



**SENATE INQUIRY INTO NON-CONFORMING BUILDING PRODUCTS**  
**SENATE ECONOMICS REFERENCES COMMITTEE**  
**PLUMBING PRODUCTS INDUSTRY GROUP INC's SUBMISSION**

**3 August 2015**



Senate Standing Committee on Economics  
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To Senate Economics Reference Committee

### **Senate Enquiry inquiry into non-confirming building products**

The Plumbing Products Industry Group Inc {PPI Group) welcomes the opportunity to provide a submission to the inquiry into non-conforming building products by the Senate Economics Reference Committee. This submission is presented in the following sections.

- The Plumbing Products Industry Group
- Areas of significant risk in plumbing products and processes
- Systems for effective risk management
- WaterMark Certification Scheme
- Water Efficiency Labeling Scheme
- Improvements to the current regulatory framework for plumbing products
- The role of the Australian Building Codes Board

### **The Plumbing Products Industry Group**

PPI Group is the premier voice of manufacturers and importers of plumbing products used in the Australian plumbing industry. The Association is well represented on all relevant plumbing industry Australian Standards Committees and other national committees and groups.

PPI Group members are committed to the development of the plumbing industry in Australia and work together to deliver quality, safe products, fit for purpose for use by industry and consumers for their benefit and the safety of the wider community.

A number of plumbing product manufacturer members of the PPI Group are also exporters of product manufactured in Australia creating additional employment opportunities and earning export dollars.

#### **Plumbing Products Industry Group**

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Key objectives of the PPI Group are;

- To promote, encourage, foster and develop the Plumbing Products Industry Group in the interests of its members in Australia and New Zealand.
- To promote the establishment and maintenance of high standards of quality, service and ethics throughout the industry.
- To place before Industry, Government, Statutory Authorities and others in Australia, New Zealand and elsewhere, the policies and views of the Association.
- To take a pro-active and interactive role in matters connected with regulators, Standards Australia/Standards New Zealand, Water Authorities and like national or state bodies and authorities in Australia, New Zealand and elsewhere.
- To foster a cooperative and mutually supportive effort in improving the export potential of the members of the Association.

With governments around Australia, including the Commonwealth Government, focusing on red tape and regulation reduction the PPI Group believes that this Senate Enquiry is timely particularly in light of recent incidents with respect to non-conforming building products, in particular;

- The Lacrosse Tower in Melbourne where imported aluminium cladding was highly flammable and enabled a dramatic escalation of the fire spreading 13 stories in 13 minutes
- The 2014 recall of infinity electrical cable with estimated costs to consumers and home owners of in excess of \$80 million

Both of these matters clearly demonstrate the consumer and public risk associated when price is apparently the only criteria used by some in the building industry.

### **Areas of significant risk in plumbing products and processes**

Effective risk management, adhering to Australian Standards and codes along with ensuring appropriate and adequate public health and safety requirements are met must be a prerequisite for all buildings in Australia

Firstly, we would like to draw your attention to examples of public health challenges through plumbing and water treatment failure, which include the loss of life through SARS

in Hong Kong, and infectious organisms (Cryptosporidium and Giardia) spread through the Sydney water supply in 1998. At the time the NSW Health Department advised/recommended that up to 3,000,000 households boil their water before using it. While these matters may seem rather isolated they do demonstrate the serious threat to public health and safety that non-conforming plumbing products can have. As such incidents are infrequent we as a society can become all too complacent with the level of service and safety we have through a well-regulated and effective plumbing system.

Further evidence of the public health challenges experienced through the treatment and distribution of potable water can be demonstrated from the USA. In the USA most drinking water treatment and distribution systems practice the multiple barrier concept as part of their overall plan for providing safe water on the assumption that pathogens are always present in the source water.

In spite of this, between 1981 and 1998 some 230 water borne disease outbreaks were reported from the treated water distribution network, causing some 443,000 reported cases of illness, with an estimated 764 being hospitalised and 60 deaths.

To observe the effects of uncontrolled/unregulated plumbing and the public health and safety consequences only requires visiting countries throughout Africa and Asia, where the World Health Organisation estimates that 1,000 children a day die from diarrhea through contaminated drinking water, lack of sanitation and hygiene. In India, for example, over 600 million people still practice open defecation and outbreaks of such illnesses as cholera, typhoid and other such diseases are still all too prevalent.

Consider also the spread of severe acute respiratory syndrome (SARS) at Amoy Gardens in Hong Kong, a city boasting significant population densities living in high-rise apartments. Amoy Gardens, a 33-story residential apartment complex built in the 1980s, saw 321 people infected by SARS resulting in 65 deaths.

Following an investigation by the Hong Kong Department of Health along with eight other government agencies including WHO, thorough epidemiological, environmental, and laboratory investigations into this outbreak revealed there were two significant findings relating to product failure;

- First, a "large, visible crack" was found in a sewer vent pipe in Block E, which was a potential means of SARS transmission into the atmosphere.
- Second, malfunctioning traps/water seals in bathroom floor drains allowed sewer gases laden with a heavy viral load from SARS victims' diarrhea to escape and infect people in other apartment units.

Given this, it concluded that contaminated sewage was responsible for the spread of SARS. It was found that inadequate regulations and plumbing design coupled with faulty plumbing materials caused the loss of a water barrier seal in a U-shaped water trap. The water barrier seal evaporated, thus enabling the contaminated air to escape from within the sanitary drainage system into the building.

It is estimated that the SARS epidemic had an international economic impact of some \$60 Billion.

### **Systems for effective risk management**

By its very nature plumbing and drainage are high risk and with increasing population densities in cities and higher and larger buildings to house growing populations, effective risk management processes are required to ensure the integrity of the building and plumbing systems.

To observe these risks in Australia is difficult because of the generally high standards achieved in treating water to a potable quality, its effective distribution through utility networks and in the built environment through licensed, well qualified and trained plumbing installers as part of a multiple barrier approach. However the Hong Kong example clearly demonstrates that we cannot be complacent about threats from pathogens that could be spread through our water and sewerage networks.

To ensure the health and safety of occupants of the built environment we must ensure that water quality and plumbing systems are appropriate and effective, product certification is an essential prerequisite along with appropriate training and licensing of professional plumbers.

In spite of some criticism, the WaterMark Certification Scheme (WMCS) has clearly played an important part in ensuring that plumbing products are fit for purpose and meet Australian standards underpinning the integrity and reliability of plumbing systems in buildings in Australia.

The World Health Organisation's (WHO) definition of plumbing taken from the WHO Health and Environment Lexicon, [www.who.int/thelexicon](http://www.who.int/thelexicon) states:

“Plumbing is the system of pipes, fixtures and appliances within a property, and also all of the work associated with the design, installation, removal, alteration or repair of piping, fixtures and appliances in connection with drinking-water supply, non-drinking water supply and drainage systems, which flow in and out of buildings and between given connection



points to points of use and/or disposal. Some define plumbing as beginning at the property line, others define it more broadly.”

WHO goes on to explain why plumbing is one of the key building blocks in protecting and promoting public health;

“there is a need to ensure new plumbing is designed, installed and operated according to up-to-date standards, and that existing plumbing is updated to new standards. No pipes, valves, taps or other fittings used are allowed to contain harmful substances that can leach into water, such as lead and cadmium, above established guidelines values. Leakage and wastage should be controlled and minimized for public health, economic and environmental reasons.”

Existing or potential problems associated with substandard plumbing can lead to:

- Threats to public health and safety such as legionellosis and other water borne illnesses and an increased risk of scalding of children and the elderly, and
- Substantial costs, including those associated with property and environmental damage.

These potential costs cannot be underestimated or ignored – failure of a plumbing product in the mains pressure potable water system within a building has the capacity to cause serious property damage. Often such failures occur at night or weekends and can be difficult to locate as such systems are usually located in the roof or wall space.

WHO explains that “in both developed and developing countries, inadequate or faulty plumbing has led to water-borne disease outbreaks” citing a number of cases that demonstrate this including the outbreak of Severe Acute Respiratory Syndrome (SARS).

If SARS was taken in isolation, it alone provides a very good reason as to why it is essential that plumbing product related to water supply, drainage and sanitation in buildings should demonstrate that they are fit for purpose and be certified under the WaterMark Certification Scheme. However, when considering that a multiple barrier approach is required to ensure the safety of our water supplies, and reports on increasing incidents of pathogens becoming resistant to antibiotics and other such treatments continued vigilance in all areas of the distribution and collection networks is essential in managing our water and sanitation systems.

### **WaterMark Certification Scheme**

Compliance of the WaterMark Certification Scheme (WMCS) has historically been the

responsibility of state and territory based regulators, with the scheme being only policed at the point of installation with licensed plumbers being responsible to only install certified product where applicable. In relatively recent times this has led to increasing conflict with builders and developers frequently purchasing product from overseas suppliers by the container load based on price and avoiding the supply chain in Australia.

In addition many consumers are also purchasing product online and insisting that these products be installed by the plumbing contractor. Further conflicts arise as many retailers and hardware stores do not appreciate that plumbing product should be certified under the WaterMark Certification Scheme (WMCS) before they can be legally installed. There is no barrier to these retailers and distributors selling plumbing product to the public whether certified or not; often these sales are based on price and sold into the DIY market. This situation causes considerable market place confusion and frustration.

Essentially the installation of plumbing product is the responsibility of the installing licensed plumber and if product other than WaterMarked product is installed such non-conformance may not be identified until after installation.

It is the PPI Group view that to assist in managing the installation of conforming product certified under the WaterMark Certification Scheme (WMCS) and building products more generally point of sale legislation is critical. Point of sale requirements ensures that the supply chain is educated and understands their responsibility in the sale of products and that the consumer/customer/client is also able to access product information to assist in purchasing choice, rather than on price alone.

Given the increasing incidence of builders and developers purchasing non-conforming product directly from overseas suppliers point of sale requirements could assist this process where such requirements are addressed for;

- Products manufactured internationally at point of import
- Compliance and enforcement at point of sale through retailers etc
- Project/building completion certification

Point of sale requirements ensure that product manufacturers provide necessary information/evidence to the Australian market that products are fit for purpose and meet the appropriate standards prior to sale.

### **Water Efficiency Labeling Scheme**

The PPI Group has noted that the Water Efficiency Labeling Scheme (WELS) which has been in operation since 2005 is point of sale driven with the express purpose of assisting to educate the Australian community on making an informed choice when purchasing plumbing products or appliances that use water: such products are rated under WELS



based on the efficient use of water. These products must display, at the point of sale, a star rating of their water efficiency and information about the volume of water used, having been tested and certified under an Australian Standard.

It has been a point of contention for sometime by members of the PPI Group, that while WELS is point of sale there has been resistance from a number of government jurisdictions to the WaterMark Certification Scheme being changed to point of sale, particularly when one considers the possible health and safety consequences (as detailed earlier in our submission) in the community that could occur from faulty plumbing products.

As you will appreciate, in recent times there has been a catch cry at all levels of government in Australia regarding red tape and regulation reduction, a very laudable ambition, however building and construction as recent incidents suggest should not be the place where anything goes!

In addressing the value of red tape and regulation reduction the PPI Group has proposed that both the WaterMark Certification Scheme and WELS should be combined into a single scheme, thus reducing red tape and regulation without any reduction or loss in community benefit that the two schemes currently provide. In fact there would be an additional community benefit with the application of point of sale to the WaterMark Certification Scheme.

Such a move has real potential to significantly reduce the costs associated with the current administration and compliance regime of both the WELS and WaterMark Certification Scheme with a beneficial effect for Government, plumbing product manufacturers, distributors and the consumer.

### **Improvements in the current regulatory frameworks for plumbing products**

Reduction in Scheme costs could be achieved through creating a “one stop shop” by having:

- A single application for registration for both WELS and WMCS. This would significantly reduce administration and compliance costs on manufacturers and distributors of plumbing products and also on government agencies.
- Similarly, single registration/compliance number for both WELS and WMCS eliminates duplication of markings on product and packaging.
- Combining the two schemes/processes under a single statute maximises compliance and reduces cost, **eliminates duplication, confusion, red tape and regulation.**

With respect to reducing these imposts on businesses, the 2007 House of Representatives Report **Managing the Flow- Regulating Plumbing Product Quality**, among other



matters gives serious consideration to the need to align these two schemes.

*“The Committee concedes that a greater integration of the two schemes would require legislative change. However, it believes that such a course is not only desirable but also very necessary to address industry and community confusion and frustration, to maintain industry and community confidence in the schemes and ensure the quality of plumbing products in the Australian marketplace and homes. Consumers and industry could clearly benefit from a closer relationship between these two worthwhile and necessary schemes.”*

Combining the management, administration and compliance requirements of these two schemes would be both practical and cost effective with significant savings for all parties, including regulators, consumers and manufacturers. This also appears to be supported by Dr Chris Guest, who under Section 75 of the WELS Act provided an independent review of the Act after 5 years of operation. He presented his report to the then Minister on 30<sup>th</sup> June 2010.

Dr Guest’s report contains considerable commentary and recommendations relating to WELS/WMCS and recommends a change to organisational responsibilities including:

- WELS registration and compliance for plumbing products becoming the responsibility of the body responsible for the WaterMark Certification Scheme (WMCS); and
- WELS’ functions for plumbing products would be more effectively performed by a specialist plumbing product body.

This would have benefits for the administration of WELS, for plumbing products and for the industry, which would have to deal with only one body for WELS and WMCS.

The PPI Group also takes issue with the argument that the WELS and WMCS are incompatible and that a single administration or single scheme would be difficult to achieve. This position seems to be in conflict with the positions outlined by Dr Chris Guest in his review and also the recommendations arising from the Managing the Flow report.

In the view of the PPI Group, water efficiency is another performance indicator in ensuring a plumbing product is fit for purpose in providing sustainable performance and public health and safety. We are not aware of any rational argument against creating a more cost effective and efficient administration by **combining the two schemes effectively reducing red tape, regulation and costs on industry, the consumer and government.**

We appreciate that a further WELS Legislative Review 2015 has been completed with the final report not yet being made public however we do not believe any recommendations that may be made by the reviewer contained in the report will change our position on consolidating the two schemes into a single scheme.

The administration and management of the WaterMark Certification Scheme has been undertaken by the Australian Building Codes Board (ABCB), agreed to by the Building Minister's Forum (BMF) which has led to considerable review of the Scheme with a recommendation going to the BMF that a mandatory WaterMark Certification Scheme be retained and improved. The results of the BMF's consideration of this matter at the time of writing are not known.

However when the BMF met in May 2014, a commitment was made to implement a reform package aimed at:

- Reducing the costs of compliance while maintaining health and safety standards and
- Further consolidating consistency in regulatory arrangements across and within jurisdictions.

Combining both WELS and WaterMark clearly meets these commitment made by the BMF. It is also consistent with the expanded role of the ABCB as it moves to ensure safe and secure systems of plumbing, gas and electrical work in the built environment.

### **The role of the Australian Building Codes Board**

Further, in this expanded role, if the ABCB is to meet its mission to address issues of safety and health, amenity and sustainability in the design, construction and performance of buildings, it is important that its current scope and objectives currently detailed in the Intergovernmental Agreement establishing the ABCB are also broadened. This would enable the ABCB to manage effectively these critical areas of the built environment along with responsibilities for code development it should also have oversight of compliance, working effectively with state and territory regulators to produce an effective national strategy. These matters will be of particular importance as the ABCB moves expand its coverage to address gas and electrical codes as part of an integrated National Construction Code (NCC)

Indeed, an agency such as the ABCB should have a national leadership role in providing effective communication, education and training to industry and state based organisations responsible for the regulation of the building and construction sector, along with industry groups and associations. This need is reinforced with respect to two recent and serious examples of product not conforming:

- Fire at the Lacrosse Tower in Melbourne
- The 2014 recall of Infinity electrical cable

These examples demonstrate the serious risks to our community when cost is considered to the exclusion of public safety. In Australia, community expectation is that Australian governments have the responsibility to protect the public in such matters and effectively



address associated risk management. National consistency in the approach by all Australian Government, Commonwealth, State, Territories and local government will be essential in ensuring an effective system of compliance for building products and materials is developed and effectively managed.

The PPI Group would be pleased to speak to our submission before the committee at any time and thank you for the opportunity to present our views on this important issue.

Yours sincerely

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3 August 2015