 2015.

In February 2015 Industry Stakeholders became more aware of the likely outcome from this attempt to rectify a problem and the possible inclusion of a maximum velocity table without consideration for the myriad of other design and installation parameters impinging on the viability of circulatory piping systems.

In March 2015 a group of concerned plumbing industry stakeholders approached The Institute of Plumbing Australia, a nominating organisation to Standards Australia and represented on the Standards Technical Committee (WS-014) responsible for the AS/NZS 3500 suite of standards, to assist in proposing to Standards Australia a new project that will prepare a heated water circulatory piping system section within AS/NZS 3500 – Part 4 that will provide a comprehensive alignment with International best practice.

For your information the following was included in a recent letter to both Standards Australia and the ABCB.

RE: Draft Amendment to AS/NZS 3500 Part 4 – Inadequate attention to the wider scope of circulatory heated water piping systems.

We (The Institute of Plumbing Australia and a group of concerned and involved stakeholders) are writing to you to express our extreme concern in relation to the inadequacies of the AS/NZS 3500 – Part 4 Draft Amendments to adequately address piping design and installation requirements for heated water continuous flow systems and heated water recirculation systems.

We believe that the inclusion of a simple maximum velocity table without the required attention to design and installation parameters is grossly inadequate and puts Standards Australia (deemed to satisfy) and the Australian Building Codes Board (the regulatory code) at risk.

For these reasons and those articulated below and to avoid confusion in the marketplace until such time that a full and comprehensive section covering circulatory piping systems is drafted and inserted in to AS/NZS 3500.4 we strongly urge the following actions:

Remove the draft Table 1.8 - Maximum Velocities from the current draft revision of AS/NZS 3500.4
Insert a Clause into the draft to indicate that AS/NZS 3500.4 does not cover circulatory piping systems.
Insert a clause into the draft to the effect that the maximum velocity for non-circulatory piping systems is 3m/s and that for circulatory piping systems manufacturer installation guidelines that form part of the WaterMark approval for the particular piping material are followed.

The current and long standing inadequacies within the standard are causing health, safety, property damage and cost issues for consumers and within the industry risk concerns for builders, plumbers, manufacturers, suppliers and regulators therefore it is imperative that this issue be addressed with upmost priority and the current and inadequate draft amendments relating to this issue be withdrawn until a suitable section is written into the standard.

Heated water continuous flow and circulatory piping systems are not currently covered under the referenced standard AS/NZS 3500.4, however many of these systems have been and are being installed throughout Australia and are claimed to be deemed to satisfy the requirements of the Plumbing Code of Australia (Vol.3 of NCC) by referencing this inadequate Standard.

Due to a number of failures within heated water recirculation piping systems, generally attributed to erosion- corrosion caused by accelerated velocities, elevated temperatures, water quality or a combination of these and other factors not covered for in the standard, these failures have given cause for aggrieved building owners to initiate litigation to recover costs for repair and replacement damages and as a consequence given rise to comprehensive investigations on code requirements.

During the course of these investigations it has become evident the inadequacies in AS3500:4 to provide minimum standard requirements for continuous flow and heated water recirculation piping systems have created a perilous legal situation within the industry for Standards Australia, regulators, manufactures, engineers, consultants, designers, installers, developers, property owners, insurer's, the list goes on.

Considerable and compelling information and expert reports have been put forward and are available to Standards Australia and the ABCB outlining world's best practice including expert opinion from qualified Metallurgists, International Standards on hot water recirculation piping systems, International Copper Development Associations providing guidelines in relation to corrosion concerns in copper pipe, Polymer Scientists on the effects when combined with polymer piping systems and the effects of chlorine on corrosion in drinking water systems, along with many independent academic reports dating back to the 1970's.It is, however, clearly evident the recently released Draft Amendments of AS 3500 – Part 4 do not adequately address these inadequacies and that this issue is much more complex than simply reducing velocities..

Due to the failure to complete this exercise, originally flagged for attention in 2003 and the now known seriousness of this failure we request Standards Australia urgently address hot water velocities, maximum hot water temperatures, pressure values, water quality and their associated limitations to avoid both future failures and the now very real prospect of building owner litigation. It is strongly recommended that an industry moratorium on this issue be put in place to allow a Standards Australia Project including input from qualified industry experts, such as Metallurgist's, Macromolecular and Materials Engineers, to prepare a

heated water circulatory piping system section within AS/NZS 3500 – Part 4 that will provide a comprehensive alignment with International best practice.

The Institute Of Plumbing along with other industry representative are currently preparing new project proposals to submit to Standards Australia on this issue which will provide further supporting information.

New Shopping Cart makes it easier to purchase and download the E-Book

Selection and Sizing of Copper Tubes for Water Piping Systems by Barrie Smith

E-Book sales are now automated from 20 June 2014. Website address will remain as www.plumbing.org.au and follow the links to Technical Books through to the shopping cart and pay by PayPal or Credit Card for immediate download.

Companion Spreadsheet files utilising the E-Book are still freely available as an additional download when you complete your shopping cart journey.

Your input into this Newsletter and other IPA matters is always welcome and in fact sort after. If you are not already a member why not join and really help us provide a voice for plumbers and plumbing. Simply email the Secretary below.

Contact	Follow us
Comments on matters raised in E-INSTITUTE or suggestions for future issues are welcome and may be sent to the Editor at: The Institute of Plumbing Australia Inc. P O Box 2005 MARMION Western Australia 6020 FAX: 08 9448 0420 EMAIL: secretary@plumbing.org.au WEB: www.plumbing.org.au	