



E-Institute

Official Newsletter of IPA

Beyond minimum standards:

The Institute has coined the phrase “beyond minimum standards” as a leader to proposed research to fill the void between minimum standards and the engineering principles required to underpin the minimums and provide for the beyond minimums of today’s structures in design, installation and operation of building water services – the what; the why; the when. The soon to be released and revised Australian Standard for heated water services will help by introducing missing or expanding understated requirements to be considered for forced circulation heated water systems but as a minimum standard it is not a design or installation manual. The purpose of the proposed research is to provide such a design and installation manual that will speak to and inform the standards.

Apart from a large body of onsite investigative research being produced by individuals over recent years and as a re-start to the work beyond the recent revision of standards the IPA together with the AHSCA-WA hosted a seminar in Perth on 28 February 2018 – BUILDING WATER SERVICES – A Seminar to look beyond minimum standards. The international and interstate speakers presenting to the appreciative and attentive audience from the wider plumbing profession and industry in Australia included James Paschal, Chief Technology Officer for Aquatherm North America, Colin Kirkland, Air Valve Product Manager and Technical Representative Bermad Water Technologies, Victoria and Phil Woolhouse, Principal Consultant at Phil Woolhouse Hydraulics, Western Australia. The seminar covered items such as Temperature, Pressure, Velocity, Water Chemistry, Chlorine, Pipe Supports, Expansion, Air in pipes, Cavitation, Water Hammer.

The speakers all provided their time and expertise freely for the betterment of plumbing outcomes and we thank; Aquatherm for their continued support in our pursuit of standards and practices that support all materials without fear or favour, Bermad for introducing the intricacies around entrained air and Phil Woolhouse MIPA for his continued passion to find the answer and his chairmanship of the proposed IPA Water Service Research Group.

It is proposed to bring this or similar seminars to other parts of Australia as we progress the research.

E-Institute has long championed the need for a serious look at water service plumbing practices in Australia including articles repeated below:

Issue December 2016

Lost Trades:

A recent article came across my desk promoting the Lost Trades Fair and that reminded me of an article in Issue 2015-5 about a Plumber with the skills to fabricate a lead ossuary to take the remains of King Richard III and that in turn to a comment I made in a recent report on a current project to provide minimum standards for the installation of circulatory heated water systems *“everyone seems to have forgotten the lessons of yesteryear where air was eliminated, bends and junctions were long radius or swept and adequate allowance for expansion and contraction was provided for”*

If you go far enough back in time circulating systems did not use pumps but relied on thermosiphon to circulate the heated water, this required skill to accommodate continuous rise and fall and to remove any entrapped air before it stopped the system.

In earlier forced circulation (pumped) systems the same principles were applied with great success but as materials changed it appears that all has been forgotten. It is true that the current Australian Standard for heated water systems does provide examples for metallic pipes but not always for polymer pipes, if the corresponding clauses are read carefully they are not material centric yet are normative and shall be followed as a minimum requirement thereby requiring the reader to obtain such matters as the change of length due to temperature changes or size of expansion loops or offsets or similar from other sources such as material standards for whatever material is being installed. It is realised that this is inconvenient, and a project is currently in place to expand the current Australian Standard to include more specific information and minimum standards for circulatory heated water systems, as requested in Issue 2015-3 we will welcome any input as to items that should be included in a minimum standard for circulatory heated water systems,

Issue October 2017

A new standard:

After a couple of false starts and too many years we finally have an Australian Standard that provides some guidance for the design, installation and commissioning of forced circulation heated water systems. The amended draft standard *AS/NZS3500.4 Heated water services* is now open for public comment together with other drafts listed below and on www.standards.org.au.

As the project proposer the IPA has a particular interest in the amendment of *AS/NZS3500.4 Heated water services* and thanks the Members, Industry Experts and Institute Supporters for their contribution and dedication over a long and often frustrating period to, for the first time, add minimum standards for circulatory piping systems.

The IPA urges all members and readers to take this unique opportunity of having a say on how plumbing is installed and regulated through providing comment to draft standards. It is preferred that all comments on draft standards are made direct to Standards Australia through their online comment form, where circumstance dictates the IPA will accept comments, but those comments will be used or included in IPA general comments.

As always, the IPA is open to receiving comments and/or suggestions at any time for improving modern plumbing systems for the benefit of the public, we will use your input to inform discussion on standards, regulation, design and research. As a professional institute the IPA does not comment on commercial, contractual or business matters.

Note: that since writing this article the Standard has been completed and is awaiting publication.

Issue December 2017

Just a short message today, so close to the festive break, with items to read now or in the new year. The Institute has completed a busy year of drafting Standards and plumbing research and there is still much to be done in 2018. The IPA standards project to include some basic information as a minimum standard for circulating heated water systems has past most hurdles and will or should be published in the new year together with several other revisions. The IPA thanks and congratulates those willing volunteers to our project that managed to overcome the hurdles and stayed the long two-year course (longer for some) from project proposal to final draft.

The drafting process has highlighted many shortfalls in the knowledge base for designing and installing the complex systems that are modern circulating heated water systems, International and local research is proving that these systems are not as simple as they look and require skills and knowledge beyond the historical training and regulation of plumbing in Australia. It must be remembered that Australian Plumbing Standards referenced in regulation are Minimum Standards and only supply the basic building blocks. To design and install the more complex systems requires knowledge and understanding well beyond the minimums. The IPA has begun collating information and in 2018 will be calling on the wider plumbing industry to support further research to go beyond the minimums.

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Technical Governance Review: Report and Implementation

In 2017 as part of a broader governance review plan, Standards Australia commenced a Technical Governance Review of its standards development process.



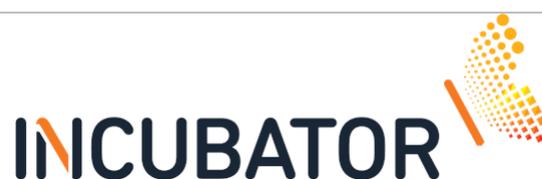
cameron. ralph. khoury

Cameron Ralph Khoury were appointed as independent consultants to assist through the review process and will be presenting their report on Standards Australia's technical governance at open forums in Sydney, Canberra and Melbourne in April 2018.

Standards Australia will also present and consult on its draft implementation plan, which will be released ahead of the forums.

Incubator Workshops: Hack the Process

At the conclusion of the above presentations, Standards Australia's Innovation Incubator will be conducting a 'Hack the Process' workshop, looking at ways we can be innovative in standards development.



Reserve your place

Seats are limited. To register, or find out more, see the links below.

- [Sydney, 17 April: Technical Governance Review](#)
- [Sydney, 17 April: Incubator Workshop](#)
- [Canberra, 18 April: Technical Governance Review](#)
- [Canberra, 18 April: Incubator Workshop](#)
- [Melbourne, 19 April: Technical Governance Review](#)
- [Melbourne, 19 April: Incubator Workshop](#)

Standards Australia will provide a light lunch between sessions.

If you can't attend in person, you can [join the online webinar](#) of the Sydney event.

Standards Australia
Level 10, 20 Bridge Street, Sydney NSW 2000
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News from Standards Australia:

Australia leads the world in water efficiency

13 March 2018

Australia will be spearheading an international effort to help consumers choose water-efficient whitegoods and plumbing fixtures, and to enable manufacturers to compete on a global scale.

Australia has been successful in securing international support for the establishment of a new International Organisation for Standardisation (ISO) project committee on water efficiency. This follows a decision in February 2018 by the ISO Technical Management Board which voted to support the Australian proposal.

“This will allow Australia to maximise the opportunity to promote greater water efficiency standards across the world by leading the international committee responsible for the work,” said Dr Bronwyn Evans, CEO of Standards Australia. “This latest achievement is another example of Australia leading the efforts of international standard development to address a global problem.”

The new Australian-led committee will facilitate the development of a new International Standard on Water Efficiency Labelling, using as a base the Australian Standard AS/NZS 6400, *Water efficient products – Rating and labelling*.

“Many will be familiar with the star rating on water products. However, the benefit of this labelling standard goes beyond giving clear water efficiency labels on products for Australian consumers,” said Dr Evans. “The support of the Commonwealth Government and the work of Standards Australia will enable Australian manufacturers to compete internationally, as well as play a role in a more water efficient future.”

The Water Efficiency and Labelling Standards Regulator in the Department of Agriculture and Water Resources, Mr Paul Morris, said Australia’s progress on water efficiency labelling is leading the world.

“The Water Efficiency Labelling and Standards scheme (WELS) has been very effective at conserving water in Australia and is highly regarded internationally,” Mr Morris said.

“By 2021 the use of water efficient products will help reduce domestic water use by an estimated 150,000 million litres each year—enough water to fill 60,000 Olympic swimming pools.

“And in the same year, Australians will save more than one billion dollars through reduced water and energy bills.

“An International Standard will help other countries obtain similar water savings and, at the same time, benefit Australian consumers and manufacturers by reducing manufacturing costs.”

Work will continue in coming months to establish the committee and make progress internationally towards an International Standard on water efficient products.

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For those interested in WELS but not a subscriber the contents forwarded below may be of interest and compliment the story above:

From: [WELS](#)
To: [undisclosed-recipients:](#)
Subject: InkWELS - Issue 1, 2018 [SEC=UNCLASSIFIED]
Date: Tuesday, 20 March 2018 5:34:44 AM
Attachments: [image001.png](#) [image002.png](#)

Good morning,

The latest WELS newsletter has arrived. InkWELS includes short, informative articles on the latest WELS developments and achievements.

You can access the latest InkWELS [here](#).

Feel free to forward this email to others you know who may be interested. They can

subscribe by emailing WELS@agriculture.gov.au.

Kind regards,

Water Efficiency Labelling and Standards Section | Water Resources Branch | Water Division Phone: 1800 218 478 | International Phone: 0061 2 6272 5232

Department of Agriculture and Water Resources
18 Marcus Clarke Street, Canberra ACT 2601 Australia GPO Box 858
Canberra ACT 2601 Australia agriculture.gov.au

Discover our improved Water Rating website:
www.waterrating.gov.au

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

Only available as an E-Book from www.plumbing.org.au simply 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.

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A bit of light relief:

What Did You Call Me!?
(Thanks Franco)

A farmer got pulled over by a police officer for speeding, and started to lecture the farmer about his speed, and in general, began to throw his weight around to try to make the farmer uncomfortable.

Finally, the police officer got around to writing out the ticket, and as he was doing that he kept swatting at some flies that were buzzing around his head.

The farmer said, 'Having some problems with them circle flies there, are ya?'

The police officer stopped writing the ticket and said,

'Well yeah, if that's what they are, but I never heard of circle flies.'

So the farmer says,

'Well, circle flies are common on farms. See, they're called circle flies because they're almost always found circling around the back end of a horse.'



The police officer says, 'Oh,' and goes back to writing the ticket.

Then after a minute he stops and says,

'Hey...wait a minute, are you trying to call me a horse's ass?'

The farmer says,

'Oh no, officer. I have too much respect for law enforcement and police officers to even think about calling you a horse's ass.'

The trooper says, 'Well, that's a good thing,' and goes back to writing the ticket.

After a long pause, the farmer says, 'Hard to fool them flies though...'

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

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Comments on matters raised in E-INSTITUTE or suggestions for future issues are welcome and may be sent to the Editor at:

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