



It's time to nominate for 2013 PITAs Early bird prizes extended to 31 October 2012

Victoria's Registered and Licensed Plumbing Practitioners can win \$1,000 cash and a trophy for taking part in trade-related training in the 2013 Plumbing Industry Training Awards (PITAs). Nominations opened on 1 September 2012.

Three lucky early bird entrants who nominate by 31 October 2012 also have the opportunity to win an Apple iPad 3G, 16GB.

The PITAs, conducted by the Plumbing Industry Commission (PIC), recognise practitioners who have taken part in post-apprenticeship training and development.

Practitioners can nominate themselves or a fellow practitioner in one of the individual categories or nominate an exceptional trainer, training provider or an employer who has shown commitment to training and development over the past 12 months.

- The categories for individual practitioners are:
 - Challenge Award
 - Employer Award
 - Energy Safe Victoria Gas Award
 - Environment Award
 - Individual Award
 - Return To Study Award
 - Trainer Award
 - Training Provider Award
- The Plumbing Industry Commissioner, Michael Kefford, urged all eligible practitioners who

have engaged in trade-related training and development over the past 12 months to enter.

"The award prizes of \$1,000 and a trophy for the winners are really the tangible rewards on offer, but undoubtedly the greatest reward is that ongoing training will enable practitioners to keep pace with consumer expectations and stay up-to-date with technology and ways to assist in reducing community energy and water consumption," Mr Kefford said.

Nominations for the 2013 awards are open until 30 November 2012.

For further information on the PITAs, visit the PIC website www.pic.vic.gov.au



Healthy pipes care for vulnerable Victorians

Improper plumbing installations and maintenance practices can provide opportunities for potentially dangerous micro-organisms to cause poor water quality.

This is especially important when dealing with plumbing installations at healthcare facilities such as hospitals, nursing homes or aged care homes, where very young, elderly, and already unwell patients are more susceptible to waterborne illness. These sites present individual plumbing issues.

Plumbing and public health are linked and practitioners have a responsibility to ensure their work supports the delivery of a safe and reliable water supply system.



To ensure this, practitioners must always carry out compliant plumbing work, which is installed to the appropriate Australian Standards. This includes the use of approved WaterMark materials and products. The standard

requires that all new water supply work be commissioned and flushed before handover. This is a critical step in delivering a safe, risk-free water supply system.

Water services must be designed, constructed, installed

and maintained from the connection point to the place of discharge so as to comply with the requirements of the National Construction Code Series, Volume Three, Plumbing Code of Australia and AS/NZS 3500.4:2003 Plumbing and drainage Part 4: Heated water services.

Waterborne diseases can cause serious illnesses such as pneumonia, diarrhoea and blood or brain infections. In extreme cases, these illnesses may lead to death.

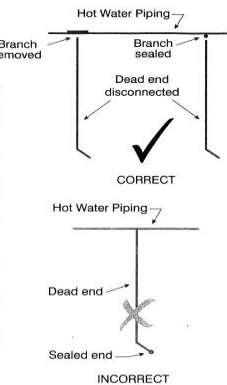
Redundant pipework

Redundant pipework, such as a dead leg, which does not have a used outlet or a draw-off point, could contaminate drinking water from both heated and cold water installations. When there is no flow, the water condition deteriorates.

Poor quality water can be reduced by designing to ensure no dead legs. Where possible, disconnect and remove any disused pipes, sealing them close to the main line.

Types of materials

It is also important to consider the type of material chosen when installing or repairing a piping



system in a healthcare facility. Copper piping has certain natural antibacterial properties, whereas some growth of microbial biological material (biofilms) can occur in polymer pipes. Polymer pipe materials that can support microbial growth include rubber, polyvinyl chloride (PVC) and polyethylene (PE).

Microbial growth in reticulated water supplies is often controlled

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by chlorination. However, over time, or when heated, the chlorine decays, allowing the growth of micro-organisms that may cause biofilms. Because of this, biofilms are more likely to occur further away from the treatment source and are more common in warm water distribution systems.

Biofilms are generally harmless; however, they can harbor many waterborne pathogens, including Legionella and Pseudomonas bacteria.

Although permanent eradication is unlikely, if a pathogen is identified in a healthcare facility's water reticulation system, there are a number of possible strategies that can aid in controlling infection to safe levels.

Water treatment methods

There are many effective methods of water treatment. An infection control practitioner should determine the treatment method with consideration of the plumbing system, its materials and use.

Emergency disinfection measures are necessary when pathogens above an acceptable level are detected in the water

pathogens. It is most effective in smaller, cool water distribution systems.

Risk: The treatment can shorten the life of polymer piping systems and potentially damage medical equipment. The water can take on a bad taste and odour.

Hyperchlorination

Treatment: A high level of chlorine is added at the water entry point, spreading throughout the reticulation system, killing pathogens.

Risk: This treatment is most effective as a supplement to other strategies. When used as a singular method, hyperchlorination at the water entry point has proven to be less effective over time. It is also an expensive treatment and can corrode pipes, subsequently releasing toxins into the water. The water can take on a bad taste and odour.

Ultraviolet (UV) light

Treatment: UV disinfection filter system is installed at the water entry point. Disinfection occurs to water that passes through the UV beams.

Risk: Disinfection only occurs at the water entry point as it passes through the UV light. Therefore, the process will not

From the Minister

The crucial role of plumbers and plumbing in ensuring public health through the delivery of clean water and sanitation systems is well recognised and documented – nowhere more so than in the Plumbing Industry Commission's excellent publication *The role of plumbers in managing current and emerging public health hazards*.

Victoria, and Australia generally, is very fortunate in that we have safe and healthy drinking water supplies and established sanitation infrastructure, although both can be sorely tested in times of natural disaster, such as floods and bushfires. The Government is very mindful of the importance of minimising the risk of these systems being compromised in an event like a flood or an earthquake, or as a result of improper plumbing work and maintenance practices.

The feature article in this edition of *The Registered Plumber* draws the link between plumbing and public health into sharper focus through an examination of the risks that exist when dealing with plumbing installations at hospitals, nursing homes or aged care facilities where the occupants are more vulnerable to waterborne disease. It puts under the microscope potential causes for contamination of water supplies and looks at the different water treatment methods and the associated risks.

And while winter and the need for constant use of gas heating may be behind us for another year, the risks of poorly maintained, improperly installed or faulty gas appliances are not. The PIC and Energy Safe Victoria's recent series of gas safety information nights and the carbon monoxide (CO) awareness advertising campaign



are reinforced in an article about CO test procedures and a special Frequently Asked Questions section on gas safety. These are must reads for all plumbing practitioners.

I would like to congratulate the Plumbing Industry Commissioner, Michael Kefford, on being awarded the Air Conditioning and Mechanical Contractors Association of Victoria's Distinguished Service Award for his

longstanding commitment and contribution to plumbing and education.

Finally, I join with the Commissioner in expressing my condolences at the passing of Mr George Crawford.

I trust you enjoy, and are informed by, the information contained in this edition of *The Registered Plumber*.

Matthew Guy
Minister for Planning

From the Commissioner

Welcome to the Spring edition of *The Registered Plumber*. We appreciate the feedback we have received about the magazine and will continue to ensure the content is both enjoyable and informative to read. Communication is critical

This edition also contains some handy technical information about minimum clearances and combustible surfaces.

I would also encourage you to read the information about